Review of the Yield Target

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Overview

In March 2020, the Reserve Bank Board introduced a target for the yield on the three-year Australian Government bond. The target was discontinued in November 2021. This review examines the experience with the yield target and draws lessons from this experience.

The key points are:

- Together with other monetary policy measures, the target was successful in achieving its objectives of lowering funding costs and supporting the provision of credit to the economy. It was an important element in the Bank's package of policy measures that provided insurance against very bad economic outcomes, at a time when the already low level of interest rates limited the scope for lowering the cash rate.
- The time-based forward guidance implicit in the yield target helped to ease financial conditions in the extraordinary days of the pandemic, but carried risks in the highly uncertain economic environment. As the distribution of possible economic outcomes shifted with the economic recovery, the yield target was not well suited to respond.
- In its decision-making, the Board paid close attention to the downside risks to employment and inflation. It was focused on providing insurance against very bad outcomes, on the basis that if the downside prevailed there was limited scope for further policy measures, but that if the upside prevailed, policy could be adjusted. In retrospect, a greater focus on the upside could have led to a decision not to extend the target from the April 2023 bond to the April 2024 bond (in September 2020) and/or earlier removal of the target, when market yields were at or even below the target.
- As part of its review of this experience, the Board has agreed to strengthen the way it considers the full range of scenarios when making policy decisions, especially where they involve unconventional policy measures. This scenario analysis will include the flexibility of the policy to respond to changing circumstances and the associated operational and communication challenges.
- The target was met for the bulk of the period, but the exit in late 2021 was disorderly and associated with bond market volatility and some dislocation in the market. This experience caused some reputational damage to the Bank.
- For much of the time the target was in operation, it successfully reinforced the Bank's forward guidance about the cash rate, but its effectiveness as a monetary policy tool waned as market participants reassessed their views of the outlook for the cash rate. In the later part of the targeting period, the transmission of the target to other interest rates in the economy weakened, with market rates of similar maturity moving materially away from the target government bond rate.
- If circumstances warranted considering the use of unconventional monetary policies in the future, any use of a yield target would require close attention to the lessons learned from this experience, and a careful assessment of the costs and benefits of alternative tools. While a bond purchase program offers more flexibility than a yield target, it carries other risks, including larger financial risks to the central bank and the greater possibility of market dysfunction as bond holdings increase. As part of its ongoing process of review, the Bank will undertake a review of its bond purchase program later in 2022.

The review is structured as follows:

- Section 1 provides an overview of the yield target period and the main decision points.
- Section 2 explores the deliberations behind the various decision points in greater detail, including some observations made with the benefit of hindsight.
- Section 3 reviews outcomes for funding costs, lending rates and borrowing activity.
- Section 4 examines the effect of the yield target on bond market functioning.
- Section 5 considers the Bank's purchases of bonds in support of the yield target and the resulting bond holdings.
- Section 6 assesses the yield target experience and draws some lessons.

1. Overview of the yield target period

On 19 March 2020, the Reserve Bank Board introduced a target for the yield on three-year Australian Government bonds of around 0.25 per cent. At the time, the three-year bond had a maturity of April 2023.

The target was part of a comprehensive package to support the Australian economy through the potentially devastating effects of the pandemic, including from significant turbulence in financial systems globally. Other elements of the package included a reduction in the cash rate to 0.25 per cent, a commitment by the Board to not raise the cash rate target until it was confident that inflation would be sustainably within the target range, the introduction of the Term Funding Facility (TFF), under which low-cost funding was provided to banks, and bond purchases to address market dislocation.

Together, these measures were designed to help build a bridge to the time when the pandemic was contained and to provide some insurance against very bad outcomes for the economy and the financial system. At the time, there were credible predictions that hospitals could become overwhelmed and tens of thousands of Australians could die, and that without considerable policy support, the financial system would become even more stressed than it already was, unemployment would rise well beyond 10 per cent, and there would be deep scarring of the economy that would last for many years. To provide the necessary insurance, the measures were designed to stabilise financial markets, lower funding costs and support the provision of credit, particularly to small and medium-sized businesses.

The yield target was viewed as an extension of and complement to the Bank's longstanding approach of targeting the cash rate, which forms the anchor point for the risk-free term structure, by targeting a risk-free interest rate further out along the yield curve. The three-year maturity was chosen given its importance as a benchmark rate in financial markets and its role in funding for much of the Australian economy. The target was consistent with the expectation that the cash rate would remain at a very low level for several years.

In September 2020, the Bank indicated that the yield target would move from the April 2023 bond to the April 2024 bond once its maturity became closest to three years (which was on 21 October).

In November 2020, the target was lowered to around 0.10 per cent, as part of a further package of measures, which included a reduction in the cash rate target to 0.10 per cent and the introduction of a bond purchase program.

In July 2021, the Board decided to retain the April 2024 bond as the target bond rather than extend the horizon to the November 2024 bond, which was about to become the next bond with maturity closest to three years.

In November 2021, the Board discontinued the yield target on the basis of the improvement in the economy and the higher inflation outcomes.

Over the time the yield target was in place, the three-year yield was consistent with the target with the exception of a few days prior to its cessation. The average yield on the target bond over the periods of the 0.25 per cent and

0.10 per cent targets was 0.24 per cent and 0.09 per cent, respectively. For much of the period, the Bank did not need to purchase bonds in the market to achieve the target, although on a few occasions it did enter the market to support the target. There were also adjustments in the stock lending fee on targeted bonds.

Yield on Target Australian Government Bond

	During 0.25 per cent target period	During 0.10 per cent target period
Average yield	0.24	0.09
High	0.34	0.78
Low	0.12	0.01

A summary of the key decision points and actions is provided in the table below and discussed in detail in the following section.

Yield Target Key Developments

(with other policy developments shown in blue italicised text)

19 March 2020	Three-year yield target announced at 0.25 per cent *as part of a package of monetary policy measures.* *Forward guidance: 'The Board will not increase the cash rate target until progress is being made towards full employment and it is confident that inflation will be sustainably within the 2–3 per cent target band.'*
March to May and August to early-September 2020	Occasional bond purchases to support yield target.
1 September 2020	*Extension and expansion of the TFF announced: latest funding maturity extended from September 2023 to June 2024.*
	Monetary policy meeting Minutes noted that the focus of the yield target will increasingly shift from the April 2023 to the April 2024 bond, which will become the bond with a maturity closest to three years in the second half of October 2020.
15 October 2020	*Governor communicates evolution of forward guidance as discussed by the Board, placing more weight on actual outcomes than forecasts in assessing whether inflation is sustainably within the target band.*
3 November 2020	Yield target lowered from 0.25 per cent to 0.10 per cent as part of a package of additional measures *including cuts to the cash and TFF rates and announcement of a bond purchase program of $100 billion at a pace of $5 billion per week.* *Forward guidance: 'Given the outlook, the Board is not expecting to increase the cash rate for at least three years.'*
2 February 2021	*Announced that bond purchase program will be expanded by a further $100 billion when the existing program is completed in April: pace of $5 billion per week maintained.* *Forward guidance: 'The Board will not increase the cash rate until actual inflation is sustainably within the 2 to 3 per cent target range. The Board does not expect these conditions to be met until 2024 at the earliest.'*
Late-February to early-March 2021	Amid global rise in yields the Bank purchased bonds and increased the fee charged for counterparties to borrow three-year bonds.
10 March 2021	Governor's speech reiterated support for the yield target.
6 July 2021	Target of 10 basis points maintained for the April 2024 bond but not extended to the November 2024 bond. *Announced that bond purchases would be continued from September to at least mid-November 2021 but with the pace of purchases tapered to $4 billion.*
7 September 2021	*Quantitative easing of $4 billion per week extended beyond 'at least mid-November 2021' until 'at least mid-February 2022' because of the delay in the economic recovery and the increased uncertainty associated with the Delta outbreak.*

September to early-October 2021	The yield on the April 2024 bond remains well below the target; for the bulk of September it was trading around 1 basis point.
Mid-to-late October 2021	Upward pressure on April 2024 bond yield amid rises in global yields. To support the target, on 19 October the Bank raised the stock lending fee on three-year bonds and on 22 October purchased $1 billion.
Late-October 2021	On 27 October the April 2024 bond yield rises further through target (from 16 basis points to 21 basis points) on stronger-than-expected Australian September CPI release and ongoing global yield rises. Three-year yield rises further in following days as Bank does not undertake purchases in the days immediately preceding the November Board meeting.
2 November 2021	Board announced that the yield target is discontinued. *Forward guidance: '… there is genuine uncertainty as to the timing of future adjustments in the cash rate. Given the information we currently have to hand, it is still entirely possible that the cash rate will remain at its current level until 2024. But it is also possible that an earlier move will be appropriate.'*

2. The Bank's deliberations

Mid-March 2020: Policy announced

The outlook in March 2020 was bleak and highly uncertain. COVID-19 was spreading internationally with profound public health ramifications. Many countries were shutting their borders and placing restrictions on businesses and individuals to slow the spread of COVID-19. This was causing significant disruption to financial markets and economies around the world.

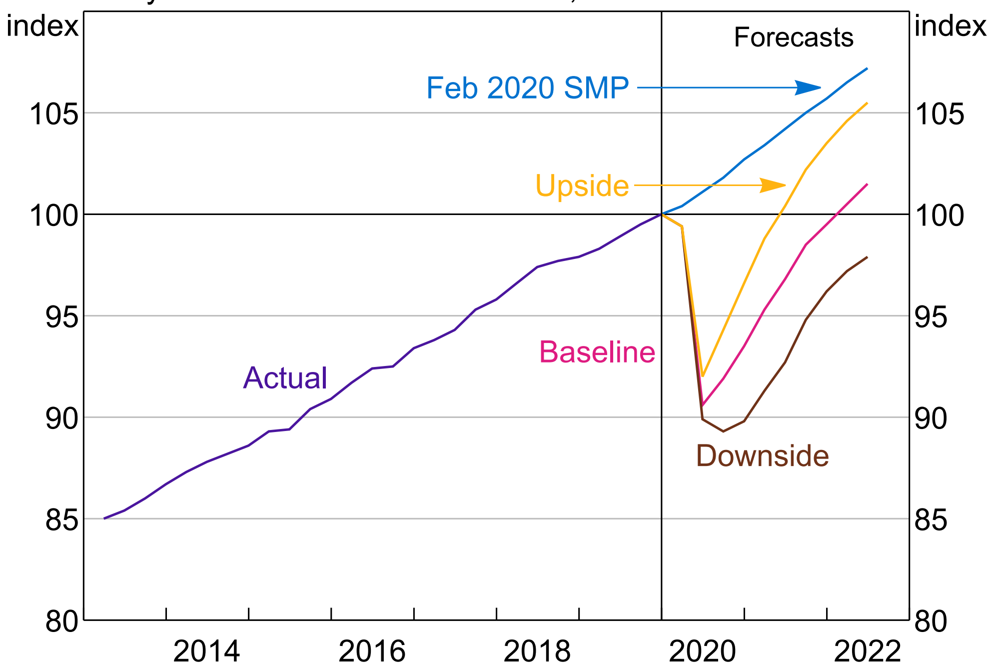
The grim and highly uncertain outlook had led to extreme volatility in financial markets and sharp falls in the prices of risky assets. Equity prices in the advanced economies, including in Australia, had fallen by around 30 per cent. Liquidity in sovereign, credit and money markets was very poor. Indeed, even the deepest and most liquid financial market in the world – for US Treasury securities – was at risk of seizing up. The market for corporate bond issuance was essentially closed to all but the very highest-quality borrowers. The Australian dollar had depreciated against the US dollar by around 15 per cent over the preceding month, to be at its lowest level since 2002.

The economic outlook was very concerning and a sharp and deep contraction in economic activity was widely expected. Given the fluidity of the situation, the Board did not have a full set of updated forecasts for the economy for its meeting in mid-March 2020, but the general contours of the outlook were clear. An indication of the severity of the outlook at the time can be taken from the set of forecasts subsequently published in the May 2020 *Statement on Monetary Policy*. Even with the considerable fiscal and monetary policy support that had been put in place by that time, the central forecasts were for a much sharper contraction in economic activity than during the global financial crisis, amounting to the largest peace-time contraction in Australian activity since the Great Depression. The Bank's forecasts at that time were broadly in line with the average market forecasts for 2020 and 2021.

Graph 1

GDP

May 2020 SMP forecast scenarios, December 2019 = 100

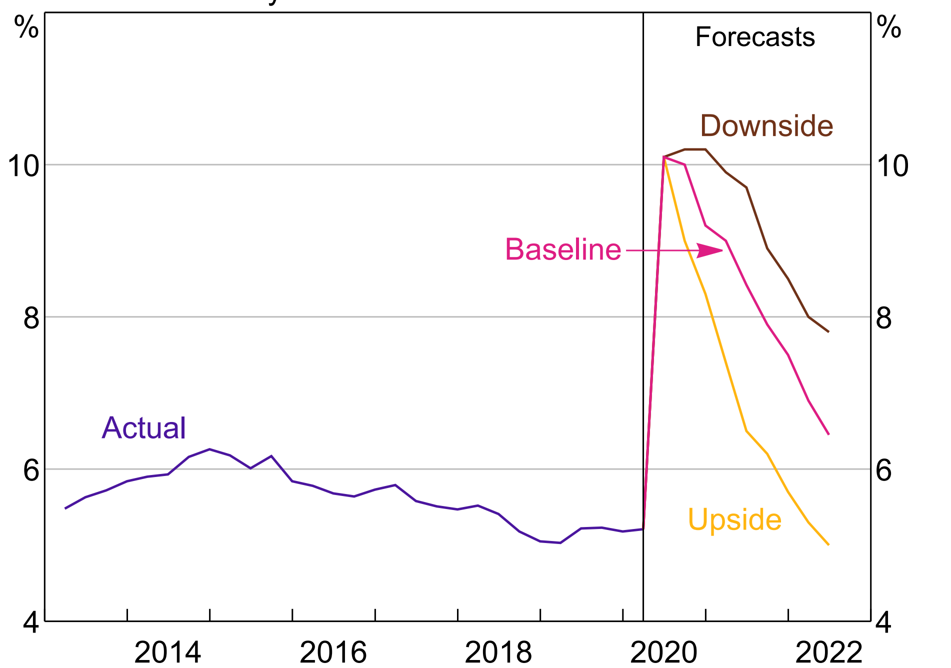


Sources: ABS; RBA

Graph 2

Unemployment Rate

May 2020 SMP forecast scenarios



Sources: ABS; RBA

At its meeting in mid-March 2020, the Board agreed to do what it could do to help provide a bridge to the other side of the pandemic and provide some insurance against economic outcomes that would have been very damaging to Australians. It recognised the uncertainties regarding the outlook and the health situation, and sought to do what it could do to support the economy and avoid deep scarring. It also recognised that the cash rate was already very low coming into this period, limiting the amount of monetary support that could be provided by further lowering the cash rate.

The Board decided that unconventional monetary policy tools would need to be deployed. The international evidence pointed to the beneficial effect of having a package of policy measures tailored to individual country circumstances.[1] International work also underlines the importance of acting decisively when policy rates are near the effective lower bound.[2]

Well prior to the pandemic, the Bank had actively considered potential use of unconventional monetary policy tools in the event of reaching the effective lower bound. Papers on the subject had been discussed by the Board in July 2016 and August 2019, and the Governor had shared considerations publicly in a speech in November 2019. This work had focused on tools used elsewhere: negative interest rates; funding for lending schemes; forward guidance; and bond purchase programs.[3] Internal work in 2019 had also explored the potential for use of a yield target. It noted that some form of balance sheet expansion by the central bank is often seen in the academic literature as backing a commitment to forward guidance.[4]

The focus on three-year yields was appealing given the importance of funding at the shorter end of the yield curve out to three years for the Australian financial system. In part, this reflects the relatively short terms on fixed-rate loans in Australia compared with many other advanced economies. The ability of the banks to hedge any foreign exchange exposures (for bonds issued in foreign currencies) and hedge fixed-rate bonds back into variable rates also plays a role.

In taking the decision to include a target for the three-year yield in its mid-March 2020 package, the Board considered the possibility of instead undertaking a regular program of bond purchases, as a number of other central banks had done. The yield target was preferred for two reasons, namely:

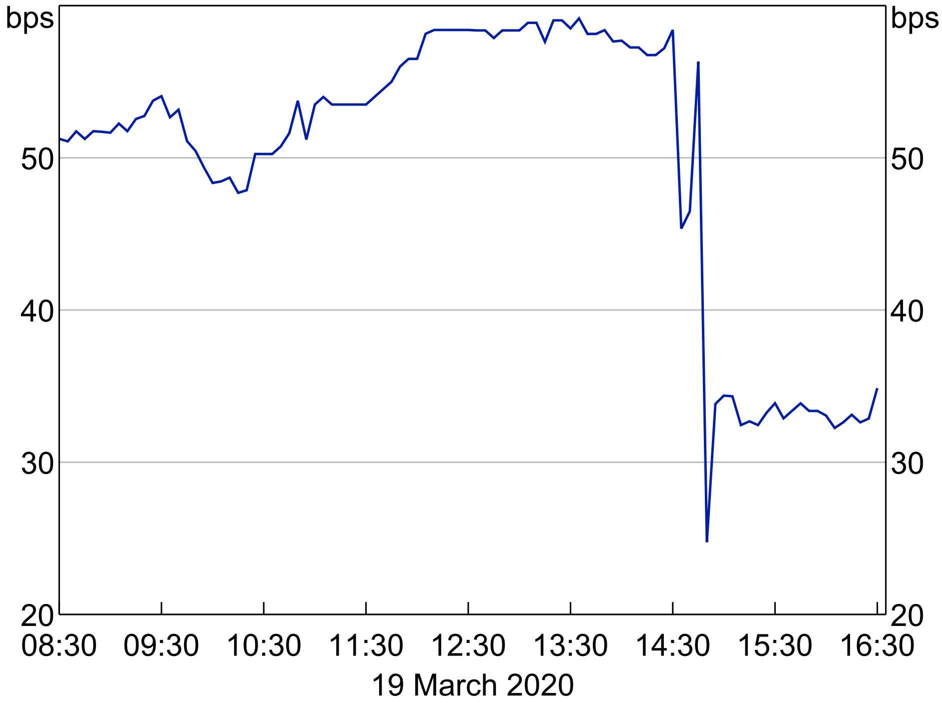
- It was seen as a more direct way of achieving the objective of low funding costs in Australia. A bond purchase program would have also lowered bond yields, but it would have done this indirectly and there would have been greater challenge in calibrating the required size of the purchases. Directly targeting an intermediate-term risk-free interest rate was also viewed as a natural extension of the target for the cash rate, which is the risk-free interest rate that anchors the yield curve.
- The yield target reinforced the forward guidance regarding the cash rate. Given the outlook, it was judged highly likely that the cash rate would remain at a very low level for some years. The yield target reinforced this communication.

The Board recognised the risks associated with potential exit from the policy and that credibility issues could arise if market participants had a different view from the Bank about the future. In the extreme circumstances of the time, the Board judged that the potential benefits of the yield target outweighed these risks.

The announcement of the yield target (and the overall package of monetary policy measures) on 19 March 2020 had an immediate and substantial effect on three-year yields and yields on nearby maturities. The three-year yield (pertaining to the April 2023 bond) fell by 24 basis points to 34 basis points between the time of the announcement and the market close. The remaining gap to the target may have reflected ongoing bond market dysfunction that the Bank was seeking to address, and some uncertainty about how a target of 'around 25 basis points' would be interpreted.[5] The Australian dollar stabilised in response, having fallen from around US$0.63 to around US$0.55 over the preceding few days.

Graph 3

April 2023 AGS Yield and Yield Target Introduction

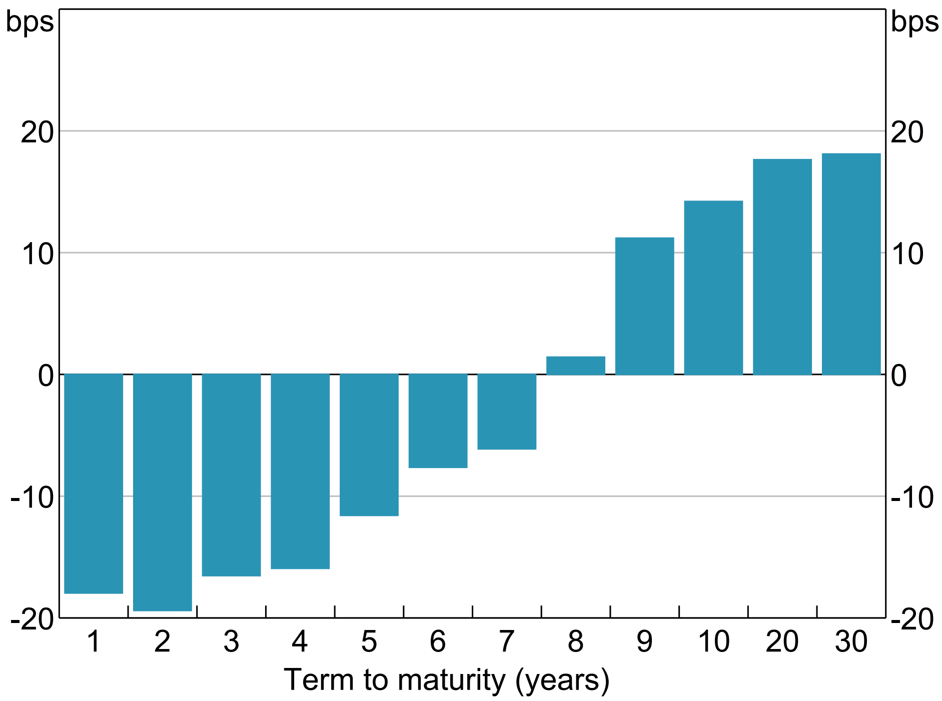


Source: Yieldbroker

Graph 4

Change in AGS Yields

Over 19 March 2020



Sources: Bloomberg; RBA

The Bank used purchases of the target bond in support of the yield target, as well as purchases of Australian Government Securities (AGS) with residual maturity close to that of the target bond. From March to May 2020, $40 billion worth of AGS purchases were aimed at both supporting government bond market function and the yield target. Of this, $7 billion worth were of three-year maturity or adjacent bonds (three-year AGS). The yield moved down to be consistent with the target.

September to November 2020: Target extended and rate lowered

In the later part of 2020, the incoming data suggested that the economic downturn was not as severe as earlier feared, but the outlook was still very sobering. The recovery was far from assured, including because of the ongoing risks to the community's health from the pandemic. Indeed, a COVID-19 outbreak in Victoria had introduced a new uncertainty. Moreover, there were signs that a pick-up in the labour market in other states was faltering in the face of weak aggregate demand. In the rest of the world, central banks' monetary policy settings remained extremely accommodative, with a number indicating that new stimulus policies remained under consideration.

The weak and uncertain outlook was reflected in financial market pricing. The yield on the April 2023 target bond had remained around the target for months with no Bank purchase activity apart from a brief period in August and early September 2020. During that period the Bank purchased $12 billion of three-year AGS when yields rose to be modestly above the 25 basis point target at times. The three-year overnight index swap (OIS) rate, which embodies market expectations for the cash rate and a term premium over the period, remained below the target yield through this time, consistent with expectations of no increase in the cash rate over the three years; markets were actually anticipating the possibility of a further reduction in the cash rate. The possibility of negative interest rates was being discussed in a range of countries abroad.

In this environment, the Board had been discussing what further measures the Bank could take to support the Australian economy. While it was considered that additional stimulus would need to come mostly from fiscal policy, the Board judged that the risks were such that further monetary response was appropriate.

In September, the Board increased the size of the TFF and extended the time for final drawdowns of three-year TFF funding from March 2021 to June 2021. The Board also noted that the focus of the yield target would shift from the April 2023 maturity to the April 2024 maturity as it became the bond with a maturity closest to three years. This shift, taking the target bond from a 2½-year bond to a 3½-year bond, occurred in late October.[6]

In mid-October, the Governor clarified the evolution of forward guidance as discussed by the Board, placing more weight on actual outcomes than forecasts. And in November, the Bank announced a package of further monetary policy measures, including cuts to the rates on cash, the yield target and the TFF, as well as a bond purchase program.

An important consideration in introducing the bond purchase program was that almost all other advanced economies had done so. The fact that Australia did not have such a program was contributing to Australian yields being higher than elsewhere and upward pressure on the exchange rate. Given that unemployment was expected to remain high and inflation subdued for an extended period, this was seen as unhelpful. The Board continued to view addressing the high rate of unemployment as an important national priority and sought to continue to provide insurance against very bad outcomes. The enhanced policy package added to the substantial monetary stimulus already provided earlier in the year and complemented the significant steps taken by the Australian Government, including in the Budget of that year, to support jobs and growth. The Board was also of the view that having the various arms of policy all taking steps in the same direction would deliver a greater impact than the sum of the individual parts.

Given earlier communication, yields had fallen somewhat ahead of the announcement of the additional package, including on the three-year target bond. Through November and early December, the Bank purchased $9 billion of three-year AGS in support of the target and the yield on the three-year bond settled around 10 basis points.

February to March 2021: Target defended amid change in market outlook

Market conditions changed around late February and early March 2021 in response to an improvement in the global economic outlook associated with surprisingly good news on COVID-19 vaccination developments, a decline in COVID-19 cases in most advanced economies and a large US fiscal stimulus package. Alongside a broad increase in global yields, AGS yields rose through February, most notably further out the yield curve. The rise in yield on the three-year Australian Government bond was relatively modest but it still put some pressure on the yield target.

At the time, the focus remained squarely on the uncertain outlook and the considerable distance from the Bank's full employment and inflation goals; in addition, Australia's vaccination program had only just begun and new variants of COVID-19 were emerging. Only a few months had passed since the November 2020 meeting, when an additional package of measures had been announced. Moreover, at the February 2021 meeting, the Board decided to purchase an additional $100 billion of bonds when the current bond purchase program was completed in mid-April.

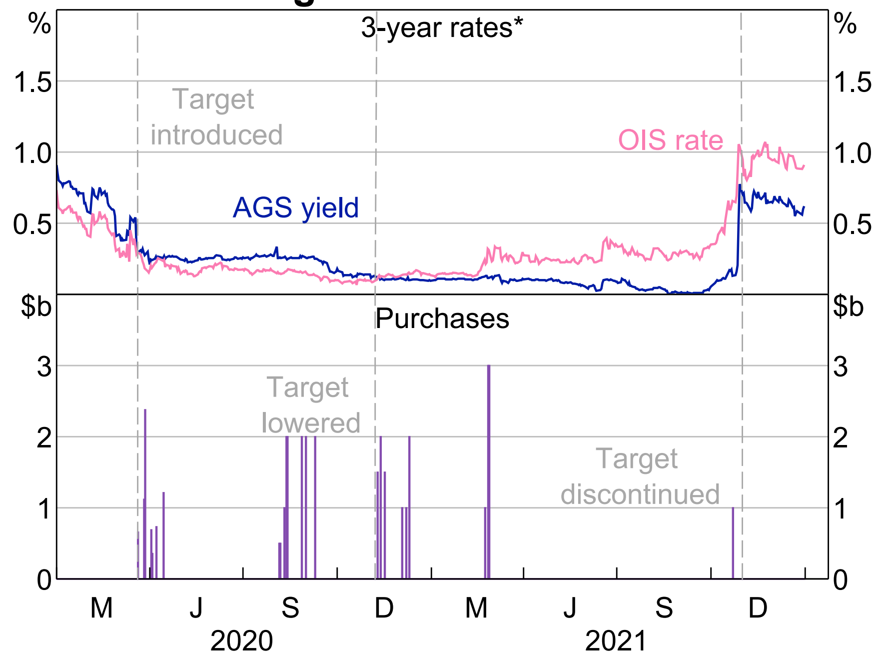
Also at the February meeting, at which time the yield remained at target, the Board considered three future options for the yield target: (i) discontinue; (ii) adjust the level higher; and (iii) retain but not extend the target to the next bond. It was noted that, as time passes, committing to a further three years by extending the target to the next bond would lengthen the period over which the policy applied, and that the Bank needed to be mindful of not maintaining the focus on three years for longer than was necessary.

Given the uncertainty of the outlook and continuing possibility of very bad economic outcomes, the Board decided not to discontinue or raise the target. It recognised that some of the downside risks to the economy had diminished and that, given this, the preferred option was not to extend the target to the November 2024 bond, but to keep the April 2024 bond as the target bond. The paper for the February meeting noted that this option ran '… less risk of misinterpretation by the market and less risk of a sharp market repricing. Maintaining a target for the April 2024 bond is also consistent with our current thinking that the cash rate will remain at its current level at least until early 2024'. The meeting Minutes noted that the Board would make a decision later in the year on this matter. Communication on forward guidance was amended to state that the Board was not expecting the conditions for a cash rate increase to be met 'until 2024 at the earliest', from 'at least three years' previously.

In response to the rise in yield on the three-year bond, the Bank purchased $7 billion of the April 2023 and April 2024 bonds across three auctions in late February. This support for the yield target was bolstered by additional measures in early March. On 2 March, the statement following the Board meeting reiterated the commitment to the yield target, with that commitment subsequently elaborated in the meeting Minutes. In late February and early March, the Bank increased the fee that it charged counterparties to borrow the three-year target bond – from 25 to 50 basis points, and later to 100 basis points for a time.[7] Increasing the cost of short-selling the bond made it more difficult for market participants to speculate against the viability of the target.[8] On 10 March, a speech by the Governor emphasised the Bank's commitment to the three-year yield target.[9] The Governor indicated that the Board would make a decision later in the year to either keep the April 2024 bond as the target bond or extend the yield target to the November 2024 bond.

Graph 5

Yield Target and Bond Purchases



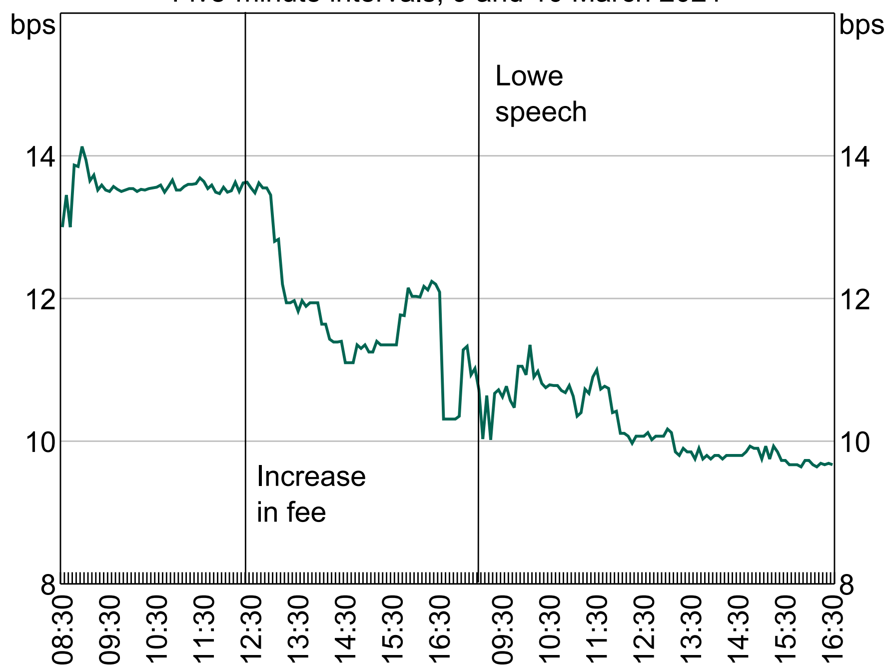
* Three-year AGS yields are for the April 2023 AGS until 20 October 2020, and the April 2024 AGS thereafter; purchases are of November 2022, April 2023 and April 2024 AGS; OIS is maturity-matched to relevant AGS.

Sources: Bloomberg; RBA; Yieldbroker

Graph 6

April 2024 AGS Yield and Stock Lending Fee Change

Five-minute intervals, 9 and 10 March 2021

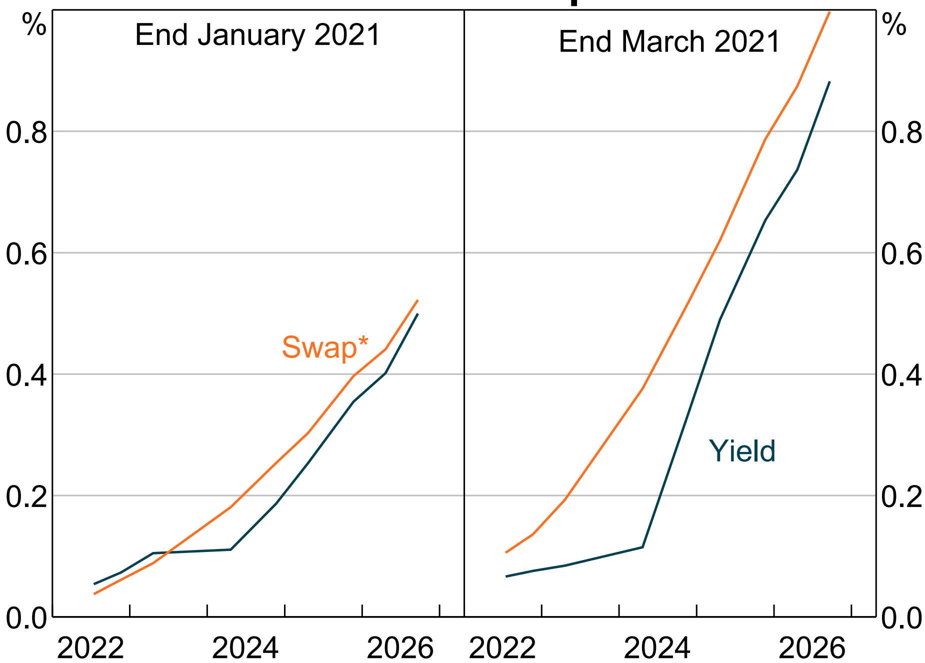


Source: Yieldbroker

These responses by the Bank saw an increase in demand for the target bond, and the yield subsequently settled back to be close to 10 basis points. By this time, however, the spread between the target bond and other market yields had widened notably. The three-year OIS rate had moved from trading below or around the target to above it, and the three-year swap rate had also moved higher. This higher swap rate flowed through to other yields that typically price off swaps, including those for bank and corporate bonds. The larger spread between swap rates and AGS yields at around the three-year tenor reflected the different expectations for the cash rate as implied by OIS rates and the Bank's guidance for the cash rate target at this horizon. The yield spread between the next maturing AGS – the November 2024 bond – and the April 2024 target bond also widened notably, consistent with an expectation that the yield target would not be extended to the November 2024 bond.

Graph 7

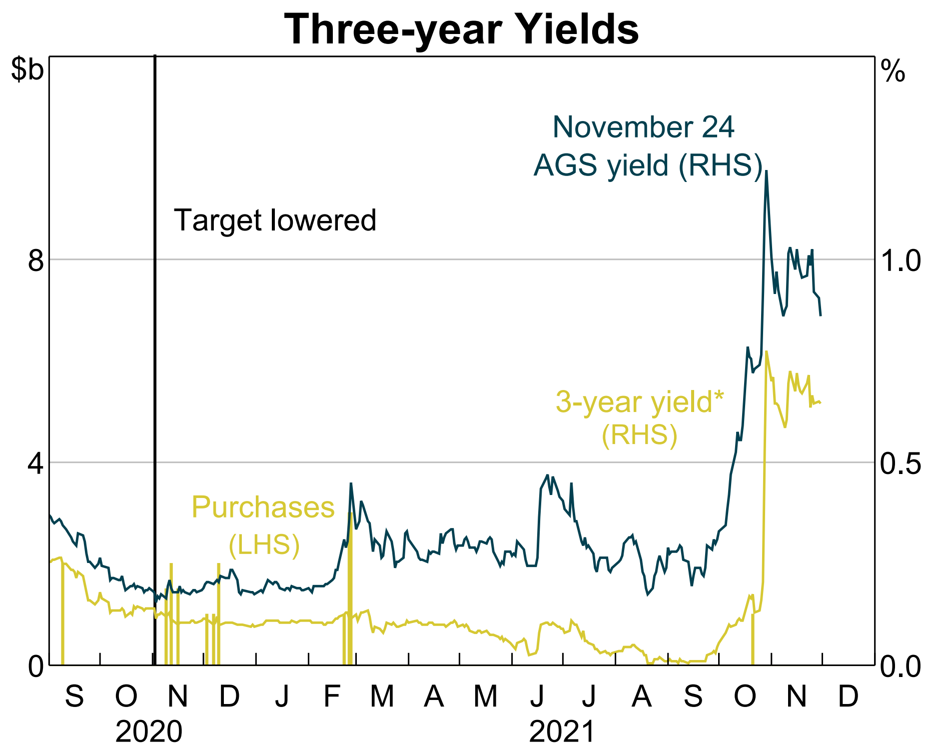
AGS Yield and Swap Curves



* Maturity matched to AGS bond lines.

Source: Bloomberg

Graph 8



* Three-year yield target bond is the April 2023 AGS until 20 October 2020, and the April 2024 AGS thereafter.

Sources: RBA; Yieldbroker

July 2021: Target not extended to the next three-year maturity bond

At the July 2021 meeting, the Board decided to retain the April 2024 bond as the target bond, rather than extend the target to the bond with a maturity date of November 2024, which was soon to become the bond closest to a three-year maturity. This was consistent with the discussion at the February meeting.

The decision to not extend the target reflected the upside surprise to Australian economic activity and much better-than-expected labour market outcomes. The improvements had increased the chances of alternative plausible upside scenarios for the economic outlook and therefore the possibility that the cash rate could be increased over the period to November 2024.

These developments, however, had not changed the assessment that the Bank was likely to be short of its goals for full employment and inflation for some time, and that progress towards the inflation goal was likely to be gradual. Uncertainty remained, with setbacks to the vaccine rollout and fresh outbreaks affecting the outlook. At the time, central banks in advanced economies continued to emphasise that near-term inflation pressures were likely to be temporary and that they remained committed to providing significant monetary policy support until there was evidence of sustained progress towards their employment and inflation goals. Most central banks had maintained the pace of their government bond purchases, although some had indicated that a slowing in the pace of purchases would be likely in the period ahead. At the US Federal Reserve meeting in June, some members of the Federal Open Market Committee had brought forward their expected timing of the first increase in the federal funds rate to 2023, such that for the first time this was the median expectation of committee members.

Developments in the months following the July decision underlined the uncertainty of the outlook. Yields on the target bond had been trading below 10 basis points around this time and drifted down again towards the end of July as increasing concerns globally about the Delta variant of COVID-19 – and outbreaks and lockdowns in New

South Wales and Victoria – led market participants to push back their expectations for policy rate increases and also increased demand for risk-free assets. In August and September, the yield on the April 2024 bond declined to be close to zero, amid strong demand for short-term risk-free assets; it stayed around that level through to late September. The yield on the November 2024 bond also declined during this period to a lower level than was evident prior to the announcement that the target would not be extended to the November 2024 bond. Indeed, given these circumstances, and concerns about the economic outlook, in September the Board extended the bond purchase program from 'at least November 2021' to 'at least February 2022'.

Late-October to early-November 2021: Ending the target

At the November 2021 meeting, the Board discontinued the yield target. This followed a period of considerable volatility in yields. While the yield on the target bond had been close to zero for much of September 2021, and around 5 basis points at the time the Board met in October, it rose sharply over October.

The initial increase in the yield on the target bond to almost 20 basis points around mid-October occurred alongside a broader increase in yields globally, reflecting rising inflation expectations and expectations that central banks would begin to reduce stimulus earlier than previously expected. There was selling of the April 2024 bond by investors who could achieve substantially higher returns by purchasing slightly longer-dated bonds.

While there had been no demand to borrow the April 2024 bond from the Bank at that point, in mid-October the Bank again increased the fee it charged counterparties to borrow the April 2024 bond, making any short-selling of the bond more costly. The Bank also purchased $1 billion of the bond at auction. Between the announcement of the purchase and the market close, the yield declined by around 5 basis points to 13 basis points.

In late October, the yield on the April 2024 bond increased again following the release of the stronger-than-expected September quarter CPI, which recorded headline inflation at 3 per cent over the year and underlying inflation at 2.1 per cent. On the days following, with no further purchases of the April 2024 bond by the Bank, the yield moved sharply higher as market participants interpreted the absence of purchases as a sign that the yield target would be discontinued. Between the usual bond purchase announcement time of 11:15 am on the Thursday following the CPI release, to the 4:30 pm close on Friday, the yield on the April 2024 bond rose from 24 basis points to 77 basis points, with sizeable upward moves on both days following the absence of bond purchase announcements at 11:15 am. As subsequently explained by the Governor following the November Board decision, the events presented '… a difficult choice over those days: stand out of the market until the Board had an opportunity to review the latest data and forecasts in a matter of a few days; or enter a thin market in an effort to defend a target that was losing credibility …. I thought the better approach was for the Board to review the situation and decide whether or not to confirm or discontinue the target'.[10]

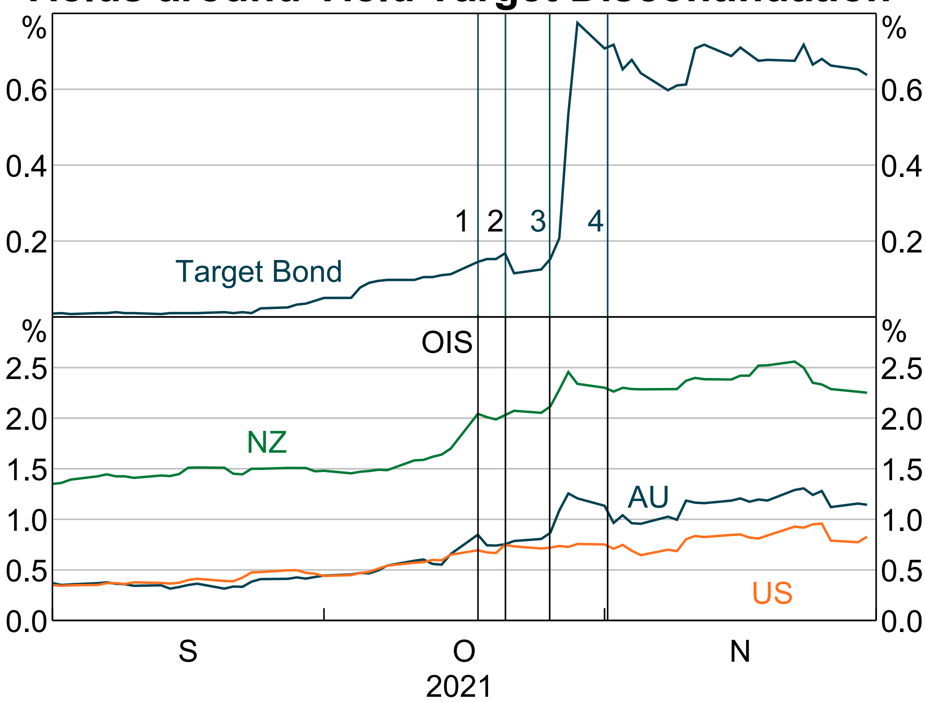
At its meeting in November, the Board endorsed the Governor's use of discretion in the days between the release of the CPI and the Board meeting, acknowledging the difficulty of the choice to be made and the short time between the CPI release and the Board meeting. The Board recognised that conducting purchases in the few days preceding the November meeting could have added to confusion, sending a misleading signal of support when changes in the outlook meant that the target was likely to be discontinued. In related discussions, the Board agreed that it would have been useful to have had more detailed ex ante discussions on how to deal with a situation where the target was losing credibility rapidly. It also agreed to strengthen its discussion of various alternative scenarios and their implications for policy in future.

At the November meeting, the Board decided to discontinue the yield target. This decision took into account upgraded staff forecasts (underlying inflation at 2½ per cent and unemployment at 4 per cent by the end of 2023) and the associated shift in the distribution of possible cash rate outcomes, as well as the shift in market pricing reflected in other term interest rates in Australia. The April 2024 yield settled at around 65 basis points over the following days.

By this stage, three-year OIS rates had already moved well away from the yield on the target bond. Globally and in Australia, three-year OIS rates had risen sharply over October, as market expectations of inflation and future policy rates increased, and market participants' doubt over the durability of the yield target grew. This meant that the yield target had become less effective in holding down the general structure of interest rates in Australia, with higher OIS and swap rates flowing through to yields on bank and corporate bonds, and many fixed rate loans, which typically price off these swap rates.[11] When it became apparent that the yield target was to be discontinued, the yield on the target bond rose toward three-year OIS rates: from the day of the CPI release to the day that the yield target was discontinued, yields on the April 2024 bond rose by around 40 basis points, while three-year OIS rates were little changed.

Graph 9

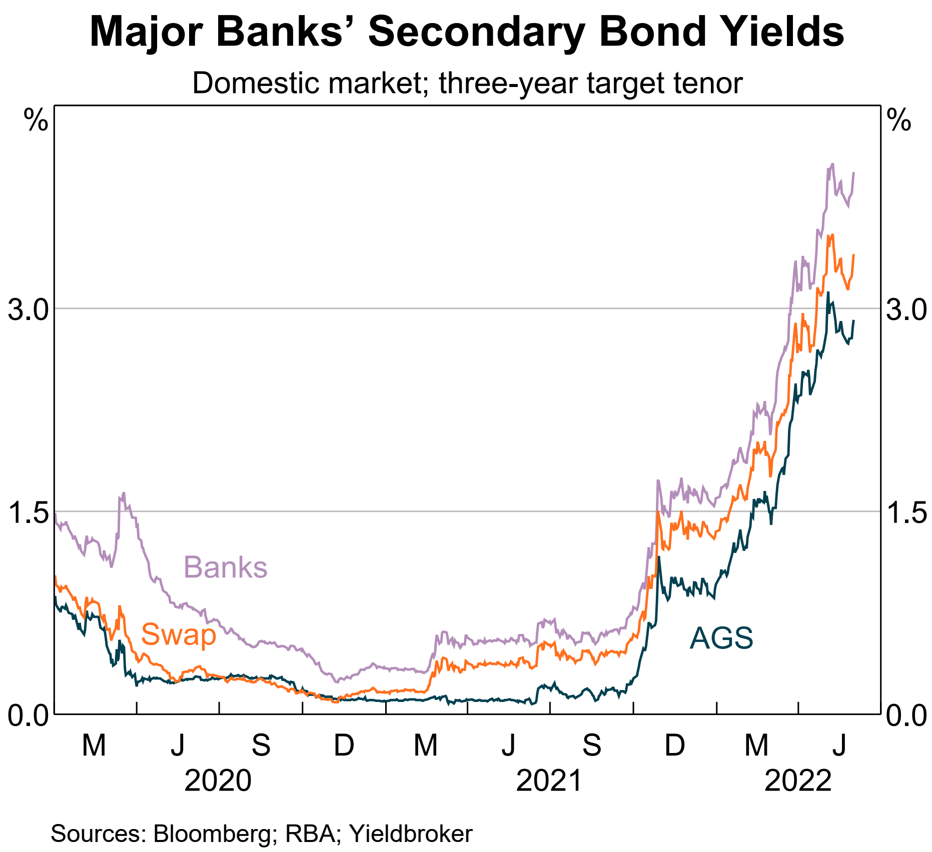
Yields around Yield Target Discontinuation*



* Lines denote the following events: 1. Stock lending fee increased; 2. Bank yield target purchases; 3. September quarter CPI release and 4. Yield target discontinued.

Sources: Bloomberg; RBA

Graph 10



The decision to discontinue the target was supported by subsequent developments. In May 2022, the Board raised the cash rate and exchange settlement rates by 25 basis points. These decisions reflected a judgement by the Board that it was time to begin withdrawing some of the extraordinary monetary support that had been put in place to help the Australian economy during the pandemic. Two considerations were particularly relevant. The first was that the economy had proven to have been very resilient, unemployment was low and economic growth was expected to be strong in 2022. The second was that inflation had picked up more quickly, and to a higher level, than was expected and the outlook for private sector wages growth had been upgraded in response to the actual and expected further tightening in the labour market.

Some observations (with the benefit of hindsight)

Throughout this period the Board was focused on supporting the Australian economy and providing insurance against what could have been very bad outcomes for the Australian economy. After the initial phase of the pandemic, the economic news was generally better than expected and the economy was more resilient than had been expected. Even so, there were periodic outbreaks of new strains of the virus, renewed restrictions of movement and activity, and ongoing uncertainty about the rollout of vaccines and their and effectiveness against new strains. These developments meant that the downside risks remained very real and the Board was very attentive to these. The Board gave considerable weight to these downside risks in its deliberations in the knowledge that if the upside scenarios prevailed it could adjust its policies. If the downside prevailed, there would have been much less scope for corrective action.

In retrospect, and in light of recent developments in the labour market and inflation, more weight could have been given to the upside, with implications for the yield target. In particular, more weight on the upside could have led to different decisions at various points in time. This includes:

- In September 2020, the yield target could have remained focused on the April 2023 bond, rather than being extended to the April 2024 bond. This would have recognised the improvement in the economy and a lessening of some of the downside risks. The concern at the time was that not extending to the next maturity could have diluted the Banks' messaging about providing economic support, especially when other countries were focused on providing additional monetary stimulus. The extension of the yield target was also consistent with the decision to increase and extend the TFF, through which banks could access three-year funding at 0.10 per cent out to a maturity of June 2024.
- In late-February to early-March 2021, the rise in global and domestic yields reflected a view by some market participants that a rise in the cash rate over the yield target horizon was becoming a plausible scenario. The Bank could have taken this as a signal to review or discontinue the target. At the time, though, there remained considerable grounds for caution. In February, the central forecasts to the end of the forecast period in mid-2023 – which assumed no further large outbreaks of COVID-19 – were still far from the Bank's goals (core inflation of 1.75 per cent and unemployment of 5.25 per cent). Moreover, uncertainty remained high. Beyond the risks associated with the virus, a key uncertainty was how Australian households and businesses would respond to the tapering of some fiscal and other temporary support measures following the extraordinary boost to cash flows they received in 2020. In the event, there was another wave of the pandemic in the June quarter, and in this environment the yield on the target bond approached zero.
- In July 2021, the upside economic surprises and a shift in the plausible scenarios for the economy and the setting of the cash rate could have justified a discontinuation of the target, rather than a decision not to extend the target to the next bond maturity. The option of discontinuation was discussed among senior Bank staff at the time. It was recognised that an early exit would avoid the possibility of a forced end to the yield target if further positive surprises were to eventuate. The counter considerations were that the Bank remained well short of its goals and was expected to remain so for some time and that the yield target was continuing to play a useful role in providing insurance against further adverse shocks on the health front. In August and September, the yield on the April 2024 bond declined to be close to zero and it stayed around that level through to late September. In the event, the economic outcomes continued to surprise on the upside, aside from the effects of the outbreak of the Delta strain and the lockdowns in New South Wales and Victoria. In retrospect, given the evolution of inflation and the labour market, an earlier end of the yield target would have been appropriate.

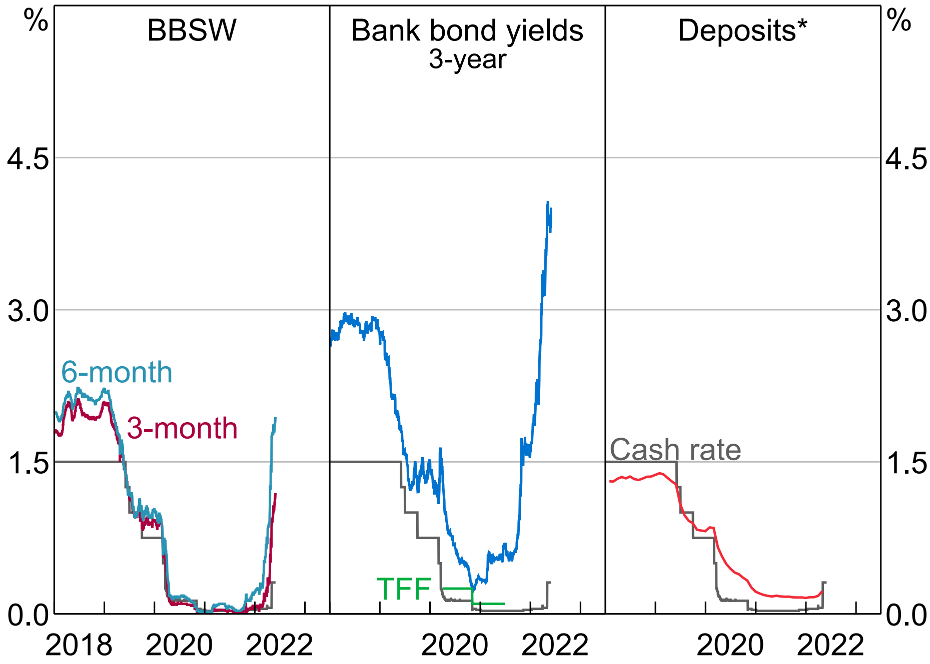
3. Funding costs, lending rates and borrowing activity

The yield target, along with the package of other policy measures, reduced funding costs across the economy to very low levels. Yields fell to historical lows across all debt funding instruments, such as bank bills, bonds, residential mortgage backed securities (RMBS) and deposits. In turn, lending rates offered by banks and other intermediaries also fell to historical lows. This was evident in substantial declines in rates on new and outstanding loans, for both housing and business lending. This supported progress towards the Bank's goals by lowering interest payments for existing borrowers and encouraging new borrowing at low rates.

Graph 11

Major Banks' Funding Costs

For new funding

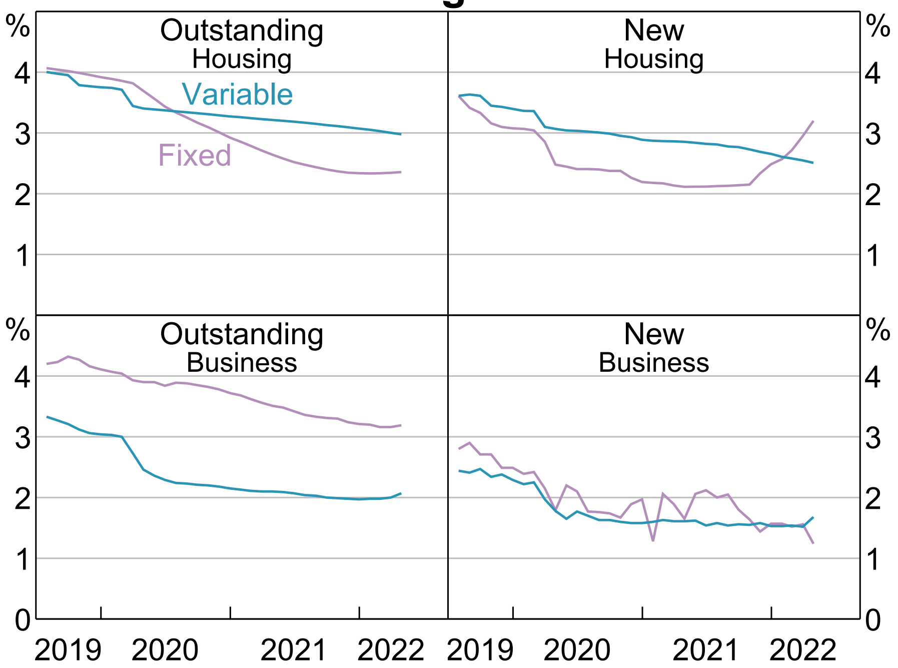


* RBA estimates; excludes deposits in housing loan offset accounts.

Sources: AFMA; APRA; ASX; Bloomberg; major banks' websites; RBA; Refinitiv

Graph 12

Lending Rates



Sources: APRA; RBA

Change in Lending Rates: February 2020 – March 2022

Outstanding loans

	Basis points
Variable-rate loans	
Housing	–71
Business	
– SME	–109
– Large	–91
Fixed-rate loans	
Housing	–151
Business	
– SME	–98
– Large	–84

Sources: APRA; RBA

It is difficult to disentangle the effects of the yield target from other measures, with the TFF and forward guidance that were announced at the same time also particularly relevant for funding costs around the three-year maturity. For businesses, the fall in lending rates was comparable across new variable- and fixed-rate loans. For mortgages, however, the fall in lending rates was most pronounced for fixed-rate loans, for which swap rates out to the three-year mark are key benchmarks.

Banks lowered three-year fixed housing rates to well below the new variable rate for the first time. By the standards of prior monetary policy easing phases, the fall in fixed rates was large relative to the reduction in the cash rate. For example, following the 65 basis point reduction in the cash rate from early 2020, three-year fixed housing rates declined by around 90 basis points; by comparison, in 2011 a 225 basis point reduction in the cash rate was associated with a decline in three-year fixed rates of around 140 basis points.

Changes in Housing Indicators

Maximum decline/rise over the two years following first cash rate reduction*

	Cash rate Basis point change	**New variable housing interest rates**** Percentage point change	**New fixed housing interest rates***** Percentage point change	**RMBS spread****** Basis point change	**Housing loan commitments** Percentage change	**House prices** Percentage change
Sep 2008 – Apr 2009	–425	–3.9	–3.3	–48	41	12
Nov 2011 – Sep 2013	–225	–1.9	–1.4	–43	35	7
Feb 2015 – Aug 2016	–100	–0.6	–1.1	0	7	15
Jun 2019 – Oct 2019	–75	–0.8	–0.8	–32	20	8
Mar 2020 – May 2022	–65	–0.7	–0.9	–58	77	25

* June 2019 period only extends through to March 2020, when the cash rate was lowered at the beginning of the COVID-19 pandemic.

** Owner-occupier variable rate using Perpetual data to 2013, advertised package rate to July 2019 and, thereafter, data based on the EFS collection. Break adjusted.

*** Major advertised three-year fixed owner-occupier, principal-and-interest interest rates.

**** RMBS spreads rose during the easing phase starting in 2015.

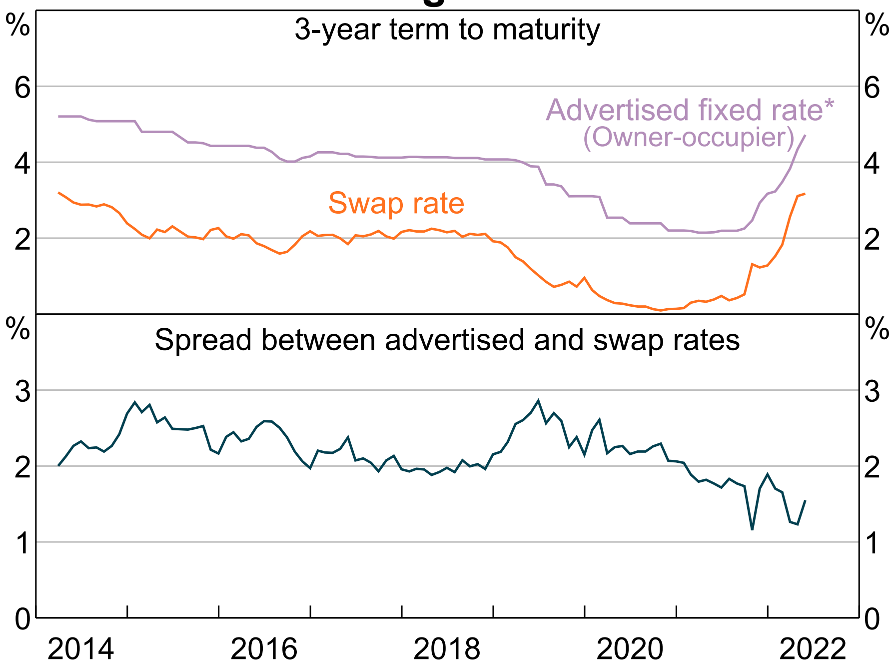
Sources: ABS; APRA; Bloomberg; Canstar; CoreLogic; KangaNews; Perpetual; RBA

The low three-year fixed housing rate reflected a decline in this rate relative to the swap rate benchmark. This decline picked up from late 2020, consistent with the additional TFF funding announced in September, the cut in the yield target to 0.10 per cent and other policy measures introduced in that period. Competitive dynamics were a factor, with banks focusing their competitive efforts on the fixed lending market (see below).

Favourable pricing for RMBS issuance also enabled strong competition by non-bank lenders. Over time, spreads on RMBS declined by around 60 basis points; this was more than the previous four easing phases, despite the magnitude of the decline in the cash rate during those episodes being larger than during the pandemic. Non-banks responded by raising funds at the fastest pace since before the global financial crisis. One factor supporting the RMBS market in this episode was the reduction in the supply of bank bond issuance partly reflecting the funding banks obtained from the TFF. Another factor was the public sector purchases of RMBS through a complementary program created by the Australian Government – the Structured Finance Support Fund, implemented by the Australian Office of Financial Management.

Graph 13

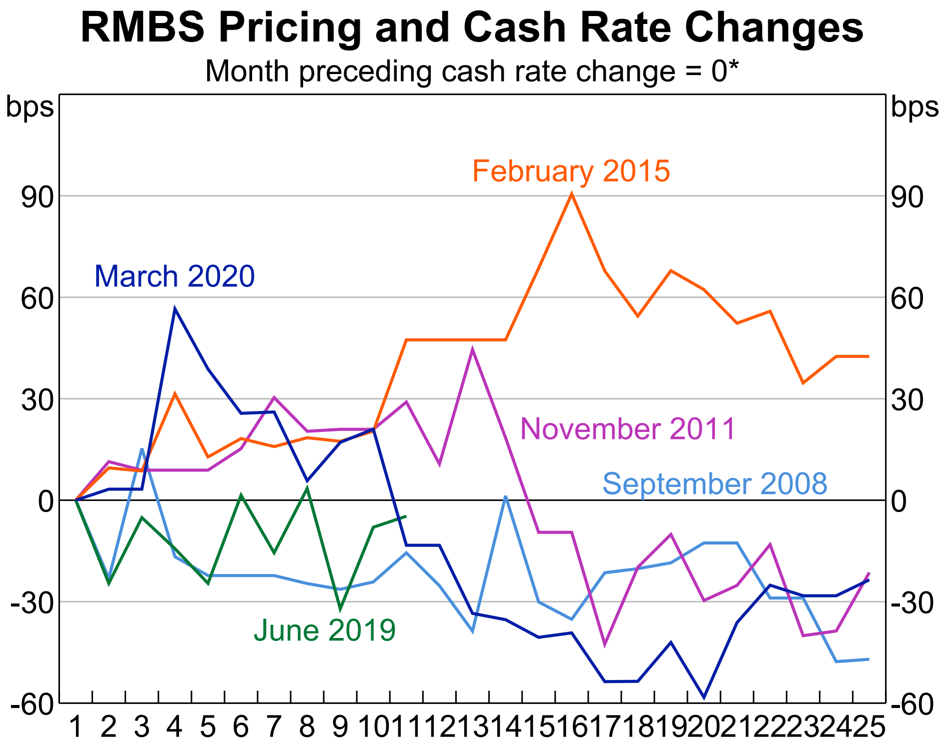
Fixed Housing Interest Rates



* Large lenders only.

Sources: Banks' websites; Bloomberg; CANSTAR; RBA

Graph 14



* Basis point change in the monthly weighted average spread of AAA RMBS notes relative to the month immediately preceding cash rate reduction.

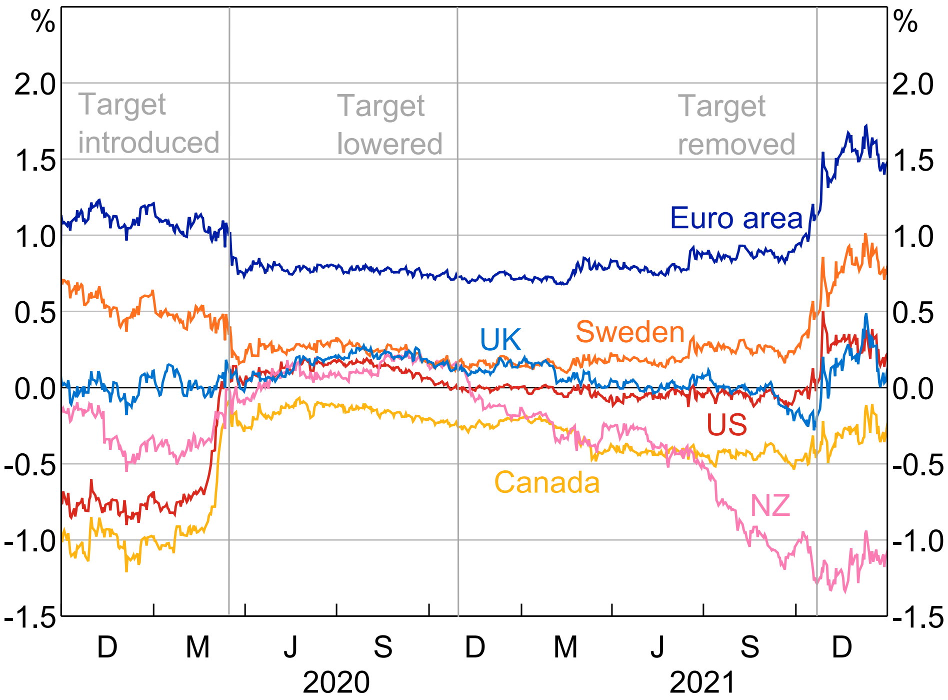
Sources: Bloomberg; KangaNews; RBA

During much of the yield target period, spreads between three-year yields in Australia and those in a number of non-European economies compressed in both sovereign debt and OIS markets. This yield compression was consistent with the yield target having exerted downward pressure on Australian three-year OIS and also the Australian dollar. However, it is not possible to distinguish between the effect of differences in policies and/or economic outlooks in explaining these international yield differentials.

Graph 15

Three-year OIS Rate

Spread between Australia and other advanced economies



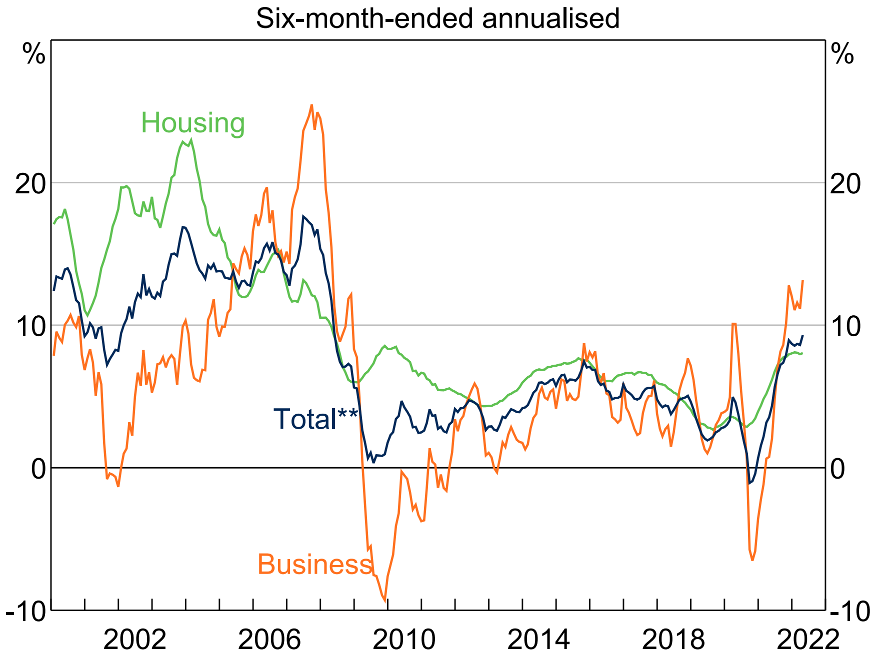
Source: Bloomberg

Low funding costs supported the availability of credit to the economy. Total credit growth increased, reflecting strong growth in both housing and business credit. Again, it is difficult to disentangle the contributions coming from the different elements of the Bank's policy package.

Growth in fixed-rate mortgages was particularly rapid for housing. The fixed-rate share of new housing lending rose to new highs, as did mortgage refinancing activity. Borrowers were attracted by the historically large discount on fixed rates relative to variable rates. These developments unwound sharply with the rise in swap rates around the period of the yield target ending, when OIS rates also rose noticeably. By March 2022, fixed rates for new housing loans were well above variable rates and the fixed-rate share of new lending had fallen to around 20 per cent, from close to 45 per cent in November 2021.

Graph 16

Credit Growth by Sector*



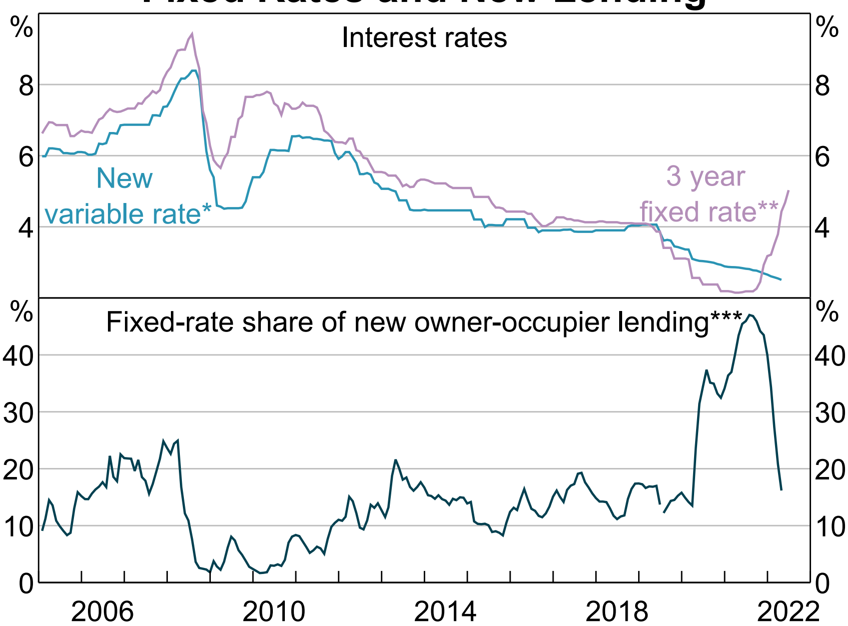
* Seasonally adjusted and break-adjusted; including securitisation.

** Includes housing, personal and business credit.

Sources: ABS; APRA; RBA

Graph 17

Fixed Rates and New Lending



* Perpetual data to 2013; advertised package rate to July 2019; thereafter, data based on the EFS collection. Break adjusted.

** Major advertised owner-occupier, principal-and-interest rates.

*** Housing loan approvals up to July 2019; thereafter loans funded in the month from the EFS.

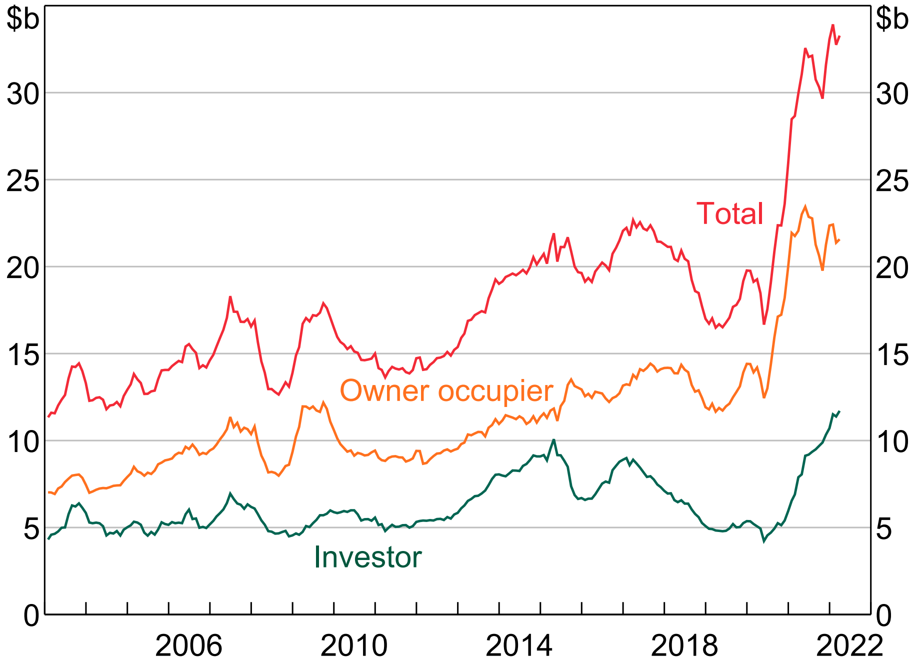
Sources: APRA; Banks' websites; CANSTAR; Perpetual; Refinitiv; Securitisation System

Competition on fixed-rate loans made sense for the banks given low funding costs associated with the TFF, forward guidance and the yield target. Competing vigorously on fixed-rate loans enabled banks to attract new borrowers without reducing the lending rates on their existing variable-rate loans as would have occurred had they reduced their standard variable rate more than they did.[12] However, some banking analysts consider that banks were surprised by how many borrowers refinanced from their existing variable-rate loans to fixed-rate loans, and the effect of this, among other factors, reduced their net interest margins.[13]

Graph 18

Housing Loan Commitments*

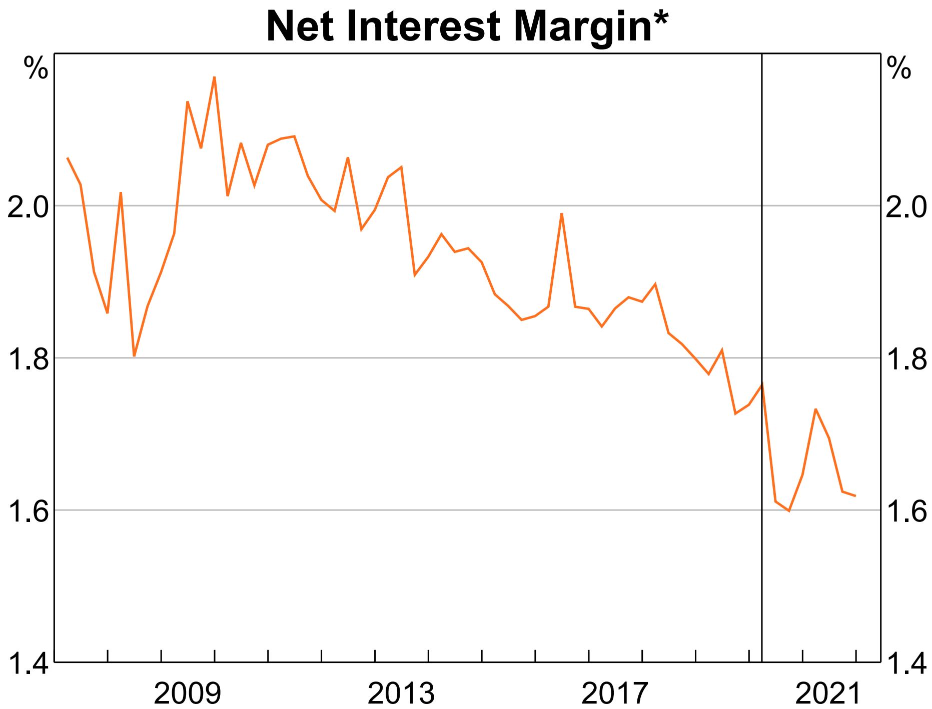
Excluding refinancing



* Seasonally adjusted and break-adjusted

Sources: ABS; APRA; RBA

Graph 19



* Vertical line indicates the package of policy measures announced in March 2020 including the yield target.

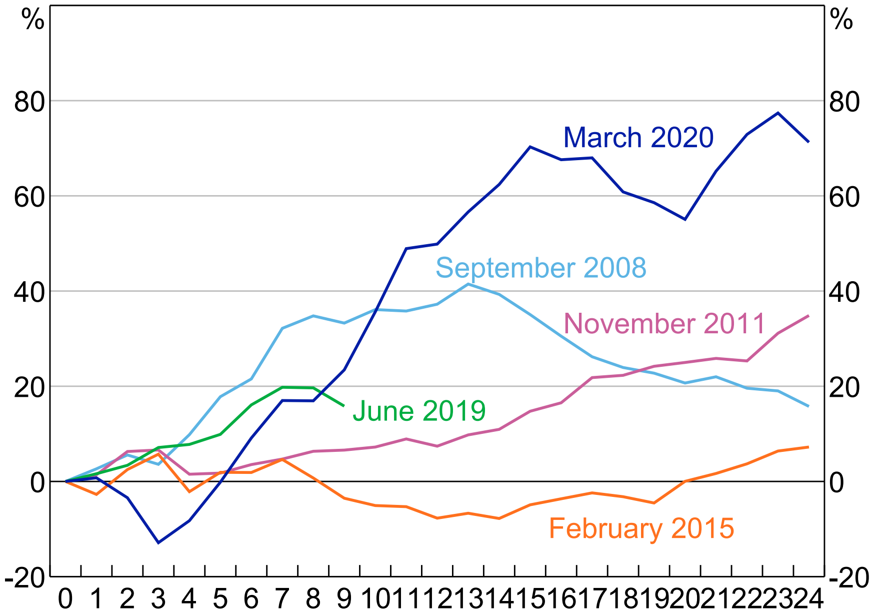
Sources: APRA; RBA

In the pandemic period, housing commitments rose by the largest magnitude of any of the past five easing phases, despite the magnitude of the cash rate decline being the lowest of these episodes. Similarly, the rise in housing prices through the pandemic was the largest of these five episodes. Besides monetary policy settings, a number of other factors also supported housing prices in the pandemic period, including: a shift in preferences towards houses and away from apartments; strong demand for housing outside of the largest cities; a build-up in saving amid reduced consumption opportunities and increased government support payments; and large government incentives for first home buyers.

Graph 20

Housing Loan Commitments and Cash Rate Changes

Month preceding cash rate change = 0*



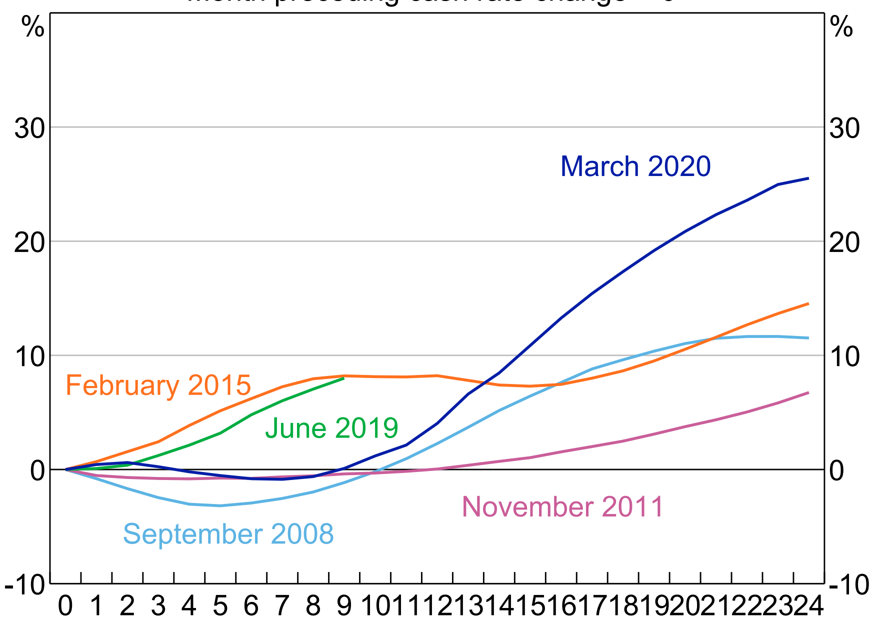
* Percentage change in housing loan commitments(excluding refinancing) relative to the month immediately preceding cash rate reduction.

Sources: ABS; RBA

Graph 21

Housing Prices and Cash Rate Changes

Month preceding cash rate change = 0*

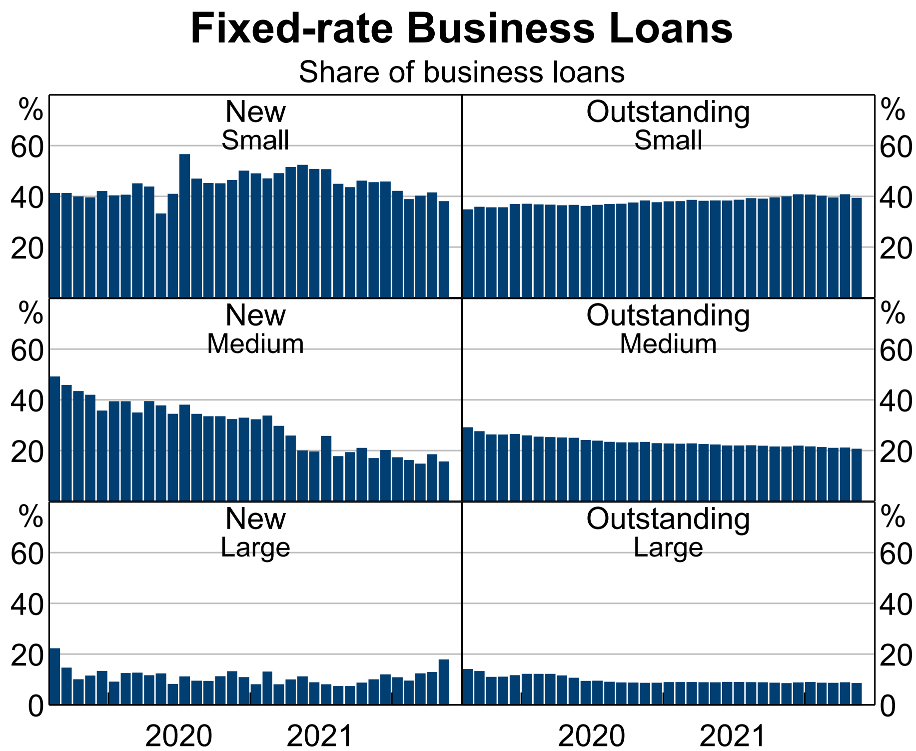


* Percentage change in national housing price index relative to the month immediately preceding cash rate reduction.

Sources: CoreLogic; RBA

For business loans, the monetary measures flowed through to lower average borrowing costs, aided in part by increased refinancing activity. Growth in business credit has remained strong relative to the past decade, having held up much better during the sharp downturn in economic activity in 2020 than during the global financial crisis and earlier recessions. At least part of the strong growth may have been attributable to the Bank's package of measures, including the yield target and the TFF with its specific incentives for business lending.[14] For businesses borrowing directly from financial markets, non-financial corporation bond raisings have also been above average.

Graph 22

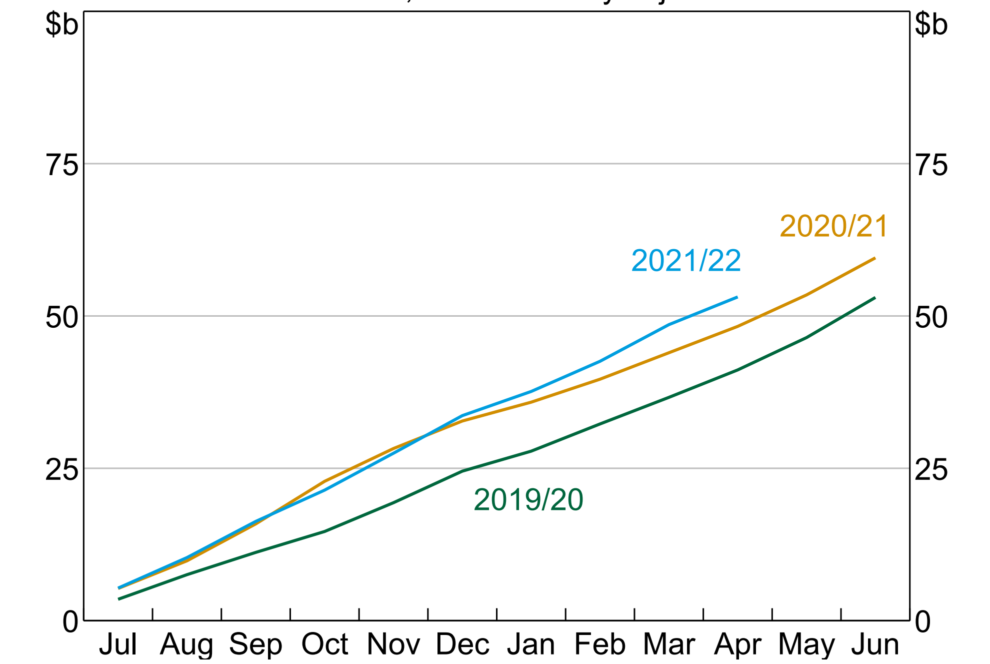


Sources: APRA; RBA

Graph 23

SME Loan Commitments for Refinancing

Cumulative, not seasonally adjusted

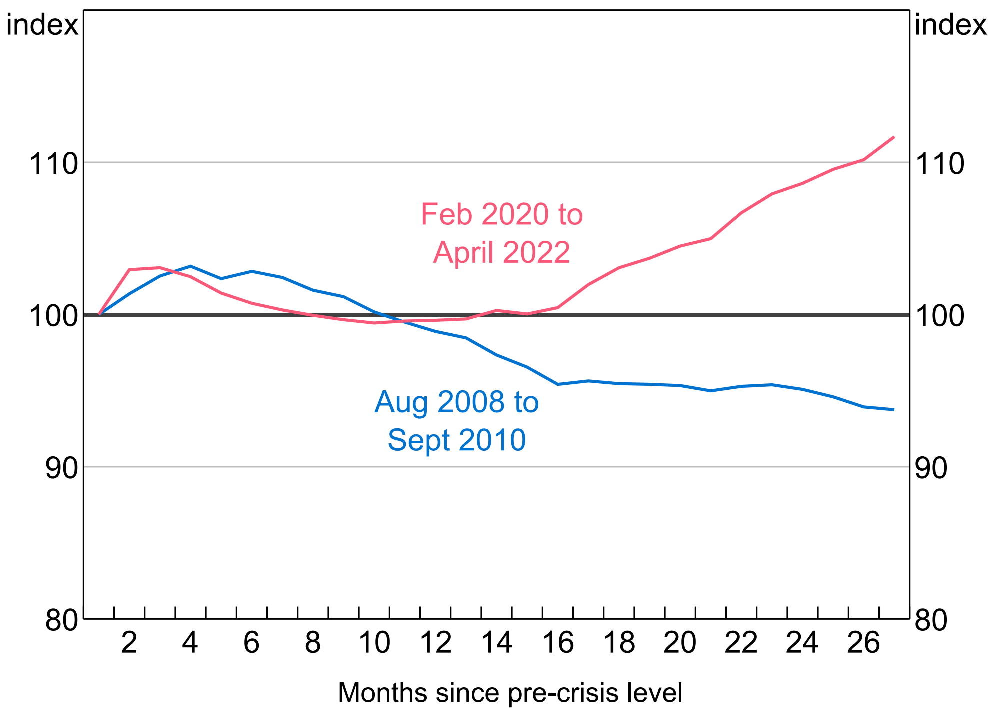


Sources: APRA; RBA

Graph 24

Business Credit*

Pre-crisis levels indexed to 100



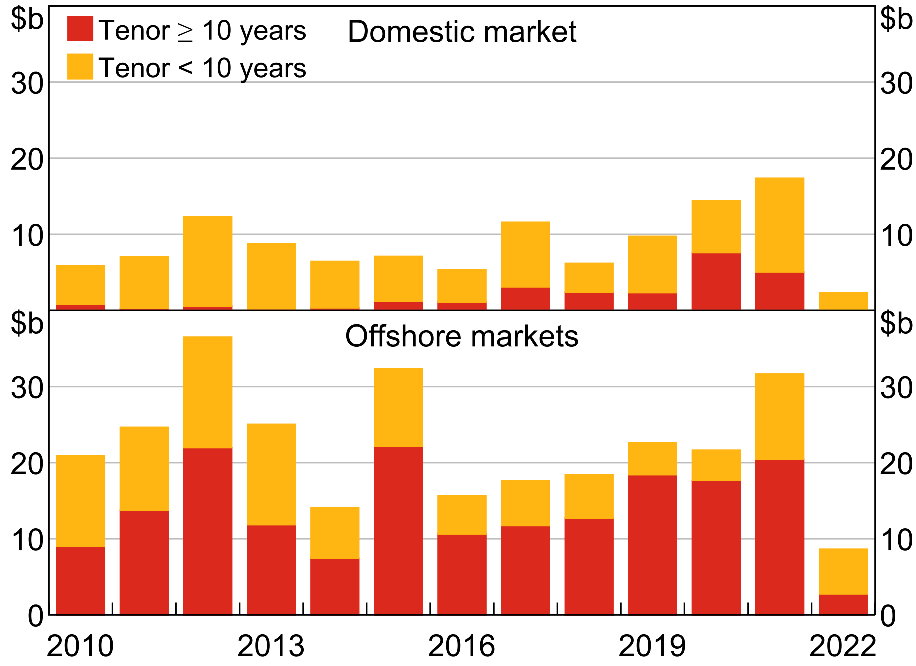
* Seasonally adjusted and break-adjusted.

Sources: APRA; RBA

Graph 25

Non-financial Corporate Bond Issuance

Gross issuance; Australian dollar equivalent*



* 2022 includes data through to the end of May 2022.

Sources: Bloomberg; Private Placement Monitor; RBA

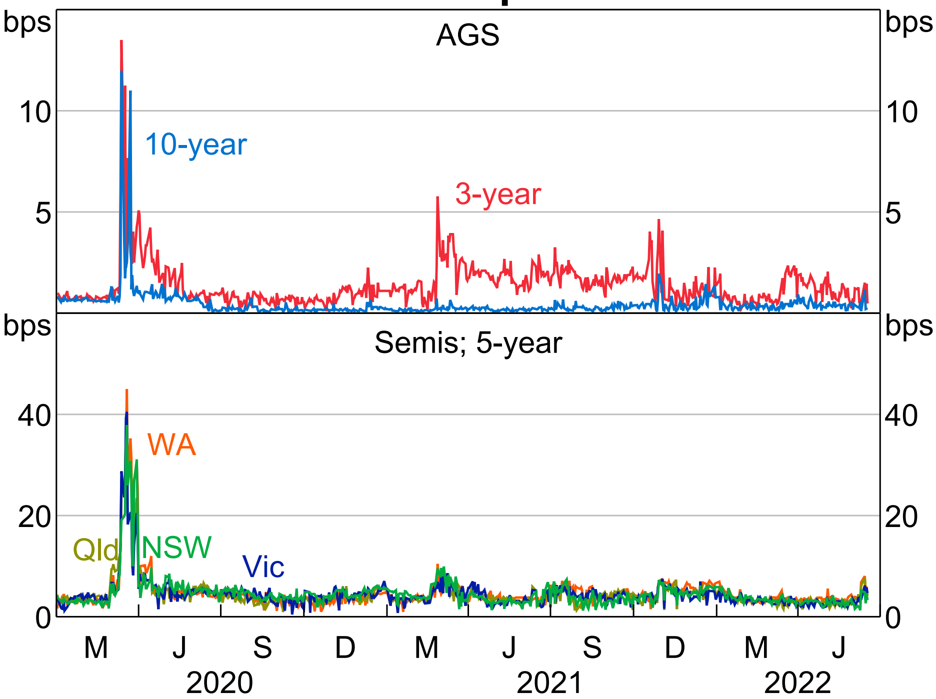
4. Market functioning

The Bank's policies helped to restore market conditions after the dysfunction that prevailed at the onset of the pandemic. Later, the yield target period coincided with two, less severe and fairly short-lived periods of strained market function in February to March 2021 and late-October to early-November 2021. As described above, both of these periods were associated with large upward movements in yields and some market uncertainty about the future of the yield target.

On both occasions, bid-offer spreads increased for three-year AGS, and market contacts noted a deterioration in liquidity conditions in bond futures markets. Indeed, the implied yield on three-year futures contracts diverged noticeably from the yield on three-year bonds during these periods, whereas arbitrage should keep this difference close to zero in an efficient market. The divergence did not occur for the 10-year futures contract.

Graph 26

Bid-offer Spreads*

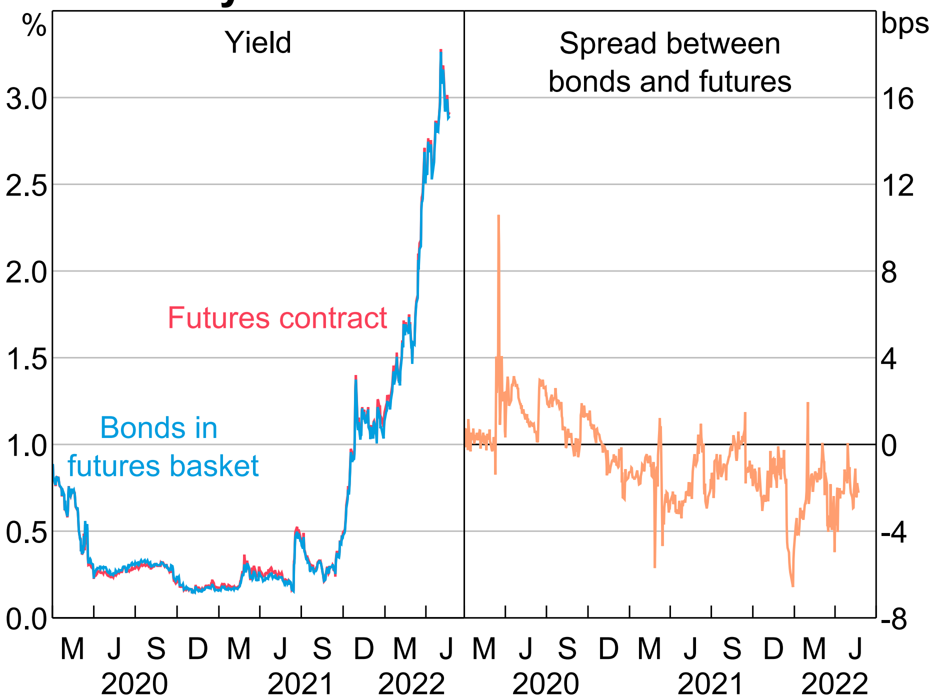


* Average bid-offer spreads six months either side of the stated tenor for AGS and semis.

Sources: RBA; Yieldbroker

Graph 27

Three-year AGS Bond–Futures Basis



Sources: RBA; Thomson Reuters

Market liaison suggested that strains evident in some measures of three-year futures market functioning may in part have reflected an unwillingness and/or inability of market participants to take on risk following the earlier episodes of market volatility. There have also been periods of reduced market function in offshore markets, particularly for bonds with shorter maturities, consistent with heightened uncertainty about the outlook for monetary policy.[15]

However, it is likely that the Bank's yield target as well as the Bank's substantial holdings of three-year bonds were also – directly and indirectly – an important influence on market function. In particular:

- The Bank's substantial holdings of the yield target bonds, together with the decision to raise the fee charged to counterparties wanting to borrow these bonds, led to reduced liquidity in the target bond lines. This reduced liquidity made hedging futures prices back to the underlying physical bonds more difficult for liquidity providers and arbitragers, resulting in a decline in activity and deterioration in the functioning of the futures market. This contributed to a widening in the spreads between the target bond and other market rates, which could have reduced the transmission of the target through to rates faced by borrowers.[16]
- During February to March 2021, by holding the yields of two of the four bonds in the futures basket close to 10 basis points, the Bank's actions meant that the futures price moved only half as much as it would usually do in response to wider yield curve movements. This meant that to hedge a non-yield target bond, for example a four- or five-year bond, market participants had to transact twice as many futures contracts as usual, exacerbating other strains.
- Also during February to March 2021, some market participants began to believe that the Bank would soon abandon the yield target altogether. If this were to happen, the yield on the April 2023 and April 2024 AGS, which constituted half of the March 2021 three-year futures contract basket, would have risen significantly. This, in turn, would have seen the futures price drop significantly. This resulted in a perceived binary event risk being introduced into the futures contract, reducing its usefulness as a hedging instrument and causing liquidity providers and arbitragers to pull back from the market.
- Some of the same factors were at play in October and November 2021, in the lead up to when the yield target was discontinued, although by this time the futures contract basket no longer included the yield target bond.

By the cessation of the yield target, the Bank owned around 60 per cent of the April 2024 AGS outstanding. While high, this share is not dissimilar to holdings of some other bond lines acquired via the bond purchase program. Even so, the Bank's stock lending rose sharply at the end of 2021, with most of this focused on AGS with around three years' maturity. This appears to owe to divergent pricing between the three-year futures contract and the underlying bonds, with the latter having a higher price (lower yield) in part because of the scarcity that the Bank helped bring about. The Bank's lending helps to make the underlying bonds available for market participants should they wish to trade on (and thereby held to remove) the pricing discrepancy. Such a trade would involve borrowing bonds from the Bank, selling them in the market to create a short bond position, entering a long futures position to hedge the short bond position, and then reversing these trades when the futures contract expires to realise the arbitrage profit.

5. Bond purchases and holdings

The approach used to support the yield target was to purchase the target bond and AGS with residual maturity close to that of the target bond at times when the yield on the target bond had moved noticeably above the target.

Analysis of yield target purchases over the period August 2020 to November 2021 – when bond purchases were not mixed with market function purchases – shows that, on average, the yields on the target bonds fell by around 1 basis point on days when they were purchased by the Bank and were little changed on other days.[17]

Regression results accounting for the size of purchases found that purchasing $1 billion of the target bond reduced the yield on that bond by 1 basis point. Using the share of free-float purchased (the share of outstanding bonds in that line not yet held by the Bank rather than the dollar value) as the explanatory variable found that purchasing 1 percentage point of the free-float reduced the yield by 0.2 basis points. Purchases were therefore effective in supporting the yield target, although the measured effect on yields of purchases dissipated over the course of a few days.

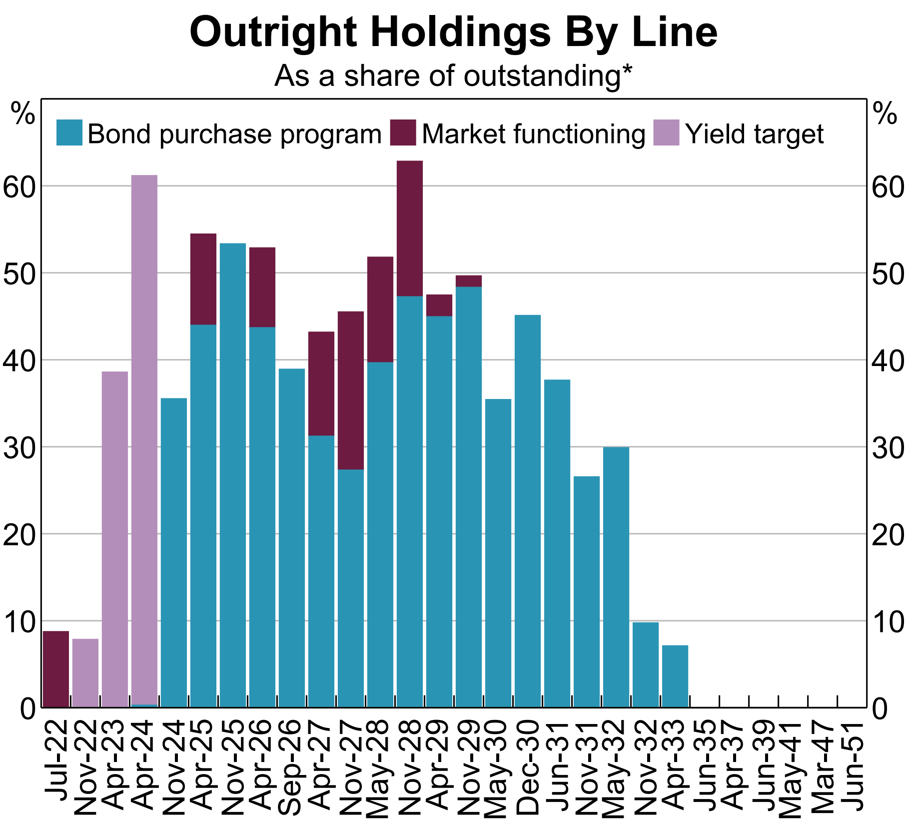
In total, the Bank purchased around $36 billion in AGS in support of the yield target.[18] The Bank's balance sheet has increased substantially through the various policy measures. The value of bonds that were purchased to support the yield target was relatively modest compared with increases associated with other policy measures, such as the bond purchase program and the $188 billion TFF.

Reserve Bank Bond Purchases by Purpose

	Amount [$b]	Share [per cent]
Yield target	36	10
Market function	44	12
Bond purchase program	281	78
Total	361	100

Source RBA

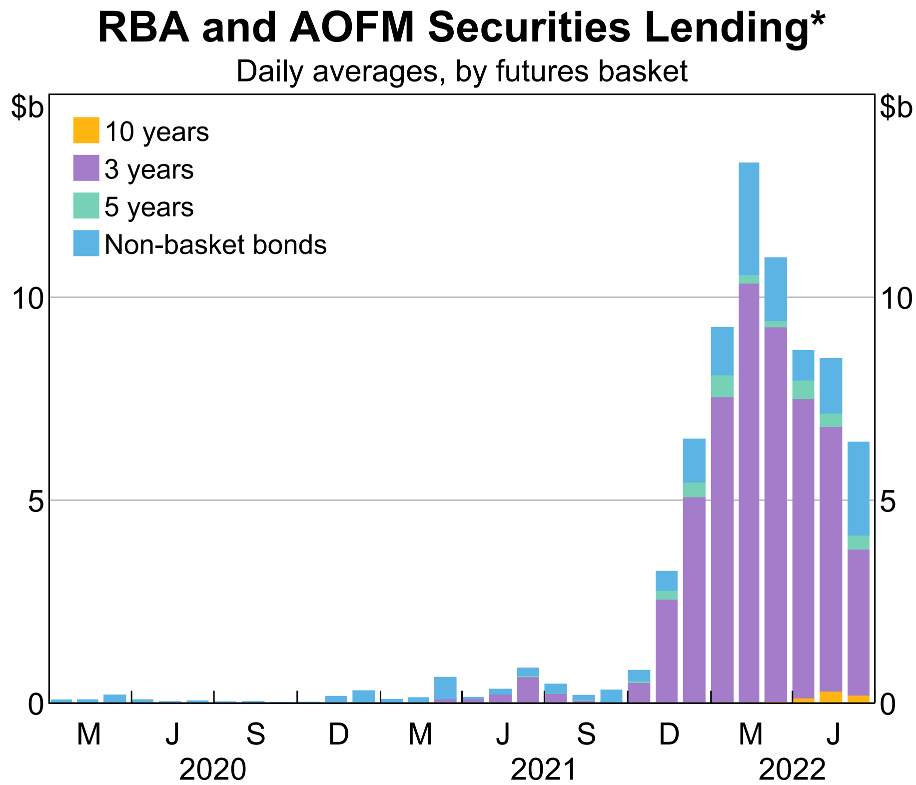
Graph 28



* Excludes inflation-linked bonds.

Source: RBA

Graph 29



* Latest month to date.

Source: RBA

Given the shift in the interest rate outlook associated with the much stronger than expected economic outlook and rise in inflation, the purchases to support the yield target are likely to come with a financial cost. That is, the return on the three-year bonds purchased when yields were low is below the current projected cost of the funds used to purchase the bonds (namely, the rate on Exchange Settlement balances). Should recent OIS pricing out to 2024 be realised, the financial cost of the yield target purchases is estimated to be in the one to two billion dollar range. This is lower than the estimated financial cost to arise from the other unconventional policy tools. The TFF, bond purchases to support market function and the bond purchase program were all considerably larger, and the bond purchases other than for the yield target involved longer maturities and therefore carried greater interest rate risk.

6. Assessment

The yield target was one of a number of extraordinary monetary policy measures adopted in unprecedented times. The package sought to insure against extreme downside risks at a time when the usual monetary policy tool – the cash rate target – was close to the effective lower bound and inflation had been below target for some years.

Together with other policy measures, the yield target was successful in achieving its objectives of lowering funding costs and supporting the provision of credit to the economy. The yield target helped to amplify the effect of the relatively modest reduction in the cash rate target, leading to historically low fixed and variable lending rates for borrowers. In response, housing and business credit growth picked up to the fastest pace in over a decade.

Of particular note, new three-year housing fixed rates fell by much more than the usual response to the small reduction in the cash rate. Borrowers responded with record use of fixed mortgages and high rates of refinancing leading to a large pass through to outstanding housing loan rates, freeing up cash flows to support households' financial positions. The unusually strong housing price growth response by the standards of previous reductions in the cash rate was an important impetus in progress to employment and inflation goals through the usual channels of dwelling investment and consumption.

The time-based forward guidance implicit in the yield target was useful given the extreme risks to the economic outlook – and the already low level of the Bank's standard monetary policy instrument – but it carried risks that are clearer now given the relatively rapid economic recovery. Over time, as the distribution of possible economic outcomes shifted, the yield target was not well suited to respond. The combination of a yield target and language around the 'central forecast' of not expecting rates to rise until 2024 overshadowed efforts to emphasise that the forward guidance was state-based rather than calendar-based. This highlighted an inherent tension between the strong language required to support a yield target and state-based forward guidance. Although the Governor had noted at the outset of the pandemic that the yield target would end before any rise in the cash rate, given the focus on supporting the economy and the uncertain outlook, ending the target was not considered until relatively late in the policy period.

The broad approach of erring on the side of caution in removing stimulus was consistent with how other central banks were conducting monetary policy at the effective lower bound. In this environment, removing stimulus carried some risk of an outsized reaction in Australian yields and the exchange rate. However, the overt focus on providing support and protecting against downside risk meant the yield target was arguably retained for too long given the progress towards the Board's goals. The original period of the target was extended and the rate lowered, in line with other decisions taken between September and November 2020 to add further stimulus. Its effectiveness as a monetary policy tool declined in late 2021 as expectations about future interest rates lifted owing to the run of data and the rapid progress towards the Bank's goals.

If the Bank had placed less emphasis on protecting against downside risks and more weight to the potential upside, the Board could have decided in September 2020 not to extend the target from the April 2023 bond to the April 2024 bond. But at that early stage in the pandemic, the economy was still quite distant from the Bank's goals, and the downside risks remained considerable, including those associated with COVID-19 given that at that stage vaccines were still in development and unproven. More plausibly, the yield target could have been removed somewhat earlier in 2021 while the yield was consistent with the target – and at times close to zero – and before market expectation of future increases in the policy rate increased.

While the target was met for the bulk of the period, the exit in late 2021 was disorderly and caused some reputational damage to the Bank. Additionally, Bank purchases to defend the yield target have come at a financial cost given the subsequent rise in yields, even though the cost attributable to the yield target will be relatively modest compared with the costs of the Bank's bond purchase program and TFF.

An overall assessment of the yield target experience requires weighing up benefits and costs that are difficult to measure. As a monetary policy tool, the yield target contributed to insuring against extreme downside risk by lowering funding costs and reinforcing the other key elements of the package of policy measures. In its application, however, and with the benefit of hindsight, the yield target could have been ended earlier.

It is an open question as to how much the yield target has damaged the Bank's credibility. Many other central banks have also been surprised by the strength in the economic recovery and inflation, with associated reputational costs and large movements in market prices as forecasts and the forward guidance based on them have not been met. However, forecasts and time-based forward guidance are by their very nature conditional. By contrast, the yield target came to be understood by most market participants as a strong commitment to maintain the yield on the bond in question close to the target until the time that bond matured (or the target was rolled forward to the next bond). While the Bank had noted that it would end the yield target prior to raising the cash rate,[19] it had not specified the possibility of an early exit before the maturity of the bond being targeted; indeed, on a number of occasions it had reinforced its commitment to the yield target. Moreover, the

Bank stood out as the only central bank to have implemented and discontinued a yield target during this episode. The ending of the yield target was challenging for a number of financial market participants, including those that expected the target to be retained. As such, this experience could lessen the effectiveness of any future commitments of this nature by the Bank.

Ultimately, the degree of credibility and reputational cost from the yield target policy is likely to be determined by longer-term outcomes and broader assessment of the package of policy measures and their effectiveness in contributing to attainment of the Bank's goals.

The Board views the probability of using a yield target again in future as low, but recognises that the use of a yield target might be appropriate in extreme circumstances, albeit in a form that incorporates the lessons learned from this experience, including:

- Any yield target should be short enough to sustain very high confidence that the target can be maintained. Consistent with this, there are advantages in targeting the yield on a bond with a specific maturity, rather than a moving maturity as time passes. While the target can help to reinforce forward guidance when market expectations are aligned with that guidance, transmission to other key benchmark rates can become more limited if the market comes to a different view of the outlook.
- In highly uncertain environments it is important that full consideration is given to a broad range of possible future outcomes, including an assessment of their implications for policy implementation and communication as the economic situation evolves. While the Board did consider upside and downside scenarios, it gave more weight in its decision-making to the downside scenarios, with a focus on providing insurance against very bad outcomes. With outcomes for the economy and inflation often exceeding even the upside scenario, there is an argument that, in hindsight, there was too much focus on the downside and the provision of insurance. Opinions will differ as to whether, in real time decision-making, the balance between the upside and the downside was appropriate.
- Now that the Board has more experience with bond purchase programs, it is likely that, in the future, bond purchases would be preferred to a bond yield target. While a bond purchase program may not be as effective in achieving a specific risk-free yield, bond purchases put downward pressure on yields and the exchange rate. Importantly, such a program provides greater flexibility on exit and thus help avoids some of the exit issues associated with the yield target. This flexibility is not without costs, though, including the central bank incurring greater financial risk because of the larger bond purchases and the possibility of significant effects on market functioning as bond holdings increase. The Bank will also undertake a review of its experience with the bond purchase program later in 2022.

Endnotes

[1] Committee on the Global Financial System (2019), 'Unconventional Monetary Policy Tools: A Cross Country Analysis', CGFS Paper No 63, and references therein. Available at <https://www.bis.org/publ/cgfs63.pdf>.

[2] For example: 'While central banks can technically raise nominal interest rates without limits, there is only limited space to lower rates into negative territory, owing to the lower bound on cash. … To address the asymmetry of the effective lower bound constraint, the commitment to a symmetric inflation target requires especially forceful or persistent monetary policy action when the economy is close to the effective lower bound, to avoid negative deviations from the inflation target becoming entrenched. … This implies that, faced with large adverse shocks, our policy response will include an especially forceful use of its monetary policy instruments. In addition, closer to the effective lower bound, it may also call for a more persistent use of these instruments. This may also imply a transitory period in which inflation is moderately above target' (Lane P (2021), 'The New Monetary Policy Strategy: Implications for Rate Forward Guidance', The ECB Blog, 19 August. Available at <https://www.ecb.europa.eu/press/blog/date/2021/html/ecb.blog210819~c99d1b768d.en.html>).

[3] Lowe P (2019), 'Unconventional Monetary Policy: Some Lessons from Overseas', Speech at the Australian Business Economists Dinner, Sydney, 26 November. The speech concluded that, on the basis of international evidence, it was not clear that the experience with negative interest rates had been a success. While negative rates put downward pressure on exchange rates and

long-term bond yields, they can create strains in parts of the banking system and problems for pension funds that need to fund long-term liabilities. In addition, there is evidence that they can encourage households to save more and spend less, and damage confidence in the general economic outlook and make people more cautious.

[4] For example, Bernanke B (2019), 'The New Tools of Monetary Policy', American Economic Association Presidential Address, Washington DC, 4 January. Available at <https://www.brookings.edu/wp-content/uploads/2019/12/Bernanke_ASSA_lecture.pdf>.

[5] This and the subsequent section on market function draw heavily on Finlay R, D Titkov and M Xiang (2022), 'The Yield and Market Function Effects of the Reserve Bank of Australia's Bond Purchases', RBA Research Discussion Paper No 2022-02.

[6] While targeting a particular bond had some advantages in communication and clarity, it did bring rigidities around the timing of these extension decisions and the need to commit to longer than three years to reach the next bond.

[7] The fee was lowered again to 25 basis points in May 2021.

[8] The experience highlighted that there are trade-offs to consider when adjusting the stock lending fee. Raising the stock lending fee helped to support the yield target without buying more of the bond. However, raising the fee adversely affected market function in other ways and contributed to a widening in the spreads between the target bond and other market rates, as discussed below.

[9] Lowe P (2021), 'The Recovery, Investment and Monetary Policy', Speech to the *AFR* Business Summit, Sydney, 10 March.

[10] Lowe P (2021), 'Today's Monetary Policy Decision', Speech, Online, 2 November.

[11] An analysis by authors from the Federal Reserve Bank of New York reached a similar conclusion: 'We conclude that while [the yield target] may have eased financial conditions when investors expected short-term rates to remain low for long in 2020, once the [yield target] became inconsistent with the expected path of short term rates in 2021 the transmission of [the yield target] became "super narrow" with little or no easing in broader financial conditions' (Lucca D and J Wright (2022), 'The Narrow Channel of Quantitative Easing: Evidence from YCC Down Under', Federal Reserve Bank of New York Staff Report No 1013, April). A yield target based on an instrument more closely linked to private funding (like the three-year swap rate, OIS rate or futures) would potentially influence private funding costs more directly. However, relative to a particular bond line of finite stock, these instruments are likely to be harder to control and be associated with much greater financial risk. There is theoretically no limit to the stock of these instruments. Hence, significantly more purchases would be required to influence these rates. Also, there is no option to adjust the stock lending fee.

[12] Variable-rate borrowers are generally offered, or negotiate, a discount relative to standard variable rates (also referred to as reference rates). As a result, when a lender changes these reference rates this flows through to the rates paid by existing borrowers. For more, see RBA (2019), 'Box D: The Distribution of Variable Housing Interest Rates', *Statement on Monetary Policy,* November.

[13] Banks also increased their holdings of liquid assets over the second half of 2021, in part to meet the upcoming changes to the Committed Liquidity Facility, which further compressed net interest margins.

[14] Black S, B Jackman and C Schwartz (2021), 'An Assessment of the Term Funding Facility', RBA *Bulletin*, September, pp 1–10.

[15] The US Federal Reserve noted an overall decline in market depth that was more pronounced for bonds with shorter maturities because the prices of those securities are more sensitive to expectations for monetary policy over the near term. See US Federal Reserve (2022), *Financial Stability Report*, May. Available at <https://www.federalreserve.gov/publications/files/financial-stability-report-20220509.pdf>.

[16] Yields on other three-year rate products may have increased more than otherwise in the absence of the stock lending fee if participants were discouraged from taking arbitrage positions (short positions in the target bond and long positions in other rate products) or encouraged to sell other rate products in place of the target bond.

[17] Further details of this analysis are available in Finlay, Titkov and Xiang, n 5.

[18] This figure captures both purchases directed solely to achieving the yield target between August 2020 until October 2021 ($29 billion), and purchases of relevant maturities (November 2022, April 2023 and April 2024 AGS) during the 'market functioning' purchase period of March to May 2020 ($7 billion). It is therefore a broader measure than the approach followed in Finlay, Titkov and M Xiang, n 5, which focused solely on the first component.

[19] Lowe P (2020), 'Responding to the Economic and Financial Impact of COVID-19', Speech, Sydney, 19 March.