BULLETIN

18 July 2022

Yield Targets and Bond Buying – an Assessment

- **YT was an effective low- cost policy in those critical early stages of COVID.**
- **If QE had been introduced in the early stages of COVID instead of YT the extra cost (mark to market) to the RBA's balance sheet would now be around $12 billion.**
- **The market disruption when YT was abandoned would have been limited if the Bank had not extended the target bond from April 2023's to April 2024's. In hindsight July 2022's would have been the optimal choice. The guidance to support a July 2022 program would have been reasonable and not attracted the severe criticism associated with the April 2024's.**
- **Today's mark to market cost to the RBA's balance sheet of QE is around $37 billion.**
- **After resisting for most of 2020 the RBA felt obliged to follow other central banks into QE to protect the competitiveness of the AUD. The RBA should be congratulated on that caution.**
- **With Governments protecting household and business incomes through massive fiscal support complemented by highly stimulatory conventional monetary policy; the benefit of printing money and boosting asset prices through QE during COVID is questionable and should be critically evaluated by all central banks.**
- **The RBA's upcoming review of the QE program is a welcome initiative in that regard.**

Last month the Reserve Bank released its analysis of its Yield Target policy (YT). This policy was introduced in March 2020 and operated until November 2021. March 2020 was the time when the Bank assessed the need for unconventional monetary policy to assist the Australian economy to deal with the shocks and massive potential downside risks of Covid.

Unlike other central banks the RBA decided to use YT rather than the more conventional policy of a bond purchase program in March 2020. A bond purchase program was not introduced until November 2020.

From March 2020 the RBA purchased $36 billion in bonds (around $13 billion in April 2023's and $23 billion in April 2024's) to support the yield curve target.

An additional $44 billion was purchased to ensure the smooth functioning of the bond market particularly in the early stages of Covid (around $33 billion).

It is reasonable that if the Board had adopted a bond buying program from March 2020 the "smooth functioning" purchases would not have been necessary.

How many bonds would have been bought if the RBA had adopted a bond buying program from March 2020?

At the November 2020 Board meeting the Bank announced that it would begin its bond buying program.

The program was to initially entail the purchase of $100 billion in bonds over the next six months.

If the program had begun in March 2020 and was at the same pace as the announcement in November 2020, the RBA would have purchased around $135 billion in bonds by November 2020 (eight months at a $100 billion per six months pace).

It seems unlikely that if the program had been introduced in March it would have been curtailed any earlier than February 2022. Recall that the Board had decided to review the program at the November 2021 Board meeting but deferred the assessment to February due to the unexpected disruptions from the extensive "delta lockdowns" in both NSW and Victoria over the July-November period.

The purpose of YT was primarily to lower government bond yields; private sector rates and the AUD.

In its report on the YT the RBA noted that it "was seen as a more direct way of achieving the objective of low funding costs "whereas a bond purchase program would have lowered bond yields, but it would have done this indirectly."

Notably, the immediate impact of the announcement of YT led to the rate on three-year bonds falling from 0.58% to 0.34%

Eventually the yields settled near the RBA's target of 0.25%.

No such immediate impact on bond rates was achieved during the bond buying program.

What is the cost of the bond buying program?

Consider the mark to market cost to the RBA's balance sheet of an additional $135 billion in bond purchases if the bond purchase program had begun in March 2020 instead of YT.

The average maturity of the Bank's current bond portfolio is around six years.

If we assume that all the theoretical $135 billion of purchases between March and November 2020 would have been at maturities that are now around six years at an average yield of 0.46% (the monthly average yield for those bonds over the March to November period) we calculate that the mark to market "loss" on this share of the portfolio would be around $19 billion.

This theoretical loss should be adjusted for the $44 billion of "market function" bond purchases that, most likely, would not have been required if the Bank was already engaging in bond purchases. That adjustment reduces the theoretical mark to market loss to around $ 12.8 billion.

The RBA purchased $36 billion under YT distributed between April 2023 and April 2024 bonds, at 0.25% and 0.1% respectively, for a total mark to market loss of around $1.2

billion. That would lower the net market loss of the earlier bond buying program to $11.6 billion.

Overall, the Reserve Bank purchased $281 billion in AGS and semi's during the actual bond buying program.

We analyse the overall portfolio at current market rates and the historical purchase rates to assess a total mark to market loss of around $37 billion.

In its assessment of the YT program the RBA notes that "The yield target helped 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… the unusually strong house price growth … was an important impetus in progress to employment and inflation goals through the channels of dwelling investment and consumption."

While this assessment of the effectiveness of YT is reasonable there would have been a reinforcing influence from the Term Funding facility.

It is still appropriate to conclude that the YT policy was extremely effective in supporting the goals the Bank set itself in those 'dark days' of early 2020.

From the perspective of the RBA's balance sheet the policy was also 'low cost'.

Those objectives were much more effectively achieved than through the traditional bond buying channel at a much lower cost to the RBA's balance sheet and reduced the 'crowding out' effect on market liquidity which resulted from the bond buying program.

YT was also assessed to have had a significant effect on the AUD.

Note that on the day, March 19, when the YT policy was announced the RBA reports that "The Australian dollar stabilised in response, having fallen from around USD0.63 to around USD0.55 over the preceding few days."

In its report on the YT program the Bank appropriately highlights the market volatility at the time the Bank withdrew from the YT program as a cost.

In retrospect the Bank notes in its review that "In September 2020, the yield target could have remained focused on the April 2023 bond, rather than being extended to the April 2024 bond".

Remaining targeted on the April 2023 bond would also have allowed the public guidance to have been limited to 2023 – something which, at the time, would have been considered quite reasonable by most analysts.

It was the extension to the April 2024 bond that exacerbated the volatility in November 2021 and precipitated the condemnation of the YT policy.

Once the policy was targeting the April 2024 bond the potential damage to the program from an inability to defend the target lifted considerably.

Note that the Bank needed to purchase only $13 billion in April 2023 bonds compared to $23 billion in April 2024 bonds.

Some market participants believed that the Bank would defend the target until maturity regardless of any developments in market conditions. But that was always going to be difficult given both the price (set by the RBA) and the volume of the April 2024 bond (set by the AOFM at $35.9 billion) were fixed.

As soon as economic conditions became inconsistent with the target rate the commitment could not be sustained. It was always going to be much more difficult to defend the April 2024 position than if the policy had been restricted to April 2023.

In retrospect, if the YT policy had been limited to the July 2022 bond ($25 billion on issue) in March 2020 then the damaging market disruption at the time of withdrawal may have been avoided, while much of the initial boost to demand from this novel policy would still have been delivered.

The market disruption intensified rapidly on October 27 2021, when the September quarter Inflation Report showed that underlying inflation (trimmed mean) printed 0.7% compared to 0.4% average over the previous four quarters. Holding the cash rate at 0.1% until April 2024 seemed a remote possibility and market rates on the April 2024 bond jumped to 0.78%. The Bank withdrew from the market and the policy was officially cancelled at the November 1 Board meeting.

In hindsight, the Bank agrees that "the exit in late 2021 was disorderly and caused some reputational damage to the Bank."

That disruptive "end game" process has distracted from the case that YT was an effective policy for the extreme times which came at a much lower cost to the balance sheet than bond buying.

- It was much more effective in lowering borrowing rates and stabilising the currency than would have been achieved by introducing a bond buying program in March 2020.
- It imposed a much lower cost on the Bank's balance sheet than a bond buying program.
- The cost to the balance sheet of YT is of the order of $1.2 billion compared to a cost of around $12.8 billion if the bond buying program had been introduced instead of YT in March 2020.
- There is criticism that is linked to the reduction in liquidity in the Australian bond market from the unconventional policies. Market sentiment seems to target YT as the main protagonist. In extending the term of YT to April 2024 in September 2020 the major damage was done. But the liquidity effect is also attributable to the RBA's large holdings of AGS under the bond buying program. If YT had not been introduced and the RBA immediately adopted bond buying in March 2020 the RBA's holdings of AGS would have been up to $55 billion ($135 billion minus $44 billion minus $36 billion) more than is currently the case – further impacting liquidity.
- The RBA concludes in its review of YT "in the future, bond purchases would be preferred to a bond yield target." But there is an argument, based the RBA's own analysis, that a less ambitious YT policy still has advantages over a bond buying program.

The Big Picture Issue

Inflation is surging globally, and central banks are facing the need for further significant increases in interest rates. There will be a painful disruption for borrowers, particularly in Australia where 90% of mortgage borrowers are exposed to the RBA's cash rate over the next 18 months (60% currently floating rate; 75% of the fixed rate borrowers maturing by end 2023).

The combination of high inflation and rising interest rates is undermining consumer and business confidence in most developed economies.

While it was necessary for governments to protect their economies from the unique shocks associated with Covid by providing income support (including Job Keeper in Australia) it is not as clear whether central banks had a role in boosting demand with unconventional monetary policies at a time when supply was the dominant constraint to activity.

Inflation stems from that imbalance between supply and demand.

Boosting demand in the face of constrained supply is the classic scenario for pressuring inflation.

The YT policy, far from being an ineffective tool, was a very cost-effective efficient way to boost demand.

An imaginative RBA embraced this policy in contrast with other central banks that relied almost exclusively on the blunt instrument of bond buying.

After resisting bond buying from March to November 2020 the RBA felt it had no choice but to follow other central banks in adopting the bond buying policy mainly to offset perceived upward pressure on the AUD.

For the RBA we have calculated that the cost to the balance sheet in terms of mark to market of the recent bond buying program is currently $37 billion.

It would have been $11.6 billion higher if it had adopted bond buying from March 2020 instead of YT.

We need to ask the question of all central banks whether aggressive bond buying (or money printing) was the appropriate policy during Covid given that governments played the necessary role of massive fiscal stimulus incomes and conventional monetary policy was already highly stimulatory.

The explosion in asset prices in response to that "money printing" is one aspect of the Covid period that is now destabilising developed economies and representing a worrying source of instability as central banks wind back conventional stimulus.

Central banks are now tightening conventional policy while remaining unclear in their assessments of their bloated balance sheets on their economies including inflation and asset prices.

Uniquely, the RBA adopted, in the initial stages of Covid, a more effective policy than bond buying, therefore containing to some degree the impact on their balance sheet of costly bond buying programs.

By November 2020 the RBA made the assessment that it could no longer avoid bond buying for fear of boosting the AUD in a world where other central banks were aggressively pursuing that policy. So many factors influence currency markets that it is unclear whether such a policy response was effective or necessary.

The RBA has announced it will release a study of its bond buying program. That will be a valuable insight into the actions of central banks in the developed world.

Perhaps the RBA will be the first central bank to recognise that bond buying was not a necessary policy during Covid. All central banks are now facing the cost of their policies with massive mark to market losses on their balance sheets which are now materialising as negative cash flows and will extend for years to come.

Bill Evans, Chief Economist

DISCLAIMER

Things you should know.

Westpac Institutional Bank is a division of Westpac Banking Corporation ABN 33 007 457 141 ('Westpac').

Disclaimer

This material contains general commentary only and is not intended to constitute or be relied upon as personal financial advice. To the extent that this material contains any general advice, it has been prepared without taking into account your objectives, financial situation or needs, and because of this, you should, before acting on it, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs, and, the disclosure documents (including any product disclosure statement) of any financial product you may consider. Certain types of transactions, including those involving futures, options and high yield securities give rise to substantial risk and are not suitable for all investors. We recommend that you seek your own independent legal or financial advice before proceeding with any investment decision. This material may contain material provided by third parties. While such material is published with the necessary permission none of Westpac or its related entities accepts any responsibility for the accuracy or completeness of any such material. Although we have made every effort to ensure the information is free from error, none of Westpac or its related entities warrants the accuracy, adequacy or completeness of the information, or otherwise endorses it in any way. Except where contrary to law, Westpac and its related entities intend by this notice to exclude liability for the information. The information is subject to change without notice and none of Westpac or its related entities is under any obligation to update the information or correct any inaccuracy which may become apparent at a later date. The information contained in this material does not constitute an offer, a solicitation of an offer, or an inducement to subscribe for, purchase or sell any financial instrument or to enter a legally binding contract. Past performance is not a reliable indicator of future performance. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The ultimate outcomes may differ substantially from these forecasts.

Country disclosures

Australia: Westpac holds an Australian Financial Services Licence (No. 233714). This material is provided to you solely for your own use and in your capacity as a client of Westpac.

For XYLO Foreign Exchange clients: This information is provided to you solely for your own use and is not to be distributed to any third parties. XYLO Foreign Exchange is a division of Westpac Banking Corporation ABN 33 007 457 141 and Australian credit licence 233714. Information is current as at date shown on the publication. This information has been prepared without taking account of your objectives, financial situation or needs. Because of this you should, before acting on this information, consider its appropriateness, having regard to your objectives, financial situation or needs. XYLO Foreign Exchange's combined Financial Services Guide and Product Disclosure Statement can be obtained by calling XYLO Foreign Exchange on 1300 995 639, or by emailing customercare@XYLO.com.au.

New Zealand: In New Zealand, Westpac Institutional Bank refers to the brand under which products and services are provided by either Westpac or Westpac New Zealand Limited ("WNZL"). Any product or service made available by WNZL does not represent an offer from Westpac or any of its subsidiaries (other than WNZL). Neither Westpac nor its other subsidiaries guarantee or otherwise support the performance of WNZL in respect of any such product. The current disclosure statements for the New Zealand branch of Westpac and WNZL can be obtained at the internet address www.westpac.co.nz. For further information please refer to the Product Disclosure Statement (available from your Relationship Manager) for any product for which a Product Disclosure Statement is required, or applicable customer agreement. Download the Westpac NZ QFE Group Financial Advisers Act 2008 Disclosure Statement at www.westpac.co.nz.

China, Hong Kong, Singapore and India: This material has been prepared and issued for distribution in Singapore to institutional investors, accredited investors and expert investors (as defined in the applicable Singapore laws and regulations) only. Recipients in Singapore of this material should contact Westpac Singapore Branch in respect of any matters arising from, or in connection with, this material. Westpac Singapore Branch holds a wholesale banking licence and is subject to supervision by the Monetary Authority of Singapore. Westpac Hong Kong Branch holds a banking license and is subject to supervision by the Hong Kong Monetary Authority. Westpac Hong Kong branch also holds a license issued by the Hong Kong Securities and Futures Commission (SFC) for Type 1 and Type 4 regulated activities. This material is intended only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance. Westpac Shanghai and Beijing Branches hold banking licenses and are subject to supervision by the China Banking and Insurance Regulatory Commission (CBIRC). Westpac Mumbai Branch holds a banking license from Reserve Bank of India (RBI) and subject to regulation and supervision by the RBI.

UK: The contents of this communication, which have been prepared by and are the sole responsibility of Westpac Banking Corporation London and Westpac Europe Limited. Westpac (a) has its principal place of business in the United Kingdom at Camomile Court, 23 Camomile Street, London EC3A 7LL, and is registered at Cardiff in the UK (as Branch No. BR00106), and (b) authorised and regulated by the Australian Prudential Regulation Authority in Australia. Westpac is authorised in the United Kingdom by the Prudential Regulation Authority. Westpac is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. Westpac Europe Limited is a company registered in England (number 05660023) and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority.

This communication is being made only to and is directed at (a) persons who have professional experience in matters relating to investments who fall within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order") or (b) high net worth entities, and other persons to whom it may otherwise lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons"). Any person who is not a relevant person should not act or rely on this communication or any of its contents. The investments to which this communication relates are only available to and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such investments will be engaged in only with, relevant persons.

Disclaimer continued overleaf

Disclaimer continued

Any person who is not a relevant person should not act or rely upon this communication or any of its contents. In the same way, the information contained in this communication is intended for "eligible counterparties" and "professional clients" as defined by the rules of the Financial Conduct Authority and is not intended for "retail clients". With this in mind, Westpac expressly prohibits you from passing on the information in this communication to any third party. In particular this communication and, in each case, any copies thereof may not be taken, transmitted or distributed, directly or indirectly into any restricted jurisdiction. This communication is made in compliance with the Market Abuse Regulation (Regulation(EU) 596/2014).

Investment Recommendations Disclosure

The material may contain investment recommendations, including information recommending an investment strategy. Reasonable steps have been taken to ensure that the material is presented in a clear, accurate and objective manner. Investment Recommendations for Financial Instruments covered by MAR are made in compliance with Article 20 MAR. Westpac does not apply MAR Investment Recommendation requirements to Spot Foreign Exchange which is out of scope for MAR.

Unless otherwise indicated, there are no planned updates to this Investment Recommendation at the time of publication. Westpac has no obligation to update, modify or amend this Investment Recommendation or to notify the recipients of this Investment Recommendation should any information, including opinion, forecast or estimate set out in this Investment Recommendation change or subsequently become inaccurate.

Westpac will from time to time dispose of and acquire financial instruments of companies covered in this Investment Recommendation as principal and act as a market maker or liquidity provider in such financial instruments.

Westpac does not have any proprietary positions in equity shares of issuers that are the subject of an investment recommendation.

Westpac may have provided investment banking services to the issuer in the course of the past 12 months.

Westpac does not permit any issuer to see or comment on any investment recommendation prior to its completion and distribution.

Individuals who produce investment recommendations are not permitted to undertake any transactions in any financial instruments or derivatives in relation to the issuers covered by the investment recommendations they produce.

Westpac has implemented policies and procedures, which are designed to ensure conflicts of interests are managed consistently and appropriately, and to treat clients fairly.

The following arrangements have been adopted for the avoidance and prevention of conflicts in interests associated with the provision of investment recommendations.

I. Chinese Wall/Cell arrangements;

II. physical separation of various Business/Support Units;

III. Strict and well defined wall/cell crossing procedures;

IV. a "need to know" policy;

V. documented and well defined procedures for dealing with conflicts of interest;

VI. reasonable steps by Compliance to ensure that the Chinese Wall/Cell arrangements remain effective and that such arrangements are adequately monitored.

U.S.: Westpac operates in the United States of America as a federally licensed branch, regulated by the Office of the Comptroller of the Currency. Westpac is also registered with the US Commodity Futures Trading Commission ("CFTC") as a Swap Dealer, but is neither registered as, or affiliated with, a Futures Commission Merchant registered with the US CFTC. Westpac Capital Markets, LLC ('WCM'), a wholly-owned subsidiary of Westpac, is a broker-dealer registered under the U.S. Securities Exchange Act of 1934 ('the Exchange Act') and member of the Financial Industry Regulatory Authority ('FINRA'). This communication is provided for distribution to U.S. institutional investors in reliance on the exemption from registration provided by Rule 15a-6 under the Exchange Act and is not subject to all of the independence and disclosure standards applicable to debt research reports prepared for retail investors in the United States. WCM is the U.S. distributor of this communication and accepts responsibility for the contents of this communication. All disclaimers set out with respect to Westpac apply equally to WCM. If you would like to speak to someone regarding any security mentioned herein, please contact WCM on +1 212 389 1269. All disclaimers set out with respect to Westpac apply equally to WCM.

Investing in any non-U.S. securities or related financial instruments mentioned in this communication may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the SEC in the United States. Information on such non-U.S. securities or related financial instruments may be limited. Non-U.S. companies may not subject to audit and reporting standards and regulatory requirements comparable to those in effect in the United States. The value of any investment or income from any securities or related derivative instruments denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related derivative instruments.

The author of this communication is employed by Westpac and is not registered or qualified as a research analyst, representative, or associated person under the rules of FINRA, any other U.S. self-regulatory organisation, or the laws, rules or regulations of any State. Unless otherwise specifically stated, the views expressed herein are solely those of the author and may differ from the information, views or analysis expressed by Westpac and/or its affiliates.