Green securitisation takes its next step in Australia

*In February, **National Australia Bank** (NAB) included a A$300 million (US$225.1 million) green tranche in a A$2 billion residential mortgage-backed securities (RMBS) transaction – the first issue of such notes in the Australian residential market. At the end of April, NAB's securitisation team gathered interested parties to talk about the challenges and potential of green RMBS issuance in a jurisdiction where the framework for identifying and verifying qualifying assets is very much in its infancy.*

PARTICIPANTS

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DEFINING ASSETS

Davison *What were the considerations involved in identifying qualifying mortgage assets for NAB's green RMBS tranche, and incorporating these in a larger securitisation structure?*

◆ **ZILELI** It was actually relatively easy once we had the Climate Bonds Initiative (CBI) proxy criteria for Australian low-carbon residential buildings. Without these, the challenge would have been establishing a means by which to classify a mortgage as green. The criteria solve this issue, giving us a scaleable standard to apply to our portfolio.

When we cut the RMBS pool, we had an extra layer of criteria to overlay – being the year of construction of the mortgage security in the three states involved: New South Wales (NSW), Tasmania and Victoria. But this was relatively straightforward.

Davison *What is the background to the CBI proxy criteria? Specifically, how did the CBI determine that the proxy standards used around date of construction were sufficient to define a green mortgage in Australia?*

◆ **FOWLER** Going back to first principles, the idea of the climate-bond standards is to help investors very easily identify the bonds and other debt instruments financing assets that are consistent with a low-carbon future. These are things like clean energy, electric vehicles, electrified public transport, and energy-efficient and low-carbon buildings.

With each sector we assess and set of criteria we produce, we put together an expert working group to opine on how the sector will look under the 2050 vision of a low-carbon economy. This group then tries to draw back to what assets are available now – what is around today that is consistent with the vision.

This is pretty easy in the energy sector – it's solar and wind power, for instance. With buildings, we are looking to achieve zero carbon emissions in 2050. But there aren't many zero-carbon buildings around at the moment, and restricting the criteria to these wouldn't be very useful.

The next step is for the working group to identify assets that are consistent with rapid transition to the future state. What the working group settled on, in the absence of zero-emissions buildings, is the top 15 per cent in emissions performance of what is available now.

It doesn't stop there, though. What we have also done is draw a straight line down from the top 15 per cent in the 2010s to zero in 2050 – with the line becoming the threshold that has to be met to be eligible over time. This is a technical, science-based approach put together by the working group.

It is pretty straightforward to apply to commercial buildings, because we can get the number for emissions associated with individual buildings. We don't have the same

sort of information available in the Australian residential sector – though it exists in some other parts of the world.

We take a tiered view when we are trying to develop a specific approach for a particular region. The top tier is where we have data available on the real performance of building stock in the region and class of property. In the UK and the Netherlands, there is a publicly available database that lists the energy consumption and therefore the emissions of every address in the country. Banks in these countries can scour the database, match it with their own data and readily identify the properties in their own portfolios with top 15 per cent performance.

If the data isn't available, the next tier is to look for some sort of detailed rating of residential property. NSW has such a thing – called BASIX – and it provides the proxy approach we use for NSW.

If something like this isn't available, we go to the third tier. This is a little bit trickier, because we are trying to find an approach that is practical and easy for a bank to use but which also helps identify the top 15 per cent performers in residential stock.

There is a lot of residential stock in Australia and the turnover – the rate at which new builds come into the market – is less than 1 per cent. If we can say new builds are more efficient than existing stock, we are able – for a few years and in a time-limited way – to say these new builds are in the top 15 per cent of performers for energy efficiency. Before we say definitively we can use this as a proxy in Australia, though, we have to test the correlation.

We have seen tighter nationwide house energy rating scheme (NatHERS) standards around things like thermal integrity in the fabric of a building. While this doesn't go as far as BASIX it does correlate well with emissions in places where there is a predominant heat load. Here we are talking about places where heating is the predominant use of energy like Tasmania and, to a slightly lesser extent, Victoria. When the NatHERS standards were tightened and became mandatory it enabled us to include Tasmania and Victoria in our proxy standards.

The predominant use of energy in places like NSW, Queensland and Western Australia is cooling, so there isn't nearly as much correlation. We are looking for alternate proxies that are appropriate for warmer-climate states.

We wanted to incorporate the NatHERS rating and building codes into a year-of-build output. We think this gives banks something they can easily use to identify qualifying loans in their own books. We believe the approach we have adopted is the best proxy we can come up with in Australia – for now. We hope that at some stage there will be a national data set available to us. Some of the data are already out there, they just aren't stitched together in a usable way.

SCALE OF COLLATERAL

Davison *How do the proxies work in practice, given the lack of standardised data available?*

"OUR ASSUMPTION IS THAT WE HAVE A LOT MORE ASSETS THAT COULD THEORETICALLY BE CLASSIFIED AS GREEN THAN IS THE CASE SO FAR. WE HAVE GONE THROUGH A PROCESS OF TRYING TO CLASSIFY ASSETS AS GREEN, BUT IT'S EASIER TO DO WITH LARGE DOLLAR-VALUE ASSETS."

EVA ZILELI NATIONAL AUSTRALIA BANK

Global context

LOCAL MARKET PARTICIPANTS FREELY ACKNOWLEDGE THAT AUSTRALIA IS FOLLOWING THE MARKET LEADERS IN SUSTAINABLE FINANCE – INCLUDING RESIDENTIAL MORTGAGE-BACKED SECURITIES (RMBS). WITH LITTLE GOVERNMENT GUIDANCE, THE PRIVATE SECTOR IN AUSTRALIA IS LARGELY GOING IT ALONE.

Davison *What lessons can Australia learn from the rest of the world when it comes to developing a green mortgage asset class?*

JENKINS Scale is obviously a key difference between Australia and some other markets. But actually I think we are quite progressive in some of the innovative products being brought to market in this sector. We are certainly not lagging in this respect.

Where other countries have an advantage is around the existence of policy and tax incentives to drive capital into these investments. In Australia, any development is driven purely by a cost-benefit analysis or by market participants' desire to do – and be seen to do – the right thing.

Countries like France also have regulatory requirements around things like environmental, social and governance (ESG) risk that are driving investment flows. In particular, they are extremely focused on green investments – far more so than we are in Australia, though we are improving rapidly.

The US is on a different trajectory, but it is catching up from a lower base. Overall, I'd say Europe is at least two or three years ahead of the US in ESG integration and capital allocation, with Australia a year or so behind Europe and Asia in between the two.

KOE There are certainly advantages to be gained from leveraging off developments in offshore jurisdictions. One thing we've been keen to impress on domestic issuers is the scale of investor funds that are already available, particularly from offshore accounts, and the pace at which it is growing. The availability of more granular data, and government- and industry-led initiatives, will allow the asset class to develop domestically.

ZILELI Ultimately, I believe we will reach a stage of critical mass at which nongreen bonds will be disfavoured by investors and will struggle to reach full subscription. Across the world, investors are actively searching for green bonds in which to invest.

JENKINS There is definitely a scarcity of supply relative to the demand that already exists. We have also seen, even in Australia, a degree of additional stickiness among ESG-mandated investors. They have an incentive to buy during the bookbuild process and, all things being equal, they tend to stay involved and therefore support improved pricing outcomes in the secondary market.

◆ **TAM** Data is a critical issue. We lack data on residential properties in Australia, even though this sector contributes about 12 per cent to total national emissions. The CBI has established a baseline, which we view as very positive.

We have the same view on the NAB RMBS – it is good to see this sort of initiative around existing properties, and it demonstrates there is a viable capital-markets option in this sector even though there is a data shortfall.

◆ **ZILELI** It's important to look at proxy criteria for eligible mortgages in context. With a balance sheet the size of NAB's, our assumption is that we have a lot more assets that could theoretically be classified as green than is the case so far. We have gone through a process of trying to classify assets as green, but it's easier to do with large dollar-value assets especially in the infrastructure space.

It's much harder at SME level. The size and quantity of loans needed to support a green bond would mean quite intensive work. If the system doesn't facilitate a simple way of identifying a loan as green – via adding an appropriate field at origination – it becomes operationally cumbersome.

There is a lot of untapped potential across the bank, and we are working on identifying it. But it takes a lot of time and effort. Having proxy criteria available in something like the residential mortgage market is very helpful in this context.

◆ **JENKINS** We took a conservative approach to the pool for the RMBS transaction, starting with the inclusion of new-build only. This puts aside a lot of homes that have been upgraded. In NSW, for instance, if you do a home renovation costing A$50,000 or more and requiring development approval you are now required to get a BASIX certificate. We excluded these from our pool because doing so gives certainty around the concept of best in class.

We also excluded apartments in NSW entirely, because our loan tagging didn't incorporate the certainty of BASIX 40 certification we felt we needed. This illustrates the challenges involved in identifying appropriate assets subsequent to the loans being written. If you don't have your own information from the outset and it is not readily available publicly, you have to rely on build and approval dates.

◆ **FOWLER** This relates to our attempt to expand the proxies we have available. Our criteria for project upgrades allow for assets to become eligible if they can demonstrate an appropriate degree of improvement in energy efficiency.

We are looking at this concept in the residential space – for instance whether the installation of rooftop solar should make a house available by reducing the use of a coal-reliant state energy grid. Again, this would be easier to do if the data were available.

ZILELI I agree with the point about investor stickiness – to the extent that I would already feel more confident about execution of a green deal than a nongreen one, at least in Europe.

Something that is becoming more prevalent in Europe is the prominence of ESG teams at the investment firms we meet, applying another layer of analysis on green transactions. We don't yet see this in Asia, Australia or the US.

KOE The point about shortage of supply is real, and the fact that green deals attract new investors has already been mentioned in this discussion. In fact, we are discussing hosting sessions for US and European accounts that have never bought Australian RMBS but are interested in the asset class should there be more supply of green securities.

ZILELI Supply is definitely important here in Australia. This is a new asset class – we issued the first major-bank green bond in 2014 – and issuance has not always been frequent. If there is more supply of any product, investors will take interest. In this case, it might mean more dedicated funds are set up. If you established a dedicated green-bond fund in Australia two years ago there wouldn't have been much domestic product to invest in.

JENKINS Equally, what we hear from investors – particularly in Europe – is that there is no appetite for gimmicks. Most issuers that have priced green bonds have been clear that they want to be repeat issuers, and this is important for investors.

KOE Australian issuers are definitely looking at the green RMBS space. It might take a while to build momentum given the involvement and data-related requirements for certification. But from discussions with other issuers we are confident of more issuance.

Davison *Would the potential to access new investors be the main goal for Resimac should it decide to issue a green RMBS at some stage?*

MARSDEN It would be extremely important. Sourcing reliable, diversified funding is a priority for any issuer in the nonbank space. Accessing this through green issuance will take time, but we certainly believe it to be a real opportunity. The fact that National Australia Bank has opened the door as an issuer only helps to demonstrate this is the case.

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LIONEL KOE NATIONAL AUSTRALIA BANK

Davison *Hypothetically speaking, if it became possible tomorrow to apply proxy criteria to mortgages in a greater number of Australian states would some of the collateral in the NAB RMBS no longer qualify – because it is no longer in the top 15 per cent? If so, would this be problematic for either the issuer of or investors in the green RMBS tranche?*

◆ **KOE** The current CBI Australian low-carbon residential-building proxy criteria are based on the minimum design standards for thermal efficiency and energy efficiency of Australian residential buildings within select states. Importantly, the criteria were developed to evolve – and get stricter – in order to achieve a zero emissions target for the residential-building sector by 2050.

As such, the criteria impose building cut-off dates in each state in which they apply. Consequently, usage of a closed pool, overcollateralisation of eligible green mortgages and the relatively short-dated – three-year – weighted-average life (WAL) of the green note were all built into the structure to ensure the note would continue to meet the CBI certification requirements during its life.

All parties are aware that the criteria should and will improve in time, but we were also cognisant of making sure that the green notes remain climate-bond certified with regard to eligible assets.

◆ **FOWLER** It's important to note that what we're looking at is exposure to eligible assets. What investors want to know is that the bond is 'green enough', for instance that the lender is continuing to follow its internal procedures, and that the assets are a part of the low-carbon future. Line of sight to the assets is the most important thing here. The structure of the security and how it funds the assets – whether it be senior unsecured or an RMBS, for instance – is less important from our perspective.

Davison *Is the point here that, while all parties are aware that the 15 per cent proxy bar will move over time, it was sufficient for the initial green RMBS to incorporate assets that met the criteria at the point of issuance?*

◆ **KOE** Exactly. This is also why we had the data externally verified at the time.

◆ **MIALL** This is Australia's first green RMBS transaction and we certainly expect that the asset class should and will evolve over time. This means the asset pools will change, and while it's hard to take a specific view on how this will play out the standards should be dynamic.

With this in mind, there are two areas of particular importance for us. First is that the standards and the assets genuinely support environmental sustainability. Second is that there's clarity and transparency regarding the green criteria and how the underlying assets meet these.

Davison *NAB's loan book was big enough to collateralise a A$300 million green RMBS tranche even with the limitations being discussed. But what is the story on scale for a relatively smaller mortgage lender like Resimac?*
◆ **MARSDEN** We ran an exercise on our portfolio last year, in which we tried to overlay the CBI methodology using year of construction as the main proxy data point. Even though around 40 per cent of our book is in NSW, as others have said the real sticking point was availability of data. There was no means by which we could tag even the construction year of the underlying security in our loans, which made it a very intensive exercise of pulling the original loan documentation and security appraisals to get the information we needed.

Since that process, something we have done internally – because we are pursuing issuance, albeit only at some future stage – is to start looking at ways formally to expand the form of security valuation to highlight green features. This means having a record of things like low-carbon buildings and sustainable water management, as well as date of construction of course.

We are building an eligible set of securities that could be used as green issuance collateral. This is just a systems change going forward, but it takes a lot of work to implement retrospectively.

Davison *Has there been any modelling around the rate at which Australian housing stock turns over in relation to the composition of the top 15 per cent cut-off for energy-efficient loans?*
◆ **JENKINS** The way the criteria are designed includes a finite tenor, which in a capital-markets sense is expressed as a cap on WAL for green issuance. The expectation is that this tenor cap will rise over time as the performance of the housing pool improves. The WAL limit is defined on a state-by-state basis.

In the case of the NAB transaction, this entailed a three-year WAL green tranche. This will on average be paid down much more quickly than the limitation within the CBI criteria. The CBI's intention is to re-evaluate the criteria every two years, so in all likelihood next time we issue it will be under revised collateral criteria.
◆ **FOWLER** The time limitation on the use of proceeds is important. As discussed, we expect to see the proxies updated frequently – at least every two years – and we are working on alternative methodologies and standards all the time.

As I've said, the line down to zero in 2050 is the starting point. From there, what we hope to do in Australia is move up the tiers, from a building-code proxy to something more

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ROB FOWLER CLIMATE BONDS INITIATIVE

detailed to, in the end, criteria based on actual performance data. This is really about bringing together what's already there: I can see my energy use on a half-hourly basis online using my meter number, but this information hasn't yet all been brought together in one place.

Davison *Presumably the idea is that, over time, a greater proportion of the asset base qualifies as green on the basis of zero-emissions status, rather than by being in a group of the best – but still non-zero-emissions – properties?*

◆ **FOWLER** That's right. It's about establishing a threshold, which will continue to decline over time in a predictable way. There will be interim stages on the way – for instance by 2040 we could have 80 per cent of residences being zero emissions.

Again, this is somewhat easier to do in the commercial-property sector. In Sydney, for instance, buildings have a level of emissions of carbon dioxide per square metre that is defined based on data analysis and doesn't have to be redefined every year. We just take the number and draw a straight line on a chart down to zero in 2050 – which becomes the threshold. This is a tier-one analysis, which is very predictable and is really the ideal situation. We have to keep working to get to something similar in the residential market.

Davison *This sounds like a typical securitisation practice: start by writing loans in an appropriate form and – with clear data and over time – establish track record suitable for inclusion in capital-markets structures.*

◆ **MARSDEN** That's exactly right. There are some incentives for us to pursue this type of funding structure, and we also have some plans around product development at the front end of the business.

◆ **TAM** There is a wider issue here, which is that although at this stage we are talking specifically about the CBI criteria we shouldn't forget that technology is developing quickly.

We have an innovation fund at Clean Energy Finance Corporation (CEFC) that has done two transactions to fund start-up companies in this space. One is using machine learning to optimise solar generation, storage and management for households. The other is smart meter, which allows households to monitor energy usage.

The point is that anyone doing financing in this space should consider upcoming technology that could give a much clearer benchmark and baseline around energy consumption.

◆ **KOE** Looking back on the NAB transaction, we strongly feel that it demonstrates the potential of green securitisation as an asset class. It certainly opens the door to more activity.

We have already heard that the CBI is exploring widening its criteria to other states and that there is a lot of interest in facilitating this, underpinned by better data capture and tracking. The key will be how well we as an industry can improve data capture and adopt a broadly consistent framework on data capture and interpretation.

TRANSACTION CONSIDERATIONS

Davison *How did the deal process work around the classification of assets and their place in the RMBS pool?*

◆ **KOE** This was a very relevant consideration, and there were a number of practical challenges around the selection criteria. As Australia's first green RMBS transaction we were very conscious of ensuring it would be well received.

Additional analysis was undertaken to ensure the CBI criteria did not have any unintentional consequences on concentrations – by state, property location and seasoning. This meant working very closely with investors so they could understand the qualifying criteria and were comfortable that this wasn't 'greenwashing'.

We talked at length with investors about the formulation of CBI's criteria, potential criteria changes in future, strength of the underlying pool and structural features. This got them comfortable and led to a very successful transaction.

Davison *The fact that only three Australian states have CBI criteria for green mortgages means the green assets in the NAB RMBS pool were inevitably concentrated – albeit NSW and Victoria obviously represent quite a large proportion of the whole market. How did the concentration risk question play out in the deal process?*

◆ **KOE** There were certainly a lot of questions around this. Among the structural benefits of the transaction is the fact

"TO THE EXTENT THAT IT'S POSSIBLE, WE REALLY WANT TO SEE PERFORMANCE DATA – SO WE CAN ESTABLISH WHETHER THERE IS ANY PERFORMANCE DIFFERENTIAL BETWEEN GREEN AND NONGREEN RECEIVABLES."

GRACE TAM CLEAN ENERGY FINANCE CORPORATION

Asset evolution

THE BROADER CONTEXT OF GREEN MORTGAGE-BACKED ISSUANCE IS THE DRIVE AMONG LENDERS BETTER TO UNDERSTAND THE SUSTAINABILITY CREDENTIALS OF THE ENTIRETY OF THEIR ASSET BOOKS. THERE IS MUCH WORK STILL TO BE DONE.

Davison *Conceptually, it seems that the development of the green mortgage is an early – but critical – step in defining what is green at the consumer end of banks' balance sheets. Meanwhile, verification, certification and reporting on institutional-scale lending is becoming progressively easier to do and more prominent. Is the big challenge going to be the middle piece – getting to grips with what is and is not green lending in, for instance, the SME sector?*

ZILELI It's an area I have an eye on, and National Australia Bank has a working group looking at other loans on the balance sheet. But it's absolutely correct to say this is the biggest challenge yet for attribution and verification – it is fraught with difficulties, to be quite honest.

JENKINS Just as its is with mortgages, the big issue is data integrity. A bank's systems need to be set up to cater for the relevant criteria and have all assets tagged appropriately within those systems.

The institutional lending space is really the low-hanging fruit in this respect. We have a system called LoanIQ, which allows us to drill down into what are large, lumpier loans to develop comfort around eligibility, scale and use of funds. Consumer mortgages are at the other end of the scale, but the product is fairly generic and the accreditation system here is relatively robust – albeit with plenty of room to evolve.

It is the space in between that is hardest to define. There are still gaps, but we are trying to fill them.

Davison *Is it fair to say that, eventually, lenders and investors will have to move past the low-hanging fruit and wrestle with the most challenging segments of banks' balance sheets?*

JENKINS Yes, no doubt – but it's important to understand the nature of the challenges. It's hard enough to define and track a green corporate loan, which is why we have use-of-proceeds criteria. To take it to the next level – SME lending – removes the economy of scale around use of proceeds. We'd like to find assets that can be aggregated, perhaps along the lines of the SME lending facility we have developed with the Clean Energy Finance Corporation (CEFC).

TAM In this case it doesn't come down to data but definition. Based on our own internal mandate, we came up with eligibility criteria for the SME lending facility that we gave to the participating banks. I don't think there is a market standard for green loans at SME level, though there are lots of competing product offerings that claim to be such.

JENKINS The green-loan principles take the green-bond principles into the loan space, and as with green bonds they are predicated on use of proceeds and assurance of these.

But, again, it's much easier to work with lumpier loan facilities and we are yet to see a suitable model for taking this down to smaller borrowers. It shouldn't be impossible, as we have seen with the CEFC facility around eligible projects. This would enable smaller loans to be tagged as green loans and therefore for banks to tag them as eligible collateral for future green-bond issuance of their own.

TAM CEFC has the advantage, though, of doing its own due diligence on an ongoing basis – around banks' lending relative to the parameters we have established, including looking for corroborating evidence. This is a lot of effort, but it means we understand green loans in the SME space.

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DAVID JENKINS NATIONAL AUSTRALIA BANK

that the repayment of all notes – including the green note – is based on performance of the entire pool.

As an investor in the green note, credit performance is based on the whole pool, while funding proceeds of the green note are specifically applied towards financing identifiable and eligible green mortgages. This approach made investors very comfortable and mitigated potential concerns around state-based concentrations.

◆ **ZILELI** To the point about the significance of the eligible states, it's worth noting that approximately 69 per cent of NAB's whole mortgage book is in those three states. Had it been the 31 per cent that was in eligible states it might have been

more of an issue – but I don't think investors were especially concerned about concentration risk in more than two-thirds of a total, nationwide book.

◆ **MIALL** Concentration is something we look at in all RMBS deals. We expect green-mortgage criteria eventually to allow homes in other states within Australia to become eligible, but concentration wasn't a concern for us in this transaction as the green notes have recourse to the transaction's whole mortgage pool rather than just the green mortgages. It's the geographic diversification of the entire mortgage pool that's relevant, and we are comfortable with the pool in this regard.

Davison *Picking up on the point about full-book credit risk, what would happen if the collateral backing the green tranche started to underperform?*

◆ **KOE** The relevant states, particularly NSW and Victoria, represent the majority of exposures in both the RMBS and the demographics of the national population. As such, there is a high degree of correlation between the performance of these states and the broader RMBS transaction.

◆ **TAM** To the extent that it's possible, we really want to see performance data – so we can establish whether there is any performance differential between green and nongreen mortgages. Use of proceeds and ongoing certification according to CBI standards is also important.

◆ **ZILELI** We are really in the earliest stages of developing this product and its issuance, at least in Australia. I expect other issuers will follow us, and as more do we will start to build up a track record of green-mortgage performance. When we have this kind of historical data we can start to look more closely at differential pricing. I don't think we should be asking investors to give up on spread just to 'do the right thing', but if the data backs this up there could be a discussion based on demonstrable quality of loans.

Davison *We have talked about the green RMBS as a closed pool, but is there any requirement on the issuer when it comes to ongoing reporting after issuance?*

◆ **ZILELI** We undertook to investors that we would offer annual verification by an independent third party, as we have with our other green bonds, as a minimum – and ideally impact reporting as well. Impact reporting is actually quite difficult in what is an emerging space and we are still working on it with our unsecured green bonds.

Adherence to the climate-bond standards is part of the ongoing verification process, so as a minimum we have to demonstrate use of proceeds throughout the life of the deal. We will report on the size of the green-mortgage pool available, ensuring this meets the scale of the green notes outstanding.

We have built in some structural features to the RMBS including overcollateralising the green pool. We can't say this "guarantees" meeting the use-of-proceeds test, but we have sized the pool conservatively at 1.5 times overcollateralisation and a pay-down flow in line with all the other mortgages in the pool. Investors should be comfortable that their funds will remain allocated to green collateral.

◆ **MIALL** The deal's undertaking to provide ongoing independent, annual verification is something we look for and value. We understand that the composition of the green portfolio can change based on prepayment flows, but our expectation is that this should be covered by overcollateralisation in the green tranche.

◆ **FOWLER** As with all the asset classes for which we have developed criteria, the key consideration in the mortgage space is around continuing to demonstrate eligibility of assets.

The requirement for a solar farm is minimal because it's going to remain a solar farm and this is obviously consistent with a low-carbon future. With a building, we need to see ongoing reports to ensure it is not falling below a low-carbon threshold and the straight line to 2050 that we have discussed.

With residential property, the nature of the proxies in Australia means there is not much more we can do after accreditation. We would like to see a more dynamic process with RMBS as we move up the tiers and get more data involved. This could mean structures evolving on a deal-by-deal basis in the medium term.

On impact reporting, what we have seen is that this becomes less important once there are accepted standards in any specific area. Impact reporting is what market participants rely on to satisfy themselves that an asset is 'green enough'. But once standards are in place they tend to feel less of an imperative to convince themselves over and over again.

FINDING INCENTIVES

Davison *Rob Fowler mentioned the desirability of moving to tier-one criteria for green mortgages – with a publicly available, standardised data set for loans – from the current tier three. Would the most straightforward solution be a government-sponsored scheme for emissions scoring in residential property, and what can the private sector do on its own through incentives?*

◆ **MARSDEN** A national standard would certainly be very helpful for us, given mortgage lenders have diverse asset portfolios. It would also help us develop new and innovative products and bring a lot of efficiency and motivation around distribution of those products – perhaps with some economic incentives for householders.

◆ **FOWLER** We are certainly seeing a strong drive towards government incentives in other parts of the world. This is happening in Europe, China and – at state level, at least – the US. There is very strong action to put incentives in place for green finance to flow.

In Australia, we could consider things like a green homeowners' grant to sit alongside the first homeowners' grant. There is a range of initiatives the government could take to make it easier for consumers to realise the benefits of going green. There would be a lot of work to do around integrity of labelling, but these conversations are happening elsewhere in the world and confidence is growing where they do.

◆ **JENKINS** At root, the incentive for homeowners is the potential for a materially cheaper cost of funding and the question is how we get to the point where this is possible. Putting aside what might or might not come from government, it should be cheaper to run a more energy-efficient house. One question might be whether this has a knock-on positive effect on serviceability and thus credit risk.

On the other side, if we look at what's happening in Europe around green finance and the associated capital allocation, we could ask if there should be a regulatory penalty for brown assets or an incentive for green assets. If the dial is shifted such that there is a policy framework that rewards assets that contribute to a low-carbon future, conceptually this should allow banks to lend at a lower cost to those assets. This would be another incentive to borrowers to do more than the bare minimum.

NAB has developed a product with the CEFC targeting the SME sector, that offers a discount to a borrower's regular cost of funds to invest in energy-efficient business assets like vehicles. This has been a sufficient incentive to make plenty of SMEs opt for these assets.

◆ **ZILELI** This scheme is subsidised by the government, though. The question is what will entice banks to offer a discount for green loans – and whether a national assessment system could be sufficient. My sense is that, absent third-party incentives, there needs to be an established connection between green mortgages and credit performance in order to persuade banks to offer discounted pricing.

Davison *Can funding markets provide an incentive by offering superior outcomes for green debt product?*

◆ **TAM** We have to keep sight of the fact that climate-change mitigation is the goal here. Improving building efficiency delivers benefits to householders and to the environment, as well as reducing stress on the grid. What this means is that, on the funding side, we are seeing signs of differential pricing between green and nongreen assets in offshore markets – because there is extra demand coming from growing awareness of climate-change issues in the general population.

◆ **MARSDEN** I agree that the demand story starts at the front end – for example the growing desire of superannuation investors to tick the ethical or green box on their funds.

◆ **KOE** There isn't currently a clear pricing differential between green and nongreen bond issuance in primary markets. But issuers understand that green notes allow them to access new investors, and also create new opportunities for existing investors with growing allocations of socially responsible investment capital or mandates in addition to their traditional mandates.

This was certainly the case with the NAB green RMBS. We think demand for green RMBS will only grow with increased supply from a range of issuer types.

◆ **MIALL** Growing demand for green product could see a price differential at some point but the domestic market isn't there yet. From our perspective, while we have a strong environmental, social and governance (ESG) framework across all our portfolios we don't have ESG-specific mandates at this stage. The case for paying up to invest in green assets is probably clearer for mandated funds.

◆ **JENKINS** There were also accounts that wouldn't traditionally look at asset-backed transactions but engaged with NAB because its deal was green. I have also met investors subsequently, including offshore, who wouldn't normally think about Australian RMBS but have asked to be considered in the deal process next time.

◆ **MARSDEN** For Resimac, when we consider green issuance the two main attractions are what we could call a moral obligation to be a good corporate citizen and the incremental investor diversification on offer.

There isn't a price incentive at the moment but there is enough value in diversifying the RMBS bid – especially in the triple-A space – to incentivise us to build regular green issuance into our overall funding programme.

◆ **JENKINS** The consistent message we hear from investors is that every RFP process they go through includes a requirement to lay out their sustainable-investment options. Green bonds are the starting point, then on into social bonds, green securitisation and so on.

"WE RAN AN EXERCISE ON OUR PORTFOLIO IN WHICH WE TRIED TO OVERLAY THE CBI METHODOLOGY USING YEAR OF CONSTRUCTION AS THE MAIN PROXY DATA POINT. THE REAL STICKING POINT WAS AVAILABILITY OF DATA. THERE WAS NO MEANS BY WHICH WE COULD TAG EVEN THE CONSTRUCTION YEAR OF THE UNDERLYING SECURITY."

ANDREW MARSDEN RESIMAC

Davison *Putting together the two main themes of this discussion – data and incentives – in theory perfect data wouldn't just mean some assets can be labelled green but that every asset could be defined as green or not green. How much of a difference would this make to the way capital is allocated?*

◆ **JENKINS** I was at a conference in London recently where the key focus of discussions was around transitioning balance sheets and investor capital to green from brown. Defining all assets is a perfect way of doing just that – it allows investors to allocate capital in a way that isn't purely exclusionary, for instance by focusing on the greenest of green investments. I'm sure the same thing would apply in the RMBS market.

◆ **TAM** We don't solely rely on certification – we actually do a lot of due-diligence on underlying assets. This is required for us to be in compliance with the CEFC Act. This allows us to see different 'shades' of green and the evolution of the definition over time – though I'm sure it's the same with CBI criteria. Our hope is that we will be able to achieve more emissions reduction as definitional technology improves over time.

◆ **MIALL** If data eventually allows a much greater proportion of assets to be defined as green or nongreen then, yes, it probably would increase incentives for 'greenness' by contributing to differential pricing. But this nirvana may not happen any time soon, which makes it important that investors' focus on sustainability considers the traditional bond market as well as the green-bond market.

In the traditional bond market, fixed-income investors can still incentivise change by engaging with issuers specifically on ESG. By doing so, investors can better understand what an issuer's approach to sustainability is and also give feedback on areas where an issuer should be doing more.

Davison *Grace Tam has mentioned consumers' growing desire to help mitigate climate change. Rather than talking about cheaper home loans for green properties, shouldn't socially aware consumers be willing to pay more for energy-efficient homes?*

◆ **TAM** Yes, but of course budget constraints around the cost of putting energy-efficiency measures in place are always going to be the main consideration. I think this is where it falls to the lender to understand what it might be able to do around affordability in this specific regard – to be able to advise on the best structure for a borrower who wants a home-loan package that is both energy-efficient and affordable.

◆ **JENKINS** As a consumer, the market for things like solar systems and batteries is confusing: it is difficult to figure out what is best value, best in class and most appropriate. There is no shortage of packages available, but it's hard to know that one is getting independent advice when choosing a package.

◆ **MARSDEN** I think the point is that consumers are already bearing the cost of installing things like solar panels and battery packs. I don't think there is much prospect of them also paying more for green mortgages.

Davison *Could lenders offer incentives, perhaps around lending limits if not loan pricing, to borrowers wanting to improve home energy efficiency? Is there any view on whether the type of borrower who is motivated to make these kinds of improvements might have a better credit-risk profile?*

◆ **ZILELI** As far as I'm aware, we don't take into account a borrower's desire to add green features to their house or whether it already meets the CBI criteria when writing loans. To be honest, I wouldn't assume that a borrower focused on energy efficiency would be more creditworthy than any other. Perhaps in time we will have data to support this, but it isn't apparent in the data we have.

◆ **MARSDEN** What we find is that the takeup of low-carbon features is most prevalent in brand-new houses in new suburbs. This is certainly the case with solar-panel installation. There is obviously some economic incentive to do so, but it isn't in loan pricing.

Overall, my sense is that to have a transformational change on consumer behaviour at the front end there needs to be some sort of official encouragement – whether this be by tax rebate, direct investment or anything else. I think consumer views are changing, if slowly, at least to the extent that they are willing to take advantage of things like rebates on solar panels.

◆ **JENKINS** If you look at the takeup of electric vehicles in countries with tax incentives to do so you can see the potential impact – these markets are charging ahead. ■

"WE CERTAINLY EXPECT THAT THE ASSET CLASS SHOULD AND WILL EVOLVE OVER TIME. THIS MEANS THE ASSET POOLS WILL CHANGE, AND WHILE IT'S HARD TO TAKE A SPECIFIC VIEW ON HOW THIS WILL PLAY OUT THE STANDARDS SHOULD BE DYNAMIC."

PHIL MIALL QIC