Perpetual

Get ready for the big digital leap

*The eyes of the securitisation industry may have been firmly focused on the direct impact of the COVID-19 crisis in 2020 but the pandemic is having ripple effects across the market. In particular, as a **Perpetual Corporate Trust**-hosted session at the Australian Securitisation Forum (ASF) Virtual Symposium 2020 highlighted, new ways of working are only intensifying the path of digital integration.*

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MEGA TRENDS

Thorrington *What are the latest technology trends making their impact felt around the world? In particular, how do these trends factor into where the world – and capital markets – are heading?*

◆ **VANAMO** The obvious megatrend, as shown by the medium in which we have all joined this symposium, is the shift in the way we work towards a more distributed hybrid workplace. Perhaps 2020 will forever be etched into our memories by the catchphrase: 'you're on mute'. I hope we will come out of this disruption with a positive outlook on the way we work with flexibility and an agile mindset.

Outside of this people-productivity disruption, and the mad rush in February to accelerate better collaboration and remote-working technology, I summarise the trends we see globally as: big-data driven insights and analytics, automation, the move to cloud, transparency and trust, and a shift to product from project mindset enabling value generation.

Starting with data, the megatrend we see here is to make more timely decisions with the latest available data to respond to the massively disrupted world we live in. This theme is top of mind in every industry, but specifically the securitisation industry.

It must feel to everyone here that the velocity of required insights is expanding exponentially. Reporting is certainly being driven by better, more accurate and more timely insights. There is also a growing need to accommodate business pivots and new growth initiatives.

This is driving a need for increasingly diverse lenses on the data we already have. Of course, in this industry the need to respond to a changing regulatory landscape and to new transparency requirements is hitting participants all at once. I am sure everyone is feeling this.

The practical thing that is manifesting is the need to get back to basics. This means how to build a platform for the ever-increasing need for agile reporting, accompanied by the requirement for what is almost a factory approach for churning out reliable, verified reports for all the diverse lenses that need to be managed. Then how to use that same platform to fulfil the need for super-fast-paced, self-service reporting. Everyone is a data scientist and analyst these days.

> **"THE REALITY OF SECURITISATION HAS ALWAYS BEEN ABOUT DATA AND LOTS OF IT. THE GOAL FOR OUR BUSINESS IS HOW WE GO ABOUT COLLECTING DATA AND USING IT FOR INSIGHTS INTO OUR PORTFOLIOS, TO MITIGATE RISK AND IDENTIFY OPPORTUNITIES FOR OUR CUSTOMERS."**
> **CRAIG PARKER** WESTPAC INSTITUTIONAL BANK

Thorrington *How will the goals you are describing be achieved?*

◆ **VAMANO** We of course need access to data sets that are both timely and accurate. This requirement is driving a move away from the spaghetti of spreadsheets with hundreds of formulae that we are using today, to a platform-based approach facilitating the codification of operational reporting while at the same time allowing for the accurate data set to be used for self-service.

What is also changing is the way we share data between departments and across organisations. The megatrend driving this need in the securitisation industry is open banking. The days of people producing Excel extracts and CSV files and then emailing them between departments and organisations must end if we want to achieve the goal of more objective, accurate and timely insights.

The ultimate goal here is to move to the API [application programming interface]-driven, public-partner, internal data catalogue that open banking requires. The first step is simply to move away from email transmission and facilitate the collection and submission of data sets. We have more self-service channels such as web forums or [Microsoft] Teams chats.

If we start with this simple baby step it will allow us the opportunity to automate. This brings us to the second megatrend: automation.

A theme we are seeing is that, while efficiency is of course still key, I put it out there that what is more important right now is predictability as we evolve an increasingly changing workforce. One thing automation certainly achieves is predictability in how processes are run, when they get run, for how long they run and what comes out of them.

Robotic process automation (RPA) has made it to every financial-service institution by now. It has been around for a while, but the trend we are seeing emerge is an expansion beyond simple task automation, which RPA is really about, to an end-to-end process automation.

The buzzword for this is 'hyper-automation'. What is behind this tacky buzzword is simply making the end-to-end business process efficient by integrating all the different aspects of the process. Hyper-automation is simply about creating an end-to-end workflow by integrating the RPA, AI and analytics.

The end result is an integrated automation workflow, where for example AI is used to extract data from a scant invoice. RPA is then called on to validate the data and compare the purchase-order number drawn from it against the legacy fields. The data are then passed to a machine-learning model that is invoked to perform a fraud-detection algorithm on the now-available combined data. Then an order to process the invoice is raised directly to the business-area owner via channels that are now available to us.

If it all checks out, the invoice is paid. All the analytics, insights and reporting are instantly available to business owners. This is the trend of hyper-automation. It is no longer a dream – it is available through multiple vendors such as Microsoft, in a single platform that can be democratised and used not just by developers but by subject-matter experts.

Automation, powered by accessible technology and accessible intelligence, is being baked into the platforms and tools we use every day.

Enabling these megatrends is the adoption of cloud, which is the third megatrend. Cloud helps in speed-to-value, by taking on most of the hard work of installing things like tools and platforms, and letting users focus instead on building the functionality they need on top of the platform.

With any rapid adoption and acceleration of technology, especially when it comes to the perceived security of data hosted on the cloud technology, success is ultimately achieved through trust. Trust is achieved through transparency and time.

This brings us to the fourth megatrend. With the increase in automation and the move from spreadsheets with complex formulae to platforms delivered with automated reports and self-service insights, trust in the results must be earned. We must think about how we enable transparency to show us what data was used, when, how it was collected and where it came from in every report we generate.

We must think about how we make an automated decision algorithm able to be easily explained in an accessible manner. This is hard, but to achieve trust we must have this transparency. With time we will eventually have trust.

Finally, I want to touch on how to make this real and successfully land the leap to digital. The overarching thing I see is that to capitalise on these trends requires a new operating model and a new way of thinking. There is a strong consensus

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MATTHEW NEECE PERPETUAL CORPORATE TRUST

forming in our field that the time for transformation projects is over. To be successful we need a mindset shift to thinking of these initiatives more like products.

Products require time to develop but success is dependent on adoption. A product is never finished. It is ever evolving and pivoting with each new release.

◆ **NEECE** In the world of digital, I prefer the word journey to transformation. To me, journey says a long path with adventures and challenges, while transformation says a one-off renovation or makeover.

As we work with the industry, many of the challenges Velli-Matti Vanamo has highlighted have been echoed. These include the desire to access rich analytics and improve decision-making, to leverage technology to improve resiliency and remove operational waste, to build transparency, and to build scaleable and efficient processes.

While these challenges and goals are common, successful transition to a digital operating platform is by no means guaranteed just by buying a technology. Many projects have issues or fail to deliver on their desired goals. A successful digital journey requires the change in mindset that Velli-Matti Vanamo mentions.

It requires a change in culture across management, technology and operations. This means being willing to say we will disrupt, we will make ourselves justify why things run in a certain way, we will change processes, we will accept that it will take time and there will be challenges but that the path will bring results if we continue to walk it, and we will move to a continuous mindset and away from the limiting project mindset.

Mindset change opens the door to letting the technology in. It gives the best chance of success with good adoption and achievement of strategic goals.

At Perpetual Digital, we have been working with the industry to come up with digital solutions and assist participants on their journey with our Perpetual Business Platform as a service. Our purpose has been to deliver solutions that enable and support clients across treasury, finance, credit risk, portfolio management and market intelligence, using the latest in cloud technology.

I think, despite all the challenges we have had through the COVID-19 crisis, it is an incredibly exciting time in the securitisation industry. We are seeing a huge swelling of

interest across the market to modernise, embrace technology and prepare for the future.

I encourage everyone embarking on the digital journey to look hard at culture and mindset as the foundational and fundamental building blocks.

INSTITUTIONAL ADOPTION

Thorrington *Many regulators have increased standards in recent years, which is leading institutions to think differently about compliance. How is Westpac Institutional Bank managing this?*

◆ **PARKER** The Westpac structured-finance business has been in operation for around 26 years and I have managed it for at least half this time. Historically we have largely relied on monthly data files from our customers along with some technology integration and assistance for our monthly compliance reporting.

This has worked reasonably well. But we have found that dealing with such a large volume of data meant we were missing out on more informed insights that greater and more granular data analysis over a long period of time could provide.

The advent of the new securitisation standard in 2018 provided us with a fresh opportunity to review how we use and receive data. It was around the introduction of this standard that we were able to get funding from within the bank to have a total rethink of how we use data within our business.

The reality of securitisation has always been about data and lots of it. The goal for our business is how we go about collecting and using data for insights into our portfolios, to mitigate risk and identify opportunities for our customers. The consequence is we have created a proprietary data warehouse called ODIN, which is housed in Westpac's digital platform.

We will be using Perpetual's business-intelligence service to assist with portfolio data analytics and other regulatory-related datasets. In time, the goal is that our customers will upload monthly data in a predetermined dataset similar to what the RBA [Reserve Bank of Australia] has in place now – albeit we manage about a dozen asset classes so the breadth is arguably wider.

We are about 70 per cent of the way through implementation. It has not been easy, to be honest. But I am

> **"WE ARE MAKING DATA TRANSFORMATION THE BIGGEST INVESTMENT OUR BUSINESS HAS MADE OUTSIDE OF FUNDING. OUR DIGITAL JOURNEY HAS FOCUSED ON THREE KEY AREAS: INVESTING IN SYSTEMS, WORKING ON REPLATFORMING OUR BUSINESS, AND RESOURCING."**
> **LISA HOOD** REDZED LENDING SOLUTIONS

optimistic about what it will look like in the future. Aside from the important regulatory reporting we have embedded into the system, I expect our portfolio reporting and compliance checks will largely be automated. I also aspire to a world where the data repository is sufficiently large that we can use these data in our analysis as well as for credit papers and other activities.

I also believe deeper data analysis will enable us to identify opportunities for our customers. Perhaps we can also aspire to a day when many of the credit papers we spend hundreds of hours on, as a team, will be automatically produced. Time will tell.

Thorrington *We have also seen a change in reporting standards and the complexity of these obligations increase. How has this worked for an issuer like RedZed and how has a digital strategy supported the process?*

◆ **HOOD** We have seen increasing obligation around reporting standards and, as such, a broader focus on how we collect, process and record data, as well as how this is disseminated to our investors, funders, regulators and rating agencies.

Increasing reporting obligations have become a major factor in our transformation of data. This year in particular has shown us how important it is to be able to access our data virtually from a single source so it is readily available without double handling. This increases the speed of execution and the efficiency of processes.

For these reasons, we are making data transformation the biggest investment our business has made outside of funding. Our digital journey has focused on three key areas: investing in systems, working on replatforming our business, and resourcing.

We have invested in Perpetual's business-intelligence cloud platform to support our digital journey. The credit- and risk-intelligence module is set up to forecast the performance of our portfolio as well as to benchmark our data against the market. This has been an invaluable tool, especially with the introduction of IFRS [International Financial Reporting Standards] 9.

The new accounting standard addresses how we need to account for mortgage losses within our business and also a new requirement in calculating the probability of default for Australian mortgages. It takes into account loan-level information as well as macroeconomic factors for the purpose of stress testing.

This was a fairly complex modelling system, which Perpetual was able to help us with. Its model was able to pull in historical data over a long period of time to establish trends and provide a business-intelligence-systems platform that gives us monthly expected-loss data for each trust and warehouse.

We are currently replatforming our business and introducing a level of automation and digitalisation. RedZed

is now more than 13 years old and it was the perfect time to invest in data transformation. The size of our book meant we were still small enough to be agile and implement the changes needed. In other words, it would not be overwhelming and cumbersome yet we are large enough to afford a world-class system. It has been complex and challenging to put systems in place that are scaleable and will allow us to achieve the next phase of growth.

We have employed senior staff to focus wholly on the integrity of our data. We have put data champions throughout each department in the business. In the words of [RedZed managing director] Evan Dwyer at our last all-staff team meeting: "There is not a lot of point investing millions of dollars on an amazing dam if you cannot drink the water."

There is no point replatforming our business if the data going in is flawed. Every department is focused and involved in ensuring the data collected is accurate, has been verified and is working as it should. This has been a major cultural shift in our organisation.

We will be using business-intelligence tools to improve and enhance the analysis we can do with our data. This means we will provide interactive visualisation and business-intelligence capabilities with an interface simple enough for end users to create their own reports and dashboard.

We want the capture of our data, and its storage and analysis, to be as good as it can be. These are the three components of what we are doing to improve data integrity.

Thorrington *How have the events of 2020 influenced the digital journey?*

◆ **HOOD** Our experience with COVID-19 has been of ever-increasing requests from investors, funders and rating agencies on the performance of our book. This has highlighted the need for flexibility in our reporting and how we report to users.

The focus on hardship, deferrals and payment holidays has meant scrutiny on a micro level. Each loan has been assessed individually and collectively reported on an individual basis. Our stakeholders, including funders in our warehouses and rating agencies, have requested slight variations in what they are focused on.

This means we have had to be flexible in our reporting requirements and manually work around these requests. Automation is a key priority but the ability to be flexible is also important.

Although our digital transformation began almost two years ago, the complexities and challenges faced in 2020 have highlighted the growing importance of data and how our digital transformation will support us far into the future.

Thorrington *How is Resimac seeing and tackling the same challenge?*

◆ **MARSDEN** Resimac has laid out a digital roadmap that encompasses a full redevelopment and redesign of our

> "IN ESSENCE, WE ARE AN ORGANISATION THAT IS TRANSITIONING FROM A MORE TRADITIONAL, ANALOGUE-STYLE BUSINESS TO ONE WITH EMBEDDED TECHNOLOGY IN ALL KEY FUNCTIONS OF THE BUSINESS. THIS GOES TO OUR CULTURE AND THE WAY THE ORGANISATION AND STAFF ARE EMBRACING IT IS VERY EXCITING."
>
> **ANDREW MARSDEN** RESIMAC

business platform. This includes origination, underwriting, asset servicing, finance and treasury.

It is an end-to-end approach and we recognise that it is one of our most important programmes to future-proof the business and also play catch-up to some of the new lending-market entrants in the fintech space.

The digitalisation objectives of the organisation are just as much customer focused as they are automation, efficiency and productivity outcomes. There is a lot of focus and a lot of discussion on the 'customer journey' dynamics.

Historically, we have operated in the wholesale space and, as we find our feet and become more comfortable in the front-end retail part of the marketplace, we have realised that digitalisation is essential as part of the customer experience. We recognise that some are doing it better than us, so it is a good opportunity.

Thorrington *How is this approach being deployed at institutional level?*

◆ **MARSDEN** Our customer-first digital strategy has been segmented into five areas. The first is collaboration, which is important – we realised we needed to partner with industry-leading technology and data providers so we could identify and develop digital solutions for our customers. We have partnered with Perpetual on the treasury side and we are excited about the prospects.

The second is automation. This is the nirvana for a lot of financial-services firms at the moment. In layperson's terms, we are at one minute to midnight with big data for financial services. Any way we can collect, analyse, and share data is where we see real opportunity.

This will not just bring customer benefit but also advantages on the liabilities side of the business, so we can enhance investor reporting and investor relations.

The third aspect is end-to-end digitalisation. This covers the customer digital experience we are looking to roll out with an enhancement of the online services and functions we provide. Some of the major banks do this very well and provide a high watermark for us.

The fourth aspect is being customer-centric. Customers feature a lot in these broader objectives, which cover easy-to-use, technology-based solutions to deliver a seamless digital experience. We have relaunched our direct online channel

and we are excited about it – being able to provide quick credit decisions, among other things, to prime borrowers.

Finally is the idea of engineering for the future. Future-proofing is something we see going straight to our values and the viability of the business going forward. This encompasses the appropriate amount of security and cloud-based technology.

More pertinent to what we do on the investor-relations and funding side, we are excited by the enhanced level of data we will have. As Craig Parker said, this will have benefits for portfolio reporting and analytics. It will also give a deeper form of transparency in our mortgage book.

In essence, as an organisation we are transitioning from a more traditional, analogue-style business to one with embedded technology in all the key functions of the business. Similar to what Matthew Neece said, this goes to our culture – and the way the organisation and staff are embracing it is very exciting from a funding perspective.

NEXT STEPS

Thorrington *Will blockchain technology and smart contracts be widely adopted?*

◆ **MARSDEN** We have looked at these and they are a great example of my comment about being one minute to midnight where big data is concerned. I see great opportunity, when we are looking at homogenous products like prime mortgages, to enhance the digitalisation of the product. This could even go through to standardising some legal and funding structures.

Thorrington *We have spoken extensively about digital roadmaps. What are the biggest concerns on the horizon?*

◆ **NEECE** Something that has been touched on quite a bit is data automation. This is fundamental to paving the way for the onboarding of technology and future-proofing of organisations. Putting technology over the top of problematic or inaccurate data does not get the job done. This is a longstanding concern and one that will remain in place for quite some time.

The second concern I would highlight is the rapid change the industry continues to see in information and regulatory demands. Having the ability to respond quickly – via platforms, capability and technology such as cloud services where you can

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>
> **VELLI-MATTI VAMANO** INSIGHT ENTERPRISES

pivot and modify the way you operate – can help make sure you meet those rapid changes.

◆ **PARKER** The key concern is whether our system will work as designed. Having been involved in banking for more than 30 years, specialised financial-technology builds are usually a bit more predictable than our current project.

We have great aspirations for using big data in the future and it would be disappointing if we ended up with a service that works okay but does not deliver the differentiation we are really looking for.

This said, I am confident we will be successful as we have resourced this project with a strong group of structured-finance professionals and a highly skilled team from our technology group.

Thorrington *Does the emergence of big data imply a new wave of securitisation professionals with super-charged analytical skills – or are they already here?*

◆ **PARKER** I think they are here already, certainly in my team. What we are seeking to provide is the tools for them to aspire to greater standards in risk management, customer service and insight.

It is also about providing a greater level of service to our clients. For example, we may identify insights from the big sets of data that at the moment we may not be able to. We can provide a lot more innovation across the board with the people we have right now if we give them the right resources and skills.

◆ **MARSDEN** I agree with all these points. In particular, there has been a noticeable change in the capabilities of industry professionals since the 2008 financial crisis. From our side, this was largely driven by the requirements of the buy side – what investors required for their analysis in addition to the demands of the rating agencies.

Thorrington *On a slightly different note, do panellists believe machine learning has the potential to provide enhancements to the reporting process?*

◆ **VANAMO** I can answer this question by also responding to the previous one. The securitisation industry has a massively talented pool of analysts that gather information from data.

What we have seen in other industries is these same analysts and experts moving from being the experts in data to creating machine-learning algorithms that make automated actions based on their insights.

This is the emergence of the 'citizen data scientist'. This is a well-known concept and any subject-matter expert with business knowledge can do it.

We see the emergence of tools, governance standards and capabilities to make these subject-matter experts able to create machine-learning and machine-teaching algorithms, and then integrate these algorithms into the business through automation.

This is a trend we have seen in other industries – and I think we are beginning to see it in securitisation, too. It will accelerate through the fact that one no longer needs to be a developer to make something actionable. One just needs to know the business problem and be innovative in creating a solution.

◆ **NEECE** I think it is also important to think about how the scale of data available to organisations is growing exponentially. This has never been fully harnessed. It will only create more opportunities to do things in more efficient ways, or move a lot of the wrangling and modelling process that is part of decision-making.

Machine learning plays a big part in this, and the more the data grows the more we can do with it. This will require organisations to adapt so they can leverage technology, but there is a lot of opportunity.

Thorrington *Where could the securitisation market make immediate gains from automation?*

◆ **PARKER** I think automation offers our analysts the ability to spend time thinking about what the data show us rather than crunching the data. If we can get the system to crunch the data and come up with preliminary insights, these insights can be tested in one way or another – whether it is through risk management or thinking about some type of broader opportunity set for our customers.

It takes a long time for my team to produce the right credit papers. If they can be automated, my team and I would be celebrating. This is one way of getting automation on the table in an organisation like ours. ◼