

# THE PARADIGM SHIFT IN CONSUMER CREDIT DATA

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***In Australia, National Consumer Credit Protection (NCCP) and Consumer Credit Reporting (CCR) legislation have attempted to ensure better use of credit data in the financial services industry, and address the issues of willingness and capacity. However, the legislation has not solved the problems identified without unintended consequences. This paper examines the challenges involved in managing the market for credit data. It proposes a new approach to data access and usage, and a regulatory mandate, which combines aspects of prudential, consumer and privacy regulation. An earlier version of this paper was presented at the 21st Melbourne Money and Finance Conference.***

## Understanding consumer credit data

Credit data has a unique position in the data spectrum. For centuries, lenders have grappled with issues associated with understanding the creditworthiness of a borrower. The advent of computing power and digitised data has shifted credit assessment from an art practised by experienced credit professionals to a science performed by data analysts trained in statistics. However, the fundamentals of considering the likelihood of a borrower repaying a loan have not changed.

Consumer credit data is typically used to address two questions:

- What is the willingness of the borrower to meet their loan obligations?
- What is the capacity of the borrower to meet their loan repayments?

Willingness deals with a borrower's propensity to comply with their contractual obligations and is typically assessed using models that use historical information to predict future performance.

Capacity involves the assessment of a borrower's financial position to determine whether they have sufficient surplus income to meet their repayments.

Credit data is a key ingredient in addressing the information asymmetry between lenders and borrowers.

High-quality credit assessment and allocation of loan funds provide benefits to society by reducing the costs associated with repayment uncertainty. Simply put, when lenders can't distinguish between 'good' and 'bad' borrowers, all borrowers are charged an average interest rate that reflects their pooled experience.<sup>1</sup> This type of cross-subsidisation means that borrowers with productive uses for loans are cross-subsidising less qualified borrowers who are less likely to put their loan to productive purposes. In addition, lenders charge a premium to cater for a level of uncertainty in the risk rating process, adding unproductive costs to the economy.

In Australia, two significant legislative interventions, National Consumer Credit Protection (NCCP)<sup>2</sup> and Consumer Credit Reporting (CCR),<sup>3</sup> have attempted to introduce better use of credit data into the Australian financial services industry to address the issues of willingness and capacity. In both cases, the legislation has not solved the problems identified without unintended consequences.

## CCR – and why has it hit roadblocks?

Proponents of credit bureaus have long advocated that increasing the amount of data available to lenders provides significant economic benefits.<sup>4</sup> Their calls were heeded by government, leading to the introduction of legislation enabling a new credit reporting regime (CCR) in March 2014. However, two years after legislation was introduced, the additional data elements are still not being shared among lenders.<sup>5</sup>

The lack of uptake of the new credit reporting framework has led the government to request the Productivity Commission to consider recommendations for improving participation in such initiatives.<sup>6</sup> CCR is symptomatic of the complex issues involved in regulating the availability of private sector data. On the one hand, large incumbent lenders such as the major banks are reluctant to share their customer data with other lenders<sup>7</sup> while, on the other hand, new marketplace lenders are actively lobbying for access to bank data.<sup>8</sup>

While Australia has been slow to embrace CCR, New Zealand has made significant advancements in CCR with both consumers and participating lenders beginning to reap benefits. New Zealand CCR legislation was enacted in April 2012, two years before Australia, and they now have around 65 per cent of CCR data being shared among lenders<sup>9</sup>.

There are a number of reasons why the pace of CCR has been faster in New Zealand, three of which are significant:

- The New Zealand consumer credit market is dominated by one lender – a structure that encourages the second tier lenders to share their data – (i.e. against 'the common enemy').

- Important operational elements are contained in the Credit Reporting Code in New Zealand rather than the Privacy Act (i.e. 'black letter law').
- The principles of reciprocity are less complex than those in Australia.

Proponents of credit data sharing point to benefits in terms of reduced losses and increased availability of credit. However, in the long run, these benefits do not accrue to the incumbent lenders. In a competitive market, the marginal price benefit of better credit assessment will ultimately accrue to the borrower<sup>10</sup> and not the lender.

In Australia's oligopolistic market where major banks provide around 70 per cent of consumer loans, there is little commercial incentive for them to share information with other lenders, particularly if the cost and compliance risk of sharing information is high relative to the benefits.<sup>11</sup> The cascading effect is that only the smallest lender has commercial incentives to share data.

Why are large incumbent lenders in Australia so reluctant to share their data? Basically, because they are being asked to fund changes that result in social benefit but no commercial benefit to them. Incumbent lenders also argue that they have made considerable investments in managing and maintaining credit data for many years. By providing this data to competitors, the value of their data asset will diminish with no compensating increase in value.

The rigid legislation, standards and consequences of non-compliance surrounding CCR data sharing in Australia has created a very difficult and complex environment for lenders. The costs to develop systems that comply with the regulatory and legislative requirements of the new credit reporting regime are high. At the same time, they face uncertainty about how the rules will be interpreted and applied.<sup>12</sup> Faced with these realities, it is more cost effective for incumbent lenders to 'do nothing' in relation to CCR and deploy resources to investments that offer better returns or deal with more pressing regulatory demands.

In some jurisdictions,<sup>13</sup> government is mandating the sharing of data to promote competition and growth in financial services. The Productivity Commission has been asked to consider this option in Australia.

## NCCP – the importance of data

Recognising the consequences of overreliance on data-driven predictive models by lenders, regulators in many countries have introduced a range of responsible lending obligations.<sup>14</sup> These measure are mainly aimed at ensuring a lender considers a borrower's capacity to repay as much as their willingness to repay. Australia's responsible lending obligations were introduced as part of NCCP in 2010, which require lenders to review loan serviceability more comprehensively than previously.

Among other requirements, the responsible lending obligations require lenders to make reasonable inquiries about the consumer's requirements and objectives, make reasonable inquiries about the consumer's financial situation, and verify the consumer's financial situation.<sup>15</sup>

While many lenders argued that they were already meeting these obligations, the effect of the legislation was that they needed to be able to demonstrate and provide evidence of compliance with the legislation. Much of the data required to support compliance was not available in digitised format (e.g. payslips, expenses) or not readily accessible from systems (e.g. taxation data, multi-bank statement data, loan repayment data). Nor is any of this data available via the consumer's credit bureau report.

The unintended consequence of responsible lending obligations under NCCP has been higher cost back-office processing, longer lead times to decisions, high drop-out rates through the application process and general irritation among lenders and their customers.<sup>16</sup>

Lenders continue to grapple with ways of making this process more efficient through digitisation. The advent of distributed computing (the internet of things) and software as a service has provided a range of technical solutions. There are a number of examples where third parties have stepped in to provide consumer-controlled data sharing. Methods to obtain customer financial transaction data online (e.g. Yodlee, Mogo) have emerged as well as Optical Character Recognition (OCR) techniques for capturing salary information. While these emerging technologies are being developed, criminal opportunists continue to expand their methods of identity theft, cyber fraud and information falsification. At the same time, privacy and consumer advocates are actively opposing potential solutions that threaten consumer protection. The key concern in Australia has been the issue of the way in which credit data is accessed.

## Why is a new approach needed?

The examples of CCR and NCCP demonstrate the difficulty in satisfying the myriad of stakeholders interested in credit data. Prescriptive legislation can be an impediment to optimising the use of credit data (e.g. CCR) while principles-based legislation can create significant costs if not considered in the context of credit data (e.g. NCCP).

The challenge we face is how to manage the market for credit data, which is well summarised as follows:

What is the allocation of surplus gained from the usage of individuals' personal data? How should that surplus be allocated — based on market forces, treating privacy as another economic good, or based on regulation, treating privacy as a fundamental right? And should an allocation favor the data subject as the owner of the data, or the data holder who invested in collecting and analyzing the information?<sup>17</sup>

When new data is shared it changes traditional information asymmetries which, in turn, advantages some participants over others:

In choosing the balance between sharing or hiding personal information both individuals and organisations face complex, often ambiguous, and sometimes intangible trade-offs.<sup>18</sup>

The principles for data sharing presented by the UK Government<sup>19</sup> provide a useful foundation for considering how credit data should be shared:

- For data sharing to be useful to users, it should be simple, low friction and scalable.
- Users should provide fully informed consent before their personal data is shared and should remain in control of how it is used.
- To create optimal conditions for innovation, datasets that do not contain personal or commercially sensitive information should be made as accessible as possible.

However, these principles need to consider the unique aspects of credit data, particularly recognising its distinct purpose (i.e. assessing willingness and capacity) and need for prudential oversight to prevent adverse financial system outcomes. The cost of maintaining the veracity of the data must also be considered, particularly incentives for the custodians of the data to continue to invest in its development.

There are two issues that Australia is currently dealing with regarding data sharing for credit assessment:

- limited data access where good information is not available
- oversharing where unreasonable intrusiveness into people's lives compromises their privacy without providing sufficient benefit to suggest as a society we should allow it.

### *Issue 1 – Limited data access*

It turns out that most of the data needed to assess credit is well known and the gaps are clear-cut. Global evidence suggests that around 80 per cent of the predictive power of credit risk models comes from the same data it did 20 years ago.<sup>20</sup> In Australia, the lack of positive credit data (evidence of good as opposed to poor borrowing behaviour) is a clear gap, along with evidence of the individual's ability to repay loans. Legislative efforts to address these two gaps have had less than ideal results due to limited data access, despite the black letter law changes.

### *Issue 2 – Oversharing*

At the other end of the spectrum is the problem of oversharing. We live in an increasingly data rich world. However, not all data that can be provided is relevant for credit assessment and, in many cases, there is a risk that lenders who ask for the data will use it poorly (creating more credit risk cost for society). How can this data creep be managed? How can we stop overzealous risk departments who might trawl social media accounts and employ big data techniques with dubious predictive value and clear exogenous costs to the consumer?

Historically, credit data has been furnished by third parties (e.g. credit reporting agencies) and by the individuals themselves (in the case of income and expenses). However, there is now an opportunity for an enlarged role for the individual in enabling sharing (via new technology and new business models) that can address the limitations of the current approach. With an access regime that enables the consumers to share what they want, the intervention of other market participants whose incentives are less aligned (e.g. incumbents, new entrants, regulators, consumer and privacy advocates) can be avoided.

Organisations feel they possess and therefore own data in its electronic form and reject the idea of being compelled to share it. Customers of those organisations feel free to do what they want with information on their dealings with those organisations. However, customers cannot gain as much value as they would like because without the support of the data source, the information cannot be verified. Nor can it be ingested electronically into other business processes without the support of some form of online platform.

A way through this problem (of overlapping assertions) is to assert that customers own their data (even if they don't possess it electronically) and that a policy preference is that the veracity of the data be easily confirmed – so that the customer has the right to ask this of the data source as the default position (in the absence of a negotiation to a different position).

Verification necessarily involves the input of the data source, possibly to provide data in a useful electronic form but, more importantly, to ensure that in the provisioning of this data, its authenticity is confirmed. If consumers had access to their data in this way, they could begin to evolve their role as providing access to their micro credit bureau – a 'credit bureau of one'.

## A new approach – the right data, access and used correctly

Black letter law solutions haven't been as successful as originally anticipated. Legislating data fields to share doesn't enable the dynamism required to evolve the use of data over time. But allowing a 'free-for-all' approach will unnecessarily lead to data creep and intrusion into people's lives.

The issues can be defined in terms of data access (supply) and data usage (demand).

In this paper we argue for two key mechanisms:

- *Data access (supply)* enables consumer access to their data in a way that allows them to share this data within the lending process. This builds on existing privacy law and prevents agents with misaligned incentives from restricting the use of important data.
- *Data usage (demand)* can be addressed by vigorously supervising the use of data in credit models to prevent data creep by overzealous credit departments without limiting the ability of the sector to innovate over time.

### *Data access (supply)*

Data access is usually constrained because of the data sources' assertion of property rights over the data and belief (often rightly) that holding on to the data gives them a competitive advantage. The problem is that they are actually asserting the value of possession – both the consumer and the corporate data source have recognised rights to what is in a sense common property. The individual's rights arise from the fact that they have access, via portals and paper copies, to some aspects of their data, and they also have rights under privacy law to all the data held on them. To resolve this issue, the existing privacy law driving rights of access for individuals needs to be strengthened.

On the flip side, data sharing happens all the time when corporates see mutual self-interest – the issue is more that in doing so they are often breaching the reasonable expectations of the consumer and possibly operating in a privacy grey zone.<sup>21</sup> This is where the risk of oversharing creeps in. Again, privacy law deals with this and the reasonable expectations of individuals. But, to manage the data economy for social good, the systemic use of data (rather than data breaches) needs to be the primary goal of privacy supervision.

If we talk about using privacy laws to enhance both access to and control of data use, then consumers need to be able to access their data at scale (i.e. electronically), in a way that can be efficiently ingested into other business processes (via API) and in a way that confirms the veracity of the data. This is beyond an individual's capacity, but third-party services can and do enable individuals to access their data in this manner. The crucial point of difference is whether the third parties act for the consumer or the lender. New technology enables the consumer to share their data by enabling them to collate their information and then share it directly with a business process (such as a loan application). This is to be contrasted with the means of sharing CCR data, via credit reports, where the method is for credit bureaus to share personal data from one lender with another without the direct permission and control of the individual. This distinction is crucial because within it is the paradigm shift towards consumers' control of their data – which incorporates elements of consumer data sovereignty and privacy by design.

The issue is that without creating an obligation for data sources to participate, the services resort to impersonating the individual, which creates significant issues in terms of information security and breaching of the individual's obligations to keep passwords secret. The way the Australian Government enables verification of identity (the Document Verification Service) is a great example of a sensible way to achieve this goal, however, the Australian Government is a willing data source.

The UK government's midata programme<sup>22</sup> is another example of where the government is providing a mechanism for consumers to have access to the information that companies hold about their transactions in a machine-readable and reusable format. The UK Competition and Markets Authority's (CMA) recently announced<sup>23</sup> that it is implementing a package of reforms that will enable personal customers and small businesses to share their data securely with other banks and with third parties. These type of changes will enable a new ecosystem to assist consumers to share their data with prospective lenders and enable them to assess creditworthiness.

### *Data usage (demand)*

In terms of the use of data, existing supervision models for banking translate readily to data usage but obviously supervision scope would need to expand beyond banks and incorporate data usage criteria.

Allowing use of shared credit data without appropriate prudential controls can lead to adverse market outcomes. Australian banks have a long history of being able to weather adverse economic conditions through the prudent management of risk and oversight by the regulatory authorities. The risk in providing inexperienced lending organisations with open access to data is that they may not have the capability to appropriately and prudently manage

the data. The recent issues facing Lending Club in the US<sup>25</sup> provide evidence of the need for strong prudential supervision when inexperienced lenders are confronted with the realities of the financial system.

In order to deal with these additional data-related usage issues, we believe that instead of major black letter law, what is needed is a pooled data regulatory approach across the three regulators that all have part of the remit: APRA, from a banking prudential perspective; ASIC, from a responsible lending perspective; and the Information Commissioner, from a privacy perspective.

## Conclusion

To improve the predictive capability of credit models and keep up with market trends, technology changes and shifts in consumer behaviours lenders need to continuously explore and analyse alternative sources of credit data. However, misuse of credit data can create systemic issues in financial markets and compromise consumer privacy.

To enhance the availability of high-quality credit data, there should be a focus on both data access (supply) and data usage (demand):

- *on the supply side* – creating a data verification obligation to support the individual's right of access to their data from existing holders and to enable other lenders to request data directly from consumers
- *on the demand side* – requiring that any organisation using data to evaluate credit be supervised in terms of the type of data they use and the method by which it is assessed. This addresses concerns of data creep and poor lending practices; the former is a privacy issue and the latter is a systemic financial system failure issue.

A permission-based credit data regime requires a supervisory model that takes a systemic, structured approach, balancing positive economic outcomes with appropriate consumer privacy protection. A regulatory mandate, which combines aspects of prudential, consumer and privacy regulation with data-focused economic analysis, is crucial to support the development of a dynamic data economy, particularly in financial services. This may require the combined effort of agencies such as APRA, ASIC, Privacy and Treasury or a new organisation that leverages the relevant strengths of these agencies. But, in order for Australia to achieve a thriving data economy, good policy making around data use and access must become a central rather than an incidental issue, as is currently the case.

## Notes

<sup>1</sup> Barron, JM and Staten, M 2003, *The value of comprehensive credit reports: Lessons from the US experience*, vol. 8, MIT Press, Cambridge.

<sup>2</sup> *National Consumer Credit Protection Act 2009*.

<sup>3</sup> Australian Government Office of the Australian Information Commissioner 2014, *Important changes to the Privacy Act 1988 commence on 12 March 2014*, media release, 11 March.

<sup>4</sup> Turner, M, Walker, P, Chaudhuri, S, Duncan, J and Varghese, R 2012, *Credit Impacts of More Comprehensive Credit Reporting in Australia and New Zealand*, report for PERC and Dun & Bradstreet Australasia.

<sup>5</sup> Veda 2016, 'Veda celebrates two years of Comprehensive Credit Reporting with a positive outlook', media release, 16 March; and Yeates, C 2016, 'Banks pressured to share customer data', *Australian Financial Review*, 16 March.

<sup>6</sup> *Data Availability and Use Terms of Reference*, 21 March 2016, Australian Government Productivity Commission.

<sup>7</sup> Evers, J 2015, 'Disrupters in battle for access to credit data', *Australian Financial Review*, 2 August.

<sup>8</sup> Fintech Australia 2016, *Priorities for Reform of the Australian Financial Services Industry*, report for The Department of Treasury, 24 February.

<sup>9</sup> Dun & Bradstreet 2016, *Whitepaper: Comprehensive Credit Reporting*, 14 June.

<sup>10</sup> Gehrig, T, Oz, S and Stenbacka, R 2007, *European Economic Review*, vol. 51, iss. 1, pp. 77–99.

<sup>11</sup> Johnson, S 2013, 'Consumer Lending: implications of new comprehensive credit reporting', *JASSA, The Finsia Journal of Applied Finance*, iss. 3.

<sup>12</sup> *FOS Determination 422745* on 21 April 2016 is an example of rulings that considerably alter the way that lenders report and use CCR.

<sup>13</sup> HM Treasury 2016, 'Boost for small businesses seeking finance thanks to government data sharing scheme', 1 April, available at <https://www.gov.uk/government/news/boost-for-small-businesses-seeking-finance-thanks-to-government-data-sharing-scheme>

<sup>14</sup> See US Consumer Financial Protection Bureau (<http://www.consumerfinance.gov/>) and UK Financial Conduct Authority (<https://www.the-fca.org.uk/>).

<sup>15</sup> Australian Securities and Investments Commission 2014, *RG 209 Credit licensing: Responsible lending conduct*, 5 November.

<sup>16</sup> Based on benchmarking work that the authors conducted for six lenders in Australia before and after the NCCP regulatory change.

<sup>17</sup> Acquisti, A, Taylor, C and Wagman, L 2016, 'The economics of privacy', *Journal of Economic Literature*, vol. 54, no. 2.

<sup>18</sup> *ibid.* Acquisti et al.

<sup>19</sup> Fingleton Associates 2014, *Data Sharing and Open Data for Banks: A report for HM Treasury and Cabinet Office*, September.

<sup>20</sup> FICO 2015, 'Can alternative data expand credit access?', *FICO Decisions, Insights Whitepaper*, no. 90

<sup>21</sup> See, for example, Data Republic ([www.datarepublic.com.au](http://www.datarepublic.com.au))

<sup>22</sup> Review of the midata voluntary programme, UK Department for Business Innovation and Skills, July 2014

([www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/327845/bis-14-941-review-of-the-midata-voluntary-programme-revision-1.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/327845/bis-14-941-review-of-the-midata-voluntary-programme-revision-1.pdf))

<sup>23</sup> <https://www.gov.uk/government/news/cma-paves-the-way-for-open-banking-revolution>

<sup>25</sup> Gapper, J 2016, 'Cracks appearing in fintech lenders', *Australian Financial Review*, 12 May.

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