

# The Paradigm Shift in Consumer Credit Data

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## A. Introduction

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

Good credit assessment and allocation of loan funds is good for society as it reduces the costs associated with repayment uncertainty. Simply put, when lenders can't distinguish good borrowers from 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 cost to the economy.

In this paper we will talk to two issues that Australia is currently dealing with regarding data sharing for credit assessment – **limited data access** where good information is not available and **over sharing** where unreasonably 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% of the predictive power of credit risk models comes from the same data it did twenty years ago<sup>2</sup>. In Australia, lack of positive credit data (evidence of good as opposed to poor borrowing behaviour) is a clear gap as is evidence of the individual's ability to repay loans. Legislative efforts to address those two gaps have had less than ideal results due to **limited data access** despite the black letter law changes.

### Issue 2 – Over Sharing:

At the other end of the spectrum is the problem of **over sharing**. 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 over-zealous risk departments who might trawl social media accounts and employ big data techniques with dubious predictive value and clear exogenous costs to the consumer.

### The Fix? Change the Supply Paradigm And Monitor Use

So how do we fix the two problems? Black letter law solutions haven't been as successful as originally anticipated<sup>3</sup>. Legislating data fields to share doesn't enable the dynamism we require 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.

In this paper we argue for two key mechanisms:

- On the data access (supply) side, we believe that the right way to enable this is to enable **consumer access to the data** in a way that enables them to share their data within lending processes. This builds on existing privacy law and prevents agents with misaligned incentives restricting important data from being used.
- On the data usage (demand) side, we believe that vigorously **supervising** the use of data in credit models can prevent data creep by over zealous 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 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 come from the fact that they have access via portals and paper copies to some aspects of the data, and via privacy law to all the data held on them. To solve for this, what is required is to strengthen or reinforce the existing privacy law driven rights of access for individuals.

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>4</sup>. This is where the risk of over sharing creeps in. Again, privacy law talks to this and the reasonable expectations of individuals. But, to manage the data economy for social good the systemic use of data as opposed to 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 process** (via API) and in a way that confirms the **veracity** of the data. This is beyond an individuals' capacity but third party services can and do enable individuals to access their data in this manner. 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. We are dealing, in financial services, with reluctant data sources.

#### **Data usage (demand):**

On the use of data side, 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 their prudent management of risk and oversight by regulatory authorities. The risk in providing open access of data to inexperienced lending organisations 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>5</sup> is evidence of the need for strong prudential supervision when inexperienced lenders are confronted with the realities of the financial system.

In dealing with these additional data related usage issues, we would add that not a lot of major black letter law change would be needed, but what would be needed would be a pooled data regulatory approach across the three regulators who 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.

## **B. What is consumer credit data?**

Credit data has a unique position in the spectrum of data. 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 a borrower repaying a loan have not changed.

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 predictive models that use historical information to predict future performance.

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

In Australia, two significant legislative interventions (NCCP<sup>6</sup> and CCR<sup>7</sup>.) 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 did not solve the problems identified without unintended consequences. Hence the authors are arguing in this paper for a paradigm shift in the supply and use of credit data. One that is flexible but rigorous and one that overcomes the problems we will articulate.

## **C. CCR – and why did it hit roadblocks?**

Proponents of credit bureaus have long advocated that increasing the amount of data available to lenders provides significant economic benefit<sup>8</sup>. Their calls were heeded by government leading to 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>9</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>10</sup>. CCR is symptomatic of the complex issues in regulating availability of private sector data. On one hand, large incumbent lenders such as the major banks are reluctant to share their customer data with other lenders<sup>11</sup> while on the other hand new marketplace lenders are actively lobbying for access to bank data<sup>12</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% of CCR data being shared among lenders<sup>13</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 – (ie against “the common enemy”);
- Important operational elements are contained in the Credit Reporting Code in New Zealand rather than the Privacy Act (ie “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 credit across the credit market. 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>14</sup> and not the lender.

In Australia’s oligopolistic market where major banks hold around 70% of consumer lending, 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 benefits. 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. Additionally, incumbent lenders argue that they have made considerable investment 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>15</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>16</sup>, government is mandating sharing of data to promote competition and growth in financial services. The Productivity Commission has been asked to consider this option in Australia.

## D. NCCP – what were the unintended consequences?

Recognising the consequences of over-reliance on data-driven predictive models by lenders, regulators in many countries have introduced a range of responsible lending obligations<sup>17</sup>. Principally these measure are 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 required 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>18</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 evidence compliance with the legislation. Much of the data required to support compliance was not available in digitised format (eg payslips, expenses) or not readily accessible from systems (eg taxation data, multi-bank statement data, loan repayment data).

The unintended consequence of responsible lending obligations under NCCP has been higher cost back office processing, longer times to decision, high drop-out rates through the application process and general irritation amongst lenders and their customers.

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 the breach to provide consumer controlled data sharing. Methods to obtain customer financial transaction data online (eg Yodlee, Mogo) have emerged as well as 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 falsifying information. At the same time, privacy and consumer advocates are actively opposing potential solutions that threaten consumer protection. As a result, the issue of the way in which data is accessed has been the key matter in Australia.

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

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 (eg CCR) while principles based legislation can create significant costs if not considered in the context of credit data (eg NCCP).

The challenge we face is how to manage the market for credit data, well summarised as follows<sup>19</sup>:

*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?*

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 organizations face complex, often ambiguous, and sometimes intangible trade-offs.*

The principles for data sharing presented by UK Government<sup>20</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 (ie 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 incentive for the custodians of the data to continue to invest in its development.

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

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 of their dealings with those organisations. However customers cannot achieve 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.

We believe that the 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 it 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 the data in a useful electronic form, but more so that in the provisioning of the data its authenticity is confirmed. If consumer had access in this way to their data they can begin to evolve their role as providing access to their micro credit bureau – a “credit bureau of one”.

## F. Conclusion

Improving predictive capability of credit models and keeping up with market trends, technology changes and shifts in consumer behaviours requires that lenders continuously explore and analyse alternative sources of credit data. However, misuse of credit data can create systemic issues in financial markets as shown during the US mortgage crisis. To enhance availability of good quality credit data we suggest a focus on both data access (supply) and data usage (demand):

- On the supply side – create a data verification obligation to support the individual's right of access to their data to enable lenders to request data directly from consumers.

- On the demand side – require 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 – that addresses concerns of data creep and poor lending practices – the former is a privacy issue the latter a systemic financial system failure issue.

A permission based credit data regime requires a supervisory model that takes a systemic, structured approach, balancing good economic outcomes with appropriate consumer privacy protection. A regulatory mandate which combines aspects of prudential regulation, consumer regulation, privacy regulation and economic analysis with a data focus is crucial to support the development of a dynamic, data economy across the financial services industry. This may be via a combined effort of agencies such as APRA, ASIC, Privacy and Treasury or a new organisation that leverages the relevant strengths of these agencies. But if, as is widely asserted, we live in a data economy then good policies around data use and access become central not, as is currently the case, incidental.

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<sup>1</sup> Barron JM and Staten M 2014; The Value of Comprehensive Credit Reports: Lessons from the U.S. Experience; May 2004

<sup>2</sup> Fair Isaac Corporation 2015; Can Alternative Data Expand Credit Access; FICO Insights Whitepaper No. 90; 2015

<sup>3</sup> Johnson S 2013; Consumer Lending: implications of new comprehensive credit reporting, JASSA Issue 3 2013

<sup>4</sup> For example, Data Republic ([www.datarepublic.com.au](http://www.datarepublic.com.au))

<sup>5</sup> Cracks appearing in fintech lenders; Australian Financial Review; 12<sup>th</sup> May 2016

<sup>6</sup> National Consumer Credit Protection Act 2009

<sup>7</sup> Important changes to the Privacy Act 1988 commence on 12 March 2014; 11<sup>th</sup> March 2014; Australian Government Office of the Australian Information Commissioner

<sup>8</sup> Turner M et al 2012; Credit Impacts of More Comprehensive Credit Reporting in Australia and New Zealand; 2012; Michael A. Turner, Ph.D., Patrick D. Walker, M.A., Sukanya Chaudhuri, Ph.D., Joseph Duncan, Ph.D., Robin Varghese, Ph.D.

<sup>9</sup> Veda celebrates two years of Comprehensive Credit Reporting with a positive outlook; 16<sup>th</sup> March 2016; Veda Media Release. Banks pressured to share customer data; 16<sup>th</sup> March 2016; Australian Financial Review

<sup>10</sup> Data Availability and Use Terms of Reference, 21<sup>st</sup> March 2016, Australian Government Productivity Commission

<sup>11</sup> Disrupters in battle for access to credit data; 2<sup>nd</sup> August 2015; Australian Financial Review

<sup>12</sup> Priorities for Reform of the Australian Financial Services Industry; 24 February 2016; Fintech Australia

<sup>13</sup> Whitepaper: Comprehensive Credit Reporting, Dun & Bradstreet, 14 June 2016

<sup>14</sup> Gehrig, Stenbacka 2007, European Economic Review, Volume 51, Issue 1, Pages 77–99 January 2007,

<sup>15</sup> FOS Determination 422745 dated 21<sup>st</sup> April 2016 is an example of rulings that considerably alter the way that lenders report and use CCR.

<sup>16</sup> Boost for small businesses seeking finance thanks to government data sharing scheme, 1<sup>st</sup> April 2016; UK HM Treasury, <https://www.gov.uk/government/news/boost-for-small-businesses-seeking-finance-thanks-to-government-data-sharing-scheme>

<sup>17</sup> US Consumer Financial Protection Bureau <http://www.consumerfinance.gov/> and UK Financial Conduct Authority <https://www.the-fca.org.uk/>

<sup>18</sup> RG 209 Credit licensing: Responsible lending conduct; Australian Securities and Investments Commission

<sup>19</sup> Acquisti et al 2016; The Economics of Privacy; March 8, 2016; Acquisti, Alessandro and Taylor, Curtis R. and Wagman, Liad,

<sup>20</sup> Data Sharing and Open Data for Banks – A report for HM Treasury and Cabinet Office; September 2014; Fingleton Associates,