

Informing Depositors: A Proposed Reform Of The Australian Banking Sector*

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Financial regulation has the perverse effect of reducing incentives for depositors to monitor the risks banks take. We propose a rating scheme – the Financial Stability Rating – that would work similarly to other product ratings to inform depositors of the risks they face. Our proposal entails greater disclosure of information that is already in the hands of the prudential regulator. There would be no additional regulatory burden on either financial institutions or the regulator. By linking our rating to a formal deposit insurance scheme, depositors would have both the incentive and ability to make informed decisions about the risk return profile of their deposits.

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In high-transparency environments, depositors discipline banks that engage in excessive risk taking by demanding higher deposit interest rates and/or moving balances to safer institutions. (Demirguc-Kunt et al., 2008, p. 15)

1. Introduction

Ludwig von Mises (1912/1981, p. 293–294) describes the business of banking as “the negotiation of credit through the loan of other people’s money”. Banking is profoundly risky, consisting as it does of maturity intermediation and the provision of liquidity. Morgan (2002) demonstrates that because of their activities, banks are also inherently more “opaque” than firms operating in other industries. Specifically, Morgan finds that rating agencies face greater uncertainty when rating bonds issued by banks. The opaque nature of banking may explain why banks, and other bank-like institutions, are subjected to additional “prudential regulation”, over and above the regulations to which firms are usually subject.

In Australia, the Australian Prudential Regulatory Authority (APRA) is responsible for regulating Authorised Deposit-taking Institutions (ADIs). The list of ADIs includes banks, credit unions and building societies; institutions that borrow very short (i.e. take deposits from the general public) and lend long.

Despite engaging in similar activities, ADIs are subject to tighter regulatory control than institutions in the so-called “shadow-banking sector”. For example, hedge funds may borrow from wealthy individuals, while institutions such as the recently failed Banksia, operate bank-like facilities by issuing debentures.

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Freixas and Rochet (2008) justify this distinction by arguing that banks emerge due to a lack of contingent markets but persist in “bank-run” equilibrium. In simple terms, banks resolve one market failure while creating another. While regulation can ameliorate some market failures, even in the best of all worlds, it cannot resolve all of them. Consequently banking institutions and banking systems can be fragile. At best regulation will be imperfect and once we consider public choice critiques of regulation it is likely that all manner of distortions and inefficiencies could originate from the banking system.

A further complicating factor in bank regulation is that a bank’s creditors are also its customers. In the principal-agent literature creditors monitor their investments, but a customer’s incentive is to monitor specific transactions only. In any event, depositors face a free-rider problem – the return to monitoring bank behaviour is small relative to the fixed costs of monitoring. Moreover, depositors face an information asymmetry. Bank customers can observe the interest rate they receive for the money they hold on deposit, but they are unable to determine whether it is an adequate return for the associated risk.

In this article we propose a mechanism that facilitates depositor monitoring of ADIs. Specifically, we propose a rating system – the Financial Stability Rating (FSR) – that would allow depositors to observe the riskiness of a bank’s operations. In turn, depositors can use this rating to assess the risk-reward trade-off associated with their deposits. Our proposal encourages depositors to condition their behaviour on bank ratings by linking the fraction of deposits covered by deposit insurance to the rating.

Rochet (2008) characterises mechanisms of the type proposed in this article as “indirect market discipline”. Depositors monitor bank behaviour with the aid of information provided by the prudential regulator.² The regulator directly monitors a bank’s books, framing the outcomes of its investigations as an easy to understand rating. However, it is depositors that determine which banks succeed through their preferences for risk reward trade-offs.

In the next section, we set out the problem wherein financial regulation acts to “crowd out” private monitoring by breaking the link between risk and return for depositors. We then set out our proposed solution whereby APRA would provide a risk rating that all ADIs would have to display. The rating would also constitute a pre-commitment to the extent of any government guarantee of deposits. We then discuss some issues around implementation of our rating system and the conclusion follows.

2. The Problem

The banking sector faces two distinct challenges brought about by asymmetric information. First, due to the “opaque” nature of a bank’s operations, depositors cannot observe the financial stability of the banks in which they deposit their funds, and hence do not know the risks associated with their deposits. Second, by withdrawing their funds when a bank is perceived to be vulnerable, depositors can transform the perception of weakness into the reality of a banking collapse; a “bank-run”.³

The common regulatory response to the first information asymmetry is to establish threshold levels of financial stability to which each bank must adhere; effectively capping each bank’s risk. In Australia these regulations take the form of “Prudential Standards”, and are overseen by APRA. Standards, it should be noted, do not eliminate the information asymmetry. Rather, they provide depositors, and other market participants, with confidence that a bank’s risk does not exceed the level deemed appropriate by the prudential regulator.

²Rochet (2008) contrasts this with “direct market” discipline in which depositors influence bank behaviour as a substitute for prudential regulation.

³Diamond and Dybvig (1983) is the seminal paper in the literature on bank runs. According to Diamond and Dybvig, a bank run exists as a perverse equilibrium in which an unanticipated requirement for liquidity on the behalf of a fraction of depositors results in all depositors withdrawing their funds. Asymmetric information does not play a role in this model. Barth *et al.* (2006), however, explicitly link the possibility of bank runs to asymmetric information between depositors and bank managers.

One issue with utilising prudential standards as the basis for a regulatory regime is that while banks are required to comply with the standards, they have little incentive to exceed them, as this would undermine their profitability.⁴

Even with banking standards in place, it can still happen that depositors lose confidence in a bank, or with the banking system as a whole, triggering a bank run. To preserve depositor confidence in a bank, regulators in a number of countries around the world guarantee to “bail out” depositors in the event of a bank failure. In Australia, the Financial Claims Scheme guarantees deposits in ADIs up to \$250,000 per account holder per ADI.⁵ A deposit guarantee compounds the information asymmetry problem. While the information asymmetry conceals a bank’s financial stability from depositors, a deposit guarantee disconnects depositor risk from the risks banks take to fund the interest rate that depositors receive. As Demircug-Kunt *et al.* (2008) state, deposit insurance “shifts responsibility for assuring transparency and controlling bank risk taking to the regulatory system”.

The combination of banking standards and deposit insurance creates a particularly thorny regulatory challenge (Beck and Laeven, 2008). Inappropriate regulation has the potential to impose high costs on the economy. Taxpayers, who are the ultimate guarantors of deposits, bear the cost of bank failures, the likely outcome of too lax a regulatory regime.⁶ While overly strict regulation results in credit rationing, retarding economic growth.⁷

And there is another, subtler, issue. Implicit in a standards regime is the assumption that all banks should achieve the same (minimum) level of financial stability. At the same time, competition for deposits will result in all banks offering similar interest rates that are more or less unrelated to any meaningful risk return trade-off. Thus, regulation has the effect of homogenising the products offered by banks.

Through all this, the task of monitoring the banks falls almost entirely on the regulators as depositors lack the information and incentive to monitor their deposits (see Demircug-Kunt and Huizinga, 2004; for theory and evidence on this point). Barth *et al.* (2006) argue that private monitoring of banks is more likely to boost bank operations than regulatory restrictions.⁸ Demircug-Kunt *et al.* (2008) argue that increased transparency would add to market discipline, but as we outlined in this section, banks are inherently opaque. In the next section, we propose a reform that we believe will encourage private monitoring of banks despite deposit insurance.

3. Proposed Reform: The FSR

3.1. Rating Risk

The challenges created by the interaction of standards regulation and an information asymmetry, are not unique to the banking sector. Standards govern the design and safety features of many different products, for example, motor vehicles, food handling in restaurants and the power consumption of electrical appliances. In each of these examples, standards regulate a product feature that few consumers have the required knowledge or access to assess.

⁴Depositors can observe the interest rates offered by a bank but not the risk associated with deposits. Holmstrom and Milgrom (1991) show that when one product feature is observable, and another is hidden, a bank will improve the observable feature (the interest rate) at the expense of the unobservable (the bank’s risk). By regulating banking standards, government limits the risk a bank can take on in seeking to generate higher returns.

⁵See the collection in Demircug-Kunt *et al.* (2008) for an extensive discussion of deposit insurance.

⁶Barth *et al.* (2006) report that the Japanese banking crisis in the 1990s cost over 20 per cent of GDP.

⁷Barth *et al.* (2006) detail the consequences of excessively strict regulation in terms of foregone economic growth, increased poverty, higher income inequality and the like. Freixas and Rochet (2008) also state that bank regulation can be very costly – this is especially so due to the distortions that regulation generates; direct costs such as salaries and resources for regulators are low relative to the size of the industry.

⁸This is due to their concerns about regulatory capture and the bureaucratic nature of regulators (see Barth *et al.* 2006). The Basel II accord had market discipline as a pillar of bank supervision but underemphasised this aspect of bank supervision (see Rochet, 2008, for a discussion).

These particular examples, however, are also notable for the way in which regulators have augmented minimum standards with ratings systems designed to overcome the information asymmetry.

In Australia, new cars are subjected to Australasian New Car Assessment Program (ANCAP) tests that assess the safety of a vehicle in a range of collisions. The results of these tests are available as a coarse “star” rating as well as a detailed report describing how the vehicle performed in each of the component tests. Similarly, in many cities restaurants are rated on their food handling/preparation practices, while new appliances are required to display an “Energy Rating”.

In each case, a rating provides consumers with information regarding an otherwise hidden product characteristic or feature. Consumers are able to compare competing products by observing the trade-offs inherent in their design and price.

Producers typically respond to the introduction of ratings schemes by tailoring products to account for consumer preferences over the rated characteristic. For example, Robertson (1996) found that the introduction of the New Car Assessment Program in the United States brought about a significant increase in the safety of new cars. The improvement in car safety occurred despite the fact that new cars were already subject to mandatory minimum safety standards.

We propose that a similar ratings – the FSR – be applied to ADIs in the Australian banking system. Under our proposal APRA would rate the financial stability of each ADI, giving it a score out of 100. The purpose of the FSR is to convey, in a simple number rating, the degree to which a financial institution is exposed to risk. By revealing the risk inherent in a bank’s operations, such a rating has the potential to correct the information asymmetry between banks and depositors.

As with similar ratings systems, we envisage that an institution’s FSR would be prominently displayed at all branches and on all materials promoting deposit products. This is consistent with current practice wherein banks are required to provide information to depositors relating to the terms and conditions of their accounts on a regular basis, and to inform depositors of any changes that may affect their account.⁹

3.2. Incorporating a Haircut into Deposit Insurance

Although the FSR resolves the information asymmetry associated with deposits, it does not restore the link between risk and return for depositors. To provide depositors with an incentive to monitor the behaviour of their banks, depositors must face a risk commensurate with its FSR.

The second part of our proposal is that Australia’s existing deposit insurance scheme, the Financial Claims Scheme, be amended such that the scheme guarantees a percentage of each deposit equal to an institution’s FSR. In other words, a depositor with \$10,000 on deposit at a “93” rated bank would be guaranteed to receive \$9300 in the event of a bank failure. The risk taken by the depositor, in return for the interest rate on offer, is the \$700 “haircut” the depositor receives in the event of a collapse.

Faced with an FSR contingent haircut, depositors would have to trade-off the interest rate on offer, against the security afforded by a bank’s FSR. In this way the risk reward trade-off is internalised. A bank will succeed if a sufficient number of customers are willing to tolerate the risks a bank is taking to deliver its interest rate. Moreover, consumers will be able to select the risk reward trade-off that best accommodates their preferences.

3.3. The Role of the Regulator

Our proposal entails two changes to the existing prudential regulatory framework. Both these changes affect functions that are currently the responsibility of APRA. When evaluating any proposed regulatory change it is important to evaluate both the capacity of the regulator to implement the change, and the burden that the change will place on the regulator and regulated entities.

Under the existing regulatory framework, the prudential regulator APRA is responsible for the ongoing supervision of ADIs. APRA applies the “Probability and Impact Ratings System” to assess an

⁹At present banks are not required to disclose changes that impact upon deposit risk – it is this additional information that constitutes the first part of the policy innovation we propose.

ADI's exposure to risk and ensure compliance with the prudential standards. An ADI's risk is scored in a number of operational areas, weighted according to the significance of the area within the ADI, and reported as an "overall risk of failure".¹⁰

To execute its supervisory responsibilities APRA conducts regular on-site reviews, and has access to an ADI's books as well as the reports of an ADI's independent auditors. ADIs are also required by law to notify APRA of any "significant" breach of prudential requirements.

Our proposal does not require any fundamental change to these activities. Rather, it simply requires APRA to convert each ADI's "overall risk of failure" into a "FSR" and release this information to the public.¹¹ This is a straightforward process, requiring each ADI's "overall risk of failure" to be transformed via a monotone decreasing function such that a low "overall risk of failure" corresponds to a high FSR.

The other aspect of APRA's responsibilities that would be impacted upon by our proposal is the administration of the Financial Claims Scheme. Under our proposal, the deposit insurance scheme would be amended such that it only guarantees a portion of deposits equal to an institution's FSR. Once again this change is straightforward and would not place any additional burden on the regulator. Indeed, the change may remove a significant distortion within the Financial Claims Scheme.

One critique of the Financial Claims Scheme has been that it does not distinguish between ADIs on the basis of risk. The levy, to be paid by ADIs to fund the deposit insurance scheme, does not depend on the likelihood of an ADI failing. As a consequence, depositors with funds in low-risk ADIs effectively cross subsidise insurance for depositors with funds at high-risk ADIs. Our proposal ameliorates this distortion by reducing the liability of the deposit insurance scheme in the case of high-risk ADIs.

4. Discussion

4.1. Market Structure

We expect that the result of our scheme will be a market structure driven by depositor preferences. As in other markets, diverse consumer preferences will likely give rise to diverse product offerings.

We expect that a subset of banks will target risk-averse depositors, competing to minimise their risk. These banks will be rewarded with the highest FSRs thereby becoming more attractive to depositors for whom the security of funds is paramount. Moreover, as was the case with car safety (Robertson, 1996), we would expect that the publication of FSRs will result in these banks attaining ratings that significantly exceed the current minimum prudential standards.

Another group of banks may market their products towards depositors seeking a higher return. These depositors are willing to risk a fraction of their funds (settle for a lower FSR) in return for higher interest rate. Does the household sector have an appetite for risk in the banking system? Here we can point to anecdotal evidence – many households conduct their "banking" through the shadow-banking system. Currently, these depositors are forced to invest their funds with institutions, such as Banksia, that exist outside of the prudential regulatory framework, and without the protection of deposit insurance.

Regardless of which market segment we are considering, competition between banks will maximise the return to depositors for any given level of risk (or minimise risk for any given interest rate). In this way, we expect the range of products offered by deposit-taking institutions to grow, paralleling the diversity to be found in other classes of investments.

¹⁰Details can be found at <http://www.apra.gov.au/CrossIndustry/Documents/PAIRS-062012-External-version.pdf> (accessed 5/8/2013).

¹¹Under the existing regulatory framework, the "overall risk of failure" is only released to the regulated ADI. APRA uses its authority as the regulator to prevent ADIs from releasing this information to the public. This regulatory framework is similar to that which applies in other advanced economies. For example, in the United States, banks are assessed against a metric known as CAMELS (Capital adequacy, Assets, Management capability, Earnings, Liquidity and Sensitivity to market risk). The outcomes of CAMELS assessments are, likewise, not publicly available.

Another possible outcome is that all banks will target the same type of consumer, most likely risk-averse consumers, and as a consequence we would expect to observe a race to the top with banks competing to offer the most secure banking as reflected in their FSRs. In this case, following the experience of the car industry, we would expect the financial stability of all ADIs to improve, significantly exceeding the existing prudential standards.

We argue that the precise form of the market structure that results from our proposed reforms is not important so long as it reflects the preferences of market participants. Our contention is that the FSR will result in a market that more closely aligns with depositor preferences than is the case under existing regulation. Moreover, as depositor preferences change over time, so too the market structure will adjust to reflect these changes. The important point here is that market structure would not reflect regulatory lock-in or be determined by regulatory arbitrage. In short, the resultant market structure would reflect human action and not human design.

4.2. Bank Structure

Under our proposed reforms it is not necessary for the regulator to dictate the organisational structure of an ADI. For example, there would be no need to require structural separation between retail banking and investment banking operations. Rather APRA need only capture the operational risk in its risk assessment. It would then be up to each bank to determine which practices and organisational structure it adopts, based on the segment of the market it is targeting, and the impacts of its choices on earnings and FSR.

Furthermore, the FSR presents additional options to banks that operate multiple brands. A corporation could target each of its constituent banks at different segments of the market to gain greater market coverage. The only constraint is that liabilities in one brand must not be secured by deposits or guarantees from a second brand. So long as this is the case, each constituent brand can be assigned its own FSR. To the extent that liabilities across a banking group are not separated or quarantined, the banking group would be assessed as a single entity. The group would then have to make an informed decision as to the structure of its organisation given depositor expectations and behaviour.

4.3. Implementation

In general, the critical feature of a ratings system is that it is ordinally correct. High ratings always indicate superior performance. For example, a five star ANCAP rated vehicle should be safer than a three star vehicle. The magnitudes of the scale are typically unimportant. A five star vehicle, for example, need not be 67 per cent safer than a three star vehicle. This is not the case for the FSR. The link between the FSR and deposit insurance means that a depositor in an "80" rated bank risks four times as much of his/her deposit as they would at a "95" rated bank (with 20 per cent of his/her deposit at risk as opposed to 5 per cent at the "95" rated bank). Consumers will weigh their potential losses against the benefits they receive in terms of interest rates. Thus, it is essential that the FSR accurately reflect the risk of a bank becoming insolvent.

The consequences of poorly calibrated ratings are much the same as with the current regulatory framework. Too lax a scheme encourages too much risk taking, with the burden falling on the taxpayer. Too strict a regime discourages risk taking, reducing the income generated by deposits and leading to credit rationing. To be sure, calibrating the existing "overall risk of failure" into an appropriately scaled rating out of 100 is the greatest technical challenge facing this proposal.

4.4. Ongoing Supervision

Australian Prudential Regulatory Authority's supervision of ADIs is an ongoing process. In the context of our proposal ongoing supervision raises two significant questions: How often should an ADI's FSR be adjusted? And, how should a change in an ADI's FSR be managed?

The first question is an issue of responsiveness. Banks can change their positions with respect to liquid assets very quickly (Morgan, 2002). Thus, an FSR may be out of date shortly after it is published. However, continual adjustment of a bank's FSR is undesirable as it creates uncertainty for depositors and places a significant burden both on the regulator and regulated entities.

We suggest a two-pronged solution: First, APRA should revise all FSRs annually, adjusting them as appropriate, where there has been a change in an ADI's "overall risk of failure". In our view, annual reviews should be sufficient to incorporate minor changes to an institution's FSR.

Second, we propose that an ADI be required to report any event that would cause a "significant" change in its "overall risk of failure". This would be an extension of the existing system of breach notifications that requires an ADI to notify APRA when an event causes it to breach a prudential standard. At APRA's discretion, an ADI's FSR could be updated outside of the annual review cycle when it deems that there has been a significant change to depositor risk.

It is important to keep in mind that APRA considers both the assets on an ADI's books, as well as its internal processes and controls, when conducting risk assessments. As such, a pattern of behaviours that sees frequent and significant changes in the composition of an ADI's balance sheet would in and of itself be regarded as a risk factor.

Managing changes to a bank's FSR also poses a challenge. A sudden change to a bank's FSR involves the risk of catching depositors unaware thereby facing increased liability with little or no notice. One solution to this problem is to publish new FSRs, say, one month prior to a change coming into effect, and require banks to directly notify their existing customers of the impending change. This window should be sufficient to allow depositors to move their funds if they feel the need to do so.

A by-product of any proposal to increase competition in the banking sector is that depositors face increased incentives to move their funds. Specifically, under our proposal we expect that depositors will move away from a bank if the risks that depositors face are not compensated by sufficiently high interest rates. This increases the fragility of poorly performing banks, while attracting additional funds to strong banks, enhancing their stability. It is important to emphasise that this is a design feature of our proposal. It is the mechanism whereby depositors discipline ADIs.¹²

We acknowledge that a significant downgrade in an ADI's FSR could trigger a bank-run. However, there are a number of reasons to believe that this does not pose a significant risk to the banking system as a whole. First, depositor behaviour is sticky. While some depositors will move their funds in response to an adverse change in FSR, the change in rating would have to be dramatic for the subsequent depositor flight to pose a threat to the institution. Second, ADIs are not passive in this process. ADIs have a clear incentive to communicate to their customers when instituting changes that are likely to result in a reduced FSR. An ADI is more likely to retain customers if it can provide a compelling rationale for the change. Finally, if after all this a ratings change does result in a bank run then it is likely that the ADI was simply not competitive in the market, and that the market as a whole benefits from the exit of the firm.

4.5. Innovation

A challenge to any regulatory regime is to foster innovation in the regulated market. Regulation must both permit banks to bring novel products or processes to market, and preserve the innovator's first-mover advantage; the reward it enjoys from the innovation. Our proposal allows this.

We propose that a bank be allowed to confidentially submit an innovation to the regulator for an assessment of how the innovation will affect the bank's FSR. The regulator would assess the information provided by the bank and commit to its impact on the ADI's FSR. Pre-commitment would thus be similar to the Australian Competition and Consumer Commission's authorisation process for a merger, or to the Australian Taxation Office providing advance confidential rulings for taxation arrangements. Essentially, this process brings forward a decision that would otherwise be made following implementation of the innovation.

¹²One reason why Australian PAIRS ratings, and US CAMELS ratings, are not public information is because regulators fear adverse public reaction to the figures. It is not clear why regulators should be second-guessing depositors and withholding important information from those depositors – but that is a discussion well beyond the scope of this article. This shortcoming does highlight the need for extensive public information and communication between banks and depositors.

Pre-commitment permits banks to implement an innovation with full knowledge of how the innovation will impact its FSR. The confidential process also permits the innovator to retain its first-mover advantage.

4.6. Credibility

There is an important question around credibility. Can the government commit to imposing a haircut on depositors in the event of a bailout? We believe it can.

To begin with, the entire scheme is overseen by APRA, an independent statutory body. Any interference with APRA's role in deposit insurance, risks undermining confidence in APRA's independence with respect to its remaining prudential responsibilities. Moreover, there is precedent for the government "drawing a line" when it comes to guaranteeing deposits. The government has successfully resisted bailing out depositors in unregulated institutions such as Banksia. Similarly, following the haircut given to depositors in Crete's banking crisis, there is now precedent for a deposit guarantee to cover a fraction of a depositor funds.

An additional complexity arises in the case of a "too big to fail" bank. Depositors may reason that deposits in one of the big four banks must be safe because the government cannot allow the bank to fail. However, this is not the same as saying that the government must guarantee 100 per cent of deposits. In the event that one of the big four banks becomes insolvent, a depositor haircut could certainly play a part in a restructure. To establish the credibility of our proposed it would be important to publicise this possibility prominently.

4.7. Information Externalities

Beyond depositors, there are a number of stakeholders with an interest in a bank's financial stability. Under our proposal, FSRs would be compiled from information that APRA obtains during the course of its ongoing prudential supervision. This includes confidential information that is not available to the wider market. Therefore, by publishing a bank's FSR, APRA improves the information available to market participants.

We would expect that publication of a bank's FSR would help to inform a bank's shareholders and bondholders. This in turn, would assist shareholder activism and act as an additional discipline on a bank's management. Even rating agencies may benefit from access to FSRs. Ratings agencies struggle to provide consensus ratings for financial institutions due to the inherent opaqueness of the banking sector (see Morgan, 2002; and Santos, 2009), access to a bank's FSR may improve the quality of a rating agency's assessments.

Publication of FSRs would also help depositors distinguish between ADIs and institutions in the shadow-banking sector. Unregulated institutions would be conspicuous by the absence of an FSR, immediately indicating to potential customers that deposits with that institution are not protected by deposit insurance.

5. Conclusion

Regulating financial institutions, especially banks, is something of a challenge. The literature is agreed that regulation that complements private monitoring is preferential to regulation that substitutes for private monitoring. The nature of financial regulation, however, creates disincentives to private monitoring.

In this article we propose a ratings scheme – the FSR – we believe it to be both credible and transparent. The FSR would be derived from information gathered by APRA in the course of its supervisory activities and explicitly linked to deposit insurance, allowing depositors to observe both their risk and the interest rate they earn for accepting that risk. Depositors would then provide private bank discipline as a complement to regulatory discipline.

In contrast with existing bank regulations, our proposal is not prescriptive. The FSR permits and encourages a diverse range of product offerings and banking practices, catering to diverse depositor preferences. Implementing our proposal will, necessarily, result in a change in the structure of the retail banking market to better reflect depositor preferences and not regulatory compliance. An

important advantage of our proposal is that there is no increase in the regulatory burden. The most significant challenge in our proposal is in translating APRA's "overall risk of failure" scores into a well calibrated FSR.

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