

# “The financial services reform act and Australian bank risk”

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<b>ARTICLE INFO</b>	Bernard Bollen, Michael Skully and Xiaoting Wei (2010). The financial services reform act and Australian bank risk. <i>Banks and Bank Systems</i> , 5(1)
<b>RELEASED ON</b>	Thursday, 18 March 2010
<b>JOURNAL</b>	"Banks and Bank Systems"
<b>FOUNDER</b>	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

0



NUMBER OF FIGURES

0



NUMBER OF TABLES

0

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## The Financial Services Reform Act and Australian bank risk

### Abstract

This paper examines changes in the risk of eight Australian banks following the introduction of the Financial Services Reform Act of 2001 in Australia. This legislation introduced a new licensing regime into Australian finance and extended it to cover all financial services providers. It, among other things, required specialized staff training for specific positions of customer interaction as well as the mandatory and continuous disclosure of all fees and charges as well as the risks associated with financial products offered to the public. Using daily prices and the market model over a five-year sample period (2001 to 2006) we found different reactions between the larger and smaller banks. It provides some evidence that the larger banks may have reduced their level of systematic risk. In contrast, the smaller banks either experienced no change, or in one case perhaps a slight increase. These differences may reflect the degree of change required with their complying with the Act. The larger banks, which already had extensive staff training operations in place, were better placed to meet these new requirements, whereas the smaller banks required a greater relative investment in their initial and ongoing compliance. These results remain robust to the impact of the 2002 dot com stock market downturn.

**Keywords:** bank risk, banking, Australia, regulation.

**JEL Classification:** G21, G28.

### Introduction

The Financial Services Reform Act (FSRA) is Australian government legislation administered by the Australian Securities and Investments Commission (ASIC). In regulatory terms, it is considered “unique in that it is a single code that regulates a vast variety of products and services” (Pearson, 2006). It was first proposed by the Financial Systems Inquiry Report<sup>1</sup> in 1997, so the Australian financial system could meet the challenges of globalization, convergence and technological change (Lim, 1997). The report offered three reasons for reform. First of all, there was a change in customer financial needs caused by changes in demographics, work force patterns and customer attributes. Secondly, advanced technology had expanded information networks, encouraged electronic channels use for financial services and increased both domestic and international competition. Finally, financial system reform was also forced by Australia’s own regulatory changes to include compulsory superannuation, taxation arrangements and the liberalization of cross-border capital flows. The FSRA was designed to keep the financial market true, fair and honest (Financial Services Reform Act, 2001). In order to achieve this goal, it provides a single unified licensing regime which covered all financial markets, products and service providers (including individuals, partnerships, trustees and companies) under one regulatory scheme rather than having different

legislation for the various industry sectors<sup>2</sup>. It also protects retail clients<sup>3</sup> as they are deemed to have less ability or skills to access the financial information or to evaluate financial products compared with wholesale clients. To enhance consumer protection, it requires all financial service providers continuously to disclose any material information which may affect clients’ decision making. Finally, it leads to greater competition between financial firms due to clients’ knowledge of their costs and performance and so it would likely raise product quality (Pearce, 2005).

The FSRA was only one part of Australia’s major regulatory reforms in the 1990s whereby a mix of state and federal regulations and regulators were absorbed into what might be best called a tripartite system. The Australian Prudential Regulation Authority (APRA) became Australia’s one prudential regulator while the Australian Securities and Investment Commission (ASIC) took responsibility for the financial markets, market conduct, clearing and settlement systems and consumer protection as well as corporate activities. These operations were then effectively overseen by the central bank, the Reserve Bank of Australia, which retained responsibility for monitoring the country’s systemic risk and payment systems.

The first main requirement of FSRA is for all financial service providers to hold a licence and

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<sup>1</sup> Australia’s Financial Services Inquiry was appointed by the Australian government in June 1996 to examine the results of Australia’s financial deregulation; the impact of technology and other future change; and recommended an appropriate regulatory system, accordingly (Financial System Inquiry, 1997). Ramsay (2001) provides some useful background to the report as well as linking its views to the resulting FSRA as Von Nessen does (2006).

<sup>2</sup> As Harding (2001) explains, the FSRA, technically part of the revised Corporations Act, also helped to reinstate the Australian government’s powers to act in these matters. Previously, it had effectively shared many of these powers with the state governments.

<sup>3</sup> Generally speaking, a retail client includes individuals and small businesses. Under Corporations Act 2001, a financial product is provided to a retail client when the financial product is not a general insurance product, a superannuation product or a retirement saving account and the financial product is not provided for use in connection with a business.

thereafter comply with all the rules under FSRA (FSRA, 2001). The FSRA was passed by the Australian Parliament on August 23, 2001 and commenced operations on March 11, 2002 with a two-year transition period, i.e. it was not fully effective till March 11, 2004: seven years after it was proposed by the Financial Services Inquiry. Businesses that commenced after March 11, 2002 had to obtain a financial services licence but existing entities did not need one until March 11, 2004. This gave them two years to adapt to the new rules. Therefore, the full effect of FSRA should only be observed after March 11, 2004. The FSRA's other main requirement concerns disclosure (FSRA, 2001). This information has to be relevant, clear and concise. When financial services are provided to retail clients, financial services guides (FSG), statements of advice (SoA) and product disclosure statements (PDS) are required. The FSG outlines the basic information that any retail client is entitled to receive. The SoA explains the fees, commission or any association that might affect the advice. The PDS states the features of the financial product and the benefits and risks of investing. These statements are meant to help retail clients better understand financial products and so make better investment decisions. However, it has been argued that FSRA may not achieve this goal due to the lengthy, complex documents provided (Pearce, 2005). The arguments for and against the FSRA's effectiveness are discussed further in the literature review section.

After the FSRA's implementation, the Australian banks publically expressed their concerns about its operational impact. The Bank of Queensland (BOQ), amongst others, complained over the massive compliance cost involved (BOQ, 2004). Australia and New Zealand Banking Group (ANZ) also spent a vast amount of time and money, and viewed the end benefit to consumers as rather limited (ANZ, 2008). Buffini (2005) also complains about the costs for "a mountain of paperwork that consumers will never read". Chris Pearce, the then Parliamentary Secretary to the Treasurer, also admitted that the FSRA offered the trade-off between the benefits and costs (Pearce, 2005). He suggested that the costs incurred would be ultimately borne by investors. This unfortunately meant that some retail consumers might not be able to afford them and so may be precluded from some services. Thus, Baker (2005) claimed the FSRA resulted in a "massive cost imposition on consumers without sufficiently compensating consumer benefits". Besides these cost concerns, the CEOs of Bendigo Bank (BEN, 2004) and Bank of Queensland (BOQ, 2004) both believed that the banking industry was already over-regulated. They complained that due to the misbehavior or collapse of a few corporations, all entities would have to bear the

consequences and be heavily regulated. Despite concerns of the costs of the FSRA, some banks offered some positive reactions. Indeed, the National Australia Bank (NAB) applied for its financial services licence six months before the deadline (March 11, 2004) (NAB, 2003). Additional staff training was also undertaken at the Bank of Queensland (Liddy, 2004), National Australia Bank (NAB, 2003) and other Australian banks between 2003 and 2004; most banks found it beneficial.

Since the implementation of the FSRA, various arguments about its benefits and effectiveness have emerged. One stream has focused on the impact of the FSRA on bank risk. The FSRA was introduced with the main purpose of integrating the financial system. In their analysis of financial services providers, some researchers have argued that it may have changed bank risk as well. This lower risk resulted from the FSRA's more strict disclosure requirements. This requirement of more information facilitates more effective market discipline through which bank risk is reduced (Moutsopoulos, 2005). The FSRA's requirement of a higher level of staff qualifications and staff training may also have lowered bank risk in that greater staff competence should reduce operational risk (Shepherd, 2006). Nevertheless, the FSRA is also claimed to be less effective than expected. Despite the extra information, consumers may not be able to understand it (Phillip, 2004). Furthermore, even if they could understand these documents, Haigh (2006) argued that as these product disclosures are not subject to audit, this may weaken their effectiveness. So the bank risk might not have been reduced after all. Worse still, some banks may have sought to offset the FSRA's higher costs by raising their risk profile.

This paper examines whether the implementation of FSRA has had an impact on Australian bank systematic risk. In this study, eight Australian banks<sup>1</sup> are tested in regard to their reaction to the introduction of the FSRA over the period from March 31, 2001 to March 31, 2006. Among the eight banks, four are Australian major banks and the others are regional ones and of a relatively smaller size. Based on prior studies, the market model is employed to capture any changes in bank systematic risk after the FSRA's implementation. The findings show evidence of a decrease in systemic risk after the introduction of the FSRA among the large banks, but some weak evidence of increased risk among the smaller ones. The former may reflect the merits of the FSRA while the latter – its flaws and disadvantages.

<sup>1</sup> Australia and New Zealand Banking Group Limited (ANZ), Commonwealth Bank of Australia (CBA), National Australia Bank Limited (NAB), Westpac Banking Corporation (WBC), Bank of Queensland Limited (BOQ), Bendigo Bank Limited (BEN), Suncorp-Metway Limited (SUN) and St. George Bank Limited (SGB).

## 1. Literature review

As the then chair of the US Federal Reserve System Alan Greenspan explained, the purpose of bank regulation is to “circumscribe the incentive of banks to take excessive risks owing to the moral hazard in the safety net designed to protect the financial system and individual depositors. But the full answer must involve some benefit-costs tradeoffs between, on the one hand, protecting the financial system, and on the other hand, allowing banks to perform their essential risk-taking function” (Greenspan, 1993, p. 4). Thus, regulation should help control bank risk and eliminate moral hazard in order to keep the financial system healthy.

Some particular regulations, such as the Basel Accord, have been introduced with the purpose of controlling bank risk. While the FSRA was not introduced for this purpose, many academics have argued that it may have impacted bank risk. There have been some arguments for and against this view. The main argument for reduced risk is that the FSRA’s disclosure rules could facilitate more market discipline. The additional information provided both to clients and ASIC affords more opportunity to monitor bank performance and so may encourage banks to reduce their risk accordingly (Moutsopoulos, 2005). Such an increase in transparency can promote competition which may lead to higher quality products and lower risk (Pearce, 2005). Finally, if the more staff education, qualifications and continuous training now required for financial services firms increase staff competence, then it should reduce bank risk (Shepherd, 2006).

However, as mentioned previously, some viewed the disclosure required as “too great, too cumbersome, too complex and too unfriendly to consumers” (Phillips, 2004, p. 11). As consumers would rarely read these long statements, Pearce (2005) suggested that they provide little customer protection or even information transmission. Indeed, he suggested that “consumers are actually worse off than if they received no information” (as cited in Kelly, 2005). Therefore, the FSRA’s disclosure rules may not have achieved its objective. Besides, without some form of audit of the content, the outcome might prove even less appropriate. For example, the “sales recommendation” label with financial products was meant to distinguish the sale of products from the provision of advice, so that investors can note the difference in their decisions. However, it may give financial services providers’ incentives to sell products more widely (ASFA, 2007). Furthermore, customers may not notice the label and still expect financial advice. In this case, the sales recommendation label is less effective in preventing poor behavior by financial services providers<sup>1</sup>.

<sup>1</sup> Additional negative comments on the FSRA can be found in Hoggett & Nathan (2002) and Pearson (2006).

As the financial services providers (including banks) are more regulated under this FSRA standard, strict compliance should have led to a reduced risk within the financial industry for the above stated reasons. This leads to the key hypothesis of this study:

*H<sub>0</sub>: The introduction of the FSRA reduced the level of bank risk in Australia.*

To date, there has been no empirical study as to the FSRA’s impact on the systematic risk of banks in the Australian market. There are nevertheless two studies which examine the FSRA in respect to the overall banking industry and financial services industry, respectively. Beardsley and O’Brien (2005) is the most interesting as it considers both aspects and finds no increase in systemic risk for three years after but a significant decrease before the FSRA’s passage. The other work, Mitchell et al. (2008), also differs in approach and concentrates on the expense ratio of listed financial services providers subject to the act. While excluding banks, they did find the firms in question experienced a statistically significant increase in operational costs.

## 2. Data and methodology

Australia has a highly concentrated banking industry and, therefore, has few listed banks compared to the US and many other developed countries. Thus, ours has a sample of only eight banks: the Australia and New Zealand Banking Group Limited (ANZ), Commonwealth Bank of Australia (CBA), National Australia Bank Limited (NAB), Westpac Banking Corporation (WBC), Bank of Queensland Limited (BOQ), Bendigo Bank Limited (BEN), Suncorp-Metway Limited (SUN), and St. George Bank Limited (SGB). These eight banks, especially the big four Australian banks (ANZ, CBA, NAB and WBC), constitute over 80% of total banking asset and so well represent the Australian banking industry.

Our sample period covers three years prior to the introduction of FSRA and two years afterwards, that is from March 31, 2001 to March 31, 2006. This choice follows similar studies such as Brook and Faff (1995) and Haq and Heaney (2009) which all use a sample period of five years or more. The daily data on bank stock prices and the All-Ordinaries index are collected from the DataStream database. The risk-free rate of return, proxied by 90-day bank bill rates, as Treasury notes were not available during the overall sample period, is from the Reserve Bank of Australia website. This process left 1,304 daily stock price observations over the five-year sample for each bank.

An augmented market model is employed in this study to capture the impact of the FSRA. Two periods are of interest, that is, the period before and the period after the FRSA’s introduction. The

change in the level of abnormal returns and changes in the level of systematic risk of each of the banks is captured in the proposed model. For each bank  $i$ , as well as for an equally weighted portfolio of the big four banks and an equally weighted portfolio of the four small banks, the following model is estimated;

$$r_{it} = \alpha_{i0} + \alpha_{i1}D_1 + \beta_{i0}r_{Mt} + \beta_{i1}D_1r_{Mt} + \varepsilon_{it}, \quad (1)$$

where  $r_{it}$  is bank  $i$ 's excess return on day  $t$ ,  $r_{Mt}$  is the excess market return on day  $t$  and  $\varepsilon_{it}$  is a normally distributed error term with expected value equal to zero. The asset return  $r_{it}$  is computed by taking the logarithm of the asset's stock price on day  $(t+1)$  over day  $(t)$  and  $r_{Mt}$  is similarly calculated using the All-ordinaries index. Stock and market excess returns are then computed by subtracting risk-free rates from daily stock returns or market returns. The dummy variable  $D_1 = 0$  for the period before the introduction of the FSRA and  $D_1 = 1$ , otherwise. The implementation date of FSRA is taken to be March 11, 2004 as the banks selected in this study did not have to comply with the FSRA until this deadline. The parameter  $\alpha_{i0}$  is referred to as Jensen alpha and represents asset  $i$ 's abnormal return before the introduction of the FSRA. If  $\alpha_{i0}$  is non-zero, then the asset has an expected return different from the expected return modeled by the standard CAPM. The parameter  $\alpha_{i1}$  captures any changes in abnormal returns after the introduction of the FSRA. If the estimate of  $\alpha_{i1}$  is insignificant, then we have no evidence of any changes in abnormal returns because of the introduction of the FSRA. The sign of  $\alpha_{i1}$  is also of interest as it indicates if there was an increase or decrease in an asset's abnormal return after the introduction of the FSRA. Parameter  $\beta_{i0}$  models the sensitivity of asset  $i$ 's return to the market returns, that is, its systematic risk before the FSRA. Parameter  $\beta_{i1}$  captures the changes in the systematic risk of asset  $i$  after the introduction of the FSRA. The significance and sign of  $\beta_{i1}$  is taken as evidence of any changes in the level of systematic risk after the FSRA.

### 3. Results

Table 1 displays the results of estimating equation (1) on each of the eight banks as well as for an equally weighted portfolio of the big four banks and an equally weighted portfolio of the four small banks over the five-year sample period. The abnormal return ( $\alpha_{i0}$ ) and change in abnormal return ( $\alpha_{i1}$ ) for all assets are statistically insignificant and indicate that there were no

abnormal returns before or after the introduction of the FSRA. This result is supported by many studies initiated by Fama (1970) which asserted that the financial system is efficient and no repeatedly positive alphas (i.e. abnormal return) should be observed. In contrast, all estimates for beta ( $\beta_{i0}$ ) are highly significant and within the range of values to be expected. Of key interest is the sign and significance of the ( $\beta_{i1}$ ) parameter which models the change in beta or systematic risk after the FSRA's introduction. For each of the small banks and for the equally weighted portfolio of small banks the estimate of ( $\beta_{i1}$ ) was positive but statistically insignificant indicating that there was no change in the level of systematic risk for small banks (only BEN showed a significant increase in systematic risk at 5%)<sup>1</sup>. The regression results for the large banks were mixed. Overall, the Big Portfolio showed a negative parameter estimate for ( $\beta_{i1}$ ) indicating that systematic risk declined after the introduction of the FSRA but it was not statistically significant. Their individual performances, however, were quite different. Three of the four large banks showed a statistically significant decline in the level of systematic risk (NAB and CBA at 1% significance and ANZ at 5% significance). While WBC showed no significant decline in the level of systematic risk after the FSRA's introduction, it must be remembered that it actually applied six months before necessary to obtain its Australian Financial Services Licence: this suggests that Westpac may have reacted quite differently to the other banks. These results offer some, although not conclusive, evidence that the level of systematic risk did decline after the FRSA's introduction for the larger banks.

This decreased risk among large banks was reasonably expected. It partly suggests that the FSRA has achieved its goals to some extent. It supports the view that extra disclosure requirement can increase ASIC supervision as well as market discipline which can reduce risk (Moutsopoulos, 2005). The lowered risk could also be due to the increase in staff knowledge and skills which can improve bank internal operation (Pearce, 2005). This outcome might have also been predicted indirectly from the earlier work of Harper and Scheit (1994) in that as deregulation did not increase risk, re-regulation might reduce it. However, the evidence on

<sup>1</sup> Bendigo Bank may have faced more difficulties with the FSRA than other banks. As Hunt (2002) explained, "the additional training required provides logistical problems in recruiting staff in the future and adds considerable costs, thus, reducing the ability of the Bank to deliver cost-efficient services to rural and regional Australia...". This reflects its traditional provincial rural focus.

the smaller banks – no decrease in bank risk after the FSRA – is not as predicted. The prior literature, as discussed in Section 1, provides some possible explanation for the ineffectiveness and thus, no change in FSRA's systematic risk for small banks. Firstly, it has been suggested that the disclosed information is too complex for consumers to understand (Phillips, 2004) and so they rarely read these statements. Secondly, even if consumers did read and understand these documents, information provided is not subject to audit (Haigh, 2006). In other words, the disclosed information may not always achieve its designed objective. Thirdly, the FSRA requires financial services providers to tell their investors explicitly whether the advice given is a pure investment advice or a product promotion. If it is a sale of product, then a "sales recommendation" label has to be provided. The ASFA (2007) argues that this may give financial institutions more incentives to sell financial products. As a result, the overall quality of customer assistance deteriorates. Furthermore, if customers do not notice the sales recommendation label and expect financial advice, the sales recommendation label may be less

effective in preventing poor behavior by financial services providers. Finally, although it has been suggested that the implementation of FSRA will increase competition among financial institutions and thus encourage them to make better quality products (Pearce, 2005), it may also imply an increase in risk and thus return for financial institutions to stay competitive. All these arguments from prior literature along with the concerns raised by the banks (discussed in the introduction section) would offer reasonable grounds for no change in the level systematic risk for small banks.

The evidence indicating large banks responded differently to smaller banks could be because of their different standards of staff qualification and skills, and quality of financial services prior to the FSRA. In other words, large banks were likely to have better qualified staff and customer relations programs than the smaller banks. As a result, large banks are subject to less change. For the smaller banks, they may have to incur substantial costs in order to comply with this act and, therefore, they are likely to take advantage of what the FSRA did not capture.

Table 1. Regression results modeling the impact of the FSRA on bank abnormal returns and bank systematic risk

This table displays the results of estimating the regression  $r_{it} = \alpha_{i0} + \alpha_{i1}D_1 + \beta_{i0}r_{Mt} + \beta_{i1}D_1r_{Mt} + \varepsilon_{it}$  (equation (1)) on the eight banks and two equally weighted portfolios (a portfolio of four large banks and a portfolio of four smaller banks) over the entire 5-year sample period (March 31, 2001 to March 31, 2006). The table includes parameter estimates, t-stats and p-values and the regression  $R^2$ . There is a total number of 1,304 observations for each bank and portfolio. Parameters  $\alpha_{i0}$  and  $\beta_{i0}$  are the pre-implementation abnormal return and the beta of each bank or portfolio. Parameter  $\alpha_{i1}$  is the change in the abnormal return of each bank or bank portfolio after the introduction of the FSRA. Parameter  $\beta_{i1}$  represents the change in beta (systematic risk) of each bank or bank portfolio after the FSRA's introduction.

	ANZ	NAB	WBC	CBA	Big portfolio	BOQ	SUN	SGB	BEN	Small portfolio
$\alpha_{i0}$	0.0004	0.0000	0.0003	0.0000	0.0004	0.0007	0.0002	0.0004	0.0006	0.0003
t-ratio	(1.0969)	(0.0815)	(0.9506)	(0.1496)	(1.5946)	(1.5871)	(0.4195)	(1.3544)	(1.3382)	(1.4604)
p-value	0.2729	0.9350	0.3420	0.8811	0.1110	0.1127	0.6749	0.1759	0.1811	0.1444
$\alpha_{i1}$	-0.0004	-0.0003	-0.0004	0.0000	-0.0005	-0.0007	-0.0003	-0.0004	-0.0006	-0.0003
t-ratio	(-0.7846)	(-0.5978)	(-0.8234)	(-0.0133)	(-1.3220)	(-0.9583)	(-0.5128)	(-0.7849)	(-0.9517)	(-1.0401)
p-value	0.4328	0.5501	0.4104	0.9894	0.1864	0.3381	0.6082	0.4327	0.3414	0.2985
$\beta_{i0}$	1.0554	1.1393	0.9325	1.0207	0.9313	0.5981	1.0067	0.6143	0.6389	0.8202
t-ratio	(21.9580)**	(22.0845)**	(19.1317)**	(22.5285)**	(28.8730)**	(9.2624)**	(16.5443)**	(12.6848)**	(10.1697)**	(26.3273)**
p-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
$\beta_{i1}$	-0.1831	-0.3638	-0.0728	-0.2890	-0.1031	0.2074	0.0152	0.1583	0.2377	0.0306
t-ratio	(-2.0637)*	(-3.8187)**	(-0.8085)	(-3.4545)**	(-1.7304)	(1.7398)	(0.1352)	(1.7708)	(2.0489)*	(0.5312)
p-value	0.0392	0.0001	0.4189	0.0006	0.0838	0.0821	0.8925	0.0768	0.0407	0.5954
$R^2$	32.25%	30.91%	27.58%	32.17%	46.00%	10.37%	23.12%	17.02%	12.41%	43.55%

Note: \* significant at 5%, \*\* significant at 1%

#### 4. Robustness test

The model employed in this study includes a dummy variable to capture the impact of the introduction of FSRA. Other events, however, during the sample period may have also affected the results. On March 10, 2000 the dot com bubble burst. In the period from March 10, 2000 to October 10, 2002 the S&P 500 lost some 50% of its value. Such a dramatic market downturn could, in principle, have had an impact upon the results reported. Subsequently, the model defined equation (1) is modified with an additional dummy variable  $D_2$  to capture this event. The new model is specified as follows:

$$r_{it} = \alpha_{i0} + \alpha_{i1}D_1 + \beta_{i0}r_{Mt} + \beta_{i1}D_1r_{Mt} + \delta_1D_2 + \varepsilon_{it}, (2)$$

where  $D_2 = 1$  over the period from February 1, 2001 (the start of our sample period) to October 10, 2002 and  $D_2 = 0$ , otherwise,  $\delta_1$  is a fixed parameter to be estimated. All other variables and parameters have the same definition as defined in (1). The model defined in (2) is again estimated on the eight banks and two equally weighted portfolios (a portfolio of four large banks and a portfolio of four smaller banks) over the entire 5-year sample period (March 31, 2001 to March 31, 2006). The estimate of the  $\delta_1$  parameter was insignificant in all cases and parameter estimates and t-ratios for the parameters  $\alpha_{i0}$ ,  $\alpha_{i1}$ ,  $\beta_{i0}$  and  $\beta_{i1}$  remained virtually unchanged with the introduction of the dot com dummy variable into the equation. We take the preceding analysis as evidence that results reported in Table 1 are robust to the impact of the market downturn that resulted from the dot com crash.

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#### Conclusion

The aim of this paper is to assess whether the Financial Services Reform Act had any impact on the systematic risk of Australian banks. It found some evidence that the larger banks reduced their level of systematic risk after the introduction of the FSRA. Some weak evidence was also presented that the smaller banks had no, or perhaps a slight increase in systematic risk after the introduction of the FSRA. We speculate that the large banks exhibited lower bank systematic risk because of the benefit of strict disclosure requirements and staff training requirements which increased external supervision and staff competence. The small banks may have had an increase in risk, perhaps because the FSRA's requirements left them with an option to slack on some rules. Alternatively, they have sought to increase their business risk in the hope that the higher expected returns might help offset the higher additional compliance costs they experienced. The results are robust to the impact of the dot com market downturn.

This study contributes to the literature on the effectiveness of bank regulation and its impact on bank risk. It is believed to be the first paper to address this question empirically at the individual bank level. From this study, policy makers may gain a better understanding of the impact of consumer based financial regulation and how banks may respond to this type of regulation. This may consequently produce improved regulations that take systematic bank risk into account, particularly for smaller banks. For the banking system, it may provide a better understanding of how banks attempt to comply with and minimize FSRA's negative impacts, particularly in regard to the increase or decrease in systematic risk as a result of their decisions. These factors may assist them when considering their response to further regulatory change.

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