Chapter 3

The economics of bank mergers

3.1 There are essentially four main views about the motivations for bank mergers.[1]

- The first is that it is about improving the efficiency of banking by realising economies of scale and economies of scope or allowing banks to meet the borrowing needs of increasingly large corporations.
- The second is that it is motivated by increasing market power (and hence profits), which will be reflected in lower interest rates on deposits and/or higher interest rates on loans.
- The third motivation is that banks may seek to merge in order to reach a size at which they are 'too-big-to-(be-allowed-to)-fail'. There is evidence that ratings agencies and markets believe that large banks are more likely to be assisted in a crisis than small banks.[2]
- The final view is that mergers are largely ego-driven, with bank management seeking the greater prestige and salaries that come from running a larger organisation.[3] (There are also defensive advantages in getting larger. It makes the bank less likely to become a takeover target itself, thereby protecting the CEO's position.)

3.2 It is only if the first reason is dominant that mergers may be in the public interest rather than just in the interests of the bankers. This chapter therefore concentrates on the evidence for economies of scale and scope in the international economics literature. The latter part of it addresses the question of whether a

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1 In addition, in some countries the authorities have driven the merger process under 'master plans' as a means of removing weak banks from the system, preferably before they failed; Mihaljek (2006).

2 Hawkins and Mihaljek (2001) show that the credit ratings of large banks are higher than those for small banks with the same inherent strength.

3 An econometric study by Bliss and Rosen (2001) supported this widely-held impression. 'Compensation generally increases even if mergers cause the acquiring bank's stock price to decline, as is typical after a merger announcement'; Warren Buffet (1993) holds a sceptical view about the benefits of mergers in general (not just banks), having said: 'I've observed that many acquisition-hungry managers were apparently mesmerized by their childhood reading of the story about the frog-kissing princess. Remembering her success, they pay dearly for the right to kiss corporate toads, expecting wondrous transfigurations. Initially, disappointing results only deepen their desire to round up new toads…Ultimately, even the most optimistic manager must face reality. Standing knee-deep in unresponsive toads, he then announces an enormous "restructuring" charge.'

'contestable' banking market allows greater concentration without banks increasing their margins.

Economies of scale in banking

3.3 Very small independent banks may well be inefficient. In terms of costs, it would not be desirable for every suburb or town to have its own bank developing bespoke computer systems (including for internet banking), advertising, training staff and so forth. One response would be for the individual banks to buy these services from specialist providers or form syndicates to provide some of them.[4] But in most cases the model adopted has been for banks to spread these costs across a number of branches around the country. This also has the advantage that if a particular town is struck by a specific problem – a natural disaster or the closure of a large factory – the soundness of its bank will not be affected. Further diversification across different types of banking activity may be a further advantage.

3.4 It is also argued that, especially with prudential rules limiting large exposures to set proportions of capital, making large loans is only open to large banks. A variant of this argument is that large banks can be 'national champions' able to compete in international commercial markets, or develop a significant retail presence in emerging banking markets such as China. This view has been put by the four major banks in arguing that no restrictions should be placed on their ability to undertake further mergers:

> To put it bluntly, the Australian majors need scale to compete with global banks...But the four pillars policy materially constrains us, both domestically and offshore…Westpac often finds itself competing against organisations 10 times our size. So no one should be too surprised when we do not feature in the "mega-deals". Size does matter when it comes to lead bank roles and taking on the exposures involved.[5]
>
> If Australian banks are to compete internationally, they will need to grow substantially. Scalability is important for operating in global markets, in which Australian banks are relative minnows.[6]

3.5 The four major Australian banks ranked between around 40th and 60th in the world by size of assets and capital in *The Banker*'s 2009 survey.[7] While this is well up on the 75th to 105th places they held a quarter-century ago, it still leaves them well short of the world's leading banks. A merger between two of the major Australian

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4 For example, the smaller banks in Hong Kong formed a strategic alliance to develop new superannuation and life insurance products; Carse (2001). See also White (1998). Banks have long formed syndicates to make large loans.

5 Then Westpac CEO, David Morgan (2007, p 3).

6 Harper and Skeffington (2006, p. 38).

7 Since the global financial crisis wiped out considerable amounts of capital from many foreign banks, the Australian banks would now rank higher based on capital. As noted above, they also constitute four of only eleven banks within the world's 100 largest rated AA or better.

banks would not create a bank in the global top twenty. Indeed a merger of all four majors, giving virtually a domestic monopoly, would be needed to create a bank in the global top ten, or with a capital base comparable to that of the leading Chinese banks.[8]

3.6 Nor is it obvious that domestic mergers would make Australian banks more effective global competitors:

> It has been convincingly argued that, in many cases, domestic rivalry rather than national dominance is more likely to breed businesses that are internationally competitive.[9]

3.7 As Professor Davis points out:

> …the ability of a much smaller local bank (Macquarie) to compete in international investment banking, securities and wholesale markets would appear to weaken the argument, and suggest that 'culture' may be a more important issue than domestic commercial banking scale.[10]

3.8 Moreover, there are also disadvantages from banks becoming too large. Many customers believe that large banks lose touch with their communities. Local managers may be transferred interstate and not know their customers and their business. The perception that larger organisations give poorer, or less personal, service may be one reason why there is often a loss of a smaller bank's customers when it is taken over by a larger bank.[11] An industry rule of thumb is that typically about 5 per cent of the target bank's retail customers will transfer their business elsewhere as a result of a takeover.[12] This accords with the experiences of some local bank workers:

> Every takeover I have been subjected to has lost business…When Trust Bank was bought out by Colonial, then CBA, we had an enormous amount of clients say, 'Well, if I wanted to bank with the CBA, I would already have been with them,' and they leave—over a period of time, because it takes a fair bit of effort to change banks.[13]

3.9 As banks become larger and more complex, it becomes much harder for head office management to keep control of the risks being undertaken. There have been

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8 Similarly, Harper and Skeffington (2006, pp 38-9) argue 'For example, if all the big four Australian banks merged, the new entity would be less than half the size of large US banks such as Citigroup or Bank of America.

9 Fels (1999, p 4).

10 Davis (2007, p 276).

11 Choice, drawing on results of customer satisfaction surveys by Roy Morgan pollsters, report that larger banks consistently have lower customer satisfaction; *Submission 6*, p 8.

12 Beal and Ralston (1998). Their own analysis of Australian bank mergers suggests a leakage of market share with mergers. It is also consistent with the results in Table 2.2.

13 Ms Carol Gordon, National President, Finance Sector Union, *Committee Hansard*, 13 March 2009, p 6.

high profile cases of 'rogue traders' from large banks operating in complex derivatives markets causing huge losses.

3.10 Furthermore, even when mergers offer the *potential* to reduce costs, these gains may be hard to realise. Incompatibilities in computer systems are a common problem but there can also be significant challenges in reorganising management and dismissing excess staff while maintaining focus and morale, and merging institutional cultures.[14] One Japanese bank, some years after forming from a merger, had *three* HR departments, one for those staff from one of the constituent banks, one for those from the other and a third looking after staff who had joined since the merger.

3.11 The Australian Bankers' Association suggest 'a merger is assumed to offer benefits in terms of economic scale efficiency'.[15] But the available evidence questions this assumption.

Evidence on economies of scale

3.12 An indication of the extent of economies of scale is given in Chart 3.1, which summarises data from Australian banks, building societies and credit unions. The horizontal axis shows the size of institutions (measured by assets, on a log-scale so that small credit unions and the large banks both fit) and the vertical axis shows operating (ie excluding interest and write-offs) costs as a percentage to assets. If the operations of financial institutions were dominated by economies of scale the observations should lie around a downward-sloping curve. For the credit unions, this seems to be the case. But for the larger banks, the curve flattens: St George's operating costs were already a similar proportion to assets as the four major banks, even before its merger with Westpac. The chart does not therefore suggest that mergers of large banks are likely to generate significant gains in efficiency.[16]

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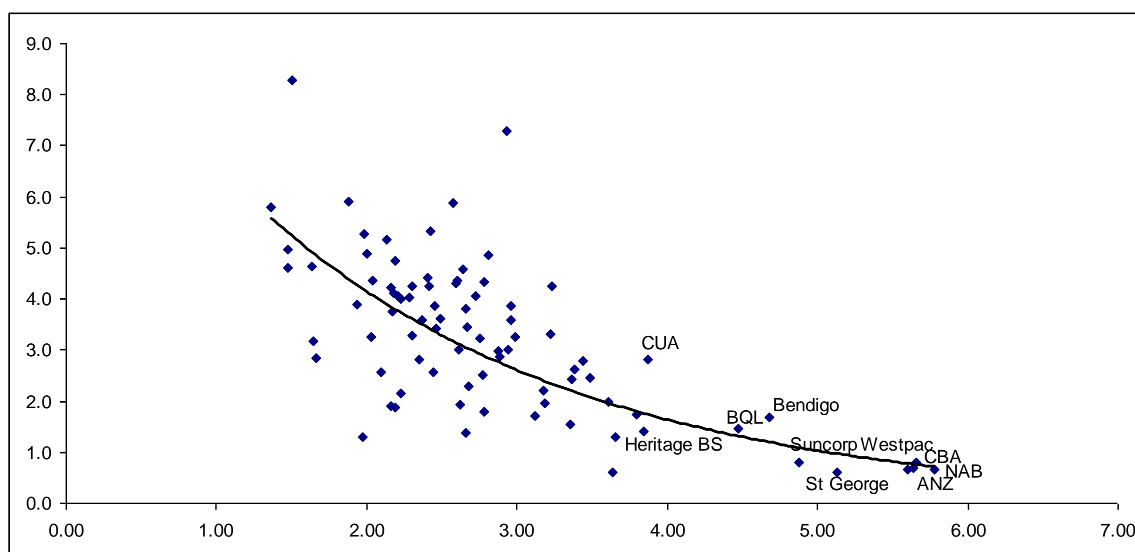
14 See Beal and Ralston (1998, p 30), Focarelli and Panetta (2003), Hawkins and Mihaljek (2001), Marcus (2001, p 135) and Rhoades (1998) for further discussion.

15 ABA, *Submission 14,* p 7.

16 When a higher-order polynomial was used to fit the trend line, it curved up towards the end, suggesting there were diseconomies of scale once intermediaries reached the size of the major banks.

Chart 3.1: Australian financial intermediaries: size vs efficiency



Source: Secretariat, based on data in KPMG, *Financial Institutions Performance Survey 2008*.

3.13 This result is consistent with empirical studies which have attempted to ascertain at what point the advantages of increasing the size of banks start to become outweighed by the disadvantages. A study by two BIS economists found that in some parts of the world, the average large bank had lower operating costs relative to assets than did the average small bank, but in other regions the small banks actually had lower average costs. However, despite these general results, there were many small banks with costs/assets ratios which compared favourably with the average large bank. In terms of profitability:

> …smaller rather than larger banks were more profitable [on average]…mainly because larger banks…included a greater number of loss-making institutions (especially in Asia). Larger banks, however, have an advantage in returns on capital, because they are generally able to operate with smaller capital relative to the size of assets.[17]

3.14 Surveying the literature, they observe:

> Recent econometric evidence on gains from mergers is therefore often weaker than the claims of the merging institutions. Some empirical studies found… economies of scale could be exhausted at relatively low levels.[18]

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17 Hawkins and Mihaljek (2001, p 17).

18 Hawkins and Mihaljek (2001, p 34). McAllister and McManus (1993) found increasing returns to scale up to about US$500 million in assets and constant returns thereafter. Berger et al (2000) found that average costs were usually minimised somewhere between US$100 million and US$10 billion in assets. IMF (2001) found some evidence of scale economies for banks with assets between US$1 billion and US$10 billion. Similarly the Group of Ten (2001, p 253) concluded: 'most research on the existence of scale economies in retail commercial banking finds a relatively flat U-shaped average cost curve, with a minimum somewhere around US$10 billion of assets, depending on the sample, country and time period analysed.'

3.15 Subsequent studies continue to give at best very weak support to the efficiency gains from mergers, other than those between small banks. Some recent surveys of the literature found:

> …findings of previous studies are consistently pessimistic. There is generally a lack of improvement in firm performance as a result of mergers.[19]

> …little evidence that there are *significant* economies of scale or scope in banking at the institutional level.[20]

> …the evidence for such cost economies arising from mergers in the financial services sector is at best ambivalent. Most studies of financial intermediaries, especially banks, show constant returns to scale over large ranges of output. The evidence for economies of scope is more encouraging but only slightly.[21]

> …the bulk of empirical research shows no evidence of efficiency gains from bank mergers.[22]

> …although some consolidations improve cost efficiency, others worsen the performance of the combined institutions. The net effect across all institutions is no significant gain in cost performance...many studies conclude that substantial economies of scale exist, but only up to a relatively small size. While there is a wide variation in the exact size of this cut-off point, the largest Australian banks are clearly above this point.[23]

> …the available research literature seems to suggest that increasing bank market concentration and consolidation tend to drive loan rates up…[24]

> Overall, there appears to be little evidence…that very large banks gain substantial cost savings from increased scale or product diversification…[25]

> In general, most studies find only small economies of scale in a [financial] firm's cost structure. In those studies that find evidence of increasing returns to scale, the measured economies of scale seem to be stronger in small to medium-sized firms than for large firms.[26]

> …consolidation in the financial sector is beneficial up to a relatively small size in order to reap economies of scale, but there is little evidence that mergers yield economies of scope or gains in managerial efficiency.[27]

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19 Wu (2008, p. 144).

20 Valentine and Ford (2001, p 51).

21 Harper (2000, p 69).

22 Buckley and Rayna (2001, p 205). Houston and Ryagaent (1994) reach similar conclusions.

23 Kent and Debelle (1999, p 18). Similar conclusions were reached by Brown and Brown (1995).

24 Carletti, Hartmann and Spagnolo (2002, p 41).

25 Davis (2007, pp 269-70).

26 Allen and Liu (2005, p 2).

27 Amel, Barnes, Panetta and Salleo (2004).

3.16 Similar results were obtained in two recent econometric studies of Australian banks:

> For those four major banks that are found to operate over the range of diseconomies of scale, mergers among them will inevitably result in much lower efficiency in the consolidated banks and the overall banking sector.[28]

> Decreasing returns to scale set in very quickly at less than $10,000 million: almost all medium size and large banks exhibit decreasing returns to scale. This suggests a question mark over the economies of scale claimed at times by the proponents of mergers between the largest banks.[29]

3.17 Another reason why mergers may lead to reduced efficiency is that they may lead to banks that are too big to be allowed to fail. This reduces discipline on the banks. As one regional bank put it:

> It is always the case that any institution considered too big to fail will lose internal discipline whilst parties dealing with that institution act as if that institution has a guarantee from the government. This becomes a self-fulfilling prophecy, with that institution gaining an unfair advantage in the risk-return tradeoffs, while its internal disciplines deteriorate until we have a situation like the recent US or UK experience.[30]

3.18 Another indication that bank mergers often fail to generate improved efficiency is the reaction of stock market valuations to them. Here most studies fail to find the market rewarding banks, either at the time the takeover is announced or after it has been realised. For example, Buckley and Rayna (2001) examined Westpac's takeover of Bank of Melbourne and found that while the takeover led to increased returns on Bank of Melbourne shares, it led to *decreased* returns on Westpac shares. Surveys of other studies of bank mergers conclude:

> The main finding of the event studies looking at share prices around the time that a deal is announced is that, on average, total shareholder value (ie the combined value of the bidder and the target) is not affected by the announcement of the deal, since, on average, the bidder suffers a loss that offsets the gains of the target.[31]

> …traditional studies fail to find conclusive evidence that bank mergers create value.[32]

> …[study] finds a strong negative share price reaction following the acquisition.[33]

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28 Wu (2008, p 154).

29 Neal (2004, p 187). An earlier empirical study of Australian banks by Walker (1995, p 114) found 'constant returns to scale for long run costs'.

30 Mr Ram Kangatharan, Chief Financial Officer, Bank of Queensland, *Committee Hansard*, 1 July, p 3.

31 Group of Ten (2001, p 254).

32 Houston, James and Ryngaest (2001).

Economies of scope

3.19 Merging banks with differing foci, or merging a bank with another type of financial institution, may allow cross-selling of products; such as selling insurance to customers with bank accounts. It may allow a reputable brand name to be used to sell more products (albeit at the risk of diluting the value of the brand). A humble bank branch may become a 'one stop financial shop'.

3.20 However, bringing together different types of financial institutions involves more difficulties in blending corporate cultures. It creates organisations which are harder to manage and harder to assess, and may give rise to conflicts of interest which 'Chinese walls' may not always effectively address (e.g. a bank simultaneously lending to a company, underwriting its securities and investing its customers' superannuation in the company's shares). Empirical studies have generally found economies of scope to be relatively small.[34]

3.21 The impact of the formation of financial conglomerates on financial stability is unclear, reflecting conflicting forces:

> These are diversification, which will reduce the probability of individual bank failure, and contamination, which can lead to contagion flowing from failures in non-core banking activities.[35]

Concentration, contestability and interest margins

3.22 The empirical literature on the relationship between concentration and interest margins is surveyed in Northcott (2004). There are many studies which suggest that more concentrated banking systems are associated with higher interest rates being charged for loans and lower rates being paid on deposits. In some cases, the results are not robust after controlling for other factors. In particular, low barriers to entry reduce the impact of concentration on interest margins. There do not seem to be any studies arguing that interest margins are *narrower* in more concentrated systems. The survey also refers to studies showing that more competitive banking systems tend to be more efficient.

3.23 Concentration ratios are only one aspect of assessing the competition within the banking market. The similarity of interest rates is not a good guide: while banks generally charge very similar rates for housing loans, this could be a sign either of a cartel or of very strong competition. Looking at how changes in interest rates charged move with the banks' costs of funds might suggest that the housing market is reasonably competitive but not the credit card market. One way the market can be

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33 Madura and Wiant (1994).

34 See, for example, Berger et al (1999).

35 Kent and Debelle (1999, p 33).

made more competitive is by making it easier for customers to move between banks, and the Government is currently addressing this.[36]

3.24 Bank mergers, even if they lead to high concentration, will not harm consumers if it is easy for new banks to enter the market in response to any high profits observed. This is known as a 'contestable' market, and will mean that high concentration will not be associated with excessive profitability.

3.25 One factor that has made the Australian banking market more contestable is that the authorities no longer artificially restrict the number of banking licences. As Valentine and Ford (2001, p 42) put it, banking licences used to be like taxi licences but are now more like driver's licences.

3.26 Another change is that the rise of internet banking means there is less need to establish a physical 'bricks and mortar' network of branches in order to compete in the retail market. ING Direct is an example of a new bank that primarily operates in Australia via the internet:

> Apart from Government obligations, banking is now a much more contestable market. In the past, banks derived considerable advantage from having extensive branch networks that made it expensive for new entrants to duplicate. The emergence of the Internet, electronic banking and emergence of the loan and equipment finance broking industry has eroded this advantage.[37]

3.27 Nonetheless, generally the most successful banks have had both branches *and* an online presence – the 'clicks and mortar' model. This is illustrated by the way the major banks, having reduced their branch networks in the 1990s, are now expanding them again.[38]

3.28 The ACCC's view is that:

> …the barriers to large scale national entry for all retail banking products are high and are particularly significant for branch-centric products…current credit conditions have had the effect of raising barriers to entry for lenders. In particular, the closure of securitisation markets and the increase in the cost of credit has meant that many non-bank players have exited lending markets…the high degree of customer ‘stickiness’ for many retail banking products may further increase entry barriers…it is often difficult and time-consuming for a customer to compare one product with another. In

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36 See House of Representatives Standing Committee on Economics (2008).

37 Australian Bankers' Association, *Submission 14*, p 6.

38 See paragraph 6.2 below.

addition,…the inconvenience and, in some cases financial cost (e.g. mortgage exit fees), may deter switching.[39]

3.29 Choice does not regard the Australian banking market as very contestable:

> The structure of the Australian banking market is such that there are significant hurdles for new entrants. This includes incumbents' branch network size, a payments system based on bilateral relations and the obstacles to consumer switching only partly alleviated by reforms instigated by the Treasurer in 2008. By its own admission BankWest was only able to enter the market because of the backing of a very powerful parent company (HBOS) and because pricing in the Australian market was uncompetitive. But BankWest has also acknowledged that complex and cumbersome switching procedures make it difficult to gain market share.[40]

3.30 Dr Jones characterises the experience of the foreign bank entrants in the 1980s as illustrating the barriers to entry in Australian retail banking:

> The entrants were sizeable entities, but all found entry into retail (and small business/family farming) banking hampered by the expenses of duplicating the extensive branch network (recently compounded by the added capital expense of ATM installation) that characterises trading bank operations in Australia. Most of the entrants declined the prospect and the few who did were burnt.[41]

3.31 A contrasting view is put by the Australian Bankers' Association:

> While banking has long been viewed as an industry characterised by high barriers to entry, evidence now shows that these barriers have fallen considerably... In the past, banks derived considerable advantage from having extensive branch networks that made it expensive for new entrants to duplicate. The emergence of the Internet, electronic banking and emergence of the loan and equipment finance broking industry has eroded this advantage. There is clear evidence in the banking market that some foreign-owned subsidiaries with a retail presence have managed to build large deposit and lending books without extensive branch networks…new entrants can purchase off-the-shelf credit scoring software that will enable them to accurately assess credit risk without needing extensive historical information.[42]

3.32 The ABA claims repeatedly in their submission that:

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39 ACCC, Public competition assessment, 'Westpac Banking Corporation – proposed acquisition of St George Bank Limited', 13 August 2008, paras 68 and 71, reproduced in ACCC, *Submission 4*.

40 Choice, *Submission 6*, p 7.

41 Dr Evan Jones, *Submission 5*, p 10.

42 Australian Bankers' Association, *Submission 14,* pp 5-6.

> …academic studies have shown that there is no correlation between bank concentration and competition…[43]

3.33 However, there is a distinction between saying that concentration is not the only factor that determines competition in a market, and that increasing concentration will not reduce competition in that market.

43 Australian Bankers' Association, *Submission 14,* p 16.