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Australian Prudential Regulation Authority

# Capital Management: Steering a Steady Course Through Turbulent Times

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Thank you very much for the opportunity to present to the Seventh Annual UBS Australian Financial Services Conference.

In accepting an invite to speak today, I am told my role is to provide you with some insights and words of wisdom from a regulatory perspective. My plan is to talk about the task of capital management in a financial institution today. The focus of my presentation will be on the ADI sector, where an unusually high number of factors have converged to make capital management particularly challenging at present. Some of the issues and principles that I raise will be equally relevant to other forms of financial institutions, including insurance companies. Whether they are as wise and insightful as the organisers hoped is something I will leave for you to judge.

### **The Capital Management Challenge for Regulators**

Financial institutions are inherently risky. Institutions involved in banking use very high levels of leverage, and manage low levels of liquidity, to make profits. Insurers are not so highly geared, but must price their products before they know what they cost to produce. Yet, despite these structurally risky characteristics, both banks and insurers rely for their success on convincing their customers that they are the paragons of safety and security, and able to make payments without difficulty as and when they fall due.

Given the risk in their financial structures, capital management is crucial to ensuring banking institutions and insurers can deliver on the financial security they offer. It should not be surprising, therefore, that APRA considers capital adequacy to be one of the cornerstones of our prudential requirements. Clearly, institutions need to have enough capital to withstand a range of shocks and losses which inevitably buffet businesses like banking and insurance from time to time. A healthy capital buffer is necessary to absorb these losses without unduly impairing their ability to continue to operate and compete.

APRA has no direct responsibility for the well-being of shareholders. But over the long term, our interests and theirs are in many ways aligned. If we want to make it possible for our regulated institutions to readily source capital to operate their businesses in a prudent manner, we need to make sure that we establish a regulatory environment that provides a sufficient level of safety while still allowing

shareholders to earn an adequate return on their investment. This is necessary to ensure capital will continue to be invested in the industries, as and when needed.

There is possibly an assumption that a regulator like APRA - tasked with minimising the risk of institutional failure - would adopt a capital management approach along the lines of 'too much is never enough'. But in fact, our approach is considerably more nuanced: we need calibrate our prudential requirements for regulated institutions in such a way as to provide the level of safety and security that the community expects, while at the same time allowing a vibrant and dynamic financial services industry to operate<sup>1</sup>. We have to apply 'the Goldilocks principle' - not too much, not too little, but just right. The performance and resilience of the Australian financial system over the past 12 months, at a time of significant global turmoil and major losses by some international financial institutions, suggests our policy settings have been reasonably well founded, although we certainly aren't resting on our laurels. Indeed, as I will outline later, a number of changes to our capital adequacy settings remain in the offing.

### **The Capital Management Challenge for the Banking Sector**

For the banking sector, much of the discussion over the past few years on capital has been focussed on Basel II. But before delving into its impact on banking sector capital, it's worth just touching on a couple of issues that have added to the challenge of managing capital in today's world.

Clearly, IFRS has put a new face on bank balance sheets and P&L accounts by increasing their variability due to a greater use of market/fair value accounting. Tighter provisioning rules by the accounting profession, which have limited the capacity to use what APRA would consider to be prudent, forward-looking approaches to provisioning, further exacerbate potential volatility over the business cycle.

Economic conditions are also more challenging. For the past decade, capital management and analysis in the Australian banking sector has largely revolved around assessing which bank has the greatest capacity for a share buy-back

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<sup>1</sup> Section 8(2) of the *Australian Prudential Regulation Authority Act 1998* establishes a mandate for APRA "to balance the objectives of financial safety and efficiency,

soonest. There hasn't been too much emphasis on investing for the long-term, or putting aside some money for the inevitable rainy day. But given financial market and meteorological conditions had been very similar - there hadn't been much rain about - that seemed to many to be a justifiable strategy. The conditions have now changed considerably, with plenty of rain and more storm clouds on the horizon. As a result, the capacity to maintain dividends, the need for DRP underwritings and even the potential for rights issues are now the subject of discussions.

Against that background, the introduction of Basel II in Australia on 1 January this year has created an added layer of challenge to capital management. On the one hand, Basel II has offered banks the potential - often overstated - for reductions in regulatory capital requirements, but equally has made capital management more complex. The end result is that all financial institutions need to ensure they have a strong framework for managing their capital. Given the environment we are in, now is certainly not the time for an institution to find itself short on capital.

## Basel II

It's important to start any discussion on Basel II by emphasising the fundamental objective of the new Framework: to provide for improved risk management and greater alignment between economic and regulatory capital. Basel II is not just about reducing capital levels - indeed, the Basel Committee set out to ensure that across the global banking system the overall level of capital was not materially changed. But from any change there will inevitably be individual winners and losers, and banks with demonstrably lower risk portfolios and good risk management can benefit from Basel II in terms of lower regulatory capital requirements.

There is more to the story, however, than simply the level of capital. The composition of capital is also important, as the Basel Framework also effectively tightens the requirements around the composition of capital and places a greater emphasis on Tier 1.

One issue which I would like to highlight, and which received very little attention in the lead-up to Basel II, is the changed rules around deductions from capital. For

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competition, contestability and competitive neutrality and, in balancing these objectives, is to promote financial system stability in Australia."

assets such as intangibles and deferred tax assets, the deduction approach reflects an assumption by regulators that these assets will have no value in the event that the bank is in distress. For other assets - for example, investments in subsidiaries and other banks - the deduction approach reflects a desire to prevent 'double leveraging' of capital.

Basel II (and IFRS along with it) brought two important changes to the deduction rules: (i) there are now a greater number of deductions, and (ii) a larger proportion of them need to be made from Tier 1 capital. These changes have a material impact on capital requirements, and quite deliberately reduce the substantial benefit obtained from the reduction in risk-weighted assets under Basel II. In effect, much of any Basel II benefit that flows to banks will manifest itself in a reduction in Tier 2, rather than Tier 1, capital requirements.

So how has all this impacted on Australian banks? Let's start with the position of all locally-incorporated banks as at end December 2007. There are 22 of these banks, and their total regulatory capital amounted to \$149 billion, of which eligible net Tier 1 capital accounted for \$106 billion. Aggregate risk-weighted assets were \$1,465 billion, giving capital ratios of 7.2% Tier 1/10.2% Total.

**TABLE 1: CAPITAL POSITION OF LOCALLY-INCORPORATED BANKS**  
**December 2007 - \$ billion**

	Tier 1 Capital	Tier 2 Capital	Total Capital	Risk Weighted Assets	Tier 1 Capital Ratio	Total Capital Ratio
Major Banks	80	42	115	1183	6.7%	9.7%
Other Aust-owned	18	9	24	188	9.5%	12.6%
Foreign-owned	8	3	11	95	8.7%	11.4%
<b>Total</b>	<b>106</b>	<b>53</b>	<b>149</b>	<b>1465</b>	<b>7.2%</b>	<b>10.2%</b>
Required for 4%/8%	59		117			
Required for 6.5%/10%	95		147			

Assuming a minimum capital requirement of 8% for all banks,<sup>2</sup> the banking system had surplus capital of \$32 billion, and surplus Tier 1 capital of almost \$47 billion. If a Tier 1 ratio of 6.5% is used as a benchmark (given this is a commonly used target for many of the larger banks), a more realistic - albeit still simplistic - assessment might be to say that there was an additional \$11 billion of Tier 1 capital in the system at the end of 2007.

Any analysis of the change in capital over time needs to start with the extent to which banks generate their own capital each quarter in the form of retained earnings. While there is some variability in this number from quarter-to-quarter, the banking system has typically generated \$2.0-\$2.5 billion of new retained earnings each quarter during 2006 and 2007, after allowing for dividend payments (and normal dividend reinvestment). Obviously, this 'natural' increase adds to Tier 1 capital.

Over the same period, risk-weighted assets typically grew by around \$35-40 billion each quarter, although there was considerable quarter-to-quarter variability. Taken together, the organic capital generation of the banks has been sufficient to fund growth in risk-weighted assets in a manner consistent with a Tier 1 ratio of around 5.5-6.0%. Given capital ratios have been maintained above this level, and

<sup>2</sup> This assumption overstates the amount of excess capital, as in practice APRA has set minimum capital ratios of more than 8% for some banks.

there have also been substantial capital buybacks over recent years, the banks must have another source of Tier 1 capital to fund their growth. That source has been the issuance of hybrid Tier 1 instruments. The issuance has allowed current capital ratios to remain broadly consistent with that maintained by the Australian banking system for the past decade.<sup>3</sup> As I will point out later, there will be reduced capacity for banks to continue to do this in future.

**TABLE 2: AVERAGE CAPITAL RATIO OF LOCALLY-INCORPORATED BANKS**

	Tier 1 Capital Ratio	Total Capital Ratio
2003-2008	7.6%	10.4%
1998-2008	7.6%	10.3%
1989-2008	7.6%	10.5%

So, with the introduction of Basel II, what changed between December 2007 and March 2008?

At this junction, I should make the important point that the 'transition' to Basel II is not yet complete - indeed, some would say the Basel II journey has only just begun. From 1 January this year, Australian banks have the option of using the standardised or advanced approaches to measuring their capital adequacy. In Australia's case, we also stipulated that banks wishing to use the advanced approaches must use the advanced approaches for all risk types - credit, operational, interest rate and market risk.<sup>4</sup> This has meant that the lead-time for accreditation has been lengthy for those banks pursuing that path. As a result, we are very much still in a transitional phase, with:

- three banks accredited to use the advanced approaches to credit and operational risk;
- one bank accredited to use the foundation approach to credit risk, and the advanced approach to operational risk;

<sup>3</sup> Since the end of 1997, the banking system has maintained a capital ratio of between 9.8% and 10.9%, with an average of 10.3%. In Tier 1 terms, the system has ranged between 6.9% and 8.0%, with an average of 7.6%.

<sup>4</sup> In adopting this 'all or nothing' approach, Australia is one of only a few jurisdictions in the world to fully implement all options available under the Basel II Framework.

- two banks accredited to use the advanced approaches to operational risk, but unable to take advantage of that accreditation until they also obtain accreditation for their credit risk models;
- one bank in the process of seeking accreditation for both credit and operational risk; and
- fifteen banks adopting the standardised approaches (at least for the time being - some of these banks are planning to adopt the advanced approaches in the future).

Even then, the story is far from complete: the three banks still to obtain full accreditation have remained on Basel I for 2008 while their applications are being assessed, and all 7 banks that have sought accreditation are still being assessed as to their readiness to adopt modelling approaches to interest rate risk in the banking book (IRRBB). As a result, making comparisons on capital data at present is fraught with the risk of comparing 'apples with oranges'. Nevertheless, with some caveats, that is what I will now seek to do.

**TABLE 3: CAPITAL POSITION OF LOCALLY-INCORPORATED BANKS**

March 2008 - \$ billion

	Tier 1 Capital	Tier 2 Capital	Total Capital	Risk Weighted Assets	Tier 1 Capital Ratio	Total Capital Ratio
Major Banks	74	35	107	1058	7.0%	10.1%
Other Aust-owned	15	7	22	184	8.2%	11.8%
Foreign-owned	9	3	11	99	8.6%	11.3%
<b>Total</b>	<b>98</b>	<b>44</b>	<b>140</b>	<b>1341</b>	<b>7.3%</b>	<b>10.5%</b>
Required for 4%/8%	54		107			
Required for 6.5%/10%	87		134			

Note: March 2008 data is aggregate of banks using Basel I, Basel II standardised and Basel II advanced approaches. Data still subject to review and refinement as part of transition to new regime.

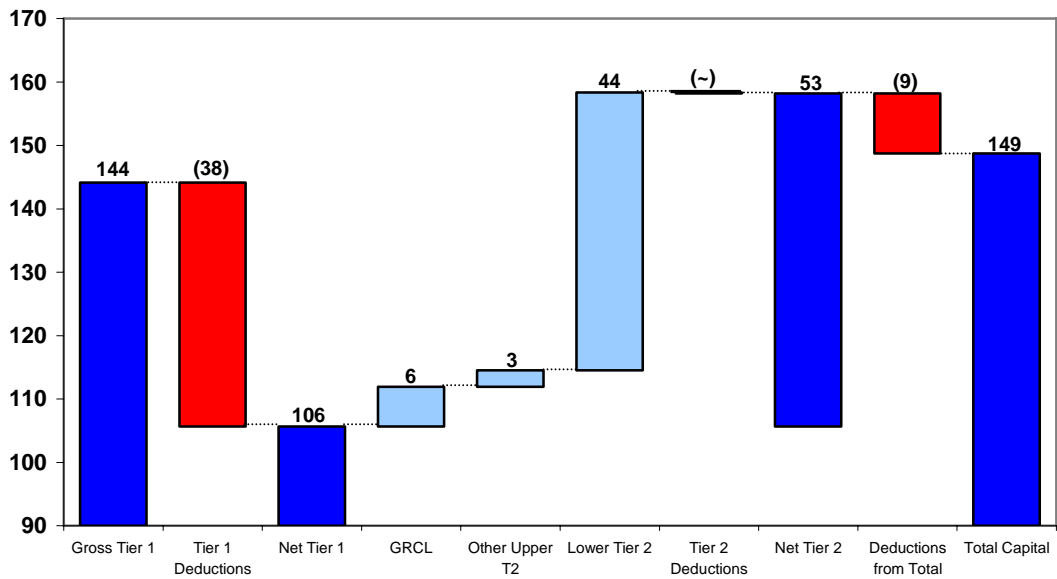
The introduction of the new capital adequacy framework saw aggregate regulatory capital in the banking system fall by \$9 billion in the quarter to March 2008. Risk-

weighted assets also fell, in this case by \$124 billion. The net result of these two shifts was that the system's capital ratios rose slightly to 7.3% Tier 1/10.5% Total.

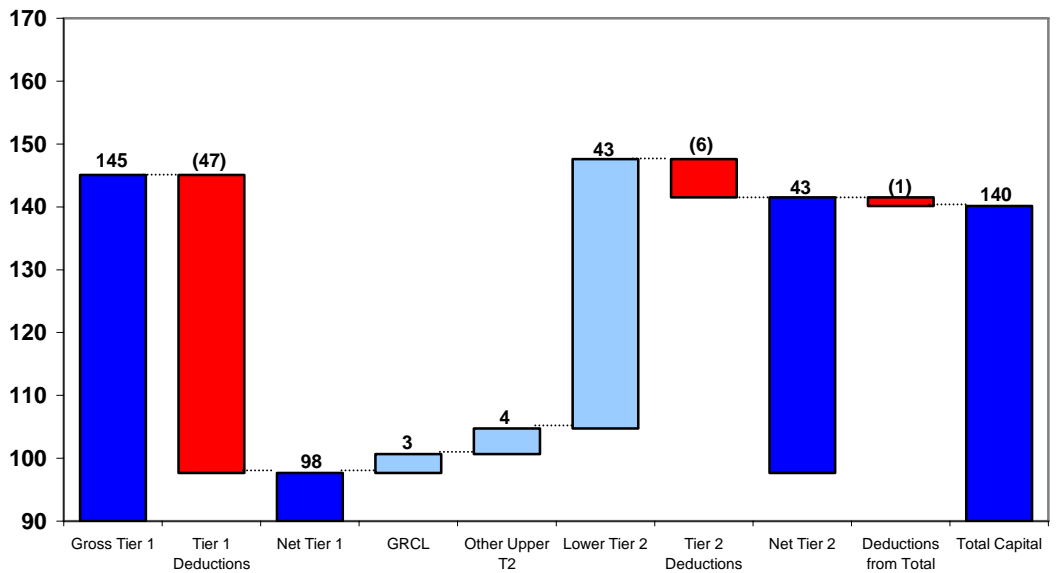
Looking at what was behind these moves in capital:

- gross eligible Tier 1 capital rose by \$1 billion to \$145 billion in the quarter, largely from the growth in retained earnings;
- an increased level of deductions from Tier 1 capital (higher by \$9 billion) served to offset the natural increase in gross capital, and reduce overall Tier 1 capital;
- Tier 2 capital rose by \$1 billion as a result of net new issues;
- for those banks with advanced accreditation under Basel II, general reserves for credit losses are only eligible for inclusion in capital if they exceed the banks' expected loss estimate (this eliminated \$3 billion of reserves previously included in capital);
- there were also new deductions from Tier 2 capital (\$6 billion); but
- there was a much lower level of deductions from Total capital (\$1 billion c.f. \$9 billion in previous quarter).

**CHART 1: CAPITAL COMPOSITION OF LOCALLY-INCORPORATED BANKS**  
December 2007 - \$ billion



**CHART 2: CAPITAL COMPOSITION OF LOCALLY-INCORPORATED BANKS**  
March 2008 - \$ billion



The \$124 billion fall (-9%) in risk-weighted assets was due to a range of factors, but primarily to the more favourable treatment given to residential lending portfolios

under Basel II. It happened against a background of a \$84 billion (+3.6%) increase in underlying balance sheet assets over the same period.

Interestingly, despite all these ups and downs, and the quite significant changes to the capital framework, the simple measure of surplus Tier 1 capital, assuming an unchanged target rate of 6.5%, remained virtually unchanged at \$11 billion. I doubt such a stable outcome is something we could have engineered even if we tried!

But the changes I have mentioned are not the end of it. As I noted earlier, a number of banks have not made the full transition to Basel II - either because they remain on Basel I for a short period, or they have adopted the standardised approaches in the short term, but plan to move to the more advanced approaches in the medium term. As a result, the March 2008 position does not truly represent a full Basel II outcome. Beyond that, there are also a range of regulatory issues coming down the pipeline which will have an impact on the capital positions of Australian banks in the foreseeable future. In rough chronological order of attention, these include:

- *On-going Refinements to Risk Estimates* - for APRA and the banks using the advanced approaches, Basel II is not a 'set and forget' proposition. The development of new models, and refinements to existing risk estimates, will be on-going. While we have been sufficiently comfortable to accredit those banks that are able to use the advanced approaches, some refinements to their risk estimates are a matter of on-going discussions.
- *Capital for Interest Rate Risk in the Banking Book (IRRBB)* - within Pillar 1 of the new capital adequacy framework, APRA required that banks with approval to use the advanced approaches to the measurement of credit and operational risk should also have an explicit capital requirement for IRRBB. This will be introduced from 1 July, and is expected to reduce capital ratios of the banks concerned by somewhere in the order of 20-50 basis points.
- *Prudential Capital Ratio (PCR)* - Pillar 2 of the new framework also provides for APRA to set each bank a PCR. The PCR may be the default of 8%, or something higher to take account of specific factors within a bank's risk profile. As part of setting PCRs, we have been reviewing each bank's Internal Capital

Adequacy Assessment Process (ICAAP) - which is a measure of how much capital each bank thinks it needs to run its business - and comparing it to a capital benchmark from our own PAIRS risk rating model. From this analysis, we will be determining which banks require a PCR above 8%, and will be advising them over the coming months. It is important to note that, as with our PAIRS ratings, PCRs will be confidential between APRA and the bank concerned. Banks will need to set themselves target capital ratios, above the PCR, around which they will seek to operate.

- ***Basel II Framework changes*** - given the recent global market turmoil, it is not surprising that the Basel Committee is revisiting some of its policy settings for bank capital adequacy. But before anyone who has just spent many years, and tens of millions of dollars, implementing Basel II starts to get too anxious, let me assure you a major overhaul is not on the cards. Despite recent criticism that Basel II doesn't address liquidity - who said it was meant to? - the Basel Committee has been at pains to point out that the seeds of the current problems were sown in a Basel I world, and that greater attention to the risk-return trade-off - which Basel II is designed to achieve - would likely have subdued some of the excesses which have recently come back to haunt the international banking industry. That said, some tweaking is being considered in areas such as the relatively low capital requirements for highly-rated securitisation exposures and short-term liquidity facilities, and whether capital concessions for instruments in the trading book, relative to those in the banking book, remain valid. While no decisions have been made, it is fair to say that any changes are unlikely to reduce capital requirements in those areas.
- ***Transitional floor*** - Consistent with the Basel II Framework, APRA imposes a 10% floor on the reduction in capital requirements that banks moving onto the more advanced IRB/AMA approaches to capital can obtain, relative to that applying under Basel I. This is not always a visible limitation - some banks have made public disclosures which do not adjust for it - but importantly it does serve to constrain the fall in risk-weighted assets, and hence reduce the capital ratio, relative to that which an uninhibited application of Basel II would apply.<sup>5</sup> APRA considers this floor to be a 'hard' floor, and banks must meet their

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<sup>5</sup> The figures in Table 2 are compiled applying the transitional floor, so as to give a representation of capital adequacy as viewed by APRA.

capital requirements taking it into account. We have committed to reviewing the on-going appropriateness of the floor some time in 2009, although we have not yet committed to any particular course of action flowing from that review.

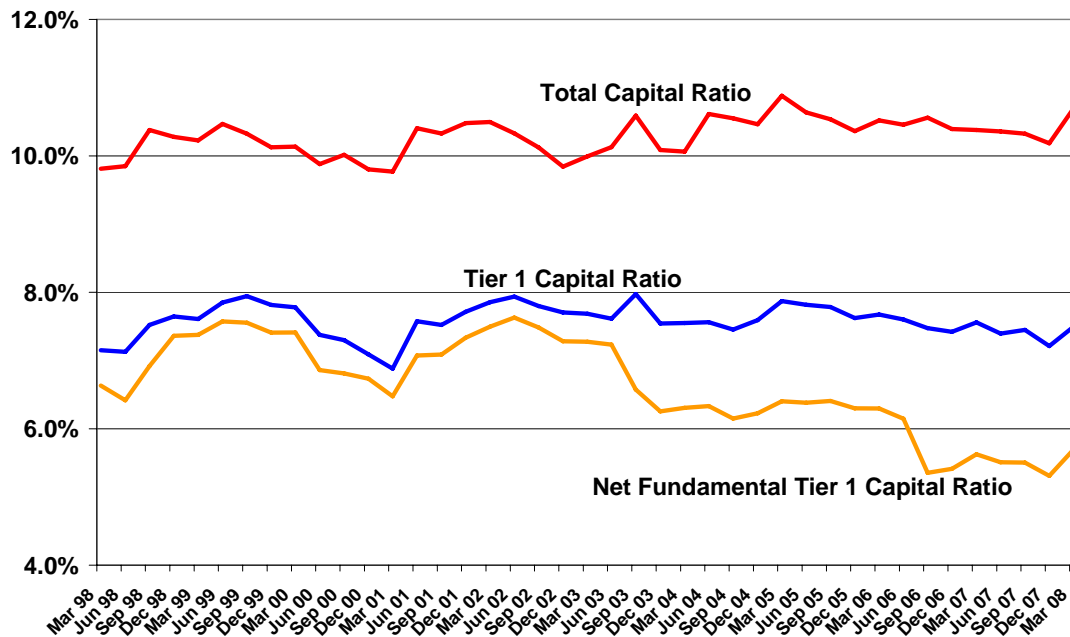
- *20% LGD Assumption on Residential Mortgages* - a key requirement of Basel II is that banks estimate their capital requirements using loss-given-default (LGD) measures that assume a stressed or 'downturn' situation. In Australia, we have (thankfully) had little experience of a downturn over the past 15 years - certainly beyond the period for which most banks have data. As a result, banks have been unable to provide a reasonable and verifiable estimate of their downturn LGDs for mortgages, and there was considerable variability in the estimates submitted (the highest estimate was more than 5x higher than the lowest). Given the lack of any reliable estimate, APRA imposed a floor of 20% on the LGD that banks could use. We have committed to review this when banks can demonstrate that they have a sufficiently robust and validated models. APRA has challenged the banks to produce estimates that genuinely reflect a downturn scenario - the experience in the US may provide some lessons for Australian banks in this regard.
- *Transitional Arrangement for Innovative Capital Instruments* - as I highlighted earlier, banks have made extensive use of hybrid and innovative instruments in recent years to fund the necessary expansion in their capital base. However, in 2006 APRA announced that we would be reducing the capacity for banks to include so-called innovative capital instruments in Tier 1 capital. Given some banks had instruments on issue that exceeded the new limit of 15% of Tier 1 capital, it was necessary to allow these banks a transitional period of time in which they could grow their capital base such that these innovative instruments would fit within the new limits. This transitional arrangement extends to 1 January 2010<sup>6</sup>. We do not expect any banks to find themselves with ineligible instruments by that time, but the effect of the lower limit will certainly be to limit the capacity to grow regulatory capital faster than the rate of equity and retained earnings, as has been the case in recent years.

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<sup>6</sup> Excess innovative capital after that time will not be eligible for Tier 1 capital.

CHART 3: CAPITAL RATIOS OF LOCALLY- INCORPORATED BANKS

March 1998 - March 2008



- Definition of Capital* - beyond our own adjustments to the capital eligibility rules, the Basel Committee has been looking for some time at the definition of capital, i.e. the types of instruments that are recognised as capital, and the various sub-classes within it. This project has the potential to produce some quite significant changes to the composition of capital available to banks, although it is much earlier in its deliberations, and on a much slower track, than the work on risk weights for securitisation exposures and liquidity facilities that I mentioned earlier.
- APRA's Attitude* - There is also a more practical issue to consider in relation APRA's current approach to capital management. In the good times, APRA has been reasonably relaxed about banks redeeming one capital issue and replacing it with another. We have, on occasion, allowed banks to time their redemptions and raisings to take advantage of market opportunities, even if this meant capital was paid back before the new issue had been made. In the current environment, however, we are much more focussed on new capital being safely 'in the door' before we let existing capital out.

If I look beyond the regulatory settings, there is also added complexity in managing capital from a number of more fundamental issues:

- ***Sensitivity*** - under Basel I, essentially a loan was a loan. That is, whether you had a corporate loan to BHP Billiton or Fred's Plumbing Supplies, it attracted a 100% risk weight. Similarly, whether an inter-bank exposures was to a highly-rated Australian bank, or to an offshore entity with a different supervisory regime, there was almost always a risk weight of 20%. While APRA had begun to introduce some differentiation into the capital requirements for mortgage lending, it was never the less the case that more than 90% of Australian residential mortgage loans received a 50% risk weight. Under Basel II, not all loans are the same and there is much greater sensitivity in the risk weights applied to various counterparties. In the mortgage book, for example, whereas banks could previously assume that they would need pretty close to \$4 of capital for every \$100 of growth in the portfolio, now they will need much closer analysis of whether that growth is full doc or low doc, mortgage insured or not mortgaged insured and high LVR or low LVR. Even under the relatively simple standardised approach, the capital requirement for each \$100 of new loans could vary by a factor of 3 (from \$2.80 to \$8.00).
- ***Cyclicality*** - closely related to sensitivity is cyclicality. Just as loans to two corporate customers were given the same risk weight under Basel I regardless of their respective credit quality, so was the risk weight assigned to a given customer invariant to changes in that customer's creditworthiness. Under Basel II, there will be much greater sensitivity to changes in the credit quality of customers, either through changes to the ratings assigned by rating agencies or, for the banks using the more advanced approaches, due to customers migrating through the bank's own rating scale. In practice, this means when economic conditions are improving, capital requirements will (all else being equal) grow more slowly than the underlying balance sheet. Conversely, when economic conditions are deteriorating, capital requirements are likely to grow more quickly than the balance sheet. Although Basel II has some in-built mechanisms to dampen this cyclicality, it is likely that this will, given the current state of the economic cycle, create some additional capital burden on the banks over the coming 12-24 months.

- *Closure of Securitisation Markets* - a major factor over the past decade in the management of capital has been the capacity for banks, as and when needed, to manage their capital by selling assets via the securitisation markets. Securitisation has enabled banks to smooth their balance sheet expansion, and lessened the need for a capital buffer to cover fluctuations in the rate of asset growth. This option is largely closed off for the time being, meaning asset origination needs to be much more closely linked to the pace of capital growth.
- *Reintermediation* - the latter part of 2007 and early part of 2008 saw considerable reintermediation of credit into the banking sector. Beyond the closure of securitisation markets, many corporate customers found it difficult and/or expensive to raise debt in capital markets, and hence turned to the banking system for funding. This spike in credit growth was significant, but it remains to be seen whether it will be long-lasting: it will depend on sentiment in capital markets, and the extent to which corporates moderate their demand for credit because of expectations of tougher economic conditions.

What can be made of all of this? It is important to remember that there are regulatory changes in the pipeline which have the potential to make a material difference to current ratios although the overall impact is far from clear. The external environment is also one in which capital requirements are likely to grow faster than balance sheets at a time when the capacity to manage balance sheet growth via securitisation has been reduced. Given I've listed close to a dozen factors that are going to influence bank capital needs over the next couple of years, and at this stage we don't have a good sense of the exact impact, now is not the time to get too relaxed and comfortable about what might look to some like a healthy capital ratio for the banking system at the end of March.

### **How Much Capital is Enough?**

This is, of course, the fundamental question. From APRA's perspective, the answer is specific to each bank, and depends on its circumstances: its strategy, competitive strengths, business mix, management capabilities, internal controls, and capacity to raise new capital as and when needed. But since capital adequacy is designed to represent a measure of the strength of the bank to absorb losses without jeopardising its long term viability, it's interesting to look at capital strength in terms of maximum possible losses.

I referred earlier to the banking system having around \$11 billion of Tier 1 capital in excess of the commonly used target for Tier 1 of 6.5%. Hence, one could conclude that the system has \$11 billion of capital to absorb losses, before allowing for any capital generated from on-going business, while still meeting its own internal targets. That is too simplistic, however, as it ignores the fact that not all capital is the same.

Another way to look at the issue is to ask what size loss could the Australian banking industry absorb without breaching the 4%/8% minimum requirements. In doing this, it is not so simple as to look at the excess dollars of capital over the minimum dollar amount represented by 4% and 8% of risk-weighted assets. This is because each dollar of loss (i.e. reduction in retained earnings) can lead to Non-Fundamental Tier 1 and/or Tier 2 capital becoming ineligible for inclusion in capital. As a result, each dollar of loss can, depending on the starting capital composition, reduce regulatory capital by more than 2 dollars at a time. In other words, as losses mount, there can be an amplified effect on capital.

If we take these effects into account, we find that the Australian banking system, viewed collectively, could sustain losses of \$24 billion without breaching the 8% minimum capital requirement, or a little over \$9 billion if we wished it to remain above the 6.5% Tier 1 benchmark. Of course, that assumes an optimal outcome - that is, losses are incurred at each bank exactly equal to its excess capital. In reality that would not happen, and capital at one bank cannot fund losses at another. Nevertheless, it does give a broad sense of the relative strength of the system, and allows us to think about what scenarios could produce such a loss? Doing this analysis at an individual bank level provides similar insights.

How much comfort do we take from this buffer in the system? On the one hand, not much: a number of the world's largest international banks have managed to lose at least that amount on their own. On the other hand, Australian bank balance sheets and profitability remain very strong - the industry reported a profit before provisions and tax of slightly more than \$35 billion in 2007 - and bad debt expenses would need to rise by a very large multiple of their 2007 level (\$3 billion) for profits and the Tier 1 buffer to dissipate. So we consider Australian bank capital to be quite sound, but we remain vigilant for any emerging signs of weakness.

## Some Concluding Remarks

Having spent a large part of my talk emphasising all the rules and requirements that are being, or soon will be, implemented, it's important not to lose sight of the broader objective of managing capital well. Keeping capital above the minimum regulatory requirement is a necessary, but not sufficient, condition for good capital management.

A key component of a good capital management plan is that it is forward-looking, and integrated closely with business and strategic plans. As I explained earlier, growth, and the composition of growth, are important in ensuring banks have enough capital not just today, but also well into the future. Indeed, a good capital plan doesn't just have a Plan A, but also a Plan B, C and D to reflect the uncertainty in the future environment. The fundamental question for capital management is not whether an institution's capital level is adequate for today, but whether its capital level is adequate for tomorrow - can it sustain the changes which face the organisation from a business, regulatory and environmental perspective?

*"The lesson to be learned...is that capital management is often more art than science. There is no clear answer to how much capital a bank needs, and the goals of management may change from one year to another, as the situation changes."*<sup>7</sup>

It is not as if managing financial institutions lacks challenge at present: in the banking sector, liquidity, funding and asset quality are all getting considerable attention. But it should be clear from my comments that capital management is just as challenging a task at present. Not only is the environment uncertain, but there are a range of regulatory developments still working their way down the pipeline. Banks and other financial institutions need to pay attention not only to their current capital needs, but how those needs might change - possibly quite rapidly - in the future.

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<sup>7</sup> Matten, C (2000), *Managing Bank Capital: Capital Allocation and Performance Measurement*, 2<sup>nd</sup> ed, John Wiley & Sons Ltd