BASEL II IN AUSTRALIA

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Synopsis

Australia is a medium sized economy. Its four largest banks each have assets in the USD200 billion to USD300 billion range but they are not on the scale of the world's largest banks which have assets exceeding USD1,000 billion. However, Australia is seen as having a world class finance industry based on both a sound and innovative industry and a best practice regulatory regime. Australia is then a candidate for the early implementation of the more advanced Basel II approaches. However, Australia is not a member of the Basel Committee on Banking Supervision and has not been directly involved in the drafting of the Basel II Framework.

Australia is to implement all Basel II approaches from 1 January 2008, which is the earliest date the most advanced approaches are available. The majority of Australia's draft Basel II rules have been released and those banks seeking to implement the more advanced approaches have made applications to do so. The processing of those applications is well underway.

This paper reviews Australia's Basel II implementation to date and draws some conclusions that may assist countries on a later Basel II timetable. It also makes some observations on the Basel II preparations, both high level and technical, of the Australian banking industry.

Although Basel II will permeate through most facets of banks' activities, there is a great deal of interest in its likely competitive impact on housing lending. As a country with a fast growing population, due primarily to immigration, and a strong culture of home ownership, Australians have a large appetite for residential mortgage lending. Notwithstanding a deregulated financial system much of the residential mortgage lending is intermediated through, and held in, the banking system.

Basel II, in both its standardised and advanced guises significantly reduces the regulatory capital that Australian banks will have to hold against the credit risk of residential mortgage lending. This paper comments on the extent of that decline, examines the recent strong growth in residential mortgage lending in Australia and considers the likely impact that the implementation of Basel II will have on that lending.

The Australian context

The Australian financial system has assets of around AUD3 trillion (USD2.2 trillion), equivalent to over 300 per cent of GDP. It is mature, diversified, large and has been resilient to external shocks. Around AUD1.8 trillion (USD1.3 trillion) of financial system assets, that is over half, are held by Authorised Deposit-taking Institutions (ADIs). ADIs are authorised to take deposits from the public and comprise banks, building societies and credit unions.

The ADI sector is dominated by the four major Australian banks, which together account for 70 per cent of total ADI assets. These institutions each hold total domestic assets ranging from AUD285 billion to $460 billion (USD210 to USD340 billion), which makes them comparable in size to many of the largest banking organisations operating worldwide. Next in size are a number of regional and investment banks and foreign bank branches and subsidiaries. There are also a relatively large number of building societies and credit unions, but in aggregate these latter hold less than three per cent of total ADI assets. The majority of these small institutions hold assets of less than $100 million.

The four large Australian banks have dominated the Australian banking system for many years. Except for one major bank which was government-owned until 1996, they have a long history of well diversified private ownership. Although that one exception was originally government owned its shares, like those of the other three banks, are now widely held and are listed on the stock exchange. To varying degrees all four banks have expanded overseas, but mostly to countries which, like Australia, have well developed financial markets. In a similar vein, the foreign banks operating in Australia are largely from countries with well developed financial markets.

The combination of the discipline of a diversified private ownership and operating in well developed financial markets has been conducive to these four banks developing best practice risk management systems. That their foreign bank-owned Australian competitors have also been subject to similar disciplines has further assisted this process. We know, of course, that the banks' risk management systems haven't always prevented problems, but the four large Australian banks have been able to manage their problems without any real threats to their solvency.

It has long been accepted that in banking, markets and market discipline need to be supplemented by prudential supervision. All ADIs in Australia are prudentially supervised by the Australian Prudential Regulation Authority (APRA). APRA was created on 1 July 1988 as an integrated prudential supervisor, supervising ADIs, insurance companies and superannuation/pension funds. Previously, the Australian central bank was the bank supervisor.

Apart from the Australian branches of foreign banks, which are not separate legal entities and are not capitalised in Australia, all Australian ADIs are currently subject to a regulatory capital regime based on the Basel Committee on Banking Supervision's (Basel Committee) 1988 Capital Accord (Accord). In 1988, the Australian banks were supervised under a different regime to the other ADIs. The decision to supervise the banks under the 1988 Accord was not a difficult one as the banks were already subject to regulatory capital requirements and while the Accord represented a significant advance on the previous simple leverage ratio, its implementation was not particularly onerous for either the banks or their supervisor. Nor was it particularly onerous for the other ADIs which over time have also been required to adopt the Accord.

In any discussion on Basel II, it is important to understand, and to keep in perspective, the role of its author, the Basel Committee. On its web site the Basel Committee notes that it

> "…….does not possess any formal supranational supervisory authority, and its conclusions do not, and were never intended to, have legal force. Rather, it formulates broad supervisory standards and guidelines and recommends statements of best practice in the expectation that individual authorities will take steps to implement them through detailed arrangements - statutory or otherwise - which are best suited to their own national systems. In this way, the Committee encourages convergence towards common approaches and common standards without attempting detailed harmonisation of member countries' supervisory techniques.
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> The Committee reports to the central bank Governors of the Group of Ten countries and to the heads of supervisory authorities of these countries where the central bank does not have formal responsibility. It seeks their endorsement for its major initiatives. These decisions cover a very wide range of financial issues. One important objective of the Committee's work has been to close gaps in international supervisory coverage in pursuit of two basic

principles: that no foreign banking establishment should escape supervision; and that supervision should be adequate.

In order to enable a wider group of countries to be associated with the work being pursued in Basel, the Committee has always encouraged contacts and cooperation between its members and other banking supervisory authorities. It circulates to supervisors throughout the world published and unpublished papers. In many cases, supervisory authorities in non-G10 countries have seen fit publicly to associate themselves with the Committee's initiatives."

Australia is not a member of the Basel Committee, so the Committee does not seek Australia's endorsement of its initiatives. Thus, while Australia considers that the Basel Committee's recommendations represent best practice it, like other non-G10 countries, has at least the right, if not the obligation under its own legislative responsibilities, to make its own judgement on the recommendations and to act on that judgement. This is not intended to suggest that Australia has any broad disagreement with the thinking of the Basel Committee. Rather, that Australia, like other non-Basel Committee countries, will tailor the Basel Committee's recommendations to meet their own market practices and the level of development of their markets.

The 1988 Accord's simple one-size-fits-all model, which at least initially, was a strength in improving and achieving international convergence of regulatory capital requirements, became a limitation as markets continued to develop and some banks commenced using much more sophisticated techniques to measure and manage their internal capital allocations. By the late 1990s supervisors acknowledged that it was time to move beyond the 1988 Accord. That view was also being advocated by the world's larger banks that wanted to have their regulatory capital requirements better aligned with their then recently developed internal economic capital[1] allocation models.

Basel II does not go as far as some banks would have liked. The Basel Committee was not convinced generally as to the completeness and robustness of banks' internal risk models, nor of the comparability of those models. Basel II does, however, provide for

[1] Economic capital is a business' own estimate of the capital it should set aside as a buffer against potential losses inherent in any of its (business) activities, or set of risks. As such it requires the identification of all material risks and the measurement of those risks.

banks to use elements of their internal risk estimates. It also provides for a range of approaches that can be aligned with the sophistication and business profile of the various banks. APRA will be implementing most of the available approaches to facilitate the Australian ADIs achieving that alignment.

The implementation of Basel II in Australia

APRA is well down the path of implementing Basel II in Australia. It has periodically provided updates on the progress of that implementation and on its implementation decisions as they have been made. What follows in this paper reflects the current position, but it draws heavily on previous commentary by APRA.

For Australia, there has been a natural progression to Basel II. From the 1930s until the late 1970s the Australian banking system was heavily regulated, in large part due to how monetary policy was then conducted. The banking population was quite small and there were strict controls over the composition, and to a degree on the pricing of, banking assets. The process of deregulation was commenced in the late 1970s. By the mid 1980s the banking population had expanded and a relatively light hand of banking supervision had replaced the much heavier hand of regulation. In the initial stages of this process the balance sheets of banks continued to be quite simple and the regulatory capital requirements were based on a simple leverage ratio of assets to equity. The 1988 Accord expanded the range of capital instruments, provided a simple risk weighting of assets and included off-balance sheet assets in the calculation of the capital requirement. In 1995 market risks were added to the capital calculation.

As stated earlier, Australia has a world-class banking industry based on healthy and innovative financial institutions and, APRA believes a best practice supervisory regime. APRA was thus able to judge that both it and the Australian market were in a position to be able to implement Basel II from the earliest available date. APRA chose to be in the first wave of jurisdictions to implement Basel II because it believes that, in the light of greater complexity in the Australian financial system, Basel II will make the Australian banking system safer and more efficient and, very importantly, that a number of the larger Australian banks have the capabilities to be early adopters of the advanced Basel II approaches.

The business of many of the small Australian ADIs continues to be based around relatively simple retail lending funded by a combination of retail deposits and wholesale funding. Several have, however, securitised assets, especially retail mortgage loans. For all but Australia's largest ADIs, and for APRA as their supervisor, the move to the standardised Basel II approaches is a logical one. The standardised approaches retain the simplicity of the 1988 Accord while adding greater granularity and a formalised approach to operational risk, which is especially relevant to those ADIs that have securitised assets.

In Australia, and consistent with its implementation of the 1988 Accord, APRA made the decision that all ADIs and their depositors would benefit from the improved risk management requirements and greater risk-sensitivity of Basel II, including in its standardised forms. It was also APRA's assessment that a number of the larger banks, as well as APRA, could be ready to implement Basel II when it became available.

The Basel Committee has not sought a common start date for Basel II and even within its own membership there is not a common start date. However, the Basel Committee has made the most advanced approaches available from end 2007, with the less advanced approaches available a year earlier.

In setting its own timetable, APRA was not convinced of any Australian need to implement the standardised approaches on the Basel Committee's earliest timetable, given that Basel II was primarily designed for internationally operating banks and that Australian banks in that category had informed it that they were all aiming for the advanced approaches. APRA was not convinced that the smaller domestic ADIs with less sophisticated approaches to risk and capital management should start earlier. Following industry consultation, APRA decided on a common start date of 1 January 2008.

Consistent with the Basel II Framework, the standardised approaches will be the entry level, or default, approaches for the Australian banks. Around ten Australian banks, both Australian-owned and subsidiaries of foreign owned banks are proposing to adopt the more advanced Basel II approaches from January 2008 or shortly thereafter.

Australian ADIs will adopt the standardised approaches unless accredited by APRA to adopt the advanced approaches. Requiring some form of accreditation, or waiver, prior to a bank adopting any of the advanced approaches is also consistent with the Basel II Framework. There is no accreditation process for the standardised approaches, nor is there a period of parallel reporting (see below) alongside the existing 1988 Accord as is required for the advanced approaches.

The implementation decision

Each jurisdiction must make its own Basel II implementation decisions. Undoubtedly pressures exist for countries to move quickly to Basel II. These pressures relate primarily to concerns from both supervisors and the institutions they supervise as to how each will be perceived by markets. Both the Basel Committee and the International Monetary Fund, however, have made it clear that it is counterproductive to implement Basel II before either the banks or their supervisors are ready. Jaime Caruana, the Chairman of the Basel Committee said in March 2006[2]:

> "Unlike the 1988 Accord, which was relatively simple to adopt, Basel II is more complex and demands more of banks and supervisors. Therefore, we don't expect Basel II to be adopted as widely and quickly as the 1988 Accord, at least at the outset. However, we expect and hope that the number of countries that adopt the new framework will grow over time. We believe that countries should adopt the options and approaches contained within the framework that are most appropriate for the state of their markets, their banking systems, and their supervisory structures. Basel II is not a "one size fits all" framework. Supervisors can adopt the framework on an evolutionary basis and use elements of national discretion to adapt it to their needs."

To implement Basel II before either banks or their supervisors are ready runs the very real risk that the implementation will be severely flawed, leading to longer term reputational issues for both the relevant supervisors and banks. The ratings agencies,

[2] Remarks by Mr Jaime Caruana, Governor of the Bank of Spain and Chairman of the Basel Committee on Banking Supervision, at the "Central Banks and the Challenge of Development" conference organised by the BIS, Basel, 13 March 2006.

for their part, have said that they are taking a very measured and conservative approach in their assessments.

As with the adoption of any new methodology there are expected to be benefits from watching and learning from the experiences of the early Basel II adopters. Each jurisdiction must weigh up the advantage of that with the costs of holding back a banking system that is ready to move to Basel II.

Australian Basel II discretions

As provided for in Basel II, Australia has exercised a number of discretions to ensure that the Basel II provisions suit the Australian financial system. The more important of these are noted here, not because APRA believes that other jurisdictions should follow its lead, but rather to provide examples of how Basel II can be tailored without losing its underlying substance.

It is APRA's view that ADIs should not be permitted to 'cherry pick' those parts of their business for which they wish to adopt the advanced approaches and model their regulatory capital. Accordingly, any Australian-owned ADI that wishes to adopt an internal ratings-based (IRB) method for credit risk must also adopt the advanced measurement approaches (AMA) to operational risk. At this stage, APRA appears to be alone with the United States and New Zealand in taking this direction.

APRA has recently confirmed that position to the banks, although, as will be discussed later, the AMA is still an emerging discipline and some banks are finding it quite challenging despite having included operational risk in their internal economic capital models for some time. Jurisdictions still to make their Basel II implementation decisions may wish to consider carefully the operational risk capabilities of their banks.

Basel II contains a number of "thresholds", mostly relating to the advanced approaches, which are expressed in Euros. The determination of these "thresholds" outside the Euro zone is likely to be contentious and there is no obvious "right" answer. An option is to convert the "thresholds" to the local currency at the exchange rate at a fixed point of time. That exchange rate will change over time, however, and there will be pressure to regularly change it. That option would also add complexity. Another option, which is the one adopted by APRA, is to simply assume parity between the Euro and the local currency. That has the advantage of simplicity and in Australia's case the ensuing "thresholds" seemed more in line with existing practice. However, this option also has its own complexity and it introduces possible competitive issues for banks as they may have to use different "thresholds" for calculating local and consolidated capital requirements.

For the standardised approach to credit risk, APRA has exercised its discretion to vary the Basel II in two main ways. First, APRA is not proposing to adopt the 75 per cent risk-weight for 'other retail' exposures but will continue to require the existing 100 per cent risk-weight of the 1988 Accord. In APRA's view, among other reasons, ADIs in Australia using the standardised approach will generally not have the high degree of geographic or product diversification in their 'other retail' portfolios that would justify the lower weighting. However, some ADIs are arguing otherwise. Second, APRA is proposing to introduce a more granular risk-weighting scheme for residential mortgage loans which is based upon the loan-to-valuation ratio, whether the loan is a standard or non-standard one and whether the loan has acceptable mortgage insurance; see Table. The greater granularity is intended to better capture Australian experience with housing lending. The risk-weights are based upon substantial stress testing and other research undertaken by APRA over the past several years. The risk-weights are in APRA's view appropriate for the Australian market, but this does not mean that they would necessarily be appropriate in other countries.

	Standard loans		Non-standard loans*	
LVR (%)	Risk-weight (no LMI) (%)	Risk-weight (with LMI)** (%)	Risk-weight (no LMI) (%)	Risk-weight (with LMI)** (%)
0 – 60	35	35	50	35
60.01 – 80	35	35	75	50
80.01 – 90	50	35	100	75
90.01 – 100	75	50	100	75
> 100.01	100	75	100	100

*Defined as loans not meeting specified criteria; for the most part, this refers to 'low-doc' loans.
**A minimum of 40 per cent of the original loan amount must be insured.

In the case of those ADIs not adopting the advanced approach to operational risk, APRA is proposing to implement the 'alternative standardised approach' (ASA), which will use an asset indicator for the ADIs' main business lines. The basic indicator and standardised approaches of Basel II use gross income as the risk indicator and, in Australia's case, would produce wide variations in outcomes that cannot be tied readily to differences in operational risk. To keep the Australian ASA simple, an ADI's operations will be grouped not into the eight business lines proposed by Basel II but into just two areas of business — 'retail/commercial' and 'all other activity'. This aggregation will not significantly dampen the sensitivity of the approach for those institutions to which it will be applied.

There is one other significant aspect of its Basel II implementation in which APRA has varied from the approach in other jurisdictions. But in order to discuss that it is first necessary to recall that Basel II is built on three pillars with the first two having implications for a bank's capital requirements. Pillar 1 addresses the calculation of the total minimum capital requirements for credit, market and operational risk, with Basel II providing detailed guidance on the calculation processes. Pillar 2 (which is discussed in more detail later in this paper) is about supervisory review, but it does require that all material risks faced by the bank should be addressed in the capital assessment process, including interest rate risk in the banking book (IRRBB).

While APRA has not mandated the Pillar in which IRRBB should reside, it considers that there are recognised processes for measuring and managing IRRBB risk and in that sense it has more in common with the Basel II treatment of the Pillar 1 risks. Accordingly for banks adopting the advanced Basel II approaches, APRA will determine specific requirements for IRRBB. To date APRA is alone in making that decision.

During consultation on its Basel II implementation, APRA has received a number of comments, especially on its proposals for implementing the Basel II standardised approaches. APRA is currently considering those comments and as part of that process will undertake a further round of modelling on the implications of its proposals. That is planned for the second half of 2006.

As discussed earlier, each jurisdiction has the right to decide when and how to implement Basel II and indeed in doing so it must meet its own legislative obligations. But Basel II is directed at international convergence and the possible implications of varying it should be acknowledged. The Australian implementation of the ASA (for operational risk) is a good illustration. The Financial Services Authority (FSA) in the

UK has assessed APRA's ASA as not being equivalent to the requirements of the European Commission's Capital Requirements Directive. The Directive applies very strict conditions on the use of the ASA, which severely limits the ability of banks to use it. APRA assumes that other European supervisors may follow the FSA's lead. Nonetheless, APRA has judged that its approach is the most appropriate, and the least complex, for Australia's many small ADIs. And it made its decision against the background that Australia's internationally operating banks have all indicated their intention to adopt the AMA. The FSA and APRA acknowledge that their decisions on this will impact on banks operating in one of their jurisdictions under the advanced approaches to operational risk and in the other under the standardised approach. However, the impact will be primarily restricted to reporting, is not expected to be great and it will be limited to a small number of banks. It should be noted that the FSA has discussed its decision with APRA and it is by no means a source of tension between the two supervisors.

Legislative requirements

As noted earlier, the BCBS does not possess any formal supranational supervisory authority and the Basel II Framework has no legal force. Each jurisdiction must address its own legislative requirements for implementing Basel II. Australia's Banking Act empowers APRA to make 'prudential standards' in respect of ADIs. Over the past year APRA has been progressively releasing draft prudential standards, each covering a major Basel II component (eg the standardised approach to credit risk, the internal ratings-based approach to credit risk), for public consultation. In some jurisdictions it is necessary for the Basel II "rules" to be put into legislation. The mechanics of that may lengthen the process somewhat and possibly require that the various Basel II rules be combined into the one piece of legislation. This process will be specific to each jurisdiction and each supervisor must take its own particular circumstances into account when planning its implementation of Basel II. For completeness, it should be noted that in Australia there is a legislative review process by which the Australian parliament can disallow prudential standards made by APRA.

Accreditation to adopt the advanced Basel II approaches

It was, and remains, APRA's view that benchmarking between the various banks should be an important part of the process of accrediting banks to adopt the advanced Basel II approaches. As the population of Australian banks likely to seek accreditation from January 2008 was not large, APRA considered it essential that the applications be made around the same time. As APRA began processing the applications, it became clear that benchmarking did indeed have an important role in accreditation. In order to ensure that the banks submitted applications around the same time, APRA informed them that those banks wishing to adopt Basel II from January 2008 would have to submit applications for accreditation by end September 2005. Banks submitting applications after that date would not be able to adopt Basel II before 2009.

APRA put in place a number of prerequisites for banks wishing to adopt the advanced approaches. These relate to the extent to which the use of risk based capital and associated risk adjusted performance measurement permeates the management of the bank's business. The prerequisites are to provide a clear demonstration that a bank's Board and management is both willing and able to incorporate the quantification of risk into their management processes and decision making. In APRA's view, this is essential to the credibility of minimum regulatory capital figures determined by banks using the advanced credit, market and operational Basel II approaches. In total there are nine prerequisites; two are highlighted below.

The first is that a bank should be well advanced in the development of a Board approved, comprehensive and credible (to APRA) internal economic capital model. It should draw from the same rating systems and data sources and employ methodologies which are broadly consistent with the Basel II Pillar 1 regulatory models. And it should capture all significant risk types.

The second is that the performance assessment of, and incentive compensation for, senior executives with profit centre accountability should take into account the amount of risk assumed and the management of that risk. Remuneration is a good indicator of the extent to which the use of risk-based capital shapes the management mind-set, and this would be expected to be reflected in the allocation of an appropriate amount of risk capital to profit centres in accordance with each bank's economic capital model. APRA agonised a little over this pre-requisite as it could be seen to be overly intrusive. Interestingly, however, the Australian banks were quite comfortable with it.

APRA's 30 September 2005 deadline for applications for accreditation was originally set in response largely to indications of a similar deadline in other jurisdictions and requests from the Australian banks for a firm accreditation timetable. When deadlines elsewhere began to slip and it became clear that APRA's timetable would be at the forefront, APRA took soundings of the banks. The view was expressed that their Basel II projects had good traction and there was a concern that the traction could be lost if APRA were to push out the timetable.

At the same time, in many jurisdictions it was becoming apparent to banks and their supervisors that meeting the requirements of the Basel II Framework, including the level of robustness it required, would need more time to achieve than originally expected. For its part, APRA acknowledged that the banks would have gaps in their projects as at 30 September 2005 and APRA discussed with them realistic timetables for closing these gaps. This is not to suggest that APRA will be compromising its accreditation standards and APRA has made that clear to the banks seeking accreditation. Basel II in its advanced forms is, however, a very significant step forward in risk management and regulatory capital and in every sense is a journey. As will be discussed later, for supervisors the challenge will be making a judgement as to when it is appropriate to recognise that the bank has the risk management systems that are adequately aligned with the advanced approaches.

APRA provided the banks with detailed requirements of what it expected in the accreditation applications. The essence though was a requirement that banks self-assess their compliance against the Basel II Framework and the discretions that APRA had exercised; at that time APRA was still in the process of preparing its draft prudential standards. Some jurisdictions require applicant banks to deal in their application only with those areas where they have self-assessed non-compliance. That is not to suggest that the supervisors intend to accept without challenge banks' self-assessments. The expectation is that the comprehensiveness and quality of the self-assessment would become clear during the reviews of the banks. In contrast APRA required banks to provide details of their full self-assessment, the thought being that it was preferable to obtain that from the outset.

APRA carefully considered the issue of who at the bank should take ultimate responsibility for the accreditation application. There were three main alternatives, the Board, the Chief Executive Officer or the Chief Risk Officer; the last two possibly in conjunction with the internal auditor. APRA made the decision to require Board sign-off. The decision was not taken lightly and APRA has made it clear that the decision should not be seen as evidence of APRA seeking to move accountability that clearly rests with management to the Board. Rather it reflected the importance of the Basel II reforms and that adoption of the more advanced approaches requires a significant commitment by a bank, including in respect of the closure of gaps. By accrediting the more advanced approaches APRA is electing to rely extensively on the risk measurement processes of the bank rather than on supervisory rules of thumb. Hence, in APRA's view it is important that the Board understands and supports those processes used to manage the bank.

As noted earlier, the application requirements for accreditation were quite detailed. APRA was not expecting Boards to plunge into the depths of the advanced approaches. Rather, it asked each Board to express its opinion on the readiness of the bank and on the appropriateness and adequacy of the self-assessment process. It was left to Boards to determine how they could form that opinion. APRA has acknowledged that the boards of each of the applicant banks took the task very seriously.

Basel II prudential reporting

ADI reporting against prudential requirements, including of capital, is an important element of APRA's supervision. The Basel Committee has provided little guidance on Basel II reporting and quite a range of approaches amongst supervisors – from detailed to quite high level requirements - is emerging. APRA is still to finalise its approach, but is taking advantage of the earlier timeframes (at least for the standardised approaches and the foundation IRB approach to credit risk) in some other jurisdictions to assess the suitability of each of the various approaches.

Many of the world's larger banks and their supervisors have already had some exposure to reporting in a Basel II environment through at least one of the various quantitative impact studies (QIS). All the Australian owned banks seeking to adopt the advanced approaches from January 2008 are in this category. These banks will also be undertaking the parallel reporting of Basel I and Basel II during 2006 and 2007, which has been recommended by the Basel Committee.

For those institutions adopting the advanced approaches, the Basel Committee has proposed one year of parallel running of Basel I and the Basel II for banks adopting the foundation IRB approach to credit risk, to apply during 2006. Banks moving directly from the existing framework to the advanced approaches to credit and operational risk will have two years of parallel running/impact studies during 2006 and 2007. The Australian banks adopting the advanced approaches will be providing six parallel reports during 2006 and 2007 - half yearly reports during 2006 and quarterly reports during 2007. For the purpose of Basel II reporting, banks will use the fifth QIS workbooks.

Australian accreditation findings

At the outset it must be recognised that in accrediting banks to adopt the advanced Basel II approaches supervisors are in uncharted waters. There is no simple, or even not so simple, objective means of validating banks' risk estimates. In addition there is generally a scarcity of data and in the short to medium term at least that is unlikely to change. There are some aspects of the accreditation process in which supervisors can apply objective tests, but in many other aspects there has to be a degree of supervisory judgment.

APRA is currently assessing applications from around half a dozen Australian-owned banks for accreditation to adopt the advanced Basel II approaches. The majority of these banks have a relatively long history of using economic capital models and their systems and processes are well regarded internationally. APRA's experience to date illustrates, nonetheless, that the task of preparing for the advanced approaches — in terms of resources, data and time — is demanding. The banks are continuing to press ahead with their modelling work and some are substantially revamping their models to ensure that their risk estimates meet the Basel II requirements.

Discussions with other supervisors suggest that the challenges facing APRA and the Australian banks are not unique. It may be that the level of robustness required by supervisors is higher than that required by the banks themselves. It may also be that the models are still being ingrained into the day-to-day management of the business.

Either way, the Basel II project teams, both at APRA and the banks are stretched. In developing plans and timeframes, those jurisdictions yet to commence their accreditation/waiver process for those banks seeking to adopt the advanced Basel II approaches should not underestimate the challenges involved.

APRA has found that documentation both in respect of model development and validation has tended to lag. Documentation facilitates the effective implementation of banks' risk management processes. Good governance requires policies and documentation surrounding not only the development and validation processes, but also in respect of audit trails. In particular, APRA has found that decision triggers and their rationale have been lacking. The culture of supervisors places considerable importance on documentation and Basel II has raised the bar on the level of documentation and oversight that is required. APRA's experience is that generally banks have been trying to respond positively. In this area of documentation, APRA's sense is that other supervisors are making similar observations.

An element of documentation is the need to provide high level management and boards with the information necessary for them to provide adequate oversight of processes that can be quite technical. Some banks are dealing with this problem by using a simple "traffic light" approach that is based on agreed and documented benchmarks.

In developing and validating credit risk estimates, it is important that banks understand their rating philosophy; that is the responsiveness of their ratings to changes in the credit cycle. Banks generally are finding this difficult, but it is particularly important in Australia which has not experienced an economic downturn since the early 1990s. The Australian banks recognise the problem and accept that some form of adjustment to their models is needed.

Low default portfolios are also proving a challenge for banks, including those in Australia. In the absence of sufficient internal data, banks are looking to external data to inform their credit risk estimates. In that sense the banks are using much the same data sets, but in modelling that they are arriving at different outcomes. Dealing with this outcome is an issue that supervisors generally are still grappling with.

It is the nature of prudential supervision to be sceptical. At least in APRA's experience, however, the Basel II objective of a more risk-sensitive capital framework is being achieved.

In corporate lending APRA is observing wide variations within banks in risk-weighting – as low as 10 per cent for the best corporate borrowers and for lower quality credits up to 150 per cent, significantly above the 100 per cent risk-weight for corporate exposures under the 1988 Accord.

The main driver behind the lower capital requirements in corporate lending, particularly to the small and medium enterprise sector, appears to be loss-given-default (LGD). This is because the Basel II capital requirement is more sensitive to changes in LGDs than to changes in probability of default (PD). That said, most Australian banks, and probably many banks in other jurisdictions, are still in the process of developing final LGD estimates. Most banks have concentrated initially on PD estimates. APRA is seeing a wide variation in corporate rating tools - from a strongly statistical approach to more expert judgment (traditional) systems. In determining PD estimates for capital purposes, Australian banks may map their grades to Standard and Poors' or Moody's grades and take advantage of the longer time series of data available, or use direct model estimates.

One issue that has arisen in Australia is the identification of default, which is of course central to the whole Basel II process. Although the policies of banks will reference the Basel II definition, there can be wide variation in its application within institutions. Together with differences in delinquency management practices, this variation can substantially affect the estimates, with important implications not just for individual banks' capital calculations but also for key benchmarking and data pooling initiatives. APRA anticipates that its work in this area is far from over. It is proposing to undertake periodic benchmarking exercises, for example PD benchmarking, in which issues such as differences in definition of default can be thrown up and outlier institutions that may be doing something incorrectly or inappropriately can be identified.

On credit, it is in retail lending that the Australian banks have the most to do in appropriately calibrating their models. That is not surprising as historically during times of stress it has been corporate lending that has most threatened bank solvency.

Australian banks are estimating risk weights on residential mortgages significantly lower than those in the standardised approaches. That also is not surprising, given Australia's recent benign history of mortgage defaults. However, some perspective is needed here. At this time, the PD estimates are not necessarily calibrated to long-run average default rates or downturn conditions in the case of LGD.

Operational risk

Measuring and managing operational risk is still very much an emerging discipline, a fact recognised in the Basel II Framework which does not require a specific methodology, but rather establishes a number of parameters. Given this, it is not unexpected that it is in operational risk that there that there is the greatest variation in the readiness of Australian banks. The larger ones have included operational risk in their economic capital models for some time, but the methodologies and processes and the level of robustness are quite different. As the Basel II requirements in this area emerged some of the Australian banks decided to develop new systems and infrastructure or at least to modify existing systems. For some, this work has some way to go.

Besides the difficulties associated with operational risk being an emerging discipline, there is another tension arising from the AMA to operational risk. On the one hand the AMA are seeking to measure a regulatory capital requirement, while on the other seeking to improve the management practices that are used to drive risk lower. Because Basel II is a capital framework, it is easy to focus more on the first, where the science is still fairly imprecise, and less on the second, which can provide very tangible benefits. There are challenges here for both banks and regulators.

Banks tend to experience many low-value operational losses that are broadly within the bounds of expectation. It is the infrequent, high-value operational losses that can threaten viability. However, most banks have insufficient internal loss data to allow them to model both sources of operational loss appropriately, and they look to external data as a supplement. Banks also use scenario analysis to challenge and supplement internal and external data. As part of APRA's accreditation process, it is discussing with its potential AMA banks the integrity and robustness of their scenario analysis.

Because operational risk measurement and modelling is so new, the requisite skills are in short supply. This shortage is exacerbated within a bank if the available skills have already been involved in model development, and are therefore precluded from the independent validation process. Nonetheless, APRA is firmly maintaining the need for independent validation.

For supervisors, Basel II's treatment of operational risk creates several challenges, including how to assess approaches still under development, how to align methodologies and benchmark capital outcomes and how to deal with the sensitivity of capital to different parameter assumptions.

Quantitative Impact Study no 5 (QIS5)

During 2005, the Basel Committee undertook QIS5 in order to evaluate its Basel II proposals as industry progresses towards implementation of Basel II. The Australian banks that applied for accreditation to adopt the advanced Basel II approaches participated in this exercise along with banks from 30 other countries. The results for the Australian banks that participated indicate a larger decline in minimum regulatory capital levels than similar sized banks in many other countries. That, at least in part, reflects the larger proportion of housing loans on the books of Australian banks compared to their overseas peers. Although the four largest Australian banks are categorised by the Basel Committee as "Group 1" banks, due to the size of their balance sheets, the structure of their balance sheets is more akin to those of the "Group 2" banks. QIS5 indicated that overall the "Group 1" banks will experience little change in their Pillar 1 capital requirements compared to that under the (existing) 1988 Accord. In contrast the "Group 2" banks will on average experience a decline of in excess of 10 per cent. Importantly though, QIS5 only captured credit, operational and market risks. Banks adopting the advanced Basel II approaches will also be required to hold regulatory capital against interest rate risk in the banking book, in terms of a specific requirement in Australia's case, and the other significant risks to which they are exposed. Thus, while many smaller Australian ADIs have expressed concerns that Basel II will change their competitive position vis-à-vis the larger banks, the QIS5 results do not capture the total amount of regulatory capital that will be required of those banks using the advanced Basel II approaches.

Importantly, APRA does not view Basel II as a vehicle for changing the competitive landscape for ADIs. The changes to the regulatory capital regime are better viewed as an opportunity to more closely align regulatory capital with the risks that ADIs assume and how well those risks are managed by such institutions. It is also worth noting that there have long been differences in the average capital ratios of different sectors of the ADI industry in Australia.

A challenge for supervisors

More generally, the various demands on banks to ensure that their modelling and data are sufficiently robust to meet Basel II requirements raises a question. Should supervisors require banks to defer adoption of the advanced approaches until their preparations are complete? It would hardly be sensible for supervisors to introduce a regulatory regime that few if any banks were capable of meeting. That point aside, supervisors must ask themselves whether, for a large global bank with a considerable capital modelling capability, a less-than-perfect advanced Basel II approach coupled with a capital cushion is better than the standardised approaches. APRA thinks the answer is yes, provided the integrity of Basel II is maintained. That will not happen if, for example, banks treat Basel II as a compliance exercise or if they fall substantially short of meeting its requirements.

Of course, it is for each national supervisor to form their own views on such matters. In doing so, supervisors must balance financial safety and pragmatism. Given their mandates, supervisors approving the use of the advanced approaches are likely to err on the side of conservatism in achieving this balance. Some banks may see this as intransigence. Equally, though, banks must understand that supervisors cannot allow to go unchallenged models that, for example, have not been subject to reasonably comprehensive backtesting or which use data that are not reflective of a complete economic cycle.

Pillar 2

As discussed above, for Australian banks pursuing the advanced approaches, the results of QIS5, and of the other QIS show that the capital requirement under Pillar 1 — the direct replacement for the 1988 Accord — will involve a significantly lower quantum of capital than at present. Aside from reflecting the weight and experience of residential mortgage lending, this outcome is unsurprising because, by using their own estimates of credit and operational risk, banks are effectively stripping out some of the buffers against other risks that prudential regulators had built into the existing 'one model fits all' Accord.

The various QIS are, at times, also showing a dispersion of results that cannot be fully explained by differences in the mix of business of respondent banks. APRA has said publicly that it will adopt a cautious approach to agreeing to reductions in regulatory capital associated with the more sophisticated Basel II approaches. It wants to be assured that any such reductions are truly reflective of reduced risks.

This puts the spotlight onto Pillar 2, which is intended to ensure that banks have adequate capital to support all the risks to their business, not just those addressed by Pillar 1. The Basel II Framework mentions liquidity, credit concentration, reputational and strategic risks, although this list is not intended to be comprehensive.

Around the globe, some quite significant variations seem to be emerging in the way that supervisors are interpreting and implementing Pillar 2. As APRA is not a member of the Basel Committee it cannot comment on whether or not the architects of Basel II envisaged such variations. However, at this stage, supervisory views on Pillar 2 appear to be being influenced by the capital numbers being derived by the Pillar 1 process and resulting concerns about the adequacy of an institution's overall capital under Basel II.

Some supervisors are looking for a fixed multiplier which would, in effect, add buffers back into Pillar 1. Such an approach would have the benefit of simplicity and would minimise the compliance burden on banks. The disadvantage, of course, is that if a fixed multiplier were to apply equally to all banks irrespective of how well they identify and manage their risks, some of the improved risk-sensitivity that is such an important element of Basel II would be lost.

An alternative approach is that, if banks themselves do not or cannot identify and measure the full range of risks they face, supervisors could mandate the risks they consider significant and set capital requirements against each of them. However, this would have supervisors taking the lead in areas where understanding and methodologies are so underdeveloped that banks themselves are not prepared to use them in their own internal capital management.

A third approach would be a dialogue between the supervisor and each bank out of which would emerge individual agreements on a capital requirement higher than the Pillar 1 minimum. The dialogue could be based on an overall supervisory assessment rating which would then be mapped to a minimum capital requirement.

This type of approach would represent a significant step forward from the supervisory perspective, provided that the process of developing the rating and mapping it to minimum capital requirements does not become too mechanical. It is important that the professional judgment of experienced supervisors not be lost in the process. APRA has given some thought to this third approach although only as an interim step.

APRA has committed itself to a comprehensive Pillar 2 approach but acknowledges the uncertainties involved. This is an area where regulators must be mindful of the current state of the art. For their part, too, banks must have a realistic view of their risks and their ability to measure and manage them. Where these processes are still in their formative stages, conservatism should reign.

One aspect of the Basel II Framework that has been a source of contention, and that Pillar 2 aims to address, is its “pro-cyclicality effect” — its potential to exacerbate changes in lending behaviour over the course of the economic cycle.

In short, regulatory capital requirements under the Framework will fall during economic expansions and increase during economic downturns, because of the ‘migration’ of ratings assigned to borrowers over the cycle.

In Australia’s case, the Asian financial crisis gives some sense of the dimensions of the pro-cyclicality effect. At the time of this crisis, many Australian companies had their ratings downgraded in the expectation that the crisis would extend to Australia. While fortunately it did not, the potential impact on regulatory capital for Australian banks from this ratings migration would have been substantial. For corporate portfolios, the ratings migration would have led to an increase in regulatory capital under the Basel II methodology averaging around 20 per cent. As the ratings migration reflected only an expectation, it must be assumed that if the crisis had had a significant fall-out for Australia, the actual impact could have been considerably more severe. An increase in regulatory capital approaching 50 per cent may not have been beyond the realms of possibility.

Clearly these figures come with caveats but it is interesting that the Deputy Chairman of the Basel Committee, Nick Le Pan[3], has recently referred to work undertaken by some major banks in G10 countries that produced estimates of peak-to-trough variation in minimum capital ranging from 15 to 30 per cent over a cycle.

Pillar 2 provides a mechanism for addressing this pro-cyclicality effect. Banks already have incentives to smooth their capital over a cycle. Going forward, banks adopting the advanced approaches will also be required by their supervisors to have a capital strategy that takes into consideration the fluctuations of capital through the cycle and to include in their Pillar 2 capital a buffer against a general downturn in the cycle. Of course, if capital is to work in this way as a shock absorber, prudential regulators will need to exercise forbearance and be prepared to allow banks to run down their capital buffers during an economic downturn, when supervisory instincts would be suggesting the opposite response.

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[3] Remarks by Mr Nicholas Le Pan, Superintendent, Office of the Superintendent of Financial Institutions, Canada; Chairman of the Basel Accord Implementation Group; and Vice Chairman of the Basel Committee on Banking Supervision, at the 7th Annual Global Association of Risk Professionals 2006, New York, 28 February 2006.