

Basel II – Observations from Down Under

BY JOHN LAKER

In this paper Laker discusses issues related to the implementation of Basel II in Australia.

I. INTRODUCTION

I am delighted to be here in London, and at my alma mater, to participate in this Second Annual Conference on ‘The Future of Financial Regulation.’ The size of this gathering and the array of distinguished speakers I am honoured to join is testament to the relevance and liveliness of the topic of financial regulation, even though it was given a full airing at your First Annual Conference a year ago.

My focus today is on the Basel II Framework, a major global initiative to improve the overall efficiency and resilience of banking systems and now, in its implementation phases, a significant challenge for banks and prudential regulators alike. As others have said, ‘Basel II is not a destination, but a journey.’ Australians are no stranger to long journeys, and I would like to share with you some observations on Basel II from Australia’s prudential regulator, one of the first of the new breed of integrated regulatory agencies set up in a number of countries over the past few years.

Although Australia is only a medium-sized economy, Australians have a strong belief in their country’s global importance and their ability to ‘fight above their weight.’ This is, of course, most pronounced in our pride in our sporting achievements! However, Australians also believe, and with strong justification, that they have a world-class banking industry based on healthy and innovative financial institutions and a best practice supervisory regime. For all that, though, Australia does not have a seat on the Basel Committee on Banking Supervision nor does it have a ‘top 10’ bank, although its four largest banks have significant international standing.

I say this only to emphasise that Australia is under no legal, political or other obligation to adopt the Basel II Framework. We have been in a position to judge Basel II on its merits. And we have chosen to be in the first wave of jurisdictions to implement Basel II because we believe that 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.

My comments today are intended to give you an overview of our Basel II approach and timetable. My main intention is to highlight the issues with which we and our supervised institutions have been grappling, especially those pursuing the

advanced approaches. Inevitably, Pillar 2 matters—where the state of the art is still evolving—loom large at this point. I will also offer some brief remarks on Basel II home/host supervisory issues, particularly in the Australian/New Zealand context.

II. THE AUSTRALIAN BANKING SYSTEM

To start, however, let me provide some brief background on the Australian banking system. Three features in particular are guiding the course of our Basel II journey.

Firstly, the Australian banking system is highly concentrated. APRA is responsible for supervising 53 banks, 14 building societies, 157 credit unions and 7 specialist institutions—a total of 231 entities we refer to as authorised deposit-taking institutions (ADIs), and to which we apply a common supervisory framework. However, the industry is dominated by the four major Australian banks, which together account for 70 per cent of total ADI assets. These four institutions each hold total assets of at least \$A250 billion (around US\$180 billion), which makes them comparable in size to many other major international banking organisations. In contrast, Australia's building societies and credit unions hold less than three per cent of total ADI assets, but nevertheless provide an important source of competition in retail deposit-taking and housing lending.

Secondly, over the past decade and a half there has been a marked trend in the proportion of lending by the banking system away from the business sector towards lending to households, particularly for housing. Lending secured by residential property now comprises more than half of total ADI domestic lending, compared with only around a quarter in 1990. Two of the main factors at play have been 'burnt fingers' from corporate loan losses in our early 1990s recession and the strong enthusiasm of Australians to borrow for housing in the low inflation, low interest rate and low unemployment regime that has prevailed for some years now.

This change in lending portfolios means that the four major Australian banks qualify as 'Group 1' banks in the European jargon because of their asset size but, because of their relatively large portfolios of residential mortgage loans, look more like the European 'Group 2' banks.

Thirdly, housing lending has traditionally been a safe asset class for ADIs. Over the past half century, housing prices have enjoyed sustained cumulative increases in real terms, lifted in particular by two boom periods. The unwinding of the late 1980s boom saw default rates rise in some parts of Australia, but there was nowhere near the housing market stress suffered by the United Kingdom, other European countries and some regions in the United States. The unwinding of the more recent boom, which has seen nationwide housing prices broadly flat for two years but falling in Sydney, has been orderly and impaired asset ratios—currently around 0.2 per cent of total assets—are remarkably low by any standard.

A final point to note is that while the Australian banking system includes strong foreign competitors, around 82 per cent of its domestic asset base is Australian-owned. Compared to other countries of comparable size, cross-border issues—New Zealand aside—are not particularly significant for us.

III. APRA's BASEL II APPROACH

In Australia, and consistent with our implementation of the existing Capital 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 the standardised forms. It was also our assessment that a number of the larger banks, as well as APRA, could be ready to implement Basel II in its advanced forms from January 2008. We then questioned the wisdom of implementing 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 were all aiming for the advanced approaches. We were not convinced that our smaller domestic ADIs with less sophisticated approaches to risk and capital management should start earlier. Hence, we decided on a common starting date of 1 January 2008.

As required under the Basel II Framework, any Australian ADI wishing to adopt the Basel II advanced approaches has to obtain APRA accreditation to do so. Further, it is our view that ADIs should not be permitted to 'cherry pick' those parts of their business for which they wished 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 must also adopt the advanced measurement approaches (AMA) to operational risk. At this stage, we appear to be alone with the United States and New Zealand in taking this direction.

STANDARDISED APPROACHES

The vast majority of ADIs in Australia will use the standardised approaches in determining their regulatory capital charges. In the case of **credit risk**, APRA has exercised its discretion to vary the Basel II approach in two main ways:

- APRA is not proposing to adopt the 75 per cent risk-weight for 'other retail' exposures but will continue with the 100 per cent risk-weight. In our view, ADIs in Australia using the standardised approach will generally not have a high degree of geographic or product diversification in their 'other retail' portfolios that would justify the lower weighting, although ADIs are arguing otherwise; and
- 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. The greater granularity is intended to better capture Australian experience with housing lending.

In the case of **operational risk**, APRA is proposing that ADIs use the 'alternative standardised approach', which will use an asset indicator for our 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 our requirements as simple as possible, an ADI's operations will need to 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 our approach for those institutions to which it will be applied.

The Financial Services Authority (FSA) here has assessed our approach to operational risk as not meeting the European Commission's Capital Requirements Directive. This is because the Directive applies very strict conditions on the use of the alternative standardised approach, which severely limits the ability of banks to use it. We assume that other European supervisors may follow the FSA's lead. Nonetheless, we have judged that our approach is the most appropriate, and the least complex, for our legion of small ADIs. The FSA has discussed its decision with us and I would stress that it is by no means a source of tension.

ADIs adopting the standardised approaches are likely to benefit from a modest reduction in their regulatory capital requirements, an acknowledgement of the preponderance of residential mortgage lending on their balance sheets. Many smaller ADIs have expressed concerns that this outcome will, nonetheless, change their competitive position vis-à-vis the larger banks. We in APRA, however, do not view Basel II as a vehicle for changing the competitive landscape but rather as an opportunity to better align regulatory capital with the risks that ADIs assume and how well those risks are managed. 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.

ADVANCED APPROACHES

A small number of our largest Australian banks are pursuing the advanced Basel II approaches. Our proposals on the IRB/AMA approaches differ from the Basel II Framework only on minor matters of detail and interpretation. However, we have also proposed a mandatory capital requirement for interest rate risk in the banking book for advanced institutions.

In implementing a new and complex supervisory regime for the advanced approaches, we took the view that benchmarking between the banks would form a significant element of our accreditation process. For that reason, we introduced a 'window' concept whereby those banks wishing to adopt the IRB/AMA approaches at the start of 2008 had to submit their applications at the same time. When we made that decision, we chose a 30 September 2005 deadline because that was consistent with our understanding of thinking in the G10 countries and with the timing of the two-year parallel run. Subsequently, the position in some other jurisdictions has become more fluid, although some also have the luxury of a larger population of internationally active banks, enabling them to accept applications in 'waves.'

We required the application for accreditation to be signed-off by the respective bank boards. We gave careful thought to whether the sign-off should be by the

Chief Executive Officer, the Risk Committee of the board, or the full board. While a bank's management might have more detailed direct knowledge of the institution's risk measurement and management processes and, in that sense, might be better placed to sign-off, ultimate responsibility for risk management lies with the board. Since the adoption of the more sophisticated Basel II approaches is a major initiative and requires a significant commitment by a bank, including the closing of 'compliance' gaps, it is reasonable to expect board sign-off. By accrediting these approaches, APRA is electing to rely extensively on the economic capital modelling of the bank rather than on broad supervisory rules of thumb. Hence, we see it as fundamental that the board understand and support the economic capital model used to manage the bank and the risk estimates that will form the basis for the bank's regulatory capital calculations.

Not all banks agreed with our approach. Some argued that it blurred the boundary between board and management accountabilities. However, we believe that our stance has been vindicated by the level of board buy-in to the Basel II process. Boards have told us that their Basel II involvement has been demanding but none has said it was not the wiser for it. The buy-in has also had a positive effect in making the Basel II work in banks, in our opinion, more robust and better focussed and resourced.

For banks seeking accreditation, we also set nine 'pre-requisites' that would demonstrate the extent to which the use of risk-based capital and associated risk-adjusted performance measurement permeates the management of the bank's business. We want to be assured that banks seeking accreditation are committed and competent users of their economic capital models. Time does not allow a full listing of our pre-requisites but let me comment on one in particular.

We required that performance assessment of, and incentive compensation for, senior executives with profit centre accountability take into account the amount of risk assumed and the management of that risk. We believe that remuneration is a good indicator of the extent to which the use of risk-based capital shapes the management mind-set, and we would expect this 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. We agonised a little over this pre-requisite because we thought it could be seen as overly intrusive. Interestingly, however, our banks told us they were quite comfortable with it, which may say something about the different perspectives of supervisors and banks!

IV. THE READINESS OF BANKS FOR BASEL II

As I mentioned, we are currently assessing applications from around half a dozen Australian 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. Our experience to date illustrates, nonetheless, that the task of preparing for the advanced approaches—in terms of resources, data and time—is a demanding one.

And I doubt that the challenges facing us in Australia are unique, if the discussions we and our banks are having with respective overseas counterparts are any guide.

At this point, the tempo of modeling work in our applicant banks is not letting up, and some are substantially revamping their models to ensure that their risk estimates meet the Basel II requirements. 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, Basel II project teams, including our own, are stretched.

We are finding that documentation tends to lag model development. 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.

As to the risk estimates themselves, we are also finding that the Basel II objective of a more risk-sensitive capital framework for **credit risk** under the advanced IRB approach is clearly being achieved. Take corporate lending. In Australia, the best corporate borrower could be risk-weighted at as low as 10 per cent but we are also seeing examples of risk-weights of up to 150 per cent, significantly above the 100 per cent risk-weight for corporate exposures under the existing Capital 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. We are 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, our banks may map their grades to Standard and Poor's 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. This, together with differences in delinquency management practices, can substantially affect the estimates, with important implications not just for individual banks' capital calculations but also for key benchmarking and data pooling initiatives. We have work to do here and we see considerable value in undertaking 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.

In retail lending, all our applicant banks are estimating risk weights on residential mortgages significantly lower than those in the standardised approaches. Not surprising, given our 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 and LGD estimates do not reflect conditions of a serious economic down-turn.

As far as **operational risk** is concerned, our AMA banks are at various stages of readiness. Some are developing new systems and infrastructure while others are modifying existing systems that may have been operational for lengthy periods. The background, of course, is that 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.

In rather simplistic terms, there are two aspects to the advanced measurement approaches to operational risk. The first is the measurement of a regulatory capital requirement and the second is the management practices that are used to drive risk lower. Since 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 our accreditation process, we are discussing with our 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, at APRA we are very firm on 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.

The various demands on banks, not just Australian 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. We in APRA think 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.

As ever, supervisors need to 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 and I can well understand their frustration. Equally, though, banks must understand that supervisors cannot allow to go unchallenged models that, for example, have not been subject to reasonably comprehensive back-testing or which use data that are not reflective of a complete economic cycle.

V. PILLAR 2

For Australian banks pursuing the advanced approaches, the results of the various Quantitative Impact Studies show that the capital requirement under Pillar 1—the direct replacement for the existing Capital 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 Quantitative Impact Studies are, at times, also showing a dispersion of results that cannot be fully explained by differences in the mix of business of respondent banks. We supervisors are naturally conservative people and we do not like the unexplained. Hence, 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. We want to be assured that any such reductions are truly reflective of 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. We do not know if the architects of Basel II envisaged such variations. However, at this stage, supervisory views on Pillar 2 are clearly 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 the Basel II Framework.

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.

We have been giving some thought to this third approach although only as an interim step. It would not necessarily meet the Basel Committee's stated aim that banks themselves develop an internal capital assessment process and set capital targets that are commensurate with their risk profile and control environment.

We in APRA have committed ourselves to a comprehensive Pillar 2 approach but we acknowledge 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. To summarise the concern, 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, we must assume 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 my supervisory counterpart in Canada, Nick Le Pan, 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.

VI. HOME/HOST SUPERVISORY ISSUES

The application of the Basel II Framework to internationally operating banks requires close cooperation and coordination between home and host supervisors, in part because both supervisors need to provide a Pillar 1 and Pillar 2 assessment. Without going into detail, there are also many examples of local market information and insights into analytic and methodologies that could and should be shared between supervisors. In Australia's experience, the signs here look very positive. Whether working through international fora, supervisory 'colleges' or bilaterally, supervisors are seeking ways to ensure consistent and better Basel II outcomes, to minimise duplication between supervisory agencies and, importantly, to minimise the duplication of effort by banks to satisfy prudential requirements in different jurisdictions. This successful Basel II cooperation is extending into other areas of supervisory overlap.

One example of enhanced supervisory cooperation is occurring across the Tasman Sea. The Australian and New Zealand banking markets are highly interdependent—around 85 per cent of New Zealand banking system assets are owned by the largest Australian banks, and New Zealand banking system assets comprise around 15 per cent of total assets of Australian-owned banking groups. Initially, the New Zealand bank supervisor, the Reserve Bank of New Zealand (RBNZ) took the view that New Zealand's interests were best served by implementing only the standardised Basel II approaches. Naturally, banks argued that the uneven application of Basel II across the Tasman would add unnecessarily to regulatory and reporting burdens. Over the past couple of years, APRA and the RBNZ have made a concerted effort to understand each other's Basel II implementation issues and intentions and to explore the possibilities for closer cooperation. As a consequence, APRA and the RBNZ have entered into a Terms of Engagement aimed at harmonising approaches to regulatory capital requirements in each jurisdiction; the RBNZ has also decided to allow the advanced Basel II approaches in New Zealand. In our view, these arrangements, supported by a program of regular staff secondments between the two agencies, will lead to stronger and more efficient trans-Tasman supervision and lower regulatory burden.

VII. CONCLUDING COMMENTS

Let me conclude by lifting sights beyond Basel II implementation issues and speculating briefly on how capital in the banking system may evolve in coming years.

The Basel Committee has emphasised that the current level of regulatory capital in the banking system is appropriate and that Basel II is not intended to greatly change that. APRA fully supports that sentiment although, given Australia's particular circumstances, we would expect to see some modest reduction in regulatory capital, on average, in our banking system. Whether the ratings agencies endorse such a reduction is another question! I would also note that as Basel II is deliberately a more risk-sensitive approach, there will be greater deviation in capital requirements around the average. Those institutions whose risks are not adequately captured by the existing Capital Accord will, under Basel II, have to hold more regulatory capital.

Having said that, we at APRA believe that while the current levels of regulatory capital have stood the test of time, they are not necessarily optimum. As supervisors become more comfortable with the risk estimates that are derived from the advanced Basel II approaches, those risk estimates will provide the basis for a sensible discussion between banks and their supervisors about optimum levels of regulatory capital. It would be premature for this process to begin within the next couple of years but there is no reason why it could not play out as the Basel II journey reaches its mature phases.

In the meantime, banks adopting the advanced Basel II approaches, and spending many millions of dollars to do so, will continue to question whether they will be 'rewarded' for this investment through a lower regulatory capital charge and whether the regulatory complexity of Basel II will be worth the effort. In our view, and one we hope the banks share, the real reward is a better matching between regulatory capital and risk-based economic reality. True, the advanced Basel II approaches rely on complex modelling that in some areas is still being developed and they depend on long-run data that are often not available. Even so, the larger globally operating banks have been developing and using such techniques in their own internal capital modelling for several years now and their drive for sharper risk measurement and management has real momentum. And it is clear to us that the regulatory overlay of Basel II is adding a degree of robustness that the banks did not necessarily have.

In short, we in Australia are keen to stay the course!

VIII. NOTES ON CONTRIBUTORS/ACKNOWLEDGMENTS

John Laker is the Chairman of the Australian Prudential Regulation Authority (APRA). APRA was established in 1998 as an integrated supervisor of banks and other deposit-taking institutions, insurance companies and superannuation funds.

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was the Bank's Chief Representative in Europe, based in London, from 1991 to 1993; Assistant Governor (Corporate Services) from 1994 to 1998; and Assistant Governor (Financial System) from 1998 to 2003. He was also an APRA Board member and Deputy Chairman of the Payments System Board of the Reserve Bank from 1998 to June 2003, when he was appointed to run APRA.

Dr. Laker is APRA's representative on the Payments System Board, the Council of Financial Regulators and the Trans-Tasman Council on Banking Supervision.

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