



Australian Prudential Regulation Authority

# **Harmonising Prudential Standards: A Principles-Based Approach**

**Policy Discussion Paper  
December 2000**

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## PREAMBLE

Financial regulators are increasingly directing their policy development efforts towards the creation of prudential standards that are applicable to all types of financial institutions. This task represents a major challenge facing APRA, as the prudential supervisor for Australian banks, building societies, credit unions, life insurers, general insurers, friendly societies and superannuation funds. Our task, summed up in the simple phrase “treating like risks in a like manner”, requires the development of prudential standards that ensure there are no significant regulatory inequalities between the different groups of institutions. Yet at the same time, these standards must recognise that each of the traditional industry sectors continues to have individual characteristics that make them quite distinct from one another.

Since its establishment, APRA has been giving thought to how to develop a ‘harmonised’ supervisory framework. Other supervisors, particularly other integrated supervisors (i.e. supervisors with responsibilities that cross traditional industry boundaries) have been similarly occupied. In an attempt to promote debate on the means by which harmonised standards can be developed, an *ad hoc* Meeting of Integrated Supervisors, jointly hosted by APRA and the UK Financial Services Authority, was held in London on November 30-December 1, 2000. A version of this paper was presented at that meeting, and was subsequently provided to the Joint Forum’s Working Group on Risk Assessment and Capital for its consideration.

APRA welcomes comments from interested parties on any aspect of the paper. Comments should be directed to:

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## HARMONISING PRUDENTIAL STANDARDS: A PRINCIPLES-BASED APPROACH

### 1. Introduction

Financial convergence – that is, the breaking down of barriers between traditional sectors of the finance industry – is undoubtedly occurring, albeit perhaps not at the pace at which some commentators claim it to be. ‘Full service’ financial institutions, which offer their customers a wide variety of financial products from the banking, insurance and other industry sectors, are increasingly becoming a feature of the financial landscape in most developed economies. Given the advantages that such firms can offer in terms of efficiency and competition, their emergence provides potentially significant benefit to the end-users of financial products, and for the functioning of the economy as a whole. However, these firms also pose a challenge to the methods used by prudential (and other) supervisors, who have traditionally relied on industry-based supervisory regimes that have not placed a high priority on consistency with other aspects of financial market regulation.

One response to the trend of financial convergence has been the creation of integrated supervisory agencies with responsibility for the prudential supervision of all regulated firms within the financial sector. The ‘club’ of such supervisors is growing rapidly, and all have been charged with (amongst other things) trying to develop a system of prudential supervision which is harmonised across the various industries within the financial sector. As will be discussed below, this challenge is a large one. However, it is also a challenge that is not simply confined to integrated supervisors. In the increasingly global financial markets, a traditional industry-based supervisor cannot blindly ignore the regulatory standards imposed on other industry sectors. Financial markets and derivatives increasingly allow institutions to unbundle and transfer risk to those parties who are most efficient in managing it, and to arbitrage inconsistencies in supervisory standards. Hence, the drive for a more harmonised set of prudential standards is important, regardless of the presence of financial conglomerates or the supervisory structure employed.

This paper provides some comments on the extent to which supervisory standards, both for capital adequacy and other matters, can be harmonised. The focus is on standards for banking and insurance, although many of the principles put forward could equally be applied to other types of financial institutions.

### 2. The Problem Facing Supervisors

The task of harmonising prudential standards is not an easy one. The differences between existing prudential standards for the banking and insurance industries are often significant; in part, this reflects structural balance sheet differences, but other factors such as history, terminology, risk management approaches and accounting requirements have also played a role.

Until the most recent decade, banking and insurance were quite separate industries, with **distinct balance sheets and risk profiles**. In their basic activities, banks focussed on intermediation, pooling the savings of depositors and lending these to borrowers for (hopefully, but not always) productive investment purposes. The balance sheet of a bank is typically highly geared – usually with a debt-equity ratio close to 20:1 – and the prime risk to which it is exposed is credit risk: that is, the risk that a loan made by the bank will not be repaid in full, thereby possibly jeopardising the bank’s ability to repay its (capital guaranteed) depositors. On the other hand, insurance companies – both life and general<sup>1</sup> insurers – operate in a quite different manner, and are exposed to different risks. An insurer receives a premium for protecting policyholders against adverse events, relying on diversification and the ‘law of large numbers’ to ensure it does not have to pay out on all events at the same time. The balance sheet of an insurer is usually much less geared – a typical debt-equity ratio is well below half that of a bank – and the

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<sup>1</sup> In Australia, non-life or property and casualty business is termed ‘general insurance’.

insurer's primary risk is usually generated from the liability side of its balance sheet, i.e. uncertainty over the size of potential claims.

Of course, it is not just the structural differences between the balance sheets of banks and insurance companies that have led to **differences in their supervision**. Many jurisdictions required, and in some cases continue to require, a complete separation between the two industries, with quite strict limitations on banks owning or operating an insurance business (and vice versa). To a large extent, this tended to reflect the need to 'protect' the systemically-important banking sector from the perils and volatility of the insurance business. The result was separate industries with quite separate regulatory arrangements. Banking supervision was usually conducted by central banks, and used a mixture of supervisory and monetary policy tools (e.g. reserve requirements). Insurance supervision is usually conducted by a separate agency - it is extremely rare for a central bank or monetary agency to also be an insurance supervisor (although the Monetary Authority of Singapore is an exception to this).

Although in many countries, the restrictions on the mixing of banking and insurance have been removed (usually coinciding with, or following from, the deregulation of the banking sector), the disparate supervisory regimes have largely remained in place. As would be expected, each supervisory agency has tended to establish a range of prudential standards and supervisory methods that focus on the material risks faced by the respective institutions. Much attention in banking supervision is therefore directed at credit risk, while insurance supervision is typically aimed at ensuring the adequacy of the insurer's technical provisions. However, even though each supervisor is interested in the prudent assessment and management of the respective risks, the supervisory methods between banking and insurance supervisors have tended to differ markedly, even at the most basic level. For example, in Australia, banking supervision is conducted on a consolidated basis, whereas most insurance standards are applied at the licensed-entity level only.

The separation of supervisory agencies, although now beginning to break down at the domestic level, remains entrenched at the international level. While the Basel Committee for Banking Supervision (BCBS) and the International Association of Insurance Supervisors (IAIS) - and the International Organisation of Securities Commissions (IOSCO) for securities regulators - have played a valuable role in raising industry standards in a large number of areas, there has been little attempt to date to develop harmonised standards between the three bodies. To some extent, the Joint Forum has taken on this task, although progress as yet has been limited. This is not through lack of effort, but rather due to the varying stages of development of the various standards of the main international bodies. Reflecting the wide differences in the capital adequacy standards for each industry, for example, the Joint Forum principles tend to focus on accommodating the individual capital regimes within the assessment of a conglomerate group, rather than trying to develop a single measurement methodology which is applicable to all types of institutions. Efforts underway now to examine consistent methods of risk measurement, and to assess the extent to which a common set of Core Principles might be viable, are to be encouraged, but are still in their relative infancy.

In addition to the differences in their business, balance sheet structures and regulatory arrangements, both industries have developed their own **terminology** to describe their activities. Differences in language or jargon serve to mask the similarities, and to make it difficult to detect the real differences, between the industries. In banking, 'credit risk' and 'market risk' are usually seen as separate, primary classes of risk, whereas for insurers they are often seen as a subset under the broader heading of 'asset risk' (which may also cover valuation and liquidity/realisability risks as well).

Supervisors have not helped this issue. For example, in regulatory jargon, the term *solvency* is typically applied to insurers, and implies not just that the firm is commercially solvent, but that it can absorb a certain level of unexpected losses without becoming insolvent. In the current Australian general insurance regime, for example, a *solvent* institution is one in which its outstanding claims provision could

increase by at least 15% before its liabilities begin to exceed its assets. *Capital adequacy* is used in the banking context, and has a similar meaning – broadly, assets could be subject to declines in value of up to 8% before the bank has eroded its capital base. Within the Australian life insurance regime, the situation is more complex, with both terms being used. In very simple terms, *solvency* reflects an ability to withstand adverse shocks without jeopardising policyholder interests; *capital adequacy* reflects not only an ability to withstand adverse shocks, but also to maintain on-going business plans into the future without difficulty.

The banking and insurance industries also tend to have **differing cultures and risk management practices**. For example, the ‘segregation of duties’ concept tends to be applied much less rigorously in insurance, where underwriting staff, who have written and priced policies that have been issued, also typically play a role in providing advice to management on the valuation of the resulting liabilities (in some cases, without any actuarial input). In banking, lending and trading activities are usually subject to greater scrutiny by independent risk management functions, designed to ensure positions are correctly reported and valued. The broader risk management philosophies also differ between the industries. The insurance industry relies to a great extent on actuarial practices for its risk measurement and pricing: this is usually founded on in-depth analysis of past events and trends. Banking, on the other hand, tends to price and manage contingent-style risks (e.g. options) using a capital markets-based framework, i.e. prices are determined from implied rates and yields derived from forward curves and expected volatilities.

The differences highlighted above between banking and insurance is by no means an exhaustive list. They do, however, highlight the difficulties faced by supervisors in trying to produce a harmonised set of supervisory standards that can be applied to the two industries. Unfortunately, an added difficulty is that it is not possible to start again with a blank sheet of paper: the supervisor trying to harmonise prudential standards must try to conform to a range of existing constraints. These include existing corporate structures, the increasing emphasis on adherence to international supervisory standards, the differences in language, culture and business practices. Against the background of these constraints, the following sections examine how the supervisor faced with the task of harmonising standards might proceed.

### 3. The Objective of Harmonisation

In Australia, the creation of APRA has focussed attention on what is really meant by the phrase ‘harmonising prudential standards’. On one hand, it could be interpreted as requiring APRA to develop a grand ‘unified theory of supervision’, with one set of supervisory standards that could be applied to all supervised entities, regardless of shape, size or complexity. Such a framework would inevitably be complex, and would require, in particular, a capital adequacy framework that covered all types of financial risks – such as credit, market, underwriting, asset-liability mismatch and operational risks – in a single calculation methodology to determine whether an institution had sufficient financial strength to withstand a reasonable array of adverse shocks.

A unified framework would also be difficult because it would need to be able to deal with many of the structural barriers to harmonisation that have been noted above. For example, assume a bank and an insurer held the same portfolio on the asset side of their respective balance sheets. For a number of reasons, it might not make sense to apply exactly the same capital factors to both sets of assets. The bulk of the bank’s assets, for example, will be recorded at historic cost (and hence hide unrealised gains or losses), whereas the insurer’s balance sheet is more likely to be accounted for on a market value basis. In addition, the bank’s assets are supporting capital guaranteed liabilities – and hence the risk of any diminution in value may be cause for concern – whereas the value of an insurer’s liabilities is subject to considerable uncertainty. In the latter case, growth assets such as equities are considered to be a necessary hedge for some classes of business, rather than regarded as a risky position.

To further emphasise this point, it is worth examining the economic capital allocations used by institutions themselves. Table 1 represents a hypothetical example of a bank, which calculates its capital

requirements for credit risk, operational risk, interest rate risk in the balance sheet (also known as asset-liability mismatch (ALM) risk) and traded market risk. Most institutions simply regard their total capital requirement as the sum of the requirement for each class of risk (in this case, \$200). However, more advanced institutions are beginning to analyse the impact of diversification, i.e. the less-than-perfect correlation that exists between different classes of risk. In the hypothetical example shown in Table 1, the overall capital requirement of the firm is reduced by around 25% as a result of diversification.

It is worth noting, however, that the reduction in capital allocated to each risk class differs markedly. Risk classes that are a relatively small component of the total risk, or have a low degree of correlation with other risks, will receive a relatively large reduction in required capital. On the other hand, the largest risk – credit risk in this example – receives the lowest benefit (as the other risk types ‘leverage’ off its large stand-alone capital requirement).

**Table 1: An Example of the Impact of Diversification on Capital Allocations**

Risk Class	Individual Capital Requirement		Diversified Capital Requirement		Reduction in Diversified Capital
	\$ amount	% of total	\$ amount	% of total	
<b>Credit</b>	120	60%	106	72%	-12%
<b>Operational</b>	50	25%	24	16%	-52%
<b>ALM</b>	22	11%	14	9%	-36%
<b>Traded Market</b>	8	4%	4	3%	-50%
<b>Total</b>	200		148		-26%

Because the diversification benefit received by each risk class is a function of the stand-alone capital for each class and the correlations between them, changes to the composition of the risk profile will (for a given correlation matrix) lead to a differing allocation of the diversification benefit to each class. In other words, the marginal contribution of any given asset to the risk of a portfolio will be dependent on all of the other assets in the portfolio, a result well known from portfolio theory. In practice, this means that, even if the undiversified credit risk capital requirements are the same for a bank and an insurance company, the diversified capital requirements will not be (because credit risk is likely to be the dominant risk for a bank, but not for an insurer). Hence, a supervisor that attempts to apply identical capital factors to a particular class of risk across all types of financial institutions will in all likelihood be imposing requirements that are inconsistent with the economic capital allocations used by firms themselves.<sup>2</sup>

Given all of the above, the ‘unified theory’ is likely to remain something of a Holy Grail. What is more practical, however, is to review the existing standards in terms of a **common framework of supervision**. In other words, what is needed is to develop an approach to setting standards that is consistent across all supervised entities, albeit that the detail of their application to specific industry sectors may differ in format and language.

This latter approach is the one APRA has taken. Our objective is to ‘treat like risks in a like manner’, but that does not mean we have, or even intend to have, a single set of rules for all types of institutions. Indeed, even within the deposit-taking sector, where our responsibilities range from large, internationally-operating banks to small, community-based credit unions, we have developed a uniform set of standards that allow considerable flexibility. Sophisticated institutions are able to use the latest in risk management technology, while the less sophisticated players are able to operate with a simple, but slightly harsher, set of requirements.

<sup>2</sup> Of course, the capital factors could be identical if supervisors did not use an additive framework, but instead developed a framework that measured and recognised diversification. Such a measure, however, is extremely difficult to implement.

We do not consider that operating with such a multi-tiered approach is inconsistent with our objectives. As noted in our submission to the BCBS on the proposed *New Capital Adequacy Framework*, “alternative methodologies based on different informational requirements will provide supervisors with different levels of transparency. Methodologies that more precisely reflect underlying differences in risk will require less in-built conservatism than standard methodologies that, even though they are based on less information, must still ensure similar levels of protection across the..... system.”<sup>3</sup> In other words, adopting differing standards for different institutions does not necessary imply inconsistency on the part of the supervisor. What is important for harmonisation is that any standards that differ in application between types of institutions are nevertheless derived from a common framework, and are the result of a deliberate decision to recognise differences in sophistication, materiality or business environment.

#### 4. Harmonising Governance and Risk Management Standards

One consequence of supervisors adopting an increasingly risk-based approach to supervision is that, instead of a detailed rulebook or checklist of requirements, governance and risk management standards are expressed as broad, high level principles. A good example of this is the work of the BCBS in its papers on risk management.<sup>4</sup> These papers do not lay down prescriptive rules on how a bank should conduct its activities, but instead identify the key principles that are necessary to ensure that business is conducted in a sensible and prudent manner. In other words, the papers do not suggest there is only one way to run a bank. Rather, there are some fundamentally important features of any business model, and it is for the supervisor to judge whether the particular approach that a bank uses to manage its business contains those fundamental features.

In many cases, these principles can be applied equally to non-bank financial institutions without amendment. For example, the BCBS’s September 1999 paper, *Enhancing Corporate Governance in Banking Organisations*, recommends:

- establishing strategic objectives and a set of corporate values that are communicated throughout the organisation;
- setting and enforcing clear lines of responsibility and accountability throughout the organisation;
- ensuring that board members are qualified for their positions, have a clear understanding of their role in corporate governance and are not subject to undue influence from management or outside concerns;
- ensuring that there is appropriate oversight by senior management;
- effectively utilising the work conducted by internal and external auditors, in recognition of the important control function they provide;
- ensuring that compensation approaches are consistent with the organisation’s ethical values, objectives, strategy and control environment; and
- conducting corporate governance in a transparent manner.

It is difficult to see why these principles would not be readily applicable to other types of financial institutions without modification. Other such standards, such as for internal control and operational risk management, also have equal applicability to all forms of financial institutions.

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<sup>3</sup> Submission to the Basel Committee on Banking Supervision, March 2000 (available from the APRA website – [www.apra.gov.au/policy](http://www.apra.gov.au/policy)).

<sup>4</sup> There are a large number of such papers available from the BIS website ([www.bis.org](http://www.bis.org)), with recent examples including *Enhancing Corporate Governance in Banking Organisations* (September 1999), *Sound Practices for Managing Liquidity in Banking Organisations* (February 2000), and *Internal Audit in Banking Organisations and the Relationship of the Supervisory Authorities with Internal and External Auditors* (July 2000).

This process can be taken further, since many of the fundamental issues in risk management are applicable regardless of the type of risk involved. An example is the BCBS's paper, *Principles for the Management of Credit Risk* (September 2000). This paper outlines 17 principles that institutions should follow in operating a sound credit risk management system. However, with minor modifications, the same standards can be easily modified to cover underwriting risk in insurance. For example, the principle requiring that:

*The board of directors should have responsibility for approving and periodically (at least annually) reviewing the credit risk strategy and significant credit risk policies of the bank. The strategy should reflect the bank's tolerance for risk and the level of profitability the bank expects to achieve for incurring various credit risks.*

could be simply modified to:

*The board of directors should have responsibility for approving and periodically (at least annually) reviewing the underwriting strategy and significant underwriting policies of the insurer. The strategy should reflect the insurer's tolerance for risk and the level of profitability the insurer expects to achieve for underwriting various risks.*

Other principles can be similarly modified. For example:

*Banks must operate within sound, well-defined credit-granting criteria. These criteria should include a clear indication of the bank's target market and a thorough understanding of the borrower or counterparty, as well as the purpose and structure of the credit, and its source of repayment.*

could be easily altered to:

*Insurers must operate within sound, well-defined underwriting criteria. These criteria should include a clear indication of the insurer's target market and a thorough understanding of the nature of the risks being underwritten.*

Indeed, it is not a difficult to make similar adjustments to all 17 principles to produce a corresponding set of standards for the management of underwriting risk in insurance companies. And it is not just the BCBS standards that can be modified for use in an insurance context. The IAIS has produced its *Principles of the Conduct of Insurance Business* (December 1999) and *Principles for the Supervision of Insurance Activities on the Internet* (October 2000), both of which could be easily adapted to a banking environment. And the work of IOSCO in developing disclosure standards will undoubtedly be of use to all supervisors trying to use market discipline as an aid to their own supervisory activities.

What the above demonstrates is that supervisors can go quite some way to harmonising their qualitative prudential standards from available material. What is needed is not a completely new approach, but instead to draw out the best ideas from the various industry-based regimes and apply them across the financial sector.

## **5. Harmonising Capital Adequacy Standards**

While harmonising qualitative standards may be possible to a reasonable degree, harmonising quantitative standards pose much greater difficulties. This primarily reflects their definitive nature, ie unlike standards for risk management, which are expressed as principles against which the supervisor must make an informed judgement, prudential standards for capital adequacy and other quantitative matters usually require specified calculation techniques and benchmarks that an institution must comply with. In other words, the issue of compliance is usually 'black or white', involving the application of a mechanical calculation methodology.

In very simple terms, a financial institution is solvent when the value of its assets is greater than the value of the obligations due to depositors, policyholders, fund members and other creditors. Most institutions

will operate with a sizeable buffer of capital, ie assets will exceed liabilities by a sizeable amount. However, shocks to the value of assets (eg unexpected loan losses in a bank) or liabilities (eg larger than expected claims on an insurer) can cause this capital buffer to be rapidly eroded. The supervisor's task is to set the minimum size of the capital buffer held by institutions so that the potential for shocks to exhaust the entire capital base of the institution is reduced to some acceptably small level.

Comparing, for example, the Australian capital adequacy standards for banking and general insurance:

- banks are required to hold capital equivalent to 8% of risk-weighted assets (in accordance with the Basel Capital Accord), whereas general insurers are currently required to maintain net assets which exceed 15% of their outstanding claims provision<sup>5</sup>;
- in measuring their capital base, banks use pre-defined capital instruments according to some portfolio composition limits, while insurers use the accounting concept of 'net assets' and are prevented from accessing hybrid debt-equity instruments and subordinated debt;
- the banking regime measures risk primarily on the asset side according to the credit risk of the bank's counterparty (with a small add-on for certain traded market risks), while general insurers measure risk solely on their liability side; and
- the capital requirement for banks is expressed as a form of gearing ratio, whereas that for insurers is expressed as a dollar amount, and excess capital is measured as a multiple of the minimum requirement.

What is clear when looking at these capital standards is that the requirement for each type of institution is quite distinct. It is difficult to assess in any meaningful way whether one set of requirements implies a higher level of soundness than the other.

In reviewing our capital adequacy standards for banks and general insurers, it is clear that simply adopting the standard used by one industry, and applying that blindly to all others, would not achieve a sensible outcome. The existing banking requirements are based on the premise that the claims on the liability side of the balance sheet are fixed in value. Conversely, the insurance requirements ignore the asset side of the balance sheet.

## 5.1 Principles for Setting Capital Adequacy Standards

To achieve its objectives, APRA needs to develop a framework that produces consistent standards of capital adequacy. This does not mean we seek to have a 'one size fits all' approach to capital. Differing degrees and types of risk in individual institutions and, more importantly, the interaction between those risks and the financial promises being made by institutions, will mean that some variation in capital standards will inevitably continue between different markets and industries. However, where differences exist, we want to be able to explain them in terms of a consistent framework in which the differences have emerged because of a proper evaluation of the risks that the capital is intended to cover.

As a starting point, the following principles were developed to act as a guide to the development of capital adequacy standards that will be equitable across different industries. Our thinking is still very much at an early stage, but we hope that the process of working through the principles will help identify the key similarities and differences between the existing industry-based regimes, and aid the development of harmonised standards for capital adequacy.<sup>6</sup>

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<sup>5</sup> There is also a requirement for insurers to also ensure their net assets exceed both \$2 million and 20% of premium income.

<sup>6</sup> As an aside, APRA decided to use the term *capital adequacy* for all institutions, rather than *solvency*, which has been used in the past in the insurance industry. This is a deliberate attempt by APRA to begin to overcome the differences in terminology noted above. The term capital adequacy was chosen as it helps to distinguish regulatory terminology from the normal commercial use of the term solvency, and better reflects the goal of supervisory requirements; that is, that institutions not just be commercially solvent, but maintain an *adequate level of capital* to support the risks inherent within their on-going activities.

1. *Capital adequacy standards should define a set of acceptable capital instruments. These instruments should be selected on the basis of the quality of support provided to an institution during periods of financial stress, and in particular the protection afforded to depositors/policyholders. As a result, standards should always emphasise ordinary equity (shareholders' funds) as the core of any capital requirement.*

In defining capital adequacy, supervisors must define those capital instruments that are deemed adequate to provide the support required when an institution encounters an unexpected shock. Ideally, these sources of capital would provide funds that:

- represent a permanent and unrestricted investment of funds;
- are freely available to absorb losses and thereby enable the institution to keep operating whilst any problems are resolved;
- do not impose any unavoidable charge on the earnings of the institution; and
- rank below the claims of depositors, policyholders and other creditors in the event of the winding-up of an institution.

Supervisors may wish to accept capital instruments that fall short of meeting all of the above characteristics. Any liability that ranks below those of protected investors in the event of a wind-up provides some degree of protection against loss. However, it is shareholders' funds that provide the ultimate support in times of crisis and determine the institution's ability to survive a period of stress<sup>7</sup>. Hybrid equity and other like instruments may form part of the capital framework, but should not form the bulk of the capital base that a financial business is built on.

2. *Capital standards should be risk-based, i.e. a capital requirement should be reflective of the underlying risk profile.*

Prudentially supervised institutions are required to maintain minimum levels of capital to enable them to offer a sufficient degree of certainty that they will be able to meet their financial obligations to depositors, policyholders and investors. The amount of capital which must be held to achieve this level of certainty is related to the risk the institution faces; the greater the potential variation (uncertainty) in the value of assets and liabilities, the greater the amount of capital required to ensure the institution remains solvent (i.e. assets exceed liabilities).

It follows that supervisory capital requirements must be determined according to the risk to which an institution is exposed. Not only does such a framework ensure a better link between the standards and the ultimate supervisory objective, but it also assists in minimising the influence supervisory requirements can have on day-to-day business decisions, and reduces competitive inequalities between types of institutions or particular lines of business.

3. *Capital standards should be comprehensive, ie cover, either explicitly or implicitly, the full range of risks that an institution faces.*

Different institutions face certain types of risk to different degrees. For example, the primary risk facing banks is generally credit risk, while liability risk is relatively small. For insurance companies, liability risk is the dominant risk and credit risk makes up a much smaller proportion of these institutions' risk profiles. Ideally, capital standards would deal with each of these risks explicitly and with a consistent (though not necessarily identical) approach.

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<sup>7</sup> There are, of course, some institutions that do not have shareholders' funds (in the normal sense of the term) because of their ownership structure. Mutually-owned organisations are an example of this. However, even these institutions will have general reserves and retained earnings in the same manner as incorporated limited liability institutions, and these provide the fundamental source of support in times of crisis.

In practice, however, this may not be the case where a particular risk is either small (not material) or very difficult to quantify. Further, it is sensible that most attention is directed towards the largest risks to which an institution is exposed. While it is preferable that a capital standard deals with all risks explicitly, what is ultimately important is that the aggregate capital requirements imposed on institutions are sufficient to ensure that the overall level of capital is adequate for the size and full range of risks being taken.

- 4. *Capital standards should provide scope for supervisors to adjust minimum capital requirements for individual institutions, so as to take account of factors that are not captured in quantitative measures of capital adequacy.***

While an admirable goal, it is difficult for supervisors to develop capital standards that capture completely every risk to which an institution could possibly be exposed. Some types of risk are inherently difficult to measure in a quantitative fashion, eg the quality of management and strategic planning. Supervisors therefore need to ensure that, no matter how sophisticated their capital adequacy assessments become, there is scope within the capital adequacy framework to adjust minimum capital requirements to take into account factors that a purely quantitative measure cannot adequately deal with.<sup>8</sup>

- 5. *Capital standards should, wherever possible, allow institutions to use tailored approaches to the assessment of capital adequacy, leveraging off best practice internal risk measurement models.***

APRA's risk-based approach to supervision requires that it develop standards for capital adequacy which reflect not just differences between broad institutional groups (banks, insurers, etc), but also adequately distinguish the differing risk profiles of institutions within the same industry. This requires, for example, standards which reflect the different risks faced by a retail bank with a loan book comprised mainly of housing finance, and an investment bank with a complex portfolio of structured finance and leveraged derivatives. Similarly, standards also need to reflect adequately the different risks faced by home contents insurers (primarily short-tailed) and those involved with personal injury or workers compensation (primarily long-tailed).

It is difficult for a prescriptive, uniform set of capital standards to do this without an extremely high degree of complexity. A superior approach is one that utilises a rigorous assessment of the characteristics of an individual institution (eg its business size, mix and complexity), and tailors the regulatory capital requirement to suit that assessment. This is only likely to be feasible using approaches that involve the supervisor making use of some form of (approved) internal modelling or actuarial techniques.

Modelling approaches may not, of course, be suitable or necessary for all types of institutions. Those with only a limited range of simple activities may not have the need, or necessary economies of scale, to justify developing complex modelling techniques. As a result, a relatively simple, rules-based method for assessing capital adequacy will still be required, in addition to more sophisticated approaches.

- 6. *Capital standards should be set so that the probability of default is reduced to some predetermined minimal level; in other words, regulated institutions should be required to meet some minimum standard of creditworthiness.***

The purpose of capital adequacy standards is to ensure regulated institutions achieve and maintain a minimum level of financial soundness. In doing so, institutions will be reducing to some minimal level the probability that they will fail to meet their obligations as they fall due. While the actual probability of default may not be stated within the various standards, such a benchmark is important

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<sup>8</sup> This is consistent with the proposed Pillar 2 of the Basel Committee's *New Basel Capital Accord*.

for policymakers to ensure standards provide the necessary degree of soundness and are comparable and consistent across industry sectors. For example, it may be decided that all regulated institutions should be rated as at least ‘investment grade’, which implies a probability of default within one year of around 0.5%. This probability provides a benchmark that can be used across all types of institutions, even if individual industry standards differ in their detail. It also ensures that there is no misapprehension that capital standards will prevent all defaults occurring, ie the probability is low, but not zero.

There is nothing in such a framework to prevent the supervisor from raising the basic benchmark for different classes of institution; for example, the supervisor may wish to apply a higher standard depending on the systemic consequences of failure. A supervisor may also require higher creditworthiness amongst firms according to the nature of their financial promises. Ultimately, however, a supervisor needs to determine the basic benchmark – applicable to all firms – against which these additional adjustments can then be made.

**7. *Capital standards should ensure that institutions are able to survive for the likely duration of a severe adverse shock.***

Implicit in the selection of an acceptable probability of default is a time horizon over which that probability is measured. This needs to be selected based on a range of factors, including:

- the frequency or cycle of large unexpected losses;
- the likely time over which an adverse shock might persist; and
- the ability of an institution to recapitalise itself (and the ability to do this repeatedly in successive periods).

Using these factors as a basis for selection may result in different institutions measuring their probability of default over differing time horizons. In banking, this might be the length of a trough in a credit cycle; in insurance, it might be related to the length of time for claims to be made and accurately evaluated after a catastrophe event occurs. This approach should not, however, be regarded as inconsistent with APRA’s desire for a harmonised capital adequacy framework. Rather, it should be seen as simply reflecting the different underlying risks faced by institutions, and ensuring capital standards are set in accordance with the pattern of those risks.

**8. *Capital standards should recognise that financial system efficiency is unlikely to be maximised if failures are regular, even if depositors and policyholders do not suffer loss.***

Although only some investors are granted ‘protected’ status by the regulatory framework, supervisors need to be mindful that a financial system that is characterised by frequent failure, even where this does not produce losses for the protected investors, is unlikely to be optimal. Given that investor confidence is a fundamental requirement for the successful operation of most financial institutions, regular failures are unlikely to produce an efficiently functioning financial market. As a result, capital standards need to be set not just so that protected investors are deemed sufficiently safe, but also so that the overall soundness of financial institutions is sufficient to maintain investor confidence in the system as a whole. This will require the probability of default, and the time horizon over which it is measured, to be set at an appropriately conservative level.

**9. *Capital standards should produce benchmarks and simple measures of capital adequacy that can be disclosed to the public. Disclosure is an important ally in the supervisory process.***

The supervisory task of promoting safety and soundness within financial institutions can be aided by ensuring institutions are also subject to market disciplines which will penalise unwarranted risk-taking. Forcing institutions to disclose their financial soundness to potential investors (both protected and unprotected) strengthens the market discipline that is applied. The development of

simple measures of capital adequacy that can be disclosed to general public should therefore be viewed as an important supervisory task.

For example, if supervisors are satisfied that their capital standards are sufficiently harmonised across industry boundaries, then it is relatively easy for institutions to publish their ratio of 'excess capital'. Such a ratio provides a ready measure of the amount by which an institution's capital base exceeds its minimum capital requirement (expressed as a percentage or multiple of that minimum capital requirement). The ratio is also easily comparable across industries, even if the determination of the capital requirement still differs in the detail between individual institutions.

**10. *Capital standards should not be regarded as the solution to every supervisory issue: capital standards must be complemented by a range of other supervisory techniques.***

While the imposition of rigorous capital standards on financial institutions is a necessary precondition for a sound financial system, there is a range of tools that supervisors can use to minimise the probability of institutional failure. As well as capital standards, these include regular liaison with management, on- and off-site reviews, and co-operative arrangements with external auditors and other regulators. If supervisors rely solely on capital standards to ensure the financial health of institutions under their oversight, the required level of capital is likely to be excessive, and may even produce perverse incentives (eg to chase high risk, high return business so as to achieve a required return on capital). Ideally, supervisors that ensure their other supervisory tools are effective and efficient should be able to operate with lower capital requirements than when these tools are weak. This can only be beneficial for the supervisor, the financial institutions, and their customers.

## **6. Implementation of Harmonised Prudential Standards**

Given the above, how far has APRA gone towards developing and implementing harmonised prudential standards? Our attention has been focussed on two priority areas during the past 2 years: developing common standards for all deposit-takers (banks, building societies and credit unions), and modernising the prudential regime for general insurance. The life insurance sector has been lower on our list of priorities, reflecting a generally healthy industry and a prudential regime that was substantially reformed only a few years ago. Nevertheless, as progress is made with deposit-takers and general insurers, attention will increasingly turn to the life insurance sector in the next couple of years.

The first and simplest step we have taken is to develop a **uniform template** in which all prudential requirements will eventually be codified. This template consists of a prudential standard that provides the high level principles which must be complied with, and a number of accompanying guidance notes which outline how APRA would expect to see the standards applied in practice. For example, the proposed *Risk Management Standard* for general insurance contains broad corporate governance requirements - such as board composition, fit & proper tests, audit committees and external audit arrangements - with the guidance notes providing detail on how APRA would expect these requirements to be met in a general insurance environment.

Conceptually, it should be possible under this template to develop standards that are identical across industries, and differ only in the detail contained in the guidance notes, but at this stage there remain limitations on the extent to which this can be achieved.<sup>9</sup> Nevertheless, the equivalent requirements in the standards for deposit-takers and general insurers have been harmonised to the greatest extent possible (both in format and language). Perhaps not surprisingly, this harmonised approach has led to the general

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<sup>9</sup> For example, whilst the banking regime remains founded on a consolidated approach and the insurance regime uses an entity-based framework, some differences are inevitable (it is APRA's intention to move towards a consolidated approach to insurance supervision, although this is beyond the scope of the existing reform program). In addition, we continue to operate with disparate, industry-based legislation: while we are pursuing harmonised industry Acts, these will take some time to achieve.

criticism that APRA does not appreciate industry peculiarities and the fact that a particular industry sector should be considered “special”. Our response has been that while we fully recognise that there are undoubtedly important differences between the different industry sectors, and we seek to recognise these differences in the application of the standards wherever possible, this does not preclude the application of more uniform standards across the prudentially regulated financial sector.

Flowing from the first principle outlined above, we have also begun to harmonise the **definition of capital** in each industry. As noted previously, banks can use a wide range of defined instruments to meet their capital requirements, whereas insurers operate with an accounting concept of net assets. Our view is that, where similar risks exist within a bank and an insurer, then similar types of capital should be available to support those risks. Hence, we have proposed that the general insurance framework include a defined set of capital instruments, based on the Tier 1/Tier 2 concept used in banking. This initiative will give general insurers access to a range of capital instruments that are not recognised under the existing regulatory regime. We will, in all likelihood, move the life insurance sector down a similar path in due course.

Consistent with principles 2 and 3, we have also expanded the **types of risk** that are considered within the capital adequacy calculations. This is already occurring in banking, with proposed new Capital Accord expanding to include risks such as credit concentrations, operational risk and, to a limited extent, interest rate risk in the balance sheet. In the general insurance framework, we have similarly proposed expanding the existing capital adequacy requirements to capture risk on the asset side of the balance sheet, concentration risk (via capital for the insurer’s maximum risk retention) and, if a suitable measure can be found, asset-liability mismatch risk. The end result is that the two regimes will look much more similar: both adopt a building block approach, both cover the asset side of the balance sheet (credit and market risk), both include some measure of concentration, and both will (hopefully) have some measure of mismatch between assets and liabilities.

With respect to principles 4 and 5, both regimes will explicitly allow us to set **individual capital requirements** above the general minimum (consistent with the Basel Committee’s proposed Pillar 2). Although a number of banks are required to operate with minimum capital ratios higher than 8%, the imposition of differential requirements is something that has not featured in the general insurance supervisory regime to date. Both sets of standards will also permit supervisors to recognise the use of an institution’s **internal risk modelling** as part of the capital adequacy calculation. This approach is consistent with the direction the Basel Capital Accord in providing incentives for improved risk management within banks. It is, however, a quite radical approach for the Australian general insurance sector, which has been operating within a very crude regulatory regime for many years. We hope that the proposed changes will provide added incentive for the industry to develop sophisticated risk measurement and capital allocation techniques.

In terms of the **benchmarks of ‘soundness’** used (i.e. principles 6, 7 and 8 – the consideration of an appropriate probability of default and time horizon such that the risk of loss to depositors and policyholders, and failure more generally, are relatively low), we have started with the broad view that the minimum standard of creditworthiness for a regulated institution should be investment grade. Default rates for investment grade counterparties have provided a benchmark with which we have calibrated the new general insurance requirements using ‘top-down’ analysis of industry profitability. We are, of course, still reviewing the details of the new Capital Accord to get a sense of how the banking regime will line up against such this benchmark, although the capacity exists, via Pillar 2 adjustments, to try to bring overall capital levels between the two industries into line.

As noted earlier, an important rationale for harmonised standards is to prevent regulatory arbitrage, by which institutions that straddle industry boundaries allocate their business to the entity with the lowest regulatory capital burden. The approach adopted by APRA, which attempts to broadly align capital requirements at the overall portfolio level, but which does not employ identical capital factors within the respective regimes, is still open to this abuse. While the economic capital allocations presented above suggest identical factors are not appropriate, supervisors cannot ignore the potential for conglomerate groups to take advantage of the simplicity of the supervisory regime.

As a result, in developing capital factors for the Australian general insurance regime, a pragmatic approach has been used. Overall capital levels have been set based on historical profit volatility and a benchmark probability of default, but we have not sought to determine the capital factors for individual assets and liabilities based purely on the volatility of their returns. Instead, the capital factors have been determined using a combination of statistical analysis and supervisory pragmatism. This approach allows us, in a simple but hopefully effective manner, to ensure there are no major 'loopholes' that might otherwise allow major arbitrage opportunities to exist.

We are currently considering **disclosure requirements** (principle 9) which will allow a more consistent understanding of the relative financial strength of banks and insurers. As well as reporting the composition of their capital base (as noted above, eligible capital instruments will be the same for banks and insurers), one consideration is to move away from expressing bank capital adequacy as a percentage of risk-weighted assets. Instead, capital adequacy could be expressed as a multiple of minimum requirements, a method which is used already by the insurance industry.<sup>10</sup> Finally, the acknowledgement that capital adequacy must be complemented by **other supervisory techniques** (principle 10) is recognised in the fundamental philosophy of the standards, which emphasises the need for management oversight of activities and attempt to promote a strong risk management framework in each regulated institution.

To sum up, we have attempted to develop a set of prudential standards that follow a common philosophy and framework, but which still recognise genuine industry differences. In the calculation of capital adequacy, the methodologies still differ in much of their detail, although we are endeavouring to ensure that the overall capital levels are broadly consistent between the industries.

## 7. Conclusion

Given the environment in which supervisors are beginning to approach the task, the job of harmonising prudential standards will never be easy. However, significant progress can still be achieved, even in the short term. One possible way ahead is to focus on a framework of supervision based on macro level principles, rather than attempting to harmonise supervisory requirements at the micro level. This approach can hopefully provide the best of both worlds: a set of prudential standards that are broadly consistent across industries, but at the same time that contain sufficient flexibility to enable industry-specific characteristics to be accommodated without difficulty.

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<sup>10</sup> For example, instead of reporting a capital ratio of 10%, a bank would report a capital multiple of 1.25x minimum requirements. Disclosure in this form has the added advantage of providing a more accurate representation of the true 'excess' capital of a bank when the supervisor has imposed a minimum requirement higher than 8%.

## NOTES

