REALISING THE VISION:
ACTUARIES, STRATEGY AND RISK

PRESIDENTIAL ADDRESS

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2007 Presidential Address

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*" … so that **whenever** there is uncertainty about future financial outcomes,
actuaries are sought after for their valued advice and authoritative comment."*

from the Vision Statement of the Institute of Actuaries of Australia (emphasis added)

Fred Rowley MA FIA FASI FIAA
President of the Institute of Actuaries of Australia 2007

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1. INTRODUCTION

It is my pleasure to set out in this paper my thoughts and views on the way ahead for the actuarial profession, in Australia and globally. Thank you for your interest in reading it.

This paper is intended as an opening Chairman's Statement, and I have not aimed to produce a full and comprehensive account of our recent history, or to address every topic. In view of that, if you feel I have either neglected to give enough credit for achievement where it is due, or missed out an area of your keenest interest, then I apologise.

I encourage you to raise and debate any issue that you feel strongly about, following the presentation of this Address. A good debate will lead to stronger outcomes.

Preparing this paper has certainly helped me to focus my thinking on the leadership I hope to bring to this great profession during 2007. I encourage future Presidents to do what suits their own preference, rather than feeling bound by any perceived tradition, so that we can best benefit from their individual characters and insights.

I will open with some general remarks around strategy, and recent events in outline, and move on to comment on the issues I think will be particularly important going forward.

Sections 1 to 4 are therefore by way of scene-setting, and **anyone who wants to get to a particular issue immediately should now turn to whatever section most catches their interest.** Sections of this paper are designed to be read independently, although there may be some common themes.

There is no Executive Summary here, but I expect that my presentation of this Address will form a good summary and will be published later for reference.

2. THE IMPORTANCE OF STRATEGIC FOCUS

Managing the Future

If we really want to change the future, as actuaries or as individuals, we must strive to see it as clearly as we can: and then we must act, in the face of many uncertainties.

To realise our vision most effectively, we need to focus our effort on thinking at the strategic level about what are the big issues and how we tackle them. A clear strategy will maximise the impact of our efforts, by focussing them on what is most important.

A strategic approach defines in broad terms what we need to do, and what we do not[1]: and when and how we do it. It generally starts from knowing very clearly how we think our actions will contribute to our Mission, and **why** we think things will work out as we intend.

We must be clear that a strategy is not just a list of operational goals and deadlines: it implies a defined and considered high-level approach that lets you decide what those operational goals and deadlines are, or should be, and to decide when they need to change. It will aim to provide a basis for policy continuity in the years to come. It will do this from a top-down perspective, rather than bottom-up. It draws useful lessons from the past, but does not live there. And it isn't easy to pin down.

Focus in this Paper

You may think that all of the above is obvious, but since my views on strategy will guide me this year, and hopefully guide your Council too, it is only fair to say what they are.

On this basis, I have tried to direct my comments here to key strategic issues, while including some views on how we should manage those issues forward in practice.

This approach has naturally meant that I have focussed on a few selected topics, and that I cannot here give a comprehensive account either of the Institute's past achievements or of every issue it faces today. That is how a focussed approach works, and I am confident it will work well for us, in getting effective action where it counts.

I assure you that the other issues we face will not be neglected merely because they are not covered here, although we will clearly need to determine our highest priorities and allocate resources accordingly.

The Executive Committee and Strategy

Of course, I have my own ideas about what we need to do as a profession to achieve our goals, and I have set out some of the most important ones below. But the governance of the Institute dictates that any one President cannot drive policy alone, and we do best where there is a coordinated approach between all the members of the Executive Committee[2].
At its best, as I have seen it in recent times, this coordinated approach is a terrific asset – mainly because of the pooled wisdom, and the continuity and resilience that it brings both to the development of Council policy and to its execution.

[1] In my commercial experience, I have observed that when an organisation is regularly choosing what it will **not** do, and using its resources to achieve its goals selectively, that is a key indicator that it has a well-defined strategy, and the discipline to execute it. Many successful companies are content to do fewer things than their competitors, but do them far better. It is not usually necessary to look beyond the product development area to see which type of company you are dealing with.

[2] The Executive Committee consists of the Institute's President, Senior Vice-President, Vice-President and Chief Executive Officer.

What I bring you in this paper is my input to that coordinated approach, and I seek and welcome your input. While none of the Executive Committee is likely to have views 100% aligned with mine, I am confident there is a good deal of common ground.

Our debt to the Vision 2020 Taskforce

I should briefly acknowledge a particularly excellent illustration of the coordinated approach, which began when Martin Stevenson set up the Vision 2020 Taskforce a year ago.

That Taskforce has made very impressive progress under Greg Martin's insightful leadership, in terms of defining issues and options, especially through the consultation process we saw at the end of last year. I am hoping that many or most of you have read the Taskforce Discussion Paper and will see my comments in that context. This paper owes much to the Taskforce's outputs and the consultations they carried out. Council considered the Taskforce's Final Report in December and it will be a key input to our strategic planning process this year.

The Institute's Planning Cycle

The Institute's Strategic Plan will be produced in the third quarter of this year, covering the following 3 years. During this year, Council will therefore be reviewing our strategy, and focus will be crucial. That review will be supported by the comprehensive inputs we have received from the Vision 2020 Taskforce, and the consultations it undertook.

This is a particularly good time to be working on strategy, and it is my intention that the outputs of that planning will be available at the Biennial Convention in September.

3. THE PAST YEAR

Brief Overview of 2006

It is Council's duty to move us forward, and this year we need to build momentum rapidly on some pro-active work of great importance. Before I go there, I will briefly describe some key aspects of where we are today.

I will not try to summarise here all the actions of Council or the Institute, or the Practice Committees and Taskforces, in 2006: there simply is not space or time to do that, although there is, as always, a magnificent record of achievement, much of which has already been catalogued and recognised in the Annual Report.

Instead, I will give you only a brief mention of some of the most impressive achievements.

Firstly, after a full review, we have undertaken a very considerable amount of work to upgrade our governance mechanisms and related processes. Over the past two years, we have reviewed and upgraded the Code of Professional Conduct, the Disciplinary Scheme, and the Professional Standards process, and are now working through a complete revision of the Standards and Guidance themselves. This task may take longer than was thought, but I believe the measured and thoughtful approaches taken to the reviews will continue to be vindicated by the outcomes.

Secondly, we have maintained our track-record as a major and respected contributor to public policy debates. I will single out the achievements of the Superannuation Tax Reform Taskforce in this area, as being particularly effective in bringing us to the forefront of both public attention and government recognition.

Thirdly, we have maintained and extended the influence of this Institute in the international field, not least in the affairs of the International Actuarial Association ("IAA"), working especially through the Presidents' Forum. Thankfully, this is not a one-way street: we have learned a great deal over the years from our contact with both the professions and individual actuaries overseas, and this 'inbound' contribution has been maintained in 2006.

Lastly, and perhaps most laudably, we have maintained our pace in developing the Institute's education process in the face of the considerable pressure placed on it by developments in the profession, and the move to twice-yearly Part III examinations.

In addition to these substantial achievements during the year, there are many other tasks on which we have made a sound start, including preliminary development of a Health Insurance education program and a new Superannuation Part III course, a review of the Constitution and some aspects of governance, as well as the current review of longer-term strategy. The new General Insurance textbook 'Actuarial Practice of General Insurance' (7th Edition) was also finalised last month.

A Few Words of Thanks

It is clear that we have quite a number of people to thank for all this achievement, and it would be wrong not to acknowledge their contribution. If I omit to mention names, or any specific group of people, it is only through the need to be brief: there are many people who contribute to the well-being of the profession and its members, and I recognise all of them with heartfelt thanks.

… to our Volunteers

We must firstly recognise that the vast bulk of the Institute's work is carried out by volunteers, in the Practice Committees, within the Education system, and elsewhere. Without this amazing culture of volunteerism, I know we would have a much less wealthy profession – intellectually and financially! Words cannot express the debt that both the profession and the public owe to our volunteers. I am very pleased that the Institute has recently organised special functions to thank as many volunteers as possible.

… to the Institute staff

Of course, our Institute staff make an equally important contribution. They have all repeatedly shown themselves fully capable of meeting the many demands placed on them – with energy, insight, skill, creativity and good humour. I want to express my thanks, and all our Members' thanks, for the amazing value they add to our activities.

… to the CEO

I will also take this opportunity to express my thanks to our new CEO, John Maroney, and my confidence in him going forward. In the past *7* months, he has brought enthusiasm, insight and diligence to the CEO's role, as well as a comprehensive understanding of corporate governance, our public affairs and professional issues, and our Membership's needs. We are truly fortunate that we found John for this task: he is a very capable person to have on board, and I hope you will lend him and the Institute staff your support and understanding during this inevitably busy year.

Council Effectiveness

Your Council has at various times sought advice on its own effectiveness, and in recent months it has done so again, both from external consultancies and from the Internal Governance Taskforce. The objective of all of this work is to allow them to be more efficient and effective, and in particular to enable Council to deal with policy formulation at a higher level, and more quickly, than before. My intention is that this will be achieved and sustained through a process of continuous improvement, but there has also been an early initiative in the form of a January workshop on board effectiveness, process and policy development designed to jump-start us as we go into the early meetings of 2007.

I expect these improvements in Council function will be accompanied by a comparable improvement in the effectiveness of the Institute staff, particularly through clearer delegations to the CEO and below.

I will also mention that, although she has been with us only a few months, the contribution of Anne Peters as our new Company Secretary has already been very valuable to Council.

4. CURRENT POSITION

Recent Background

In recent years, the Australian profession has consciously, pro-actively, and wisely undergone a period of unusual introspection, including a full review of its governance and related processes, which I have highlighted above. This has enhanced our capacity to fulfil our mission statement in terms of both work quality and integrity of delivery, and as such, it acts strongly to protect the public interest.

All of this work was necessary and valuable: but one consequence of it is that we have had a year or two in which our program has contained an unusually high proportion of work that can be seen as essentially consolidation.

As important inputs to our reviews, we have had the comments that Lord Penrose and Sir Derek Morris made in their reports on circumstances and events in the UK, which were essentially made from a regulatory standpoint.

In quite a number of ways, the circumstances of the UK profession in the last decade are not closely aligned to those of the Australian profession in this decade, although there were some interesting parallels and lessons to be learnt.

I would also hope that any actuary looking at the Equitable (or HIH) from a professional point of view, would make a different set of observations from those made from a regulator's point of view. Those observations might reasonably include a greater weighting of what needs to happen to develop the profession's capabilities, rather than oversee and direct them.

Looking Forward

It is probably not a surprise, therefore, that one of my personal goals for 2007 is to give a greater commercial dimension to our development activities, now that we can begin to turn aside from this introspective phase. I believe we must now look beyond what Penrose and Morris recommended, and beyond our recent past, to the other things we think are needed by the profession going forward.

There are many issues now in play, domestically and internationally, that are (a) critical to the profession's development; and (b) fundamental to the basic commercial proposition of many of its members. We should remember that we have many stakeholders, and that not all of them, by any means, are regulators. We must therefore be both outward-looking and forward-looking when we make plans. In some respects, we must look from the profession's standpoint, rather than from an outsider's: in many others, we will need a greater customer focus. Balance will continue to be important, in many dimensions.

Some of the issues below are not new. However, I believe we now have both the incentive and the opportunity for decisive action on at least some of them. This is particularly fortunate, because on some of them I believe we cannot afford to wait very long. The first topic below is a very good example of what I mean.

5. ENTERPRISE RISK MANAGEMENT

What is this "ERM"?

I expect most readers are aware of the growing focus on "Enterprise Risk Management" ("ERM") in recent years. This field is clearly related to actuarial work, but is one in which there is decidedly **not** a reserved role for actuaries. Despite this, the profession can highlight some prominent actuaries who are very active and successful in the field of ERM.

There are many claims made for this 'new' discipline, and my observation is that everyone who uses the term defines the concept slightly differently. In one place[4], it has been defined as *" … the methods and processes used to manage those risks, possible events or circumstances that can have influence on the enterprise in question"*.

By whatever definition, the field clearly includes some of the areas of work that are already acknowledged to be 'actuarial', and seems rich in broader commercial opportunities.

Last year, Martin Stevenson quoted a report of the Banking, Finance and Investments Taskforce which said:

> *" … the actuarial profession in Australia has an exceptional opportunity to be the leader in the field of Risk Management for the whole Finance industry (and maybe beyond) … . There is an urgent need for these skills, and a dearth of appropriately-trained professionals. Actuarial skills, in their most generic sense, are the closest fit available. If the profession were able to adapt itself fast enough, we could quickly establish a commanding position … "*.

Since then we have made some useful progress, but now the list of required actions is growing and we do not yet know what "fast enough" means.

A Concern for the Profession

In my view, the fact that many of the firms that are successful in this market are not seen as 'actuarial' is a source of concern, because of the competitive implications for our profession. It has important implications for our basic market strategy.

[4] Wikipedia, 13 January 2007.

New organisations have also been set up (e.g. GARP, PRMIA) to educate and service the participants in this 'new' field: each looking like a professional body, to some degree or other: each with its own ambit claims. Importantly, all of the major ones have set out to be global: so, to varying degrees, they compete not only with this Institute, but with others around the world, and with the International Actuarial Association ("IAA").

How the actuarial profession deals with the ERM opportunity, and particularly how it competes in this field, are among the most important strategic issues we face. It is no exaggeration to say these are key issues for the long-term health of the actuarial profession globally. If the Institute aims to continue to be a leading body within an increasingly global actuarial profession, then we must address these issues as part of our competitive strategy.

What is the profession doing?

Actuarial firms around the world have responded to the challenge, and are competing commercially with their own ERM offerings.

That competition is reflected in the activities of the actuaries' professional bodies, both in practice development and in support services. The USA[5] and the UK[6] professions in particular now have very active Risk interest groups or sections – which illustrates both trends.

In Australia, the same developments are visible, and most major consultancies now have growing risk-management practices.

Institute consideration of risk management matters started in the late 1990's. In 1999, a submission to APRA advocated the use of holistic risk management frameworks, and consistent risk measures, in the management and supervision of financial conglomerates.

In 2006, the Institute's Risk Management Group became a full Practice Committee, and it is now actively engaged with Council in defining possible future educational objectives and strategies.

This is all good progress, but I believe we are about to see a change of pace.

[5] SoA and CAS have a Joint Risk Management Section. See www.soa.org
[6] The UK Profession has a Risk Management Special Interest Group. See www.actuaries.org.uk

Within the next year or two, I expect the Australian profession to:

(a) introduce education and Continuing Professional Development ("CPD") products designed to equip our members firstly to practice in a holistic ERM environment, and then to become the Chief Risk Officer of an entity managed through an integrated ERM framework – all this in addition to all the career options they already have;

(b) integrate this new material into our own qualification systems, so that a member can partly rely on it in gaining an FIAA and/or AIAA, replacing at least some of the previously-required material;

(c) work with universities to devise how (and when) the purely theoretical material can best be taught and examined, and consider in parallel how the essential practitioner content should be dealt with;

(d) make some changes (yet to be defined) to the Institute's own education delivery to support these actions.

In addition, it is my hope that the Institute will be able to subscribe to an international process under which this education could give rise to a post-nominal designation separate from the AIAA or FIAA qualifications. This is a challenge for the profession globally, but I believe this Institute should be an active supporter of such proposals that might emerge.

If that is the way we choose to go, then we will be at the forefront of the development of the profession globally. On the other hand, this represents a major commitment of resources. However, there are very strong arguments that we should go that way, and I am happy to devote a large part of this paper to the case for doing so.

Council will need to decide on all of these proposals soon, and in doing so will need to consider them in the light of a clear competitive strategy. I can develop only some key aspects of that strategy here, but I hope you will come along with me as I do.

Are we sure Risk Management really is for Actuaries?

When the actuarial profession started out (around 250 years ago) its major function was to price and manage the risks of life insurance contracts. Actuaries were uniquely successful in this role, which was later reserved for actuaries under the constitutions of many life insurance companies, often by Act of Parliament, in Australia as well as overseas.

In my view, such a role implicitly **must** have regard to **any** risk factor that might affect the company. Anyone aiming to advise comprehensively on solvency must consider all of the risks affecting the enterprise, so that management can deal with them effectively. The task of solvency management is like a chain: **none** of the links can be weak if the chain is to be effective.

Although, for many reasons, it has not been possible so far to realise this comprehensive approach in practice, I would argue that comprehensive risk management for financial entities has always been an underlying ideal for actuaries. This view fits well with my twin beliefs that:

(a) all quantitative risk work can legitimately be done by actuaries, provided they can demonstrate the domain-specific skills needed; and

(b) the profession should always aspire to position itself for leadership, rather than confining itself to the lower-level technical functions.

How do we measure up in competitive terms?

Although ERM may not be a genuinely new concept, some of the techniques included in its scope (e.g. credit modelling) may not be familiar to many actuaries. This fact is mainly a result of our profession's choices in the past, which were made in the context of the time.

We are indebted to the individuals and firms who have acted on the challenges in this area in recent years, but in general there are still gaps.

To help identify the gaps, I note that the website[7] of the Enterprise Risk Management Institute International ("ERM-II") – of which the Institute is a founding member – states that:

> *"Graduates entering a risk management career require sound training in not only quantitative risk modelling for financial risks, but also risk measurement that reflects the organisational and operational aspects of risk, and more importantly, how to integrate them within a holistic ERM framework by encompassing differing perspectives of various stakeholders"*.

Some non-actuarial ERM approaches purport to be as comprehensive as the above, and therefore (implicitly) to contain all actuarial work as a subset. In my experience, that's sometimes an inaccurate claim in practice. For some actuaries, it may be convenient to watch and wait in the very short term, but that's not a competitive strategy for the profession – things could change very quickly.

[7] See www.ermii.org

It must be obvious that, as new risks have emerged in the financial industries, or old ones have become more material, we have not captured them into our recognised areas of professional competency. Maybe we stayed too close to the regulations, and not close enough to the business. Arguably we were too confined within our traditional industry sectors, while the risks borne by banks and conglomerates were addressed by others.

> [I am reminded of the often-quoted story of the decline of the US railway industry, which goes broadly like this ….
>
> Over the years, the industry lost its way, and then most of its business, because – after many years of success – it came to think that its business was running an effective railway. The correct realisation would have been that its business was in getting people and freight from A to B. By the time it realised the problem, its business was largely lost to the airlines and road freight services.
>
> During the later stages of decline, it might have noticed that it was running railways successfully, but that volumes were dropping and other parties were increasingly meeting its customers' needs in different ways, and that many young transport people were no longer aiming to run railways.]

Where are the gaps in our coverage?

Whatever the cause, I would argue that there are now clear gaps in our education and in the scope of our professional expertise – **if** we aim to serve insurers, funds-managers, banks, and financial conglomerates comprehensively.

The last statement raises a question I find most interesting: for if we do not aim to service those organisations in regard to **all** their material risks, what **do** we aim to do for those types of organisation? Do we simply specialise in measuring and managing insurance risks, and the values of liabilities, recognising that this cannot be a complete basis for the group-wide analysis and control of solvency or economic value? I hope not.

Thankfully, our prudential regulators are also convinced of the need for full risk coverage – often, paradoxically, because of the good and objective help they get from the actuaries they employ, and from other actuaries overseas.

Internationally, the International Association of Insurance Supervisors is developing a framework to address all major areas of risk management, although it is to be expected that individual countries worldwide must work at their own pace.

More importantly, here in Australia, APRA released a Discussion Paper titled "Prudential Supervision of Life Companies", and a draft Prudential Standard LPS220 "Risk Management", on 3 October 2006. Separate draft guidance papers were issued at the same time, covering subsets of risk management.

The requirement for reporting on the entity's risk management strategy and framework clearly illustrates the comprehensive architecture underlying APRA's approach. Importantly, these requirements follow the pattern of similar measures **already** introduced in the superannuation and general insurance industries in Australia. APRA proposes to finalise and issue the prudential standards and guidance for implementation on 1 July 2007.
In practice, this eliminates the 'do nothing' option for the Institute.

A broader corroboration of the arguments above can be drawn from the UK profession. After a major consultation of their members, the UK profession has selected a strategy *" … that primarily focuses on supporting members throughout their careers so they have the skills, attributes and knowledge appropriate for the evolving needs of the UK financial sector, primarily* ***as quantitative risk professionals*** *" (emphasis added)*.

This strategy conveys an implicit presumption that actuaries are **already** risk management professionals, and that a key function of the Institute and Faculty is to ensure that actuaries do that job increasingly well, and over an increasingly broad scope.

I believe that is how we need to see things, too.

How does this fit with our Competitive Strategy?

It would be wrong to put forward this view of the relationship between actuarial work and ERM without considering the profession's mode of competition in its various 'markets' – which I define in a very broad sense.

During our consultations on the work of the Vision 2020 Taskforce, I began to think about the varied nature of the markets into which the actuarial professional sells its skills.

There are four particular contexts that I'm thinking about, where the Institute or the profession looks to sell ideas and products to some very different groups. There are others, but these are the big ones.

1. We sell **actuarial advice** to commercial and other entities that want objective and reliable financial advice. The selling is done both by the consultancies and by individual employed actuaries.

2. We sell the idea of **working with the actuarial profession** to regulators, government departments and financial reporting bodies that are looking for reliable calculations and advice on which to base their reporting, analyses and policies. The Institute and the Practice Committees do this in various ways, through policy and technical submissions and through direct interactions and collaborations.

3. We sell **CPD and professional support services** to individual actuaries and/or their employers, and to interested parties working in related areas. The usefulness of this professional infrastructure helps to bind actuaries into the profession and informs the others. The Institute does this selling directly.

4. We sell the idea of **becoming a member of the profession** to undergraduate students and recent graduates who are looking for challenging and rewarding jobs. The Universities and schools in practice take on a substantial part of this work.

I believe that in all four of these areas, the lack of a comprehensive risk management offering is a weakness for us. In brief, such an offering would expand the scope of what we can achieve under items 1, 2 and 3, and increase the attractiveness of our proposition under item 4.

In other words, through increasing our profession's skills in risk management, we can aim to improve the scope and effectiveness of our members' commercial offering; increase its applicability across financial regulation; expand the market for the Institute's value-add products; and broaden our recruitment appeal.

I will take the first three as being self-evident and concentrate for a moment on the last one.

The 'Lost Sheep'?

We have heard much about the 'lost sheep' in recent years. In fact, this is not a particularly apt term, nor one I like: the people we're talking about are far from being lost. Quite the opposite – they are well-directed and highly-talented people who have enthusiastically taken our education product and moved on into what they see as a separate field of endeavour. The 'shepherds' need to think again.

Obviously, some of those people have no inclination to continue in any part of the financial sector. No doubt they will make great movie stars, horticulturalists or politicians. For them, we need no answer, since we have no problem.

It is the others we must consider: those who want to work in investment banking or funds management, but who think that membership of the Institute wouldn't add enough net value to them to compensate for the 'costs' (not just monetary) of their membership.
They are the **customers** here, and by definition they must be **right**!

What do these people do in these investment banking or funds management jobs? Measure credit or market risk? Price derivatives? Manage hedging programs?

Do actuaries, as a group, demonstrate (or even claim) any particular skills in those things right now? Do we provide authoritative CPD covering material new developments? How about a widely-recognised qualification based on skills in those areas?

If we cannot demonstrate a credible position in those three key areas then we must assume that many of the 'lost sheep' will choose to remain 'lost'. Indeed they may well join a competing 'flock' and find other 'shepherds' who can be of more use to them.

Developing quantitative financial risk education products, and a globally-recognised designation, are two vital parts of what we need to do to address the shortfall directly.

For my part, I think the case is made for doing something, but there remains the question of developing our competencies.

What will this mean for Education?

In the past few months, the Risk Management Practice Committee has been working on a recommendation to Council to define the detailed content of an ERM syllabus.

Council has to consider this in the light of its more fundamental beliefs about the proper place of ERM in the actuarial profession and our capacity to push it forward. This process will start at the February Council meeting, and covers a number of very significant issues.

It is clear that if we pursue ERM, the Institute must work to find a way of supporting all the traditional practice areas, and to develop and support another. Maintaining and improving education delivery in the traditional practice areas is a key objective for the Institute in 2007, and I expect it will be so for many years to come.

Fitting in the development and support of the additional educational demands of an ERM offering is a problem yet to be solved, but it will need to be solved. The solution seems inevitably to involve the development of more effective education platforms and processes. I have saved my comments on those topics for Section 7, but they are also relevant here.

Education Considerations for ERM

Although a lot of the new 'quant' material can clearly be taught in universities, we also need to ensure that the judgment required by ERM practitioners is developed effectively. Of course, this is common to all of our Part III subjects.

In my view, practitioner input, based on practical experience, will be critical to success. Whether this 'practitioner overlay' can best be taught by introducing ERM professionals into the classroom or by other means is an open question: but we must not assume that a university course will provide it automatically, if we do not arrange it that way.

Since the actuarial profession is not yet brimming with ERM practitioners, here is another issue we need to address before we can move forward.

The material I'm talking about relates to how a professional integrates the results of practical models into commercial advice and/or action. It should in aggregate at least describe practical methods for testing the validity of quantitative models and frameworks in commercial situations; evaluating uncertainty and the reliability of results; designing, implementing, managing and assessing the effectiveness of actual risk control systems in practical situations; testing assumptions; communicating conclusions; and taking action. Not all of this is purely academic work.

I look forward to a time when the actuarial methods for risk measurement and management are recognised as the pre-eminent and most effective tools available. Whether that is achieved, and how soon, will depend on the capacity of the profession to put together a commonly-agreed framework of techniques, tools and performance criteria for the tasks in hand. I would of course prefer that this was done globally, but it need not be, and probably will not be, at least in the first instance.

Attaining Professional Mastery

This thought reminds me of the points made by Richard Fitzherbert last year. Leaning somewhat on his paper[8], I believe that the actuarial profession needs to regain an acknowledged mastery of a globally-recognised scientific methodology and set of tools that it calls its own. The opportunity for doing so seems to be inherent in the ERM work that some leading members of our profession are now engaged in around the world.

To attain that acknowledged mastery, and to standardise our ERM methodologies, should be our key goals in this work.

Redefining Actuarial Management

Assuming we can do all this, an equally important question that follows from this is where this 'practitioner element' of the ERM material sits in the **overall** education of actuaries.

[8] 'Paradigms, Research, and Recognition of the Profession'. R. Fitzherbert. AAJ, Vol.12, Issue 1, 2006 available from www.actuaries.asn.au

If it is what I describe above, then arguably it can be seen as central to the much of what actuaries already do, even in the ‘traditional’ practice areas. I firmly believe this myself, so for me, that means we must at least change what we teach under the heading of “Understanding Actuarial Management”.

I have often felt that there was more to be said on the topic of systematic risk control in this area of our education. After all, I was trained in an industry where the principal actuarial problem (weighing equitable bonus declarations against insurance company solvency constraints) was mainly a problem of financial risk control. The same case can be made in the funding problem for defined-benefit pension schemes. The traditional actuarial solutions to these problems may have become outdated, and sadly have failed on occasion, but the objectives of these problems clearly place them in the field of risk management.

If we believe we need more risk management techniques integrated into our traditional practice areas, then we will need another layer of change, that I will not expand on here.

However, for those who think that we need not do all of these things, it is worth noting that the core syllabus under the IAA’s Education Guidelines is currently under review. It is widely expected in IAA circles that the review might re-name the “principles of actuarial management” subject, perhaps to something like “actuarial risk management”, with corresponding content changes.

To me, this is yet more evidence, both that the reasoning above on ERM is sound, and that we do not have long either to act on it, or to influence the global outcome. I have never been one to have the Institute follow, where we have the realistic opportunity to lead.

This discussion of the ‘practitioner element’ of ERM leads me to another related topic.

The ‘Actuarial Control Cycle’ Textbook

During 2006, the Institute had a major commercial success, resulting from the adoption of the Control Cycle textbook by the Society of Actuaries (USA), as part of its core educational reading. That is a credit in particular to the authors and editors of the book, and to the vision of the Council of the day, as well as to Carolyn MacLulich who project-managed its development for the Institute. It has been a huge success for the Australian profession, both in terms of thought-leadership and commercially, but it is apparent now that it is time to move on.

During 2007/8, we will be putting our efforts into the production of the next edition of that book, and soon we will be seeking expressions of interest from those who wish to be involved. Our intention is to ensure that the new publication will continue in the best traditions of the previous one, and I expect it will feature an even greater contribution from overseas authors.

The general nature of the changes that we may need is outlined above, and I will leave the detail to be resolved by those who are charged with that task. If this new edition achieves even half the level of success of the first edition, that will be a major achievement for all concerned.

The summation of the material above raises questions in my mind about the whole definition of what we will expect of an actuary in years to come.

6. WHAT SHOULD WE EXPECT IN AN ACTUARY?

A Question of Definition?

One of the questions that has been asked quite a few times – more or less rhetorically – is "what defines an actuary?" A parallel question was raised by the Vision 2020 Taskforce.

When asked that question, I have always tended to say something like "an actuary is someone who can give you advice that is intelligible, useful, impartial, and reliable in law, dealing with financial matters that involve more or less uncertainty: or manage those matters for you if required".

There are many similar definitions, each one almost 100% correct. We might debate a better definition *ad infinitum*, but I suspect it would not get us very far. Happily, there are much more useful questions that we need to ask ourselves now.

A Better Question?

A more important question at the moment seems to be "which members of our Institute may call themselves 'an Actuary' and in what context?" For me, that seems to be identical to the question of who is permitted to provide Actuarial Advice under the Code of Professional Conduct. After all, it would seem counterintuitive to allow anyone to provide 'Actuarial Advice' who is not an 'Actuary'; and if someone is called an 'Actuary', it seems obvious that the advice they provide is 'Actuarial Advice'. The fact that something is superficially obvious does not of itself settle the issue, but I note it is the type of reasoning that both the consumer and the law are very familiar with, because it provides clarity.

So, if we were to widen the definition of the group of members that we will permit to sign Actuarial Advice, then I believe that whoever is in that group should be called an "Actuary", regardless of whether they are FIAA, AIAA, or somewhere in between.

'Associate-plus'?

Whether we **should** widen that group is a question we can only answer by looking at the abilities required to provide actuarial advice. That can't be done at length here, but I note that these are not just technical skills. They include the ability to produce the advice, but extend to the ability to fully understand and communicate its implications.

As such, it seems very unlikely that we would be able to assert with sufficient assurance that a 'bare' AIAA (in the current definition) would be sufficiently qualified. Nevertheless, it seems to me that these abilities are usually acquired at some time prior to the arrival of the FIAA. This intermediate level has occasionally been called "Associate-plus", to contrast it with the 'bare' AIAA.

I should perhaps mention in passing that we in Australia are not alone in pursuing this idea. Leaders of the profession worldwide have been calling for change in this area for some time, most recently in the UK[9].

Actuaries in Reserved Roles

Unsurprisingly, it is not my personal view that all FIAA's are equally qualified to fulfil the reserved roles of approved or appointed actuaries. In fact, I wonder whether we may be encouraging too much reliance on the 'bare' FIAA qualification for these purposes, mainly because we do not have a system of practising certificates, as do the legal profession in NSW and the actuarial profession in the UK. This thought is neither new nor original, but I believe it is another one we must address soon, and I believe it is more important than the previous issue.

In the somewhat analogous field of aircraft pilot licensing (where I admit I have only a little experience) the licensing requirements for the most significant public-interest tasks (Regular Public Transport jet flights) are very much more demanding than those for the basic commercial pilot. Thousands of hours of verifiable experience are required; as are flight-tested licence endorsements for aircraft type; 6-monthly license renewal tests; medicals; etc.

[9] See Nick Dumbreck's Presidential Address to the IoA - "Raising our Game", available at www.actuaries.org.uk/files/pdf/library/inst_add_2006.pdf

By contrast, in our profession, the formal hurdles are hardly any different between a junior actuary working in a large insurance entity, and the appointed or approved actuary of the same entity. Beyond the initial testing, all the parties place very significant reliance on appropriate experience and self-certified CPD.

I expect no-one believes that a newly-qualified FIAA is automatically up to the required standard for one of these ‘reserved roles’, but I am sure it would be a help and comfort to all concerned if there was a more stringent initial requirement, and a material recurring test, for those aspiring to these jobs. It certainly might be of assistance to the regulators, in applying ‘fit and proper’ tests: and it would make the job of ‘due diligence’ easier for our activities around mutual recognition internationally.

I also believe that if we were to decouple tests for the basic FIAA qualification from tests of the capacity to take on a reserved role, we might be able to think more clearly about what the requirements of each type of test actually are.

Firstly, I believe that the pure Fellowship requirements are more likely to be geographically portable. It is often the regulatory and legal parts of our practice that are localised to the jurisdiction concerned, and they would more logically fall to a ‘licensing test’.

I also have a feeling that the more basic requirements are more susceptible to ‘classroom education’ in the narrow sense, and the more advanced requirements are more susceptible to practical training, broader personal development and life experience.

I deduce from these points that we might be able to refine our concept of what is required of the basic FIAA, how to deliver the required material, and how to test the outcomes, by considering the FIAA separately from the requirements of the reserved roles. And *vice versa*. This could conceivably pave the way for more effective education delivery, which is an exciting possibility, even for someone who is not a student!

I therefore believe that Council must soon re-consider the need for practising certificates or some parallel concept. I note that it has been done in much smaller professional bodies around the world, apparently at manageable cost (e.g. in Ireland, and Holland).

Future Decisions

During the year, Council will be addressing these issues with a view to resolving them. Your input to the process will be much appreciated, either at the presentation of my Presidential Address or later in the process. I am sure a healthy debate will ensue.

7. EDUCATION DEVELOPMENTS

I will start this Section by saying that I am not personally an education expert, although I have been a user of the system and a 'buyer' of its 'products' over many years.

I will therefore direct my comments only to a brief outline of what I believe the future may hold, and why.

Demands on our Education System

Most readers will be familiar with the issues we have faced in recent years, not just with the move to twice-yearly Part III examinations, but with the generally-accepted need to improve pass rates in Part III. We can have little doubt that our Part III education model needs some serious changes. We assess students effectively but we do not teach them effectively. The Baker Review (now a few years old) made many very valuable recommendations, some of which have been implemented, but not all.

Our development resources are continuing to work very hard indeed to keep pace with developments in the Health and General Insurance practice areas, and now also in Superannuation. On top of this work, which is still ongoing, we now face the demands of ERM, foreshadowed above, and continuing regulatory developments.

Any ERM development work will equally rest with our army of dedicated volunteers, and place more strains on the Institute's capacity for internal development work. I have mentioned above the debt we owe to our volunteers, and also to the Institute staff, both in operating the system and in developing the newer elements of it.

I have no doubt that the long-term policy solution must be to reduce the ongoing volunteer effort and costs of operating the system, and to divert a greater proportion of our expenditure and our volunteer effort to development work. In the short term, this will mean significant investment in delivery systems, in anticipation of the cost reductions.

How can we improve productivity?

What we need from our education delivery system is flexibility and effectiveness in operation, and improvement in education service to members – resulting in higher pass rates, without any fall in the examined quality of the student output, and at a manageable cost.

This sounds a lot, but we have every reason to believe that it can be achieved. The Baker Report encouraged this belief.

The main alternative ways to achieve these goals are:

- partnerships with universities (already successfully achieved);
- D-I-Y ‘old-style’ (depends heavily on volunteers);
- D-I-Y ‘e-learning’ (requires significant $ investment);
- collaborations with similar/competing institutions (limited options: some risk); and/or
- outsourcing to commercial enterprises (UK model).

Each of these mechanisms has its own pro’s and con’s in any situation (summarised minimally above), and Council must pay attention to them in each decision we make, to ensure the chosen method is fit for purpose.

It is noticeable that we do not have in place any large-scale outsourcing of education in the major subject areas, but the success of the CAP course is very encouraging, and there has been some successful outsourcing in the past (e.g. with FINSIA/SIA up to 2004).
I believe we should remain open to making further and more extensive use of outsourcing arrangements, where that is likely to be the most effective way of meeting our several objectives.

Our historical partnership with Australian universities has rightly been seen as a very positive feature in our education system, and I am confident we can build on that relationship. In particular, a large proportion of the quantitative ERM material is already being taught in some universities. We must focus on defining our route forward, making whatever collaborative efforts we can, and deciding what else needs to be done.

Future Developments

As I mentioned above, we have a major and on-going objective to make it easier to pass our exams without letting standards fall as a by-product. In parallel, we have an objective of making our CPD and other education offerings more available and more useful to members living outside Sydney. I expect these objectives will remain with us going forward, and will increase in importance.

In the light of those issues, I am particularly excited by the prospect we now see, of moving towards more flexible and automated delivery of education services, particularly through e-learning. A particular advantage of this approach, and one that has been achieved elsewhere in the world already, is the increasing modularity that it supports. In recent months, Council authorised the first pilot developments in this direction, in the field of Health Insurance.

As well as the more direct and immediate benefits, these platforms hold out more promise longer-term.

The profession's required skill-set has been growing as the science we rely on has developed, and the scope of the activities that the profession as a whole needs to embrace has increased dramatically in recent years. It may well be that the reason for some of the drama is the degree to which we are now having to catch up on progress made outside the profession, but the increase is real and necessary.

Inevitably, as the scope of the profession has become broader and deeper, so has the qualification requirement for an individual actuary. However, that requirement does not need to include all of the new material by any means. Arguably, not all of it needs to be learned before an actuary attains the Fellowship, and some of it is clearly more appropriate to CPD, because it changes so frequently.

My hope for the longer term is therefore that we can offer a greater range of education material, in smaller (multi-use) modules, through a variety of delivery mechanisms and organisations. It would then seem a small step to build these into a more flexible overall basis for the actuarial qualification and CPD combined. We might move from a system where a larger body of knowledge and skills is tested at one sitting, to one where students assemble their qualification from a broad and flexible menu of modules, tested flexibly, and at times to suit their convenience as well as ours.

This may lead to a form of accumulated 'credit point' system with a clear 'professional major'. Similarly, CPD units may accumulate towards validating specific professional capabilities, supporting a system of practising certificates, or something similar.

The full implementation of this type of system in Australia is probably a year or two down the track, and rests on a successful implementation of some new delivery and tracking mechanisms, but in my mind that is the most likely way for the future. If we can build sufficient flexibility, then certainly we will be able to capitalise on re-using our own material. More importantly, we will be able to use international material made available by the profession globally. Indeed, it may be too narrow to think of this system as being implemented "in Australia" – although I expect it will be available here, I also expect that considerably less than 100% of it will be sourced here.

I have a personal hope and belief that this type of flexible system can also have a favourable impact on pass-rates, as well as 'total time to qualify', but I am sure it cannot be done without investment.

In summary, the Institute's next Strategic Plan will set out a program of Education developments that I expect will be based on a successful Health Insurance pilot project in e-learning. I know it will be heavily influenced by international developments.

8. INTERNATIONAL AFFAIRS

Globalisation of the Profession

Globalisation is a factor affecting many facets of our lives, commercially and otherwise. The actuarial Profession must therefore urgently strive to think and operate globally, if it is to prosper.

In relative terms, our progress on that path still seems too little: and we are already running the risk that it will be too late. For instance, the profession globally has made only slow and limited progress in its attempts to generate global actuarial standards. There may be valid reasons for this position, given the uneven development of the profession around the world, but there may nevertheless be a time when our limited progress in that field is overtaken by other events.

Despite the above, I have a personal commitment to the development of a global profession, with an active, intellectually strong, and representative 'regional' sub-group, of which we are a leading member, and I know many members share that view.

On that basis, globalisation of the profession will necessarily involve us in continuing to assist those countries whose actuarial capabilities and professional bodies are less developed than our own. There are many ways in which this can be done, and we must be flexible in how we do it, while considering the best way to use our finite resources.

Our Strategy

Last year, Martin Stevenson commented that our 'strategy' for Asia and New Zealand was *"like pieces of a jigsaw puzzle lying haphazardly on the ground"*. He was right: we need to consider our strategy more fully, and make it both more coherent and more explicit.

Council will address that strategy in more detail during the year, but I will make some overview points here. Any strategy for Asia needs to be considered in the light of a strategy for international matters generally, and our international strategy should include consideration of our relationship with the International Actuarial Association ("IAA") and how we work with and through that body. So I'll start with the IAA.

The International Actuarial Association ("IAA")

The basic structure of the IAA is federal. The Member Associations own it, and control it through the IAA Council. This equips the IAA to serve its members' needs, subject to resourcing, and to provide forums for discussion.

It is well placed to consolidate, build on, disseminate and/or promote their activities at an international level, or to coordinate assistance for the profession's growth in developing economies. Its committees can issue model standards or forms of agreement, or statements of consensus, where it thinks they may be helpful, but ultimately we, the Member Associations, must choose whether or not we adopt or adapt those models, or support those statements, or build our own.

Although we can get many good things from our participation in the IAA, we can't expect to get everything we need to take the profession forward globally. Since the IAA Secretariat is resourced at a minimal level (for valid cost reasons), it is necessary for volunteers to do most of the work, so the IAA tends to follow the lead of its most active volunteers. We must therefore always remember that leadership begins at home.

In recent times, successive Australian Presidents have done this by working to make the Presidents' Forum into a more active assembly – and one that adds considerable value. They have not been alone in this effort, but they have been at the forefront of a very exciting and successful development for the IAA: the Presidents' Forum has become an important place in which to discuss key global issues for the profession (as distinct from the IAA itself). I fully intend to continue the work of the Presidents' Forum, aiming to strengthen both the profession and the IAA.

I believe we should also continue to participate in the IAA committees where we see a direct benefit for the Institute – based on assessed usefulness of likely outcomes. At the same time, we must continue to support chosen 'regional' initiatives, whether or not they originate with the IAA, in some cases coordinating them through the IAA.

'Our Region'

Firstly, we must be flexible, about how we define 'our region'. It cannot be simply geographical (i.e. Asia // Australasia // Pacific Rim // ASEAN are all useful definitions).

There will be many opportunities, enabled through improved communications, to collaborate widely, and we should not exclude them. For instance, I can see great potential in working with South Africa, and the relationship is already good: we should not exclude any country from our thinking because it doesn't fit a neat geographical definition.

So it may not even be useful to define a region, as such. It may be more useful just to distinguish those countries where we seek to have relationships and influence, and those with whom we share common approaches, and concentrate on how the Australian profession aims to manage its relationship with those countries.

However, we cannot expect to relate to all of them in the same way. We will need to consciously segment our approach.

What do they want from us?

In considering how we work with different countries, the really important question is what (if anything) do **they** want us to do? Only by actively engaging with them – and by listening to what they say – can we find that out. I am confident that the new International Council Committee will enable much better engagement.

What do we want?

The need to listen does not mean that we cannot ask ourselves what we would like to do for or with these other countries. Some specific questions may make the choices clearer.

(a) Do we want them to buy their actuarial services from Australia? Recognise our actuaries for local work? Employ them?

We should certainly seek to increase the perceived value, employability and mobility of our members wherever there are credible prospects and/or actual opportunities.

So my answer is certainly "yes" in the short term, especially where local capacity is too low and finance is available (e.g. China), or where actuarial services are supplied through aid bodies we can partner.

Longer-term, we will simply be competing in the global marketplace, and will need to seek competitive advantage through means other than domestic economies of scale, and carefully use promotional opportunities. The answer is still "yes", but I expect the success of the profession's own marketing efforts, rather than the Institute's, will be the main driver of demand. Better mutual recognition arrangements will be an enabler.

(b) Do we want them to educate their actuaries in (or from) Australia?

Many countries in the region do this already, through the universities, and probably that situation will continue. For Parts I and II, that's mainly a question for the Universities, although the Institute strongly encourages the universities in their continuing efforts.

The components of education delivered by the Institute are of course mainly Parts III & IV, and CPD. Provided it can be addressed in a sufficiently generic way, we would all welcome increased ‘exports’ of such material. In addition, I expect we will be in a stronger position in regard to countries that use English in business. Fortunately, many Asian countries fall into that category.

CPD tends to be country-specific, and it may prove too costly to think of tailoring it much, but I am encouraged by recent moves to generalise our Superannuation offering to the global stage by developing a Global Retirement Income Systems (“GRIS”) course which sets an interesting and exciting precedent.

I am also very pleased by the move to deliver a Commercial Actuarial Practice (“CAP”) course in Singapore, in September this year.

Before too long, more and more education and examination will become globalised, through e-learning systems. What we might aim for long-term is that the Institute, which will always retain practitioner training, discipline, conduct, standards etc., can be a major CPD and professional education provider in a globalised profession.

(c) Do we want actuaries and aspiring actuaries in those countries to join this Institute, rather than the Society of Actuaries (USA) or the UK Actuarial Profession? When is that realistic?

I think “yes” for those jurisdictions with ‘non-examining societies’ (like New Zealand or Hong Kong). This is again especially true where English is the language of business, since we can operate more efficiently and expect to be more attractive to potential members.

I think “no” for the ‘examining societies’: long-term they will want all local actuaries to be within their regulatory and disciplinary control, just as we do – although there may be many opportunities for cooperation to our mutual benefit, for sharing of effort, and for cross-fertilisation of ideas. Although there seem to be few examining societies in Asia, we must accept that China already has its own examinations, and has the potential, in time, to form a nucleus for its own regional grouping.

In any context, we must expect to be in competition with other examining societies (e.g. Society of Actuaries (USA), UK Actuarial Profession, Actuarial Society of India, Society of Actuaries in China) – for education and/or CPD sales, if nothing else.

(d) Do we want the Institute to collaborate with them? On what?

I think the answer is “yes” for any of those countries with the requisite capabilities and resources, and where we have the same. I have no doubt that ‘win-win’ opportunities will be plentiful in research, education, governance, etc. Language difficulties may be less of an issue. Choosing what we do will be the hard part.

Possible Actions

There is certainly a great deal more than direct economic benefit to be gained in building international relationships, including the chance to contribute thought-leadership, and to make valuable learnings of our own. Ultimately, we must decide what the Institute will **do** in this region, and what it will not.

There is little dispute about the need to extend our CPD and educational capabilities, and I will not elaborate on that further. However, members have on occasion questioned what we aim to achieve through our outreach activities in Asia, and I think a few words on that topic will be helpful.

Development Assistance

Obviously the Institute’s membership collectively has ample capability to assist ‘actuarially developing countries’ (many of which, for this purpose, **are** in Asia) with the development of their own domestic infrastructure (e.g. Code of Conduct, education systems and materials, etc.), or in getting to grips with IAA membership.

Actuaries everywhere want to be involved in creating their own future, and will therefore work out their own preferences. Nevertheless, assistance of various types is often sought and welcomed by ‘actuarially less developed’ countries, although usually the product is adapted to local conditions.

As an example, we have recently facilitated the translation of the Institute’s textbook “Understanding Actuarial Management: the actuarial control cycle” into Chinese, and there may be similar opportunities in future.

Clearly this type of assistance can be helpful to the professions in those other countries, but is it useful to **us**?

I think so. For instance, as a result of the promotional efforts of members of this Institute, Australian actuaries are now recognised by the China Insurance Regulatory Commission as being eligible for appointment as 'signing actuaries' within China's life insurance regulatory framework. This was announced in 2004, and enables Australian-qualified actuaries to take key roles in China that are not available to actuaries of most other countries – and it puts us on a par with actuaries from the UK, or Canada, or the USA.

I believe this recognition followed directly from our program of active assistance to the Chinese authorities, which has never been unduly costly, in my experience. It certainly contributes to the greater marketability and mobility of the Institute's members in Asia and the world at large, as well as in China. Our work on this front must be regarded as a good investment – one that we should be prepared to repeat enthusiastically.

On a broader outlook, and more importantly, I believe that if Asian countries are not engaged with the West, there is a real possibility that they may go their own way, in the development of their own branches of the profession. This is not an encouraging prospect, if you believe, as I do, that the profession must become global, and quickly.

I think, therefore that we must do as much as we can to assist them, especially around the development of professional infrastructure, where we have a chance to influence matters such as their Codes of Conduct, or Disciplinary Schemes, or Professional Standards.

I am aware, however, that this assistance is not without cost. We can re-allocate some expenditure from other international activities, but in some cases it may be necessary to find external funding, through donor bodies. Finding the money is both hard work and time-consuming, and the successes in this area have tended to be achieved by well-motivated individuals or small groups, acting independently. However, I believe the Institute itself must try harder to make an impact on domestic and international aid bodies in the years to come.

We must also not forget that much of what Australia exports in terms of actuarial services is the product of commercial activity of our members and their employers, rather that the Institute's.

One advantage Australians have as a nation, and would do well to preserve, is that we seem to be remarkably adept at cross-cultural liaison, especially in Asia. We have easy access to people with Asian language skills, in our universities, in our membership, and in the community at large. Australia has been identified (for instance, in several reports by AXISS[10]) as an attractive place for outsourcing activities from overseas enterprises.

[10] See www.axiss.gov.au

This is indeed a lucky country, from many angles, and I know we can rely on the inventiveness and initiative of our members to keep it so. I expect that the Institute, often in partnership with the more far-sighted commercial entities, will always be willing to share its good fortune by working to provide assistance to the 'actuarially developing countries' in our region.

I must now turn to another topic of considerable interest to all of us. Some of us have a professional interest in it, but I believe we all have a personal interest.

For me it is a passionate interest.

9. THE STERN REVIEW

The Report

The 30th of October 2006 may prove to have been a key date in the history of our planet. On that day, the Stern Review[11], on the economics of climate change, was released by the UK Treasury. Sir Nicholas Stern was at that time Head of the UK Government Economic Service, and was formerly Chief Economist at the World Bank. His report has much to teach us – mostly, but not exclusively, about the economic and social impacts of global warming.

For me, the release of that report marks the point at which the government of a major nation that is genuinely concerned about climate change finally took the key public steps necessary to mobilise the **global** political change that is necessary to deal with it.

As Al Gore has told us so effectively in his recent film "An Inconvenient Truth", we have known a lot about this problem for a long time. Scientific unanimity about its validity, and its seriousness, was essentially reached many years ago. The film shows how governments procrastinated, until it became undeniable that we are already living with the consequences: and that things will get worse before they get better.

What the Stern Review shows – for the first time in such a convincing manner – is that the likely costs of taking early action on global warming would be less than the costs of not doing so: and also that the costs of taking early action would be at least manageable.

At the overview level, Stern said:

> *"Climate change is one of the most serious issues facing the world in the 21st century. In order to tackle it whilst also promoting a dynamic, equitable and sustainable global economy, we will need to have a deep understanding of the economics of this complex problem"*.

[11] The report and supporting material is available at www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/sternreview_index.cfm

I would advise anyone interested in this topic to read at least the Executive Summary.

The Impact

The reason I put so much emphasis on this one report is not that its contents are so different from what we knew before. The reason is that this report stands a good chance of being a major factor in putting an end to the procrastination.

We have all no doubt read about the concept of a 'tipping point' in climate change – where, after a certain amount of greenhouse gas input, and heat build-up, the climate is thought to be capable of rapid change from one state to another, in a manner that is not easily reversed[12]. I believe we are witnessing a similar phenomenon in government policy, certainly in Australia, and perhaps even now in the USA. I certainly hope so.

It's not that there has been no action to date. There was the Kyoto agreement: but we all know which two major western nations chose not to sign the agreement, both arguing that some of the most crucial developing nations had not signed either. Their decision was effectively that they would not take the political risks associated with unilaterally reducing their own emissions. The political risks were seen to arise from facing the economic impacts of action (including lower GDP growth, lower profits, and unemployment).

But the political world has seen the need to move beyond the Kyoto experience.
The Review was obviously designed and packaged to have an impact – and it has had significant impact already.

As far as I can see, the key issues in maximising its impact have been that:

(a) it was produced by a most prominent and reputable author;

(b) its terms of reference allowed a report with truly global scope, that would address issues for both the advanced and the developing economies;

(c) its research quality was unchallengeable, and its conclusions well-argued; and

(d) authoritative reviews were invited beforehand and released at the same time.

The timing of its release – just one week before the US mid-term elections – seems also to have been particularly well-chosen and effective.

I am especially encouraged that it advocates Western countries taking accountability for our (in-)actions. This may be the key issue in bringing the developing world along, especially if supported by appropriate technology transfer.

[12] This type of behaviour in a system is addressed mathematically by 'catastrophe theory'.

All these points go towards building the report's credibility and maximising the momentum for change. The whole process was a very effective Public Affairs campaign, on a large scale: one we can learn from.

The Implications

For us as actuaries, rather than just as people, I note that there may be a way that we can play some part in the measures needed to deal with what Stern calls *"the greatest and widest-ranging market failure ever seen"*.

As he goes on to say, *"The economic analysis must therefore be global, deal with long time horizons, have the economics of risk and uncertainty at centre stage, and examine the possibility of major, non-marginal change"*.

Surely this points to opportunities for actuaries to play their part in working to fix this problem, and to deal with the risks we face on the way. The actuarial skill set is as good as one can get, to deal with some of the economic consequences of these issues – whether in terms of economic valuations of long-term investment projects, assessment of weather risk through physical damage or crop failure, estimation of the impact of carbon taxes, management of compensation funds, design and validation of emissions pricing schemes, or whatever.

There is the potential here for a string of opportunities for actuaries to work in multidisciplinary teams to solve these enormously complex financial problems. By way of illustration of the ways we can become involved, I mention that comments from the Institute's Energy & Environment Committee were recently submitted to the National Emissions Trading Taskforce, relating to their discussion paper on a possible design for a National Emissions Trading Scheme ("NETS").

In addition, I believe that most investing institutions will need to make significant changes to their investment policies to take account of the changes the Stern Report foreshadows.
I believe this may be particularly important for Australia. It struck me some time ago that it would be unwise to invest a fund like Australia's potentially enormous Future Fund in an unsustainable way, given its size, its importance, its long-term mandate, and the potential illiquidity of some of its investments. Hopefully the attention drawn by this report, and consequent policy changes, will hasten the development of investment guidelines and/or financial reporting, that adequately reflect sustainability issues.

Looked at narrowly, there are significant business opportunities in this field. To be honest, some of them are opportunities I would rather do without, but there is no denying they are there, and worth being involved in, for the public good as well as for commercial reasons.

As I said when opening this topic, I believe this was a tipping point for the global political will. If I'm wrong on that, then at least we will not have much longer to wait, although I have a deep personal concern that every year of delay will cost the world dearly.

I nonetheless find some cause for optimism in the Review's conclusion that the problem can be addressed at manageable cost. What we need is for the world's governments to act on it **soon**, and in a coordinated way: the Review goes a long way to providing the basis for that action.

Sadly, the whole process illustrates for me just how long people can go on ignoring a very serious problem, even in the face of strong evidence, before sufficient and firm action is taken. I wonder whether we have any other examples to think about.

When thinking about the Stern Review, it is hard not to be conscious of the role we play in holding our profession in trust for subsequent generations, just as in another sense, we hold the planet in trust.

I will therefore close this paper with a section dedicated to the younger members of the Institute.

10. YOUNGER MEMBERS

The Institute's younger members will certainly be affected most materially by the issues I have raised in this paper and by the outcomes we achieve as a profession.

We have often recognised that younger members need a voice in our affairs, but have struggled to find ways to give it to them. They might reasonably feel they have had less of a say in what we do than they would hope for.

When Andrew Gale retired as President, a little over a year ago, I remarked that it would be a great thing if the Institute, and particularly its younger members, could continue to benefit from his passion for leadership development. I am pleased to say that he has continued that work during the year, and in parallel we have introduced the "Young Actuaries Program".

In addition, the Communications Taskforce has recently made a number of very valuable recommendations, most of which have a bearing on younger members[13]. It is my intention to support the recommendations of that Taskforce wholeheartedly during the year.

[13] See Appendix A – Key Recommendations of the Communications Taskforce (Full report available here.)

One Taskforce recommendation that I intend to support actively was that we should increase and broaden the contact between younger members and more senior actuaries. As part of fulfilling one of those recommendations, I hope to start by visiting all of our accredited universities within the next few weeks, and to deliver a more 'student-friendly' version of my Presidential Address there. My main purpose in doing so is to listen to their responses, and try to reflect them in policy going forward.

The most important point of all, for our younger members, is that we must empower a significant number of them to take on leadership responsibility in the profession – probably sooner than they currently expect. They must be closely involved as we go forward, because they will be the ultimate owners of what we create in the next few years.

It is therefore also my intention to involve younger members in our various planning activities during the year. We must realise **their** vision, too.

11. CONCLUSION

In conclusion, I hope you have found this paper interesting, and perhaps that it has shed more light on the issues we are facing globally and on the direction we are heading.

My thanks are due to the many actuaries and others who have contributed to its development. Particular thanks go to Katrina McFadyen of the Institute staff, who helped me to produce it, and to the professional colleagues who so thoughtfully reviewed it.

I am also indebted to the many people on whom I have tested the ideas and strategies it contains, over the past few years. Their contribution means that I can make few claims of complete originality for its contents (other than for any mistakes!).

Most of all, my thanks are also due to my lovely wife Joan, who has been almost unreasonably tolerant and helpful during the long weeks when I was writing it.

I thank you again for your interest in getting this far. I will be glad to receive any comments you may wish to make on the contents, either by email or 'live' at the many meetings I will be attending in the next few months.

APPENDIX A

Key Recommendations of the Communications Taskforce

The Institute can influence the development of communications competency across the profession in three key ways:

1. By raising awareness of effective communications amongst members, including students enrolled in actuarial courses at university.
2. By supporting members through providing communications tools, aids, references and training resources.
3. By raising the importance of communications to actuarial professionals through either educational or CPD requirements or guidelines

In this context, and considering what may be needed at each stage of the journey, the key recommendations from the Taskforce review are as follows:

Continuation of current Taskforce initiatives:

- The Taskforce has begun developing a communications toolbox for actuaries. This should include explanations of complex terms and concepts through to the use of simple stories or analogies. It should also include graphical or visual ways of representing data. Similar sites have been developed by our overseas colleagues.
- In order to raise the awareness, amongst actuaries in Australia, of the importance of improved communications abilities, the Taskforce commenced the publication of a regular article on this subject in “Actuary Australia”.

Quick win initiatives (actionable over the next 12 months):

- Introduce a university liaison program, with experienced actuaries making regular presentations or workshops to university students. These presentations and workshops would be focused on bridging the gap between being a student and working as a professional. They would cover topics such as communications, leadership, business acumen and judgement.
- Include in all Institute events a session, presentation or workshop on best practice communications and how it applies in the context of the event. Engage a communications expert to provide a review of the communications competency demonstrated at the event, and suggested areas for development.

- Develop and make available (via the Toolbox or Code of Conduct) sample best practice actuarial reports for key practice areas.

Medium term initiatives (actionable over the next two years):

- Introduce a Guidance Note on Actuarial Communication that would set out the required competency at each level of development.
- Introduce best practice guidelines for communications training and development at university level. While this falls a step short of mandatory training, we believe that it is the most pragmatic way of influencing and supporting the universities to move forward.

Transitional initiatives (introduced while communications competency develops, but to be phased-out as the competency matures and development methods are fully integrated into the educational, CPD and Institute systems):

- Appoint a "communications liaison team" or standing committee to carry on this work. In order to maintain focus, achieve consistency across practice areas and to avoid redundant effort, the Taskforce's work should be outside the normal Institute committees.
- Introduce, as an interim measure, a certificate of actuarial communications offered at university level. The universities would be required to seek accreditation from the Institute to be able to offer this certification. There may be a sunset clause that would phase this certification out over the period which it would take the universities to integrate communications into the current syllabus.

Longer term initiatives:

- Integrate the teaching and assessment of communications skills into Modules 1 to 3 of the Part III exams. This may include specific assignments and tutorials focusing on communications and will be pitched at a level that appropriately recognises the importance of the communications competency to the profession.
- Once a majority of the above initiatives has been bedded down, the branding and marketing of actuarial communication competency could then be considered.

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