

COLLIDING WITH THE FUTURE

PRESIDENTIAL ADDRESS

2009



Trevor Thompson BA FIAA

Institute of Actuaries of Australia

2009 Presidential Address



Trevor Thompson BA, FIAA

President of the Institute of Actuaries of Australia 2009

© Institute of Actuaries of Australia 2008

Published by
The Institute of Actuaries of Australia
ABN 69 000 423 656

Level 7 Challis House, 4 Martin Place
SYDNEY NSW 2000 Australia
Telephone: +61 2 9233 3466

Email: actuaries@actuaries.asn.au

Web: www.actuaries.asn.au

This paper has been prepared for issue to, and discussion by, members of the Institute of Actuaries of Australia. The Council wishes it to be understood that opinions put forward herein are not necessarily those of the Institute and the Council is not responsible for those opinions

Table of Contents

1. Introduction.....	1
2. Past year's achievements.....	3
2.1 Constitution and Code of Conduct	3
2.2 Strategy and Operations.....	3
2.3 Education and Enterprise Risk Management	3
2.4 Designations.....	3
2.5 Member Services	4
2.6 ARCA and Research.....	4
2.7 Secretariat.....	5
2.8 International Actuarial Association (IAA) and Asia	5
3. Priorities for the coming year	6
3.1 Education, Member Services, Research, International & Regional influence.....	6
3.2 Progress designation debate	8
3.3 Government relations and contribution to public policy debate.....	8
3.4 Economic implications of climate change & natural resources management .	8
3.5 Secretariat.....	8
3.6 Convention 2009	9
4. What changes do we need to consider as a profession and why?	10
4.1 Is incremental change enough?	10
4.2 The changing world requires a new mindset	10
4.3 Education breakout.....	13
4.4 Research revival.....	17
4.5 Member services - a new perspective	19
5. Reflections of a commercial actuary – Insight or hindsight?	21
5.1 Is a commercial career for you?.....	21
5.2 Career choices.....	21
5.3 Preparation for a commercial career	22
5.4 Professionalism.....	25
5.5 The Public interest	25
5.6 Impartiality and conflicts of interest.....	28
5.7 Ethics and morality.....	29
5.8 The importance of research to business	31
5.9 Decision making and risk taking.....	33
6. The changing profession	34
7. Colliding with the future	35
8. Acknowledgements.....	36

1. Introduction

1.1 It is an honour and privilege to be your President for 2009. Indeed it is a special privilege as I have spent most of my career in non-technical roles. One of the great strengths of the Institute corporate governance structure is the value that Presidents with quite different backgrounds can bring to leadership of the profession, while the structure ensures thorough debate before changes are made to the overall direction of the Institute and the profession.

1.2 In considering what I might write about I recognised that there are many changes occurring within the profession and that it might be useful to share my views on these. This would be a long and comprehensive address but would not add unique value since much of what the Institute does is already reported to members through the Institute website and Actuary Australia.

Further, it would be inappropriate to concentrate on internal issues when such momentous events are occurring around us. The global financial crisis has escalated to historic proportions and at the time of writing the end is not in sight. It seems that hardly a day goes past without another crisis emerging. These are testing times both individually and on behalf of clients and deserve our fullest attention as a profession. There are immediate problems to be addressed to protect clients' interests and over time, lessons to be learned. This issue will dominate the agenda for some years to come as people try to address the causes and search for a better way to manage the future.

1.3 Over the last year we have seen the emergence of the new super economic powers of China and India, the oil crisis, political and social instability and growing acceptance amongst many countries of the urgent need to address climate change. The overlay of great turmoil in western financial markets has compounded the complexity of the current challenges. The culmination of these events has caused us all to realise the dramatic change which is unfolding around us. Increasingly we are recognising as a community that far-reaching change is inevitable and that it will test our values, resilience and resolve. These changes are so profound that they impact the very essence of how we live and work and therefore our professional lives. The impact of these changes is also contributing to growing recognition amongst member countries of the need for a truly global actuarial profession represented by the International Actuarial Association (IAA).

1.4 Against this background I have chosen a number of themes to address which I believe are fundamental to the way forward for the profession and which warrant proper discussion by the profession:

- The rapidly changing global environment, its impact and what this means for the profession globally and in Australia;
- Our evolving education system and further changes required;
- The importance of research and why more must be done;
- Why the Institute needs to move to a member services model.

I have also included a section outlining my thoughts and experience on issues faced by commercial actuaries ie actuaries engaged in aspects of business such as management rather than providing technical advice. This is directed at individual actuaries who may already be commercial actuaries or considering a career change to become a commercial actuary. I hope these insights will be of interest and some value.

- 1.5** The title of this address - "Colliding with the Future" - is a favourite saying of mine, which I believe is particularly apt for actuaries, especially in uncertain times. It captures the notion of steering towards the desired goal in an uncertain world, knowing that while not all decisions you make will be comfortable, or proven absolutely correct with the passage of time, they will nevertheless bring you closer to the desired destination. This notion is particularly apt in the current climate of dramatic change.

The responsibility of leadership of the profession is to Collide with the Future in uncertain times. To this end, Council last year adopted a Strategic Plan after serious deliberation and wide consultation with members. The Strategic Plan "on a page" shapes a path for the future and has been the cornerstone of the Council's efforts this year and a blueprint for the future. I commend it to you for reference on the future direction of the Institute. Council believes that while some action plans may be varied, the overall strategy continues to be the appropriate way forward despite the current global pressures.

- 1.6** Before moving onto considering the major themes and reflections of a commercial actuary, I would like to acknowledge the Institute's achievements in 2008 under Greg Martin's leadership and outline the priorities for the Institute for 2009.

It is also appropriate that I recognise the efforts of the Council, the vice-presidents and the many volunteers without whom the Institute could not function. The volunteer effort is quite huge and every volunteer deserves a special thank you. The pool of volunteer effort is reflected in the calibre of output produced which is very highly regarded without exception. You all deserve our congratulations.

Thanks also to the Institute staff who are enthusiastic and helpful and under John Maroney's leadership have moved the Secretariat to a more professional footing.

2. Past year's achievements

This Section is not intended to be a comprehensive record, nor duplicate the Annual Review which will be issued shortly but rather to highlight what I regard as the key achievements.

2.1 Updated Constitution and related Code of Conduct changes

A new Constitution was adopted at an EGM in April 2008. The main changes provided for a reduced number of Councillors and longer service periods. This will facilitate a more efficient Council through greater continuity and hence accountability of Councillors. The opportunity was also taken to bring the Constitution up to date with comparable modern constitutions.

2.2 Clear adherence to strategy and operational disciplines

The Strategic Plan is a three year plan, which will drive the direction of the Institute and be the platform for the overall thrust of Council activity. The specifics of the action plans are managed to reflect the circumstances and environment as they unfold. A formal process is in place under which Council reviews the strategy and progress towards plan on a regular basis.

2.3 Clear program and priorities agreed and commenced for education improvements, including Enterprise Risk Management (ERM)

Course syllabi have been reviewed and updated for Part II and all Part III subjects and learning objectives carefully stipulated. Course content is regularly reviewed to ensure that the IAA syllabi content is met or exceeded. Delivery of Part III Investments and the Investment Management and Finance courses has been subcontracted to Macquarie University to relieve pressure on actuarial professionals operating in the investment practice area. Fellowship courses are being migrated more towards global market relevance, with less Australia-specific content and more global principles and examples.

ERM has been included in Part II and some Part III subjects. The Institute, through Fred Rowley has been instrumental in moving toward the creation of a global ERM designation amongst a group that includes major IAA member associations. This is a significant achievement and will form the crux of a global actuarial ERM designation. The Institute will be introducing an ERM education program to qualify Australian members for the global designation.

2.4 Change in designations

A somewhat more contentious subject is the proposed change in designations under which our Associate members (subject to completion of a Professionalism Course and an experience qualification) can call themselves an 'actuary' and provide actuarial advice.

Council adopted in principle the proposed new "actuary" designation at its meeting in May 2008, subject to consultation with the membership. The specific provisions of the designation and implementation arrangements have been referred to a taskforce which will report by mid year 2009.

The proposed change has been promulgated to members in a variety of ways, including letters to all members from the President explaining Council's views and the issue has been debated with those members who have expressed concerns. As at the date of this address further debate is occurring to ensure that all members have an opportunity to express their views.

I understand that some members may question the need for and value in, making such a change. As members consider this question I would ask that you have regard to the increasing importance of global alignment of designations in the rapidly unfolding global financial system which is emerging, as well as noting that the proposal will not disadvantage current and future Fellows of the Australian Institute. Global misalignment would leave our members without a clearly defined relationship to overseas actuaries and business opportunities overseas.

Key considerations from Council's perspective are:

- The law does not prevent a non-member from calling themselves an actuary and providing actuarial advice and all classes of members are often referred to as actuaries by employers and colleagues;
- The new designation aligns with the global designation of actuary and meets the prerequisites for the proposed global ERM designation. Institute members who meet the IAA FQA (fully qualified actuary) requirements should not be disadvantaged vis a vis their international counterparts;
- The Institute will continue to promote the role and standing of Fellows. We would expect that most members in Australia will continue to complete the Fellowship because of its standing both locally and overseas and because of the statutory requirements for only Fellows and Accredited Members to perform key insurance and superannuation functions.

2.5 Planning commenced on member services focus

A member services focus is recognition that there are various major segments amongst the membership, with differing needs. Members are dispersed locally and overseas and by practice area, as well as by interest eg research or climate change. Lifetime learning requirements through CPD, or career change requirements, or relocation overseas create new needs and demands. There is also an opportunity to develop closer professional relationships with actuaries working in investments and banking and newer practice areas such as ERM and climate change.

The Member Services and Educator (MSE) Taskforce is addressing how best to engage with members and their needs. I am optimistic that we will achieve a new blueprint for members to participate in the profession.

2.6 The future of ARCA resolved and Research management plan agreed

A blueprint for research going forward has been approved. This is something I have been involved in personally and I feel passionate about. I believe there is a wonderful opportunity on the one hand for the profession to make a meaningful contribution to public debate on the hugely important social and economic issues which face our community and on the other hand an urgent need for the profession to refresh its intellectual paradigms to stamp its continuing ownership

on our key practice areas and establish our presence in new fields. This is not just about practice techniques but also about unique insight and wisdom through thought leadership.

2.7 Improved Secretariat performance

The demands on the Institute have been growing markedly as the breath of members' practice interests widen, as global forces impact professional standards and practice through international competition, convergence and regulation and as professional accountability is heightened.

The Secretariat has evolved over many years from a voluntary body to one needing to respond with the capability of a commercial operation. The Secretariat is now staffed to deliver this capability and under John Maroney's leadership significant and continuing strengthening of the operational performance is evident. Strong Secretariat performance translates to strong support to Council and the Executive, quality support to members, informed submissions to regulators and government, strong media coverage and valuable contribution to and influence with the IAA.

2.8 Continued influence in the IAA and the Asian region (principally around education issues and global ERM qualification)

The Institute continues to be highly respected by the international actuarial community for our core values, professional standards, education system and contribution to the IAA. This is especially so given our relatively small size as a country and a profession.

We continue to contribute to all major areas of development including IAA strategy and governance, international accounting standards, international actuarial education, regulation and most recently being proactive in initiating development of a global ERM designation.

Furthermore, the Institute has secured membership of the East Asian Actuarial Conference (EAAC), is working with China on education and CPD and supporting other Asian countries with regulatory and other professional developments.

Closer working relationships are being developed with several Asian countries in line with our published strategy.

Relationships have been renewed with the Asian Development Bank in Manila with a view to seeking resources to further assist actuarial development in the Asian region.

3. Priorities for the coming year

The key objectives from the strategic plan are as follows:

3.1 Continue to progress education, member services initiatives and research initiatives as well as international and regional influence

3.1.1 Education remains a key Institute function. Key goals include making a major contribution to the development of and maintaining alignment with the global actuarial syllabus, continuing to be recognised for the high quality/standards of Australian actuarial graduates, leading the development of the global ERM designation and practice area and facilitating a lifetime learning culture and greater disciplines around CPD. An important initiative which I propose more fully later in the address is to extend the range of subjects currently available to count towards Fellowship qualification to a much wider range of investments (and possibly broader subjects). These would be alternatives to the current range of optional specialist subjects, thereby broadening career opportunities whilst retaining talented people in the profession. An overarching objective in education is to continue to build Australia's reputation in the world for excellence in actuarial education.

3.1.2 Member services has already been mentioned above. The approach under consideration would not be a radical change but would more directly align fee structures and services offered with the various needs of different categories of members. This is intended to better address the actual needs of members and foster a more valuable relationship with members. More on this early next year.

3.1.3 The Research Taskforce proposals have been adopted by Council, paving the way for the many recommendations and initiatives to be progressed. I am delighted that Chris Latham has agreed to be Convener of the newly established Research Council Committee, which has responsibility for carriage of the research agenda.

The key focus of the effort is to encourage and support actuarial research across the range from pure and applied research, to public policy research, and to strengthen the intellectual property and as a result the brand of the profession to cement its ongoing relevance.

Council has also approved a recommendation to retain the Actuarial Research Centre of Australia (ARCA) for high profile public policy research. This will retain the capability to commission and manage sensitive research outputs with the media and with government under a specialist research banner. I would like to acknowledge the contribution of Graham Rogers in pioneering the concept of ARCA with the Institute and the ARCA directors for their contribution during the formative period of ARCA. A great deal has been learned which will shape the future of ARCA's role. Some ARCA directors have agreed to join the Research Council Committee and remain on the ARCA board thus ensuring a close

understanding and collaboration in both the Research Council Committee and ARCA fulfilling their complementary roles.

The planned research initiatives approved by Council will support the extensive current research activity and provide structure in the research agenda by identifying priority areas and topics.

- 3.1.4 The Institute is currently engaged in, or leading, a number of important specific initiatives with the IAA. These include the likely establishment of a "global" ERM designation in 2009 which would be available to participating member associations and their membership; a review of the role of Sections within the IAA as part of an overall review of IAA governance; progressing the development of an International Actuarial Education Program (IAEP) to assist less actuarially developed countries to establish, or grow their actuarial education programs to meet emerging and often urgent needs for actuarial resources; and leading a comprehensive international mortality and morbidity investigation. All these initiatives will contribute to a more effective profession globally and enable the Institute to contribute to the shape of the outcome of these initiatives and obtain valuable insights into these important developments.

The Institute will continue to work closely with China on education issues, where we have shared our text books and experience with evolving our syllabi and education approach. We are also building relationships with Korea, Thailand and Malaysia, whilst retaining strong relationships with Singapore and Hong Kong. Many of the actuarial students at Australian accredited universities return to Asia to actuarial roles and often complete their Fellowship or equivalent qualification.

The Asian region is experiencing tremendous growth and is continuing to emerge as a world financial powerhouse. The vast savings which are arising from trade surpluses and a strong savings ethic are leading to staggering growth of life and general insurance, particularly in China, with a dramatic need for actuaries. The China Actuarial Association runs its own fellowship examinations. This is a major undertaking and the Association is resource stretched. The Institute has offered to assist in an appropriate manner, given their needs and our limited resources.

The Institute was invited in Tokyo in 2007 to join the East Asian Actuarial Conference. This was a great honour. This body holds a conference of Asian countries every two years, the next being in Seoul in 2009. It will be important for our members, especially those working in the region to support the conference with attendance and ideally contribute papers, to demonstrate our interest in and commitment to the region. The Conference is likely to expand its activities over time to a regional actuarial representative body, perhaps akin to the Groupe Consultif which represents over 25 actuarial associations in Europe.

These activities support our strategy of helping to develop a global actuarial profession, which will strengthen the role of actuaries in all countries. It also continues the tradition of more developed countries

supporting those which are less developed. That tradition provided major benefits for Australia for most of the 20th century.

3.2 Designation transition underway with staged implementation.

The proposed new designation offers the opportunity to extend the designation of actuary to a wider community of actuarially trained professionals and thereby extend the actuarial brand into the wider business community.

Members will continue to be encouraged to obtain and market their "Fellowship" designation, which will continue to command special standing, both locally and globally and be required to perform statutory roles.

As a result of the differences and strength of view expressed by some members during the member consultation process Council intends to conduct a plebiscite of members before the Biennial Convention to be fully informed of the views of the membership, before any formal decisions are taken to implement the proposed changes.

3.3 Achieve good working relations with the new government and contribute to policy debate on relevant issues

It is clear that there will significant change under the new Federal Government, some mandated by policy imperatives and some driven by global imperatives.

The Institute and its members are well qualified to contribute to policy debate by providing quality objective research to facilitate informed public debate. The Institute takes the position of an informed professional providing independent advice and as such does not take the position of any particular industry participants with vested interests or the government or opposition. Council has retained ARCA as a vehicle for commissioning and promoting high profile public policy research.

3.4 Make a mark on the economics of global climate change and natural resource issues through Australian Government representation and public policy debate.

Climate change will probably, over time, impact our lives more than any other force, including the current financial crisis. It is increasingly obvious that many of the consequences faced by the global community are economic as well as climatic.

Solutions to climate change, ahead of almost all other challenges, demand a combination of skills and disciplines working together, since the issues are all encompassing. It seems incongruous that actuaries should not take up the challenge and contribute towards these solutions. Actuaries are well placed to contribute on many fronts, but especially on modelling long term uncertain financial scenarios. This is the perfect opportunity to demonstrate our risk management, forecasting and modelling skills and break out from the "insurance" mould, with which we are so often labelled.

3.5 Continue to improve Secretariat services to members

The various initiatives already referred to will help align services with member needs. The Institute still relies heavily on a vast number of dedicated volunteers

and is most appreciative for that contribution. Indeed, it is a credit to the profession that this volunteer effort is forthcoming and willingly given. Volunteers give willingly, but are reinvigorated if the support they receive from the Secretariat is meaningful and helpful and generously given.

3.6 Hold a successful biennial convention

"Go for Gold" in Perth in April 2009 will be an exciting convention. The Convention theme conjures up thoughts of adventure and challenge as well as lifting standards in both business and sport. Western Australia and Perth offer the true frontier spirit and evidence of the boom and its rewards and challenges.

There is no shortage of challenge in the world today, in our jobs and private lives. It is important to learn from the current global financial crisis and take those lessons into our professional lives. The Convention program will include an exciting range of speakers and provide a forum to come to grips with many of these issues, discuss lessons learned and get up to speed on how to make a difference.

Convention 2009 is a must if you plan to achieve your goals.

4. What changes do we need to consider as a profession and why?

4.1 Is incremental change enough?

I would now like to turn to the themes which I indicated earlier warrant discussion by the profession.

This is an important step as the profession is by nature cautious and decisions on key issues invariably take time. Whilst this is a strength, it is also a weakness as the time frames available to move forward effectively in a fast-changing world are reducing.

Furthermore, we are at the crossroads on some issues, the decisions on which will shape the future.

It is important for members to engage with issues as they arise and participate in the debate rather than wait until decisions are imminent or indeed have been made before voicing their views.

4.2 The changing world requires a new mindset

4.2.1 Whilst it is true that change has always been with us, the world is currently poised on the brink of a monumental sea change rather than incremental change. Some have likened the likely impact to being similar to the wave of colonialism which overtook the world in the 17th and 18th centuries and to the industrial revolution. However, the scale is far more profound. The global population is growing exponentially and today is some 10 times larger than 100 years ago and 50 times greater than in the year 1800.

The pressures on the globe are immense. There are four major driving forces:

- The desire of developing countries to reach the same living standards as developed countries (including longevity);
- Global mobility of people, skills and capital and the globalisation of markets;
- Global environmental pressures (climate and resources, including power, water and food); and
- The need to rebuild a more robust and well regulated global financial system.

These forces will in turn lead to severe economic, social and political pressures. The issues these pressures create will be new, requiring untested solutions. Many will demand global solutions as the world shrinks. There are great opportunities for individuals to become engaged in these issues and for actuaries to make a distinct contribution, both locally and globally. The profession in Australia is highly respected in the international actuarial scene. We have much to offer and we should maintain our influence on global actuarial outcomes.

The many economic, social and political pressures that will arise will challenge our ability, capacity and courage to engage with new and

difficult issues, rather than hone our techniques in traditional fields. The satisfaction and recognition from advancing knowledge and possibly identifying breakthroughs are great for the individuals and the profession and will potentially shape our place in the new world. The value to public policy debate of quality forecasts based on credible data and well reasoned argument should not be underestimated. A comprehensive review of improved longevity and aged care and its intergenerational impact might be a good example.

In relation to our traditional areas of activity, we already make a significant contribution to actuarial education in the region. Further, there is already a strong presence and increasing interest in Australian actuaries working in Asia and India contributing to the burgeoning growth of financial services delivery and to regulation in the region. The economic and social impact of a stable and growing financial service sector in the region should not be underestimated.

Actuaries are well placed with relevant skills to contribute individually and as part of multidisciplinary teams, to the many challenges of environmental pressures. This contribution can and should, extend well beyond our current role in insurance.

We should approach challenges with a mindset of creating opportunities, seeing problems to solve rather than obstacles to avoid.

4.2.2 Overlaying this sea change in the global environment are fundamental changes to our specific fields of interest.

People are not only living longer and healthier but expecting continuously improving lifestyles, which in turn requires greater economic output. Protection of income and accumulated assets are part of securing these goals.

People in developed countries have been willing to take on a greater degree of self-reliance for their economic welfare. This willingness has evolved in good times and has not previously been tested in adverse times. Indeed most of the younger members of our community have only ever known good times. The current global financial turmoil will challenge the benefits of long term savings as those in the retirement system consider their eroded retirement accounts and contemplate the value of the conventional wisdom behind typical investment strategies.

Genetic engineering and stem cell technologies are politically sensitive because of their far reaching implications. These include food production and resource management, health management and potentially family planning. Clearly there are obvious implications for the community, socially and morally, as well as for life and disability, health and income replacement insurance.

Conversely, the risk of pandemics is always present, as is concern about political and religious differences exploding into conflict. It remains a

paradox and embarrassment that the world dithers whilst some of the greatest humanitarian crises unfold.

The crisis in fuel costs and supply, the waste we produce as a community and the water and food shortage scares we have experienced have alerted us to the fragility of our current lifestyle and the prospect of the need to seriously reshape our community values and priorities.

Many of the changes directly impact actuarial work. Addressing such changes is a driving force in globalisation of the actuarial (and other) profession(s).

Some might argue that some of the best and brightest in the community are engaged in financial wizardry in our global financial markets, which has proven to be of dubious contribution to global welfare, rather than engaged in tackling problems which could make a real positive impact. Yet this is the outcome of the community reward system in the western world. The greatest contributions to world knowledge and humanity have invariably been from those with a passion for knowledge, rather than focusing on accumulating wealth. These career choices are personal and every individual needs to live with their decision. Have we as a community lost the plot in our values and reward systems? And become focused as a community on greed rather than quality of life? Perhaps the current financial crisis will cause many people to fundamentally review their lifestyle and values and we may yet see some form of return to normality.

The years ahead will be turbulent and exciting and offer many new and different challenges and opportunities. Our skills and wisdom will be put to the test.

4.2.3 A key issue therefore is how will our profession cope? What contribution will our profession make to shape the future? And what steps are we taking to prepare the next generation?

Most of these issues are on the radar screen for our profession but not much further. The profession is stretched with the demands of managing traditional fields at home to a high standard and supporting their evolution into Asia, as well as contributing to a sound global actuarial framework of qualification and standards. But these are largely confined to the traditional fields of life and general insurance and supporting the continuing evolution of superannuation in Australia.

Precious little resource is available to address the broader emerging challenges and opportunities. Yet these are where the profession will be most sorely tested in the years ahead and where the greatest opportunities lie. Some members are active in these emerging fields and are to be applauded but much more interest and effort is required. This is the way in which the profession successfully evolved into general and health insurance. It is the enthusiastic and impressive involvement of individuals which creates the initial standing for the profession in new fields and can

lead to the development of new paradigms which can cement the role of actuaries in these new fields.

Can we really adopt a "wait and see", or "it will evolve" approach? There are many important issues crying out for investigation and research in fields that actuaries are well equipped to address. Many of these issues will continue to increase in importance in the years ahead. Here lies the opportunity for the profession to develop the new paradigms for the future in these fields and in so doing establish its pre-eminence in these new areas. The new research arrangements are geared at encouraging and supporting efforts in this direction.

This work must surely be exciting.

4.3 Education breakout

- 4.3.1 How well is our education placed to prepare actuaries for the future? Our technical skills are well recognised and respected but focused on a very narrow slice of the business world. They are transportable globally but again on a very narrow base. We are known generally as "insurance" and "superannuation" experts but not widely recognised beyond that as a profession.

The bulk of our education effort is expended in improving and keeping up to date the delivery of our traditional skills. The international actuarial education syllabus primarily addresses the traditional practice areas and is narrower in that sense than in Australia. In this regard, Australia is ahead of the world in pioneering the profession into wider fields.

- 4.3.2 A commonly-asked question is what will our education system look like say 5 to 10 years out? A blueprint for the future has been developed, partly to steer our contribution to the IAA and to give direction to our education effort locally. This is important given the high regard with which the Institute education system in Australia is held and the responsibility to maintain that standing, as well as the opportunity to contribute with leadership and resources to the International Actuarial Education Program (IAEP).

A number of core principles to guide our education effort in Australia are worth drawing out:

- We will need to maintain or exceed the global actuarial education benchmark syllabus content and standards. This is important for global branding and mutual recognition agreements (MRAs);
- The syllabi will need to continue to evolve to maintain currency and relevance to our core markets;
- New opportunities such as ERM need to be quickly embraced or the opportunity may be lost;
- The universities will continue to be core to our education delivery and increasingly so.

The blueprint identifies specific likely developments and considers their implications. Because of its importance and general interest, a copy of the blueprint is attached as Appendix A.

A fifth principle, which is not included in the blueprint but I believe to be fundamental and needs to be debated, is that a broader range of Fellowship subject options is required to extend the relevance of the profession in the finance sector.

4.3.3 Should we therefore continue to confine actuarial education to the current traditional range of courses or expand this to attract / retain students with wider but related interests and thereby broaden the actuarial brand?

In this regard, a strategic opportunity exists in Australia to expand the role of actuaries in ERM and support the growing role of actuaries in banking and finance. The breadth of the actuarial education program is largely within our own hands.

The Institute is already engaged in developing an ERM program, comprising a CPD course and Part III specialist course, along with embedding ERM in the Part I & II courses. This will enable Australian actuaries to obtain ERM qualifications of global standing or better.

We could address the banking and finance opportunity by extending the range of investments and finance subjects to contain a much wider suite of options along the lines currently offered by the accredited universities in their actuarial masters' courses.

As of today many of our best and brightest students abandon actuarial studies after completing their honours degree to pursue investment careers. This often results in them undertaking additional investments and finance programs (often from the accredited universities), the CFA qualification or both. An additional attraction from a student perspective is that university courses are taught whereas the Institute Fellowship subjects require self-study. An extensive range of investments and finance subjects which the Institute recognised for Fellowship standing would enable students to obtain a further relevant university degree as well as meeting much of their Part III Actuarial Fellowship requirements. This move would enable the Institute to embrace these people as actuaries and members and encourage employers to see these employees as actuaries and their skills as actuarial.

The CFA qualification is recognised as the *de facto* qualification required by the investment and finance community. The CFA body does not undertake educational activity but rather limits itself to running the CFA examinations and granting qualification. The CFA has recognised a limited number of universities throughout the globe for teaching the CFA syllabus but recognition falls short of accreditation.

The Institute could, for example, include for recognition in its Fellowship subjects, a suite of investment subjects provided through the accredited universities, which broadly covered the CFA syllabus. This would enable students to complete a master's degree and subsequently their Fellowship

and CFA qualifications with limited additional learning and would be a powerful suite of qualifications for employment in the finance and investment sector. The Fellowship would provide an edge in new and unfolding opportunities in areas such as ERM, capital adequacy, capital management and regulatory capital in banking.

Another option is to recognise towards Fellowship qualification related subjects such as advanced mathematics and statistics and even PhD theses which have been successfully completed on topics agreed with the Institute in advance. These suggestions may seem radical but may attract some high talent students to the profession who would extend our reach and presence in industry and potentially widen our perspective when addressing professional issues. The CAP course would serve as a gateway for testing overall judgement skills in a business context.

An approach which recognised a broader range of courses could be introduced relatively quickly with the cooperation of the accredited universities. It would however mean as a matter of practicality that assessment of student performance in these subjects would not be examination by the Institute. Similar or more stringent arrangements could apply to those currently in place for granting exemptions for students at accredited universities. In my view this is a manageable risk worth taking for the benefits.

I also believe that there will be continuing strong demand by students for the traditional subjects to satisfy the demand for traditional actuarial roles in Asia and Australia.

4.3.4 A related question is how do we overcome the shortage of suitably qualified actuaries to staff actuarial academic roles and especially university actuarial professorial roles?

The university system in Australia and in similar western countries places top priority when appointing professorial staff on the candidate holding a PhD qualification and an impressive research record. This is regarded as more important than a formal qualification in the basic discipline. Finding actuarial professorial staff with a Fellowship qualification, PhD and distinguished research record is a major problem around the world.

The difficulty is that honours graduates who move directly to completing a PhD are reluctant to then complete the actuarial Fellowship requirements, whilst those who complete the Fellowship first and become accustomed to corporate life invariably do not resume academic life and pursue their PhD.

This situation is concerning and needs to be resolved if the profession intends to continue to rely on the accredited university system. A global solution is required as too few suitable candidates will lead to counterproductive poaching between universities and across countries.

The Institute is committed to providing more PhD scholarships. Another suggestion is that students with natural research talent be identified early at

university and encouraged and groomed for academia. Any other ideas for resolving this dilemma are certainly welcome.

A related issue is ensuring that sufficient business input is included in the university courses to at least acquaint students with the commercial world and business considerations and careers. This is currently handled by introducing "guest lecturers" with a business role or background. This is a reasonable approach given the limitations of the university system but one must question the extreme demands and limitations placed on university appointments when governments are pressing for better leverage of university research by industry. An example of success in leveraging pure research often quoted is Stanford University, which claims a seamless integration between business and academia, where senior academic staff can be on the boards, or otherwise directly involved with commercial organisations in their fields of specialty.

4.3.5 The role of CPD is fundamental in a culture of lifetime learning. The profession needs to embrace this more vigorously and formally if we are to maintain our standards and high reputation. It is no longer acceptable for a member practising in an area not to keep up with developments, or for members changing practice areas or countries not to become fully conversant with the new context. The Institute needs to upgrade the existing CPD material, extend it to all practice areas with relevant content to locations where members practice and phase in more formal obligations on members. The question of whether "practising certificates" are required is raised from time to time. The regulatory framework in Australia clearly defines the requirements for statutory roles. In my view practising certificates should not be contemplated for other actuarial work until the arrangements outlined above are well and truly in place and properly assessed over time.

4.3.6 Council has recently approved on a pilot basis the introduction of a "Step Up" intensive leadership development program. The program is aimed at members who wish to fast track their leadership development and will include personal development projects and working with a mentor. The course will be an optional component of the Institute Leadership program whose aim is to develop awareness amongst members of the relevance and importance of leadership skills and support members to develop these important skills at an early stage in their career. The overall program includes insights into and development of leadership skills, communication technique and a broader view of community participation.

The first intake for the intensive training sessions is scheduled for early next year.

4.3.7 The contribution actuaries will make to the future will depend on the career choices they make and what they hope to achieve. Visionary choices and aspirations can be developed but like wisdom this needs to be nurtured and requires greater exposure and insight into the visionary experience of others and development of motivation and self confidence. This is beyond the boundaries of actuarial education but is the responsibility of all of us to encourage growth and vision in younger members.

This is a topic I return to later in this address.

4.4 Research revival

4.4.1 I was privileged this year to convene the Research Taskforce appointed by Council to address and make recommendations on the Institute research agenda. Council views this issue as of utmost importance, as research and renewal of the intellectual property is the lifeblood of the profession and its mandates.

The Taskforce presented its final report to Council in June 2008. The report included a range of recommendations all of which were adopted by Council.

4.4.2 The recommendations essentially were:

- i. Establishment of an expanded and upgraded research effort to enhance the profile of the profession and the knowledge and skills of members;
- ii. The need for a significant additional ongoing funding commitment from the Institute if the current academic research and largely voluntary research effort is to be extended to address a more structured research agenda, including public policy research and if our investment in research is to be at a comparable level to that of broadly similar organisations. A target of 5% of revenue (\$350,000 p.a.) was proposed with scope for larger amounts in years where particularly important research projects arise;
- iii. Establishment of a Research Council Committee, to develop and direct a structured approach to research advocated in the report, including implementing the various recommendations made. The report considered whether the ARCA brand should be retained and if so its relationship to this committee and concluded that ARCA should be retained for public policy research and selected other research as appropriate;
- iv. A new competitively based approach to allocation of Institute research funding, whereby accredited universities, consulting firms and members would apply for grants or tender to undertake research on topics developed by the Research Council Committee in conjunction with the profession;
- v. Initiatives to encourage greater liaison and co-operation between academics and practitioners in developing the research agenda, to gain a balance between pure and applied 'actuarial practice' research and public policy research. The report also advocated greater emphasis on identifying practice issues that would benefit from academic research and academic research that has practical application;
- vi. Creation of a Research Special Interest Group to foster and encourage involvement of members with a genuine interest in research generally;

- vii. The need to encourage teams (both within the profession and beyond) to engage in research.

4.4.3 One somewhat unexpected finding was the strong support voiced for public policy research. This was motivated principally by the public contribution and profile opportunity for the profession. Ironically, this is a statement of support for the ARCA aspiration but with recognition that the original self funding model for ARCA was too ambitious and that a funding commitment from the Institute would be required for success. ARCA has been retained to fulfil this public policy research role.

4.4.4 The other clear aspect to emerge was the absence of a research culture within the profession and to the extent that it existed, the separation between practitioners and academics. This is despite the extensive research papers produced by members for conventions and seminars and the research output from the universities. It is disappointing that so much research endeavour is undertaken in isolation, attracts limited debate from the membership and is often ignored in terms of its potential application and further development.

Various initiatives were recommended to address this but the time required and the difficulty in building a research culture should not be underestimated. A sustained effort and commitment to encourage and support research in a structured rather than an ad hoc manner will be required and even then success is not assured. However, the Taskforce is confident that meaningful gains can be made with the recommended approach and staffing.

4.4.5 The question of university funding and its contribution to research requires comment. This is a complex question which in the end comes down to the extent to which university funding is to support the financial viability of the universities, to broadly support the interests of the Institute, or to further the profession through research. The present funding arrangements do not directly support research, nor does the Institute have any real influence over the areas of research.

There is virtually no other funding of research outside the universities by the Institute. The Taskforce concluded that fundamental change was required to develop and implement a considered research agenda, which addresses priority topics and is balanced between pure and applied research, as well as including public policy research. The new competitively based approach is intended to strike a balance between the competing research priorities and resources. The new arrangements will be phased in over a period of three years as undertakings to the accredited universities are honoured.

4.4.6 In arriving at its conclusions, the Taskforce had regard to the considerable input received from interested parties, as well as the valuable lessons learned from the ARCA experience to date and comparable bodies. The Taskforce also liaised closely with the profession in North America to draw on their experience.

The proposal is not free of risk. The report advocated an incremental approach to implementation which will minimise risk and provide opportunity to rectify issues as they arise.

Nevertheless, it needs to be understood that this will be a journey and that changes will inevitably be required along the way as experience unfolds. These should be anticipated and understood as part of the process to achieving the desired goal.

- 4.4.7 I firmly believe that education, lifetime learning, research engagement and professional life are a continuum that members should commit to and strive to live up to.

I urge your involvement and support of the various initiatives to further these ambitions both personally and for the profession.

4.5 Member services - a new perspective

- 4.5.1 A fundamental question is what is the role of the Institute for its members? The straightforward answer is an educator, licensor and provider of related professional support and maintainer of the profession's brand and public presence.

Input from members indicates that their needs are often quite varied and that the value of membership of the Institute, from their perspective varies considerably according to their needs.

As mentioned earlier, globalisation of business and commerce, as well as rationalisation of services, regulation and competition, mean continuous and often rapid change in professional requirements, standards and regulation.

It is also clear that the nature of support required by members differs at different stages of their career.

- 4.5.2 Historically, in Australia the profession was very small and practised in traditional life insurance and superannuation only. The culture was collegiate and by and large all members participated in regular "Sessional" meetings at which research issues and industry developments were freely discussed. Research was encouraged and widely undertaken.

Today, the profession spans many practice areas and members are engaged professionally in many parts of the globe. Furthermore, business pressures and liability exposures are more prevalent and professional guidance and support is required, indeed demanded, irrespective of the practice area or location of endeavour.

A consequence is that like many other larger professions we remain a single professional body but have evolved to comprise a collection of practice areas which in effect operate as "special interest groups". I think the likelihood is the structure will evolve to one of Special Interest Groups at some stage in the future, when the membership numbers become viable.

The IAA embraces a number of global "Sections" or special interest groups (AFIR (Actuarial Approach for Financial Risk), ASTIN (Actuarial Studies in Non-life Insurance), AWF (Actuaries Without Frontiers), IAAHS (International Actuarial Association Health Section), IACA (International Association of Consulting Actuaries), LIFE (Life Insurance), PBSS (Pensions, Benefits, Social Security)), with some parallel sections existing in the SoA in the US.

Under this approach our structure would be based around our areas of practice / special interest but with each area having greater autonomy for its professional affairs, with accountability to the Institute. Thus we would have sections for Life, Wealth Management, General Insurance, Health Insurance, Pensions, Banking and Finance, Climate and the Environment and Research. The Institute would retain an umbrella role on behalf of the profession and deal through the committee structure with all matters pertaining to the profession overall eg accounting standards, code of conduct, disciplinary scheme, regulation and education.

This framework would mirror the IAA structure and facilitate global linkages where appropriate and deploy scarce resources and effort to best effect to the various segments of our membership.

The flip side is that our membership will become more disparate. I think this is inevitable as we grow as a profession and broaden our interest base. The atmosphere I experienced at the last Convention in Christchurch and the Financial Services Forum in Melbourne as members from across a broad sphere of interests exchanged views and ideas was stimulating. This is something we should not lose as a profession while we are small enough to retain these gatherings.

- 4.5.3 The MSE Taskforce lead by Bozena Hinton is considering all these questions and will report early next year.

I think we can anticipate some far reaching recommendations. These will be considered thoroughly and members consulted before any decisions are taken.

5. Reflections of a commercial actuary

5.1 Is a commercial career for you?

As one who has spent most of my career in non-technical roles, I would like to offer some thoughts and observations on various aspects of the profession that may assist those members or students who are contemplating their career direction. In doing so, I hope to stimulate some younger actuaries to consider wider careers.

5.2 Career choices

5.2.1 The choice between technical and commercial roles is fundamental - the aspiration of providing professional advice founded on technical excellence versus the challenge of developing proven commercial judgment.

Whilst the distinction is clear, an actuary's career might include periods of one or the other role by choice or circumstance. In some instances a role might concurrently include both technical and commercial responsibilities. Sometimes technical roles can lead to management / commercial roles if the individual has such career aspirations.

For the purposes of this discussion I have regarded all non-technical roles as "commercial", recognising that the commercial demands vary greatly between line management roles and those of general management. Nevertheless, I think the discussion is useful as the considerations addressed apply to varying degrees to most management roles.

This section is therefore about providing some insights for actuaries who might be contemplating a broader "commercial" career.

5.2.2. The bulk of actuaries gravitate to utilising their professional skills in technical roles and / or as professional advisers. These roles can be as consultants or as employees. In either event, most actuaries following this career path aspire to excel at their work and find it rewarding.

This is our heartland and a significant number of actuaries are required to meet the demands of the financial services industry for advice and to meet statutory requirements.

A good deal of effort is expended by the profession in maintaining and improving the technical knowledge and professional standards for this work, for which the profession is highly regarded.

5.2.3 Historically, senior management roles in life insurance companies, including CEO, were often filled by actuaries. This was largely because actuaries understood the finances of the business intimately and through the chief actuary, were responsible for advising on the equitable treatment of policyholders. Indeed, in a world of mainly mutual insurance companies and "participating" policies, the equitable treatment of policyholder as

between types of policies and generations of policyholders was the very essence of the business.

Few people other than actuaries understood the business sufficiently to manage these mutuals. This was recognised by actuaries being required by law for specific roles. Often, the boards also included, if not comprised, actuaries.

Actuaries, aspiring to the CEO role and exhibiting potential, were typically groomed in wider related management roles including investments and sales management.

The move away from participating business and corporate governance concerns over management of conflict of interest between policyholder and shareholder interests, have led, with a small number of notable exceptions, to actuaries most commonly now being utilised in specialist technical and statutory roles.

Nevertheless, actuaries understand the finances of financial services companies and are well placed to manage soundly. In my view actuaries with aspirations to management roles need to assert their aspirations and expertise and seek to redress the negative trend. Their hand would be strengthened by obtaining companion qualifications (see below) which would complement their actuarial skills and equip them with more usual credentials from a board perspective. Broad commercial experience is invaluable in developing management wisdom, as is leadership experience and training.

- 5.2.4 A number of our members are entrepreneurs in their own right, running their own consulting firms or businesses. Some have successfully grown these businesses to become acknowledged competitors of the majors.

However, few actuaries have emerged as entrepreneurs in the broader sense of the word, either as business leaders or in business ventures outside the traditional practice areas. This is surprising and unfortunate, as most actuaries have outstanding academic records and skills and insights that are readily transferable to most businesses, and I would have thought some actuaries would be well suited to be entrepreneurs. Perhaps our fundamental training in identifying risk and cautious approach to managing risk, inevitably make us risk averse!

Preparation for the commercial world is nevertheless an aspect which could receive greater attention in the journey to qualification, if only to assist actuaries understand how risk takers think and operate!

5.3 Preparation for a commercial career

- 5.3.1 Our education system, through the accredited universities and for Part III, is well developed and regarded. The course content is subject to progressive review and change, principally to align with global actuarial designations and emerging areas of opportunity for the profession. The accredited

universities are free to extend their course content to include contemporary new material, as long as the core content is still covered.

The accredited universities teach technical actuarial skills and basic judgment, whilst students are required to develop more advanced, complex judgment skills to complete Part III. Such judgment is assessed in the context of traditional and non-traditional practice areas but such preparation falls well short of real life commercial challenges.

The accredited universities do not teach professionalism. The Institute requires students who have completed the Parts I, II and III examinations to complete a brief Professionalism Course and a one year experience requirement before being recognised as a Fellow.

Professionalism is concerned with providing advice which is not only technically competent but which has proper regard to the Institute's Code of Conduct and ethical and moral considerations, including the proper use of the advice. Students should be introduced to these concepts earlier in their actuarial education to enable reflection and discussion. This would gradually introduce the important concepts of professionalism as students build their technical skills and basic commercial judgement and progressively develop their understanding of what it means to be a professional.

Our education syllabus does not currently include leadership or communication courses. The UK Institute and the SOA both include communication courses in their qualification requirements in response to competencies sought of actuaries by employers. Any further significant changes to our syllabi should be predicated on a sound assessment of the overall competencies required of actuaries. Both the UK Institute and the SOA have recently undertaken comprehensive competency studies and the Institute should have regard to these in determining what further work, if any is required to establish our competency framework.

- 5.3.2 The question arises as to whether students who complete our Fellowship requirements are well prepared for the business environment or are commercially naïve and vulnerable.

I suggest that the latter is often the case today, as it has been in the past. The extent of learning required to reach a meaningful level of commercial awareness will depend in part on their background before becoming an actuarial student (varying from totally unaware of commercial issues to reasonably aware and attuned) and also, on their work experience and the nature of their current employment (which could vary as widely as actuarial consulting work, employment in traditional insurance work, investment banking, or say an energy company, through to administrative work).

Strong performance in technical skills does not necessarily indicate a natural aptitude for exercising judgment.

Traditionally, the profession has relied on members self-selecting (or being selected by their employer) towards roles and career ambitions aligned to

their natural strengths. A natural balance has more or less prevailed as many actuaries aspire to technical roles (both in employment and with consulting firms), whilst some (such as consultants) are actively engaged in dealing with clients, often over wide ranging technical and commercial issues.

One year of work experience is minimal and would most likely be in one possibly narrow aspect of work, not necessarily even actuarial.

Clearly new Fellows are vulnerable to unfamiliar situations and commercial pressures. Various safeguards such as the requirements of the Code of Conduct and the fit and proper test for statutory roles are in place. Nevertheless, there is a need for young actuaries to be able to better identify and manage conflicts between requirements of the Code (for professional advice) and the needs of the commercial work (which does not always seek professional advice). An answer may be to try to develop commercial awareness and skills earlier in the education process. Students and / or new Fellows aspiring to commercial careers could be offered specific training in commercial practice during the Part III program or as post-Fellowship courses.

This may in fact align with and complement other degree courses being undertaken, or having been completed, by commercially aspiring students.

Our training system for new actuaries should not rely solely on new Fellows to exercise astute observation of their surroundings and work circumstances, or to use either caution or street wisdom.

- 5.3.3 Many actuarial students already undertake double degrees. Students who aspire to wider management careers should be encouraged to take additional further degrees, aligned to their career aspirations and undertake individual leadership development.

MBA programs offer more advanced insights into business management. The CFA qualification is a semi requisite for those wishing to make a career in investments. The chartered accountant or CPA qualification is an unwritten requirement of boards when selecting CFOs. A legal degree is also worthwhile to consider, as so many aspects of business require a good grasp of the legalities.

Students need to be well aware of these industry "prerequisites" at an early stage so as to position themselves for their future career plans.

These aspects should be openly discussed with actuarial students at the outset and as they face further education options and career choices. The Institute has an important role to play in briefing careers advisers and prospective students on ideal attributes and prerequisites, as well as meeting with students during their time at university to discuss the employment market and likely opportunities.

An extended range of investment and applied finance courses, as well as recognition of advanced courses in related disciplines such as statistics and

financial economics, would progressively extend the positioning of the profession beyond its limiting traditional boundaries and attract and retain a broader membership with wider career options.

5.4 Professionalism

- 5.4.1 A professional is an individual who is held in special regard because of their unique skills and competence in their field and the impartiality of their advice. A professional puts the integrity of their advice and the public interest ahead of personal interest.

The notion of professionalism has been sorely tested over the years as some "professions" have been perceived to compromise to various degrees the principles of professionalism. Unacceptable behaviour by one or more individuals in a profession can have dire consequences for the reputation and standing of the profession, especially if the profession is viewed as not having properly dealt with offenders. Regular public surveys in Australia consistently reveal that some professions in Australia are no longer regarded by the public as "professionals".

The actuarial profession in Australia enjoys an enviable reputation for its professionalism and the Institute takes its responsibility very seriously to protect that reputation. Indeed the continuation of the various statutory roles and other key roles that actuaries fill rest in part on the continued good standing of the profession as does our self governance.

5.5 The Public interest

The profession, both here and in the UK, has addressed the difficult question of public interest from time to time.

The Institute Code of Conduct requires members to "serve the public interest". The Code provides, *inter alia*, that "provided that a Member meets the requirements of the law, the Constitution, this Code and the Professional Standards, then he or she will have met the expectations of the profession with respect to the public interest".

It is worth exploring the question of what is the "public interest" as perceived by the public and whether our requirements would meet this test. Is the notion of the public interest real or altruistic theory? Is it absolute or subjective? Can the profession meet this test? Can anyone really meet this test?

5.5.1 What is the public interest?

In manufacturing, it could be debated as to whether a lesser specified product, which uses less natural resources and sells at a commensurately lower cost is in the public interest or not. Quality has been compromised but there are savings in natural resources and a cheaper cost to the public.

In pharmaceuticals, how much testing is required before a new drug is approved. Further testing reduces the risk of side effects but lives may be lost in the meantime. Which approach most meets the public interest?

Companies provide services that are offered to prospective customers, who are free to opt to purchase the services, or otherwise. The fact that the company hopes to make a return does not of itself mean that providing the service is not in the public interest.

It seems to me that the notion of the public interest is a rather nebulous concept: there is no absolute measure to determine whether the public interest is being served. Rather there can be a strong, though possibly ill informed, public view from time to time that a company's activities are not in the public interest.

- 5.5.2 Public debate concerning public interest generally arises when there are major commercial or political considerations, most often in circumstances of failure of financial institutions.

The investigation typically reviews whether the practices were financially sound and fair and equitable to all parties and if so, why did the institution fail?

These tests often fail to recognise that businesses cannot be regulated so as to totally eliminate risk. The nature of business is risky and inevitably some businesses will fail. Regulation is one way in which the community acts to reduce risk to more acceptable levels by imposing requirements on business to reduce risk. Nevertheless, it is to be expected that sometimes companies will fail, as risk outcomes are not wholly manageable or predictable.

Can anyone really meet a public interest test? The practical answer is that the regulators, on behalf of the government and the community, act to serve the public interest by providing a regulatory framework which specifies the limits and requirements to meet the public interest. In reality this defines the bare minimum standards required on behalf of the public.

The regulatory framework provides the community with reassurance that companies in the regulated finance sector meet minimum standards of financial strength, business practice and disclosure to enable customers and their advisers to make rational choices about products and services. This includes minimum capital standards, financial condition reporting requirements and that disclosure needs to be understandable and deceptive behaviour and practices prevented.

- 5.5.3 As the world globalises and financial services become increasingly sophisticated, so the role of the regulators becomes increasingly difficult. Regulators around the world are in close liaison and are gravitating to common principles based regulation. This makes sense for administrative control and to minimise arbitrage between jurisdictions.

Nevertheless, as financial crises have unfolded around the world in recent years, the question as to what are the accountabilities of regulators needs to be raised.

I believe that their role as stated above is to protect the public interest but accountability is sometimes blurred by lack of definition, legal impediments

and / or political considerations. Of course, in most circumstances, directors of financial institutions have the primary responsibility for ensuring solvency of individual institutions. When financial crises become systemic the role of regulators, central banks and governments become paramount.

Responsibility for setting regulatory policy and boundaries lies with government, parliament and regulators. Regulators can only regulate within the policy boundaries set by government. Nevertheless, regulators are well placed to understand and advise government on any concerns surrounding the boundaries and their impact. For example, the absence of regulation of some non-financial institutions leads to stark contrasts in consumer protection as compared to banking and insurance companies (which are regulated).

Events of the recent past have left consumers concerned and financially distressed and cynical. The adequacy of financial regulation is again the subject of debate and contention around the world. Regulation seems to be of little value if there is no redress or compensation attaching to failure of financial institutions where such failure is judged reasonably to have been avoidable by early intervention. Although it is now very clear that taxpayers in many countries have a vested interest in strong regulation of the banking system and other parts of the financial sector that can cause systemic failure because they have been called upon to finance the various efforts underway to recapitalise the banking system and provide other forms of financial support.

This has also led to the question as to whether there should be more or less regulation. Amazingly, in the US despite the sub-prime crisis, there have been some calls from the media for less regulation. My bias is towards less rather than more regulation. However as a fundamental proposition regulation exists to protect the community at large and customers in particular. We are all impacted by market failures, not just customers but customers are generally worst impacted. This leads to the conclusion that regulation must be maintained at a sufficient level to adequately protect customers and the community. Large scale failures indicate a lack of adequate regulation or inadequate exercise of regulatory powers. Regulation is often accused of rendering business uncompetitive; under-regulation or ineffective regulation may make business more competitive but can come at a high hidden cost when failure arises. We have a strong regulatory framework in Australia that has enabled our institutions to be generally relatively better placed than their overseas counterparts in the current global financial crisis.

Finally, I believe the most important challenge going forward is to understand and manage the *systemic risks* inherent in the global financial system. The current crisis has exposed clearly that piecemeal regulation of components of the financial system is grossly inadequate in controlling systemic risks. This is a major challenge for the global regulatory bodies but is clearly the next frontier to cross.

5.6 Impartiality and conflicts of interest

- 5.6.1 The Code of Conduct requires "Actuarial Advice" to be impartial. Whilst this seems straightforward it is not so clear cut.

There is one view that employees cannot provide objective advice, based on the obligation to meet the interests of their employer. This might be reinforced by remuneration incentives which can be structured to motivate particular outcomes.

On the other hand, consultants need to keep a weather eye to relationships and future business prospects with each client.

- 5.6.2 The question therefore arises as to when objectivity becomes compromised. This is a personal question for each actuary. Generally there is a range of advice which the actuary might be comfortable giving but beyond which the actuary would not be prepared to go.

Clearly however, this is subjective and can give rise differences of opinion between actuaries. In many instances this is non contentious. The profession does not have a history of disputes over instances of professional advice, although these have become more common in recent years.

The introduction of External Peer Review was intended to improve public confidence in the competence and integrity of actuarial advice. The review is intended to be constructive and any differences resolved before the advice is formally issued. This is not intended to require compromise on the part of either actuary but a process to identify and resolve differences where possible.

The peer reviewer is required to comment on the reasonableness of the advice, not that he or she would have given the same advice or outcome.

- 5.6.3 The question remains that differences of opinion can arise for example in situations such as External Peer Review and commercial transactions such as merger and acquisitions where both parties would generally obtain an Expert's Report.

The key to dealing with these situations is to recognise that often there is no one single outcome but a range of legitimate outcomes which depend on the assumptions made concerning the future.

A key requirement of actuaries in the Code of Conduct in providing actuarial advice and in peer review is to address any material uncertainty implicit in the advice. This is nevertheless tricky, since this would normally be addressed by providing a distribution of outcomes, rather than a single result. Clients require a specific figure for valuation returns and financial accounts.

- 5.6.4 The Code of Conduct also requires that an actuary should not accept an engagement which would give rise to advice that is compromised as a result of a conflict of interest.

In the superannuation field, actuaries have traditionally been appointed by the sponsor company of a defined benefit superannuation fund. Where a material conflict of interest arises or is perceived to arise, it is appropriate for the various stakeholder parties to receive independent advice. Under this approach, the defined benefit superannuation industry has had a long and relatively trouble free history in this country. More recent thinking (and practise) is that the actuary should be appointed by the fund trustees with all parties accepting that advice but with fallback to separate advisers should a conflict arise. The regulator is moving to reinforce this approach by increasing the responsibility on trustees to recognise and manage any conflicts, perceived or otherwise. The regulator has also reminded professional advisers of their responsibilities in relation to conflicts under their respective codes.

- 5.6.5 The current Code distinguishes "Actuarial Advice" as a subset of "Professional Services". Actuarial Advice can only be provided by an Actuary (Fellow or Accredited member) and is limited to Statutory roles, work required to comply with Professional Standards and other work where the Principal might reasonably believe that the actuary's advice is impartial (and meets other professional requirements). Professional Services (outside Actuarial Advice) are services provided by any member in a professional capacity and are not so constrained.

The distinction made implies that Professional Services other than Actuarial Advice need not be impartial. Clearly this approach requires clarity beyond contention in each instance as to whether the advice is Actuarial Advice. It also means that Members (including Fellows) are free to provide partial advice in some circumstances. It follows that in some instances the distinction between Actuarial Advice and Professional Services and therefore impartiality is determined on what the Principal might reasonably believe as to the impartiality of the advice. The Code requires that "where there is reasonable doubt as to whether a Professional Service provided by an Actuary is Actuarial Advice, the Actuary must proceed as if the Professional Service were Actuarial Advice". As a result, in practice most advice provided by actuaries is "Actuarial Advice".

The previous Code of Conduct dealt with this issue by requiring all actuaries providing advice to disclose their situation so that the client was in a position to consider and if necessary explore any possible conflicts of interest or impartiality before deciding to appoint the actuary.

The Professionalism Review Taskforce is currently addressing this question in more detail.

5.7 Ethics and morality

- 5.7.1 Ethics is about choosing the "right" solution in a commercial situation, when confronted with a range of professionally acceptable solutions and behaviours, where the difference between them is significant.

Morality is similar to ethics but is generally related to personal rather than commercial and broader issues.

Legality is concerned with complying with the law. The law may or may not of itself be regarded by an individual or the profession as ethical or moral but that raises wider issues.

Ethics and morality are both challenges which can confront practising actuaries in commercial situations.

5.7.2 Is it realistic to aspire to either of these values in a compromised world?

There is a strong public perception that ethics and morality are values long since lost in governments and political life. Politicians argue that actions are taken as necessary for the greater good. One might reasonably question whose greater good and whether the end justifies the means.

Similarly, the public perception of business is equally cynical. Companies exist for profit and get away with what they can; governments and regulators struggle to keep them honest on our behalf.

Sadly, there is also cynicism surrounding many religious bodies, largely due to their insular and competitive behaviour in rejecting others' beliefs.

And finally, there is the experience of nations acting competitively when a better outcome might be achieved by working co-operatively. This is best illustrated by considering restrictive trade agreements, often ineffective response to health crises and natural disasters, the decline of scarce natural resources and of course most significantly global warming.

Every individual has a responsibility to take a position on these issues, irrespective of nationality, religion and circumstance. There is a greater responsibility on countries and individuals who are relatively better off, as dire circumstances may remove the luxury of choice for others. Survival is a powerful instinct.

5.7.3 Our profession has a proud heritage stemming from helping people cope with life's adversities.

It would seem a paradox if attempts to improve the efficiency of delivery of such help, or to pursue commercial rewards, were to undermine the very essence of the endeavour.

Much of the respect we enjoy as a profession is based as much on our integrity and impartiality, as our technical expertise. This grew from our profession's management of participating life insurance business, under which customers relied completely on the integrity of the profession and the companies they advised. Our competence may be questioned from time to time but so far our integrity remains largely intact.

As a profession, we should strive to uphold ethics and morality in all that we do. This is our tradition, our brand and our future. To do anything less will ultimately erode and destroy the very essence of our mandate. The so called "financial wizardry" which lay behind the "subprime" crisis is a pressing example of the consequences in terms of financial and reputational

impact; the mathematics behind the product may be brilliant but the product, its advisers and sponsors have lost all respect.

Ethics is an individual and collective responsibility for all actuaries.

The difficulties faced by the Equitable in the UK have led to challenges from government as to the objectivity of actuarial advice, conflicts of interest, quality and competence of advice, the quality and enforcement of professional standards, the adequacy and effectiveness of the disciplinary scheme. The UK actuarial profession has lost its exclusive power of self-regulation and is now subject to an external Actuarial Standards Board. Fortunately the circumstances in Australia are different with a strong government regulatory framework which works closely with strong self-regulation by the profession. Considerable effort has been invested by the profession in Australia to see that our governance and internal regulation meet high self-imposed standards and satisfy the regulator.

5.8 The importance of research to business

5.8.1 The commercial actuary relies on the propositions founded on actuarial paradigms. Traditional actuarial paradigms are frozen in time and importance. They created our reputation and standing in a world largely past but now box in our value proposition. New paradigms in traditional fields and new fields are rare and in today's world often withheld whilst commercial reward is extracted.

5.8.2 Tackling new markets and practice areas involves creating new paradigms. Who will create these? Are we putting in enough effort?

Research is the lifeblood of a knowledge society and of a profession.

I suspect that a good deal of applied actuarial research is currently taking place, especially in the new fields such as investments and banking but unlike the past, much of it is viewed by companies engaging in such research as commercially valuable and retained in house to obtain competitive advantage. If this is true, it of course provides competitive advantage to the company but adds little value to building new frontiers for the profession.

It is somewhat ironic for example that underwriting capital guarantees was usurped by the investments banks, filling a void left by the actuarial profession which concluded that they could not be provided on commercially attractive terms. Perhaps this is a reflection that the profession is too focused on conventional approaches or that actuarial research is about refinement not alternatives; or is it that investment banks underestimated the real cost?

Nevertheless, new generation guarantees are currently being provided under variable annuity products overseas in some instances without actuarial advice or being subject to regulatory control. Are these the next crisis of the future?

New frontiers of research such as climate change, environment and resource management offer staggering commercial potential for Australia. These are areas in which our profession can make a distinct contribution (either individually or as members of multi disciplinary groups). Again there is a clear distinction between pure and applied research. Our members are more likely to be engaged in multi-disciplinary research which will add to the bank of knowledge and understanding of the challenges. Applied research will develop the "clean" technologies of the future. The financial markets around emissions trading will be immense and we should be well placed to contribute to the collective wisdom in managing these markets. In our traditional field of general insurance we should be searching for new lateral approaches for the future rather than just refining the conventional approaches. Even if no new approach emerges, the effort will widen understanding of the issues and alternatives.

Participating in research in exciting new fields must surely be a great opportunity for all members but particularly younger members who can see the opportunity of moving outside traditional areas. Such opportunities often flow to individuals who show genuine interest in, and become involved and active in the emerging field.

5.8.3 The Research Taskforce outputs include practical initiatives to encourage greater liaison and leverage between pure and applied research.

The initiatives include:

- Creation of a reference source for all relevant Australian and overseas actuarial research;
- A process for Practice Committees to identify and facilitate relevant required research;
- Seeking opportunities to participate in/initiate cross border research with other countries;
- Greater leverage of commercial application of university research;
- Greater publicity for quality research;
- Inclusion of relevant research in examination readings;
- Establishment of an annual award for the best joint academic/practitioner research paper.

These initiatives are intended to assist all actuaries to obtain leverage from research.

Commercial success is based on sound business judgment but is founded on leveraging a value proposition. Commercial actuarial endeavour is truly rewarding if based on paradigms which are recognised as being uniquely actuarial.

5.8.4 Australia's Nobel Laureates have in common a lifelong passion and desire to fathom the unknown in their field of interest. Each has left a permanent legacy for their profession.

We need to foster and instil a lifetime learning culture in the actuarial profession and a real desire to understand the unknown. Success is not assured but only through this endeavour will the new paradigms emerge.

5.9 Decision making and risk taking

The life of a chief executive in the top job in today's world is surprisingly short - around 5 years on average. Difficult times expose risks not understood, company failures abound and chief executives disappear.

Decision making requires taking risks and risks by definition involve uncertainty. Risk can be priced but often risks involve discrete outcomes - either positive or negative. Risks can be managed but not eliminated. Eliminating risk means doing nothing, which in itself, in business often involves greater risk.

Actuaries should be well placed to evaluate and manage risk, especially in finance sector companies. The ERM course addresses exactly this.

Actuaries contemplating a commercial career should recognise the reality of being a manager. Decision making is fundamentally different to providing advice to decision makers. Decision making is not for everyone and the first decision is whether it is for you. Trying is often the best and only way to find out.

However, rest assured that a commercial career is always interesting, presents many challenges as outlined above and is very satisfying.

6. The changing profession?

6.1 As a profession, we are conservative, cautious and risk averse. Ironically our advice to clients often encourages them to accept more risk than we choose for ourselves. We typically stay with an established model, even when known to be flawed, until a new model is rigorously tested. We stay with traditional education content even after it has passed its use by date. We insist on students taking traditional subjects even when students can see their relevance has passed. We continue to refine products even after the world has passed them by. We over-engineer solutions knowing that change is imminent. We talk about entering new fields but spend almost our entire effort on existing fields.

6.2 As a profession we have been insular. This has left us as a profession parked in a narrow space in the financial services sector. Individual members have broken out and invariably impressed but this is not the same as creating new fields for the profession.

Full credit goes to those who have successfully opened up the general insurance and health practice areas. However, our expansion into the wider fields to date has not achieved recognition beyond the insurance sector. I subscribe to the Fitzherbert view that success in the wider fields will only be truly possible with new paradigms introduced by actuaries into those fields.

6.3 At the end of the day any profession begins with a collection of individuals with a shared qualification. It is within our own grasp to widen the qualification and introduce actuaries with broader and different skills if this is what the profession wants or concludes needs to happen. This should not be frightening as we already do this to some degree. We are not alone amongst the professions facing the challenge of re-defining our role for the future. Engineers for example have successfully migrated from a mechanical to an electronic world. Failure to respond to a change would have spelled the demise of that profession. We as individuals must challenge ourselves to grasp these issues so that we can participate in, or at least support the changes required.

7. Colliding with the future?

- 7.1 The world is experiencing fundamental sea change on many fronts at an unprecedented rate. This is not necessarily obvious to everyone but will change our world forever.

The structural changes are so fundamental as to destabilize and potentially fracture many aspects of our business and private lives.

- 7.2 It is crucial that we as a profession recognise the nature of the changes that are occurring and continually update our plans to respond to the threats and opportunities.

This requires a proactive mindset and developing specific initiatives and responses. It is a time for insight and wisdom, not panic.

We need to engage with our younger members and obtain their input (as they will be most affected) so as to see the big picture and be better prepared.

This includes commercial not just technical preparation.

- 7.3 Today 25% of our members live and work overseas. This is clear evidence that our members are willing and able to respond to the opportunities in our region and beyond. Australian actuaries are highly respected and valued overseas and reinforce our standing globally.

Australia's acceptance into the East Asian Actuarial Congress (EAAC) is evidence of important progress in building relationships within our region. This will create opportunities to share experiences and assist with education and regulatory development in the region. Again sustained effort by a few dedicated people has achieved this result which opens the opportunity for individual actuaries to work in the region and for the Institute to grow its supportive participation in the region.

I would ask all members already working in Asia and those who see opportunities to become involved in Asia to attend the next EAAC in October in Seoul, South Korea. It would be impressive if Australian actuaries made a contribution not only by attending but by presenting papers of value to the region.

- 7.4 As a profession and individuals we need to:

- Firmly grasp ethics and integrity;
- Broaden the education base and engage other professions;
- Adopt a culture of lifetime learning and contribution to research;
- Broaden our view of the world and the changes taking place and think beyond our immediate context and contribute to shaping the new world;
- Actively participate in the profession and the changes required (both in visioning and implementing);
- See an expanded and vital role for actuarial expertise in the wider world;
- Develop commercial wisdom to avoid being marginalised or exploited.

- 7.5** This is the challenge we and future actuaries face. Rapid change is essential and requires pro-activity, not cautious reaction. Cautious reaction will be too late. We need to focus on the future and new challenges, not concentrate on finessing the past.

The wisdom of our responses will determine our professional future.

8. Acknowledgements

Many of the ideas in this address have evolved over time and been shaped by discussion within Council over recent years and with colleagues within the profession. Writing the address was not difficult but bringing it to an acceptable state was challenging. I would like to acknowledge Greg Martin, Bozenna Hinton, Fred Rowley and John Maroney for their thoughtful suggestions and corrections and Julia Purves for managing the logistics of publishing the address. I would also like to acknowledge and thank my wife Margaret and family for their patience and support as I spent countless hours in thought and writing. The thoughts and ideas contained in this address are nevertheless my responsibility.

Bibliography

A Random Walk Down Wall Street Burton G Malkiel

A Short History of Nearly Everything Bill Bryson

Australia's Nobel Laureates Keeney Russell Editions

Bubble Man - Alan Greenspan & the Missing 7 Trillion Dollars Peter Hartcher

Pandemic - What every Actuary Advising an Australian financial services organization should know Alexander Stitt

Paradigms, Research and Recognition of the Actuarial Profession Richard Fitzherbert

Rescuing Our Jobs and Savings: What the G7/8 Leaders Can Do To Solve the Global Credit Crisis Edited by Barry Eichengreen and Richard Baldwin

The weather makers Professor Tim Flannery

The Impact of climate change on Australia Professor John Garnaut

19 November 2008

Appendix A

Possible IAAust Fellowship education model

(This draft model was noted by Council in August 2008 as an interim document subject to further development by Education Council Committee and Executive Council Committee. Prior to this, the document had been discussed with accredited universities on 5 May 2008 and then amended to reflect the implications of the expected result of negotiations with Access Macquarie on Part III Investments delivery sub-contracting.)

Background

Global development in actuarial education driven by the IAA will impact the Institute in Australia and the accredited universities.

The longer term outcome provides significant opportunities but also threats. The opportunities include delivering our established education capability (either as 'product' or 'advice') into the wider Asian region and beyond, including joint venturing with overseas universities. The principal threat is loss of overseas actuarial students to Australian accredited universities with a consequent impact on our education viability.

The global model for education and designation is essentially:

- Designation of 'actuary' based on a global IAA syllabus (broadly on successful completion of our Part I and II, plus Part III Investments, plus a Professionalism Course);
- Fellowship designation determined by individual IAA Member Associations, according to additional education requirements determined by the local association.

For the purposes of this note references to Parts I, II and III refer to IAAust current course designations. The global model envisages an abbreviated 'professionalism' course at the IAA "Fully Qualified Actuary" level designation.

Local impact and planned transition

In terms of transition, for IAAust:

- Part I would remain basically as is, subject to current planned review (IAA alignment, ERM and review for IAA learning objectives - communication, project management, ethics etc);
- Part II would comprise the current course; modified as already planned to include some ERM, and adjusted to meet balance of IAA syllabus (this would include transferring the Part III Investments Course to Part II after the completion of the exclusive sub-contracting of Part III Investments to Macquarie in 2012);
- A 'Professionalism Course' would be required; and
- A suite of Part III Specialist, Fellowship courses would be retained. This might potentially be extended to include a specialist ERM Course, health course and so on.

In terms of delivery, IAAust envisages that:

- 1. and 2. would continue to be delivered by the accredited universities;
- 3. would remain with IAAust;
- 4. A mixed approach (e.g. finance with universities, perhaps GI not) would apply, based on capability, student numbers, and market demands. Universities would need to substantiate ability (via an accreditation process) to deliver Part III courses offered for university delivery.

In terms of qualifications:

- AIAA = Actuary = 1 + 2 + 3 (which matches the IAA "Fully Qualified Actuary", once the designation issue is settled); and
- FIAA = AIAA + 4 (Fellow of the Institute of Actuaries of Australia).

In respect of exams / exemptions:

- Part I: Accreditation would remain basically as is, but potentially less emphasis on some exams to support better learning objectives (i.e. require high quality and substantial exams on some key courses, but not on 100% of exemption courses).
- Part II & Part III: Individual accredited universities (or IAAust where providing the course - possibly through employed actuaries) manage the exam process, but IAAust Board of Examiners (BOE) approving exam standard / content and pass mark required for recognition towards AIAA and FIAA designations.

Under this approach:

- i. Accredited universities would work together to adopt common exams to the extent practical, and especially in Part III.
- ii. All universities would need to support students being able to "re-sit" exams in all Parts (I, II, III).
- iii. The BOE should also have increased visibility into some key Part I exams (possibly via the accreditation process).

Possible Implications

1. An increased number of accredited universities
 - a. Possibly including universities in the Asia region, accredited by the IAAust and/or the IAA as part of the International Actuarial Education Program (IAEP).
 - b. Possibly differing levels of accreditation per university according to capability, and meeting accreditation criteria for each subject.
2. Scope for differences in syllabi and teaching styles between universities.
3. Actuarial education benefiting from co-operation between accredited universities and IAAust, as well as healthy competition between universities.
4. Australian actuarial education highly regarded at home and overseas, and sought after for actuarial education abroad with Australian accredited universities being major providers under the IAEP across the Asia region via a mixture of delivery

channels: Australian campuses, overseas campuses (possibly on a joint venture basis), distance education.

5. Distance learning will be more important to retaining remote (including overseas) delivery; but not a prerequisite for accreditation.
6. Partial accreditation would be available for those universities which need time to provide the full IAA syllabus.
7. Part III subject syllabi determined by IAAust, with input from universities accredited for each respective subject.
8. Part III accreditation would be available to all accredited universities for designated subjects stipulated by IAAust, subject to satisfying accreditation criteria. Accreditation will lapse where requirements fail to be maintained.
9. Accreditation would be available for Part III Investments and Finance courses once the exclusive arrangements with Macquarie end in 2012, with the new Part III courses such as ERM to be added in 2011, and possibly other Part III courses to be added thereafter.
10. Universities seeking accreditation for any of these courses need to:
 - Meet syllabus requirements (content and standard) with a matched subject,
 - Package and market the courses as corresponding to IAAust Part III courses,
 - Achieve viable minimum student numbers, and agree to common external IAAust examinations for subject assessment by IAAust.
11. During 2009-11, we expect education for Part III Investments would be provided by a single university, in accordance with the sub-contracting arrangements. Details will be communicated by November 2008 to provide clarity for prospective Part III students.
12. Given the significant implications of this plan, the IAAust is unlikely to be able to maintain or grow the current grant arrangements to accredited universities. However the Council-approved Research Taskforce report introduces a change to the University funding regime, moving towards dedicated research funding as the existing arrangements are phased out. This will however potentially be offset by the commercial opportunities available to accredited universities which pursue global education delivery. Depending on recommendations from the Member Services and Educator Taskforce (which is exploring potential barriers to student membership), exemption fees may be reduced or removed in the longer term.