



Institute of Actuaries of Australia

Institute of Actuaries of Australia

Part III Implementation TaskForce

Initial Report to Council

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Part III Implementation Taskforce

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EXECUTIVE SUMMARY

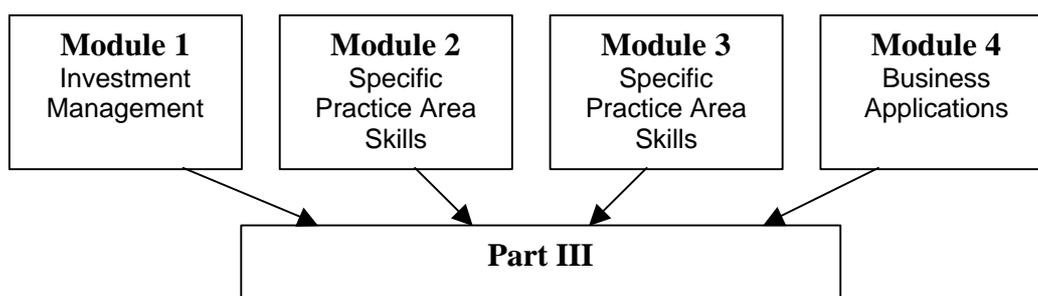
Background

This report presents the first report of the Taskforce formed in November 2002 by the Council of the Institute of Actuaries of Australia (via its Council Education Committee) to manage the development and implementation process of the revised Part III structure.

The Taskforce is made up of a number of sub-committees, each responsible for further developing one area of the proposed changes.

Proposed Structure

The Part III structure proposed by the Review Team and endorsed by Council encapsulates a modular approach with four modules as follows:



Each module represents a half-year subject and all 4 modules must be completed in order to qualify as an FIAA.

- Module 1 – compulsory for all students. Focuses on providing students with an adequate level of investment knowledge.
- Modules 2 and 3 – practice area based and at selection of student. These develop technical and judgemental skills required to practice in specific areas.
- Module 4 – compulsory for all students. A non-practice specific module that allows students to use judgement in applying the knowledge and skills they have gained in the first three modules to simulated commercial problems.

Module 1 – Investment Management

The revision of the Part III education process in respect of Investment Management has been discussed in detail by both the Investments Practice Committee and the Finance Practice Committee.

The existing Investments course will be converted to the half year compulsory Module 1. The new course will cover the main elements of the existing Investments course, but with significant reductions in the number of readings pertaining to each of these elements. The essential elements of the Module 1 syllabus will be:

- Investment objectives
 - ⇒ setting benchmark asset allocations
 - ⇒ setting investment assumptions
 - ⇒ systemic risk factors in investment markets

- Understanding the asset classes
 - ⇒ equities
 - ⇒ property
 - ⇒ bonds and cash
 - ⇒ derivatives
 - ⇒ special issues, e.g. investing internationally, hybrid securities, alternative investments
 - ⇒ investment current issues and likely developments.

- Implementing an investment strategy
 - ⇒ selecting an investment manager (including style analysis)
 - ⇒ fundamental investment methods (value and growth)
 - ⇒ quantitative investment methods (index and active)
 - ⇒ monitoring experience
 - ⇒ asset liability management

Some of the more advanced topics of the existing Investment course and the two concepts of the existing Finance course - the practice of funding companies, and of managing risk using financial instruments (e.g. derivatives) will be incorporated into a new Investment and Finance subject via Modules 2 and 3.

Modules 2 and 3 – Specialist Practice Areas

Students will need to choose an option for Modules 2 and 3 from:

- Life Insurance
- Superannuation and Planned Savings
- General Insurance, or
- A revised and combined Investment and Finance subject

The first three subjects above will be structured such that Module 2 is focused on the “building blocks” and Module 3 the “application”. The syllabus is proposed to be in line with the existing syllabus and will not require significant revision. Details of the proposed syllabus for each of these subjects are set out in Section 4.

A syllabus for the new Investment and Finance Modules 2 and 3 is still in draft stage and will require significant work to establish and develop prior to the new course being offered.

The syllabus still needs some working through but the proposal is for Module 2 to be based on an understanding of the asset side of the balance sheet and Module 3 to pick up issues more related to the current Finance course. A draft syllabus based on thinking to date is set out in Section 4.

Module 4 – Business Applications

This was an area where members felt a lot more detail was required. The key recommendations are set out below.

What should the Course Cover?

Key learning objectives:

- Apply actuarial skills across a range of traditional practice areas by contextualising actuarial solutions in the wider commercial environment of the business as a whole
 - ⇒ Understand the overall aspects of the business which impact on the formulation of the actuarial recommendations, and which would be affected by those recommendations, and be able to incorporate those aspects into the solution.
 - ⇒ Measure and communicate the risks associated with alternative solutions
 - ⇒ Recognise the cost of additional levels of detail in the actuarial solution and their relative value.
- Apply actuarial skills in unfamiliar ie. non-traditional, areas by contextualising actuarial solutions in the wider commercial environment of the business as a whole, and applying the actuarial control cycle.
- Communicate the actuarial solutions to a range of audiences
- Apply general ethical concepts and actuarial professional standards when contextualising actuarial solutions.

How should the Course be Taught?

The proposed teaching approach comprises the following three components:

- A five day “case study” intensive covering traditional and non-traditional areas. This would be a residential course to ensure intensive training and best use of the instructor.
- Written material delivered by the existing Part III approach in respect to
 - ⇒ Non-traditional area background information
 - ⇒ General ethical and corporate governance concepts
 - ⇒ Actuarial professional standards

- Attendance at an “accredited” communications course.

How should the Module be Assessed?

The proposed assessment approach comprises two components:

- Half of the assessment from an examination (two to three hours) at the end of the half year. At least half the questions to be from non-traditional areas. Each student must attempt traditional area questions from more than one practice area.
- Half of the assessment from a single question delivered in “case study” format ie. very significant background material including financials, data, etc as appropriate. The answer is to be a substantial piece of written communication which will be assessed not only on its content but also on the quality of its written communication.

This assessment piece will follow immediately after the five day “case study” intensive ie. the sixth day. The student will have one whole day in which to absorb the question material, perform all the necessary analyses and prepare the written communication of the answer. The written presentation will be presented as a completed work rather than a ‘draft report’ which may be acceptable in other modules.

Assessment Methods

The assessment method will vary by module but the overarching assessment framework recommended is as follows:

1. Adjusted exams to be used for the main assessment (see Section 6 for more detail).
2. 10% to 20% of the final mark to be derived from internal assessment (non-examination work) for Modules 1 – 3.
3. 50% of the final mark to be derived from case study assessment for Module 4.
4. The internal assessment to be primarily in the form of assignments, at least initially for Modules 1-3.
5. New assignments to be provided for each and every course (Modules 1-3) every sitting.
6. Viva Voce (interview by a panel of experts) to be considered as an alternative to re-sitting again in the next examination period, once the logistics (timing, resourcing, costs/fees, format, eligibility criteria) have been investigated and approved. It is envisaged that this option would only be offered to a small number of students.
7. The following other options to be further investigated with a view to the logistics/suitability issues being resolved:
 - thesis

- case studies (other than Module 4)
- presentations.

Transitional Rules

The following transitional structure is recommended:

1. A pass in a Specialist subject in 2004 or earlier will provide students with an equivalent pass for 2 modules under the new structure from 2005. For Specialist subjects other than Investment, this will apply to Modules 2 and 3. A pass in the Investment Specialist subject will provide an equivalent pass for Module 1 and one other Module from 2005.
2. In 2004, it will be possible to pass half a Specialist subject and, in most circumstances, then earn an equivalent pass for one Module under the new structure from 2005.
3. Throughout the transition period all students will be required to pass the equivalent of 4 modules in order to complete Part III.
4. In 2004 all specialist subjects (except Finance) will exist as one-year subjects and have an examination consisting of 2 papers, with both papers held at the end of the year. A pass in either of these papers will lead to a pass in the equivalent module in the new structure.
5. In 2004 Finance specialist will have the same structure as for 2003 with an SIA component as well as an examination at the end of the year consisting of 2 papers.
6. From 2005, the new structure will be adopted, with Modules 2 and 3 including a combined Investments and Finance course that will replace the existing Finance and Investment specialist courses.
7. All other proposed changes will be implemented from 2005, including the offering of all modules twice a year.

Proposed Transition Arrangements

- From 2005 all new students to Part III course will be required to pass Modules 1 to 4 in order to complete Part III under the new arrangements.
- Existing students who have failed all the subjects they have attempted will have the option to try to pass two specialist subjects under the current system by the end of the transition period (2006), but should be strongly recommended to sit Modules 1 to 4 from 2005.
- From 2007 onwards all students will be required to pass Modules 1 to 4, or their equivalent, in order to complete Part III.

Resourcing and Delivery

Resourcing is seen as a critical issue. Key areas identified as having an impact on resources are:

- moving to a twice yearly offering of subjects increases the workload for examination writing and marking, as well as course reviews
- timeframes will be much tighter with two study periods annually
- writing new assignments each study period will require additional resources (depending on the number of assignments relative to the current Part III structure)
- adopting internal assessment via assignments and case studies increases the demands on tutors, assessors and assignment writers
- developing and conducting a five day intensive for Module 4 will require expert assistance in preparing and conducting the course to an appropriate professional education standard.

The responsibility for the various steps within the current Part III education process, all of which are undertaken by volunteer member resources, have been identified and categorised according to:

- those which must rest with the IAAust due to the necessity to maintain standards and control of the education process
- those which require actuarial skills/knowledge but could be undertaken either on a voluntary or paid (or outsourced) basis.
- those that could be undertaken by others with particular financial (but not necessarily actuarial) skills, again on either a voluntary or paid (outsourced) basis.

The time of IAAust education staff and administrative support/resources required to manage the Part III education delivery and volunteer management is in addition to the above.

An assessment was made of the number of hours provided in 2002 (on a voluntary basis) by IAAust members to deliver the Part III education program. An estimate was also made of the number of hours that would be required in 2005 if the current Part III structure was still in place. This was compared to the number of hours expected to be required in 2005 if the proposed Part III structure is introduced.

Currently, approximately 4,200 voluntary hours are given by members to support the education program which is expected to grow by 36% to 5,700 hours in 2005. Under the proposed Part III structure, it is estimated that the required hours would increase by a further 56% to approximately 8,900 hours.

The roles that have been identified by the sub-committee as requiring to be managed or undertaken by IAAust committees total approximately 1,000 hours. This leaves approximately 7,900 hours required to deliver the IAAust Part III education program that could be provided by volunteer resources or could be outsourced.

Options for outsourcing that are yet to be explored include:

- members (unpaid) – either volunteers as at present, or on a compulsory basis for some or all members as part of CPD requirements
- staff actuaries (part-time or full time) – the skills of the staff actuaries need to cover the course practice areas.
- contracted actuaries (part-time)
- education providers – eg. Act Ed or equivalent, actuarial departments within universities
- individual university staff contracted to undertake some of the roles – this could involve both actuarial and non-actuarial staff
- IAAust Education Business: the IAAust developing a business arm to develop and deliver the courses on a commercial basis.

Next Steps

The Taskforce has presented its report to Council in April 2003 and the following recommendations have been agreed in principle:

- That the new structure as proposed by the Part III Review team be approved
 - a compulsory investment management course be established (Module 1)
 - the syllabus of the existing Life Insurance, General Insurance and Superannuation and Planned Savings courses be split into two modules (Modules 2 and 3)
 - a new combined Investment and Finance course be established as two modules (Modules 2 and 3)
 - a new Business Applications module be established (Module 4)
 - the Business Applications module be taught via a combination of self study material and a 5-day intensive residential course
 - the new modules be offered twice yearly from 2005
- That the proposed assessment methodology be adopted
 - the assessment for Modules 1-3 be a combination of assignments and examination (maximum 20% on assignments)
 - the assessment for Module 4 be a combination of a case study (50%) and examination (50%).

- That the proposed transitional arrangements be approved
 - a two year transition period to exist (2005 and 2006) in which to qualify under the old structure
 - Part III subjects passed prior to 2004 to be given credit of two modules in the new structure
 - a pass in one paper in 2004 to be given a credit of one module in the new structure

However Council has adopted these recommendations subject to a suitable business plan being developed. This business plan must demonstrate the feasibility of delivering the recommended structure with an adequate level of resources and within an acceptable level of cost to both the students and the IAAust.

The following principles have been agreed by Council to assist the Taskforce in developing the business plan.

- there are some tasks associated with the education process which must continue to be undertaken by the IAAust and its committees. However there are other tasks which could be potentially “outsourced”, as set out in Section 8 of this report
- the IAAust is no longer able to continue to rely purely on volunteers to deliver the Part III education program and hence other options must be considered, as set out in Section 8 of this report
- the Part III subjects and/or overall education structure should be self-financing (as at present)
- it is desirable for the cost relativity between the IAAust and other actuarial qualifications to be maintained within an acceptable range. The cost relativity with other professional qualifications should also be considered, again within an acceptable range
- It is acceptable to have different resourcing and delivery models for different course modules.

1. INTRODUCTION

Background

At its meeting of 21 August 2002, the Council of the Institute of Actuaries of Australia reviewed the report “Proposed Strategy for Future Part III Education” prepared by the Part III Review Team. This was the culmination of the Review Team’s work which included a draft report prepared in March 2002, exposure of this draft report to members via Horizon Series meetings in June 2002 and the Institute of Actuaries of Australia’s website, and feedback from international actuarial bodies.

Following discussion of the report, Council resolved:

That Council endorses the Part III Review Report presented to Council and the direction of the Part III proposal.

That Council congratulates the Part III Review Taskforce for its work over the last 18 months.

That a Taskforce be formed by CEC to manage the development and implementation process, and that a report be brought to Council by April 2003 with a fully detailed model and funding proposal.

That Council notes there may be future funding requirements for the implementation of the Part III Review (incorporated into the overall Education Plan) of approximately \$30,000 in 2002-2003.

This report presents the first report of the Taskforce formed in November 2002 by Council Education Committee as a result of the Council resolutions.

The Taskforce is made up of a number of sub-committees, each responsible for further developing one area of the proposed changes.

Scope

The brief of the Taskforce was to provide a report to IAAust Council in April, 2003, with final recommendations and costings on the changes to Part III including:

1. Course outlines for Modules 1, 2 and 3, including options for modes of delivery
2. Course outline, and mode of development and delivery, for Module 4
3. Assessment options for all Modules
4. Costings, in both financial and volunteer labour resources, for the development and delivery of all Modules

5. Realistic timeline, including communication to students
6. Business plan for the development and delivery over a 3 year period
7. Transition arrangements
8. Compatibility with international education developments for 2005, particularly changes to UK syllabi
9. Relationship of Part III changes to current Part I and Part II syllabi, and suggestions for what to address in the Part I and II reviews for 2005
10. Other issues that the Taskforce thinks Council should consider

This scope has been revised since the initial brief was provided. In particular, Items 4, 6, 8 and 9 are not addressed. Costings and business plans will be developed by June 2003. Relationships with other parts of the education syllabus will be explored further as the syllabus develops more.

Structure of Report

This report presents recommendations in a number of areas for revising the Part III education structure. These recommendations have been agreed in principle by Council.

Section 2 provides a brief overview of the main recommendations of the Part III Review Team. Sections 3 and 4 discuss the proposed basis for moving to the new structure via Modules 1 - 3 while Section 5 provides greater expansion on the content and delivery of the proposed new Module 4.

Sections 6 and 7 address assessment options and transition rules respectively.

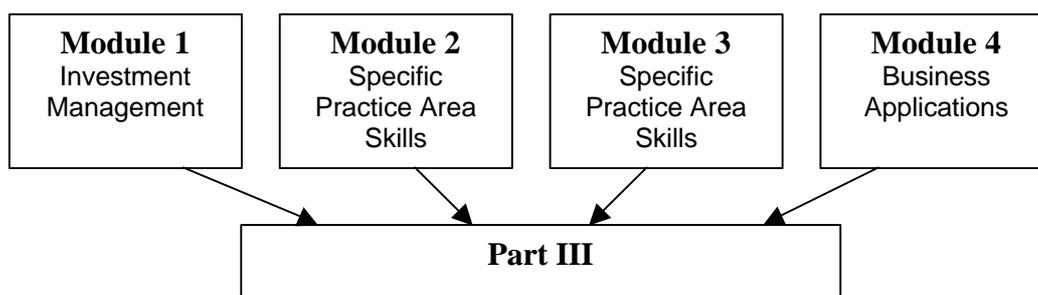
The recommendations in each of Sections 3 – 7 have been framed assuming that there are no constraints to implementation such as resourcing or cost constraints. However the challenges associated with these constraints are significant and these are set out in more detail in Section 8.

Some guiding principles have been sought from Council to determine if some of the recommendations in this report need to be modified as a result of the significant impost on resources / costs. These are set out in Section 9, together with a summary of the recommendations in the report.

2. PROPOSED PART III MODEL - CONTEXT

Structure

The Part III structure proposed by the Review Team and endorsed by Council encapsulates a modular approach with four modules as follows:



Each module represents a half-year subject and all 4 modules must be completed in order to qualify as an FIAA.

- Module 1 – compulsory for all students. Focuses on providing students with an adequate level of investment knowledge. The Review Team believed that in line with the capability statements agreed by Council, actuaries need to be able to provide relevant and objective advice on both assets and liabilities and an understanding of the interaction between the two is critical.
- Modules 2 and 3 – practice area based and at selection of student. These develop technical and judgemental skills required to practice in specific areas. A key change from the current structure is that only one specialist area is required to be studied in detail.
- Module 4 – compulsory for all students. A non-practice specific module that allows students to use judgement in applying the knowledge and skills they have gained in the first three modules to simulated commercial problems.

Although students are able to study the modules in any order, it is recommended that Module 4 be studied after completion of the other three.

Key features of the proposed structure include:

- flexibility and accessibility – reduce the length of the subjects and the “all or nothing” approach of the annual examinations by conducting examinations twice a year
- maintenance of standards – ensure that standards are maintained within the IAAust and that the standing of the FIAA qualification is not diminished in any way.
- technical and judgemental skills - continue to test the development of technical skills required to practise in established areas.

- integration with CPD programs – be able to be integrated with an enhanced CPD program to provide suitable access to cross-skilling for actuaries wanting to practice in several fields and re-skilling for practising actuaries
- international compatibility – ensure that the IAAust’s international standing and mutual recognition agreements are maintained.

Mission Statement for Part III

The following statement was recommended by the Review Team as the mission statement for Part III education:

“In conjunction with the other parts of the IAAust education process, Part III provides the educational underpinning for professional actuarial practice. Students completing Part III should be equipped with the knowledge, skills and judgement, subject to the requirements of the Code of Conduct and of CPD, to practise in at least one specific area, and the ability to apply these competencies to a wide range of fields.”

Assessment

The Review Team did not provide definitive recommendations on assessment. However the following general recommendations were made:

- Modules 1, 2 and 3 should be assessed on a mix of time-constrained examinations and assignments
- students may be allowed to study Module 2 and Module 3 in a new practice area for which formal course material has not been developed by preparing a thesis or completing an accredited external course
- Module 4 should be assessed on a mix of time-constrained examinations and case studies. The findings of the case studies should be presented in both written and oral form with consideration of the use of group projects or activities
- there should be a greater focus on communication skills to align Part III with the capability statements. An explicit component of the course dealing with communication skills is not so much required as is implicit practice of these skills throughout the education process.

Delivery

Similar to the approach to assessment, the Review Team did not provide definitive recommendations on delivery. However, it did set out a number of areas that should be explored further as part of the implementation of changes to Part III:

- the tutorial system is greatly under utilised as a means to enhance students’ communication skills and should be expanded to encompass student presentations on a particular topic or debates and group activities to focus participants’ minds on the key issues and risks

- consideration should be given to tutorial and education support for students outside Melbourne and Sydney
- the possibility of expanding the role of universities for the delivery of Part III should be explored. This role could range from providing professional education advice on course structure and examination papers to full delivery of Part III. However, the determination of the structure and content of Part III and the assessing of students should remain the direct responsibility of IAAust.

Feedback

Substantial feedback was received by the Review Team through Horizon Series meetings and by direct correspondence. Views were diverse, with some very strong opinions held on conflicting positions.

The Review Team summarised the feedback as “the membership broadly supported the direction recommended by the review team”. In particular, it found support was generally present for the following changes:

- moving to a compulsory investment management module
- moving to one specific practice area subject
- moving to split the subjects covering specific practice areas into two modules
- an improvement in teaching, and to a degree, assessing communication skills
- utilising external educators to help resource defined aspects of developing, teaching and assessing the course
- working with the international actuarial bodies to ensure that we utilise their resources and course material in the most effective manner.

Resourcing and implementation were identified as significant issues to be resolved prior to the adoption of the recommendations. Other issues raised were:

- consideration of a staged implementation of the changes
- more detailed investigation of the resourcing required to support the changes was necessary
- more detail was required on the objectives and content of the business applications course in order to better assess the suitability of this module.
- consideration be given to only assessing each module once a year, at least initially
- consideration be given to not having assessable assignments, at least in the short-term.

3. MODULE 1 – INVESTMENT MANAGEMENT

The revision of the Part III education process in respect of Investment Management has been discussed in detail by both the Investments Practice Committee and the Finance Practice Committee.

The move to a compulsory half-year investment subject for all students is perceived as a positive by the Practice Committees. The primary challenges are with respect to:

- converting the current year long Investment course into a half-year course that covers the basic skills needed by all FIAs, and
- satisfying the needs of actuarial students wishing to obtain investment education beyond the confines of a half-year course, for example those students currently studying the full year investment course.

To resolve these issues we recommend that:

- the existing Investments course be converted to the half-year compulsory Module 1 course by paring it back to its essential elements
- the current Finance course be reconstituted as a new Investment and Finance course in Modules 2 and 3. Some of the more advanced topics of the existing Investment course that are not in the revised half-year subject will be incorporated into the Investment and Finance subject.

These recommendations are expanded on below and in Section 4.

Module 1 Syllabus – Investment Management

The revised course will cover the main elements of the existing Investments course, but with significant reductions in the number of readings pertaining to each of these elements. The essential elements of the Module 1 syllabus will be:

- Investment objectives
 - ⇒ setting benchmark asset allocations
 - ⇒ setting investment assumptions
 - ⇒ systemic risk factors in investment markets
- Understanding the asset classes
 - ⇒ equities
 - ⇒ property
 - ⇒ bonds and cash
 - ⇒ derivatives
 - ⇒ special issues, e.g. investing internationally, hybrid securities, alternative investments
 - ⇒ investment current issues and likely developments.

- Implementing an investment strategy
 - ⇒ selecting an investment manager (including style analysis)
 - ⇒ fundamental investment methods (value and growth)
 - ⇒ quantitative investment methods (index and active)
 - ⇒ monitoring experience
 - ⇒ asset liability management

The financial planning elements of the existing course will not be incorporated into the revised course (although these may, at least in part, already be incorporated in the Superannuation and Planned Savings Modules 2 and 3).

The new course will in the main be the existing course notes with the two volumes of supporting readings largely falling away. The reduction in supporting readings will require an expansion of the course notes to cover over any gaps that may be created.

Relationship with Parts I and II Education

The Part III review paper commented that:

“A preliminary review of the objectives for the current investments subject indicated that about 8 out of the 18 course aims are either not relevant in achieving the aims of Part III or are covered in Parts I and II..... Although this initial analysis appears to suggest that a reduced form of the subject is possible, a more thorough review by investment practitioners and examiners would obviously be required before the recommendation could be implemented.”

The view of the Investment Practice Committee is that this statement may understate the differences between the Part III Investment subject and earlier Part I and Part II studies.

The IPC wants to be comfortable that any core elements of syllabus that are assumed to be covered in Parts I and II test elements of judgement (not just bookwork), particularly at the Control Cycle level.

This may become a lesser issue with the implementation of the revised Control Cycle syllabus throughout 2002 which has more emphasis on an understanding of investments.

4. MODULES 2 & 3 – SPECIALIST PRACTICE AREAS

The current Part III subjects would, with the exception of Investments and Finance, become specialist practice areas within Modules 2 and 3 of the revised structure.

As mentioned in Section 3, the current Investment and Finance specialist subjects would be offered as a combined Investment and Finance subject within Modules 2 and 3.

The practice committees of the various specialist areas of Life Insurance, Superannuation and Planned Savings and General Insurance have determined a split of the syllabus into two modules under the new structure.

These are set out below and from a syllabus perspective, will not require significant revision to fit into Modules 2 and 3. A draft syllabus for the new Investment and Finance Modules 2 and 3 is also set out below. This will require significant work to establish and develop prior to the new course being offered.

Further changes may occur to each subject's syllabus as thinking develops but the fundamental principles set out below should remain.

Life Insurance

Module 2 will be structured as “building blocks” while Module 3 will be “application”. The syllabus is proposed to be in line with the existing syllabus but restructured as follows:

Module 2

- Unit 1: The market, legislation, tax
- Unit 2: Risk management issues and tools
- Unit 3: Determining assumptions
- Unit 7: Professionalism

Module 3

- Unit 4: Applications
- Unit 5: Valuations
- Unit 6: Reporting results

The workload for the two parts is considered by the Life Insurance Practice Committee to be similar, but Module 3 is slightly heavier than Module 2.

Students would be strongly advised to not sit for Module 3 unless they have studied Module 2. Note that at the time of writing this paper, the Life Insurance course syllabus is under review and the split above may change.

General Insurance

Similar to Life Insurance, the syllabus for Module 2 in General Insurance is intended to be a building block for Module 3. It will largely draw on the existing syllabus and it is envisaged that it will encompass the following:

Module 2

- Unit 1: The industry, an introduction to legislation governing general insurance, accident compensation schemes, self insurance
- Unit 2: Actuarial techniques
- Unit 3: Analysis of claims experience
- Unit 4: Outstanding claims and other provisions
- Unit 5: Analysis of profit, investments (new Unit)

Module 3

- Unit 6: Premium rating
- Unit 7: Reinsurance and risk management
- Unit 8: Financial control and appraisal
- Unit 9: Professionalism

Module 3 is reliant on knowledge obtained in Module 2. Again, students would be strongly advised to sit Module 2 prior to attempting Module 3.

Module 3 is slightly smaller in size than Module 2 leaving room for course writers to possibly expand the scope of knowledge. In addition, in testing Module 3, examiners will be able to draw on knowledge attained in Module 2.

In the process of re-structuring the General Insurance course into two separate modules, the General Insurance Practice Committee considered whether the individual modules would contain sufficient material to enable the examiners to thoroughly test candidates' knowledge. A process was conducted whereby the break-up of the exam papers since 1996 into the separate modules was examined and each question assigned into the units from the current syllabus. From this analysis, the GIPC believe that the current split into Modules 2 and 3 should be reasonable.

Superannuation and Planned Savings

The Superannuation and Planned Savings course underwent a significant review during 2002, with approximately 30% of the course now being based on Financial Planning. The proposed split of the syllabus into Modules 2 and 3 determined by the Superannuation and Planned Savings Practice Committee is as follows:

Module 2

- Unit 1: Environment
- Unit 2: Needs analysis
- Unit 3: Modelling

Module 3

- Unit 4: Solutions
- Unit 5: Implementing the solution
- Unit 6: Communication and guidance notes etc
- Unit 7: Professionalism

It appears that this split also follows the building blocks / applications model adopted by both Life Insurance and General Insurance. Students would be strongly advised to sit Module 2 prior to attempting Module 3.

Investment and Finance

As discussed in Section 3, both the Investments Practice Committee and the Finance Practice Committee believe that the current Finance course should be reconstituted as an Investment and Finance course going forward.

This will allow students wishing to obtain investment education beyond the confines of a half-year course to still pursue this type of education, as well as providing specialist finance education.

It will require more reworking of the two courses than other subjects.

Goals of Investment and Finance education

Finance is essentially the practice of funding companies, and of managing risk using financial instruments (eg. derivatives).

Conversely, investment management is largely the study of how to invest in the securities issued by companies.

Good practitioners in either of these areas should have an intimate understanding of the needs and perspective of both issuers (ie. companies) and investors. By combining the Investment and Finance subjects we have a unique opportunity to help students become practitioners with these insights.

Revised Investment and Finance Course (Modules 2 and 3)

This syllabus still needs some working through but the proposal is for Module 2 to be based on an understanding of the asset side of the balance sheet and Module 3 to pick up issues more related to the current Finance course.

Module 2:

- Unit 1: General approach to company valuation
- Unit 2: Balance sheet analysis
- Unit 3: Capital structure and dividend policy
- Unit 4: Investment evaluation, capital budgeting and structured finance
- Unit 5: Corporate liabilities and international finance
- Unit 6: Mergers, takeovers and corporate restructuring

Module 3:

- Unit 1: Options, Forwards, futures and swaps: concepts
- Unit 2: Valuation and analysis of fixed interest securities
- Unit 3: Options: models for prices and returns, Black-Scholes and other analysis and trading strategies
- Unit 4: Options: options on indices, currencies and futures, hedging and portfolio insurance.
- Unit 5: Interest rate derivative securities
- Unit 6: Numerical procedures
- Unit 7: Capital adequacy, credit risk, market risk, taxation and accounting for financial instruments
- Unit 8: Investment developments and current issues

The material in the existing Investment and Finance course that will be removed to make way for these new elements is yet to be decided, but likely candidates include:

- Exotic options
- Real options
- Leasing

The Securities Institute subject will be removed from the revised Investment and Finance Modules 2 and 3 under these arrangements.

Other Possible Modules 2 and 3

There may be other practice areas that can be developed as Modules 2 and 3. These have not been considered in any detail by the Taskforce at this point and therefore are not included in this report.

However, the Health Practice Committee has been asked to consider the feasibility of developing Modules 2 and 3 in Health Financing. This work is being undertaken in conjunction with the update of the CPD course Actuarial Practice in Health Insurance to be conducted in August 2003, and the proposed re-running of the residential CPD course Health Financing early in 2004.

5. MODULE 4 – BUSINESS APPLICATIONS

This is the area of the proposed structure that the Review Team received a significant level of comment on. In particular, members wanted to see more detail about what the course would cover.

The following summarises the findings of the sub-committee that has looked at this aspect of the proposed structure.

Note that the name of this module may change as we develop our thinking. The name “business applications” does not necessarily encapsulate the intent of the module and a number of suggestions have been made for more relevant names.

Summary

The key recommendations are set out below:

What should the Course cover?

The original report suggested that Module 4 should be a non-practice specific module that allows students to use judgement in applying the knowledge and skills they have gained in the first three modules to simulated commercial problems. It would have a dual focus – the ability to apply judgement to a wide range of actuarial areas and the ability to do so with a business focus, recognising that there are important inputs to business decisions that come from non-actuaries.

With this context in mind, the Taskforce proposes the following learning objectives on which the syllabus can be constructed:

- Apply actuarial skills across a range of traditional practice areas by contextualising actuarial solutions in the wider commercial environment of the business as a whole
 - ⇒ Understand the overall aspects of the business which impact on the formulation of the actuarial recommendations, and which would be affected by those recommendations, and be able to incorporate those aspects into the solution. Specific aspects of the business include
 - Availability and optimum use of capital
 - Medium term (3 to 5 years) financial projections
 - Asset / liability matching management
 - Impact of strategic objectives on shorter term decisions
 - Profit optimisation of price / volume
 - Holistic risk management
 - ⇒ Measure and communicate the risks associated with alternative solutions
 - ⇒ Recognise the cost of additional levels of detail in the actuarial solution and their relative value.

- Apply actuarial skills in unfamiliar ie. non-traditional, areas by contextualising actuarial solutions in the wider commercial environment of the business as a whole, and applying the actuarial control cycle. Potential non-traditional applications include
 - ⇒ Health financing
 - ⇒ Infrastructure funding
 - ⇒ Energy markets
 - ⇒ Ageing populations
 - ⇒ Education funding
 - ⇒ Environment
- Communicate the actuarial solutions to a range of audiences
 - ⇒ simplify complex ideas
 - ⇒ pitch ideas at the audience
 - ⇒ focus on the key facts, issues and risks rather than explain all the details.
- Apply general ethical concepts and actuarial professional standards when contextualising actuarial solutions.

How should the Course be taught?

The nature of Module 4 requires a different approach to teaching than that currently in place for Part III subjects. The proposed learning objectives and the emphasis on judgement in commercial situations warrants a learning environment where discussion can take place, rather than reliance on self study methods alone.

The proposed teaching approach therefore comprises the following three components:

- A five day “case study” intensive covering traditional and non-traditional areas. This would be a residential course to ensure intensive training and best use of the instructor.
- Written material delivered by the existing Part III approach in respect to
 - ⇒ Non-traditional area background information
 - ⇒ General ethical and corporate governance concepts
 - ⇒ Actuarial professional standards
- Attendance at an “accredited” communications course.

This will have obvious implications on resourcing requirements and potential costs to students, particularly if the case study intensive is adopted. However we believe it to be a preferable option and importantly, would enable equal treatment of students throughout Australia and indeed worldwide.

How should the Module be assessed?

The proposed teaching approach will require support from the assessment process. The proposed assessment approach therefore comprises two components:

- Half of the assessment from an examination (two to three hours) at the end of the half year. At least half the questions to be from non-traditional areas. Each student must attempt traditional area questions from practice areas outside their Module 2 & 3 choice. A range of traditional questions, from each practice area, must be provided.
- Half of the assessment from a single question delivered in “case study” format ie. very significant background material including financials, data, etc as appropriate. The answer is to be a substantial piece of written communication which will be assessed not only on its content but also on the quality of its written communication.

This assessment piece will follow immediately after the five day “case study” intensive ie. the sixth day. The student will have one whole day in which to absorb the question material, perform all the necessary analyses and prepare the written communication of the answer. The written presentation will be presented as a completed work rather than a ‘draft report’ which may be acceptable in other modules. It will not be a requirement to provide an oral presentation of the work.

The “case study” question will be chosen from a range of case studies in each traditional practice area. Any written material will be allowed, PC’s will be provided but no outside connection will be allowed.

It should be noted that the “case study” question is completed by each student individually and it will be conducted under examination conditions so the issues of plagiarism, etc. are essentially avoided.

Repeat students will not be required to attend the intensive course but may do so.

Further detail on each of these aspects is set out below.

Learning Objectives

The original Part III Review report identified the following three objectives for Module 4.

- ability to contextualise actuarial solutions in the wider commercial environment of the business as a whole
- ability to apply actuarial skills across a range of traditional and non-traditional practice areas
- ability to successfully communicate the actuarial solutions to a range of audiences.

Each of these issues is looked at below.

Ability to contextualise actuarial solutions in the wider commercial environment of the business as a whole

Module 4 is effectively a one semester subject and hence it is not intended to be a “mini-MBA”. However, some “business” should be included in the learning objectives.

The focus of Modules 2 and 3 is the detailed actuarial issues arising in the particular practice area. The focus of Module 4 is to put actuarial solutions arising from the actuarial issues in the context of the business as a whole. For example, the issue of pricing in Modules 2 and 3 should be focused on model building, assumption setting and interpretation of the result. Module 4 could focus on the implications for capital consumption of various business volumes, or the potential losses if pricing below that recommended was followed, or any offset that might be gained by additional volumes lowering expense rates.

The learning objectives recommended are:

- Understand the overall aspects of the business which impact on the formulation of the actuarial recommendation and be able to incorporate those aspects into the solution.
- Measure and communicate the risks associated with alternative solutions
- Recognise the cost of additional levels of detail in the actuarial solution and their relative value.

Ability to apply actuarial skills across a range of traditional and non-traditional practice areas

The focus in non-traditional areas is the ability to apply actuarial skills to areas which do not have a long history of actuarial involvement and therefore only have a limited range of established actuarial techniques. Can the student apply actuarial methods in an unfamiliar area, demonstrating an understanding of the concepts behind the actuarial methods and showing an ability to apply the actuarial control cycle exercising appropriate judgement in the context of the problem?

Module 4 is not a surrogate for Modules 2 and 3 in the non-traditional areas. This leads to a learning objective which requires less detailed knowledge about the area but which retains the requirement to apply the actuarial methods in the context of the business as a whole.

Ability to successfully communicate the actuarial solutions to a range of audiences

The Part III report defined communication skills as:

- the ability to simplify complex ideas

- the ability to pitch ideas at the audience
- the ability to focus on the key facts, issues and risks rather than explain all the details.

In any drafting of a communication objective, the above definition should be applied.

Other considerations

- *Integration of investment and liability knowledge learnt in the first 3 modules*

Asset liability linkages are already addressed, at a very general level, in Part II. The objective of Part III should be to build the technical skills underpinning these general ideas as well as the depth of understanding of broader asset/liability and multiple business line management (within the context of allowing actuaries to have a holistic view of business issues).

The technical aspects of asset/liability management are best considered as part of the subject specific Module 2 and 3 areas.

- *Awareness of the latest developments in legislation, actuarial techniques and business practice*

This Module cannot adequately deal with a topic this broad. In respect to traditional practice areas these items should be covered, if at all, in Modules 2 and 3. However, given the HIH Royal Commission developments it may be appropriate for Module 4 to cover the main areas of legislation dealing with corporate governance.

- *Application of professional and ethical standards to actuarial problems*

While this topic is the focus of the professionalism course there is some merit in considering whether the issue of “professionalism” should be a serious component in dealing with the whole context of the business. In the same fashion as the possible inclusion of corporate governance it is probably appropriate for students to be expected to show understanding of the pressures which the “whole business context” may impose.

We would envisage that the professional standards specific to practice areas would still be part of the syllabus of Modules 2 and 3. Module 4 would focus on the broader issues associated with professionalism and compliance with these in the commercial environment.

Teaching Approach

Currently Part III subjects are taught mainly by self study supplemented by some tutorials. Written assignments are part of the learning process but are currently not part of the assessment.

Case Studies

While Module 4 is not intended to be a mini-MBA, the learning objectives have some commonality with those found in the courses of most business schools. It is therefore appropriate that the teaching methods used in that context are considered as a potential teaching tool for Module 4.

The “case study” is the primary tool used to facilitate student learning in respect to “business acumen”. Module 4 is primarily directed at the same outcome in an actuarial context and hence a case study approach seems warranted. Teaching the exercise of judgement can only take place by discussing specific examples and highlighting the judgement which was exercised in each case.

The delivery of “case studies” is resource intensive and the resourcing issues are considered further in Section 8.

Case studies are most beneficial to students when each of the following items is in place:

- sufficient background material and the time to review it to provide a clear understanding of the issues arising in the “case”
- sufficient time for the instructor to explain the case background
- involvement with other students in determining the “solution”
- sufficient time for discussion of the solutions and for the instructor’s comments thereon.

While it is possible to envisage case studies being conducted in the present tutorial format, it is unlikely to provide all these components. In addition the provision of this form of teaching to students outside the major centres requires an alternative mode of delivery.

The proposed method is a five day intensive course. Extensive background material would be provided sufficiently in advance for students to have assimilated the material. Four major cases, one in each traditional practice area (Investment, General Insurance, Life Insurance & Superannuation) would be covered over three days and four smaller cases, in non-traditional areas would be considered over the remaining two days. Such an intensive would meet all the items noted above and would provide an opportunity for remote students to be treated equally with local students.

Self Study Material

In practice, actuaries advising in an unfamiliar area will take the time to gain some broad understanding of the business context. Students will need teaching material in non-traditional areas which provides them with this broad understanding of each of the specified non-traditional areas. This material can be delivered using the present Part III approach. The application of actuarial methods and judgement in non-traditional areas would be covered by the “case studies”.

Similarly the delivery of the basic material required for ethical concepts and actuarial professional standards can use the present Part III methods. The application to actuarial problems would be part of the “case studies”.

Communication Skills

While many actuaries are very good communicators, there are a multitude of communication specialists who deliver various types of training. The integration of the communication of actuarial solutions with the development of that solution should be an aspect of the “case studies”. However, given the emphasis being placed on communication skills, it seems appropriate to require each student as part of Module 4 to provide evidence of having attended an “accredited” communications course, provided by a range of external suppliers. A course of two or three days duration is envisaged. Such courses are often provided by employers to their staff.

The communication course should be completed within 1-2 years of completing Module 4 to ensure the objectives of the course are consistent with the skills needed by someone who may need to present to a Board of Directors / Trustees / Professions in the immediate future. A pass in Module 4 would not be recorded until the “accredited” communications course had been attended.

Consistency Across Practice Areas

Those students who have studied Modules 2 and 3 in a particular practice area will be much better prepared than those who have not when dealing with a sample problem for that practice area. It must be an objective of the teaching approach that all traditional practice areas get equal attention so that each student gets the same relative advantage or disadvantage. Students will be strongly recommended to attempt Module 4 as their last Module.

Assessment Approach

One of the clear issues raised in the Part III report was the concept that communication skills should not be separated but should be taught and, by implication, assessed as an integral component.

This means that for the case studies, the manner in which the solution is communicated is also relevant, as well as the content.

The only way to assess communication skills is to allow sufficient time for students to produce a reasonably polished communication piece. Given the learning objectives of Module 4, this communication piece is the solution to a particular actuarial problem in a holistic business context.

Since Module 4 is likely to be the last subject in the student's qualification process we can assume that the weight of examinations in all earlier subjects has adequately tested the student's ability to respond to exam questions. This gives us an opportunity to broaden the range of assessment methods. However, the problems with non-examination methods should be noted and these are discussed further in Section 6.

The issue raised under Teaching Approach of students having an advantage from having done their specialism is as relevant to assessment as to teaching. The answer is to provide a choice of assessments structured in such a way as to allow students only one question from their speciality and to force them to take all others from other practice areas. It is regarded as important that students can deal with issues in traditional practice areas outside their chosen speciality.

6. ASSESSMENT

As outlined in the Part III report, the assessment of the Part III course has received criticism from time to time. The main criticisms relate to:

- the use of exams as the only method of assessment
- the difficulty some students have with this type of assessment
- the drop out rate of students who are considered of value to the profession
- the narrowing of the skill set of actuaries who do make it through the process
- the need to attract people with a wider range of skills and abilities into the profession.

In order to determine an appropriate method of assessing students in Part III, the following definition of assessment has been adopted:

“Assessment is the method by which the examiner(s) form a conclusive opinion as to whether or not a particular student is able to perform at the competency level required by the syllabus.”

Appendix 2 details the various assessment methods that have been investigated, their advantages and disadvantages and the likely effect on resourcing requirements.

These have all been considered in framing the recommendations. The role of CPD and how it relates to the Part III courses, assessment and the process for introducing new subjects through the CPD program has also been considered when framing the assessment recommendations.

The assessment method will vary by module but the overarching assessment framework recommended is as follows:

1. Adjusted exams to be used for the main assessment
2. 10% to 20% of the final mark to be derived from internal assessment (non-examination work) for Modules 1 – 3.
3. 50% of the final mark to be derived from “case study” assessment for Module 4.
4. The internal assessment to be primarily in the form of assignments, at least initially for Modules 1-3.
5. New assignments to be provided for each and every course (Modules 1-3) every sitting
6. Viva Voce (interview by a panel of experts) to be considered as an alternative to re-sitting again in the next examination period, once the logistics (timing, resourcing, costs/fees, format, eligibility criteria) have been investigated and approved. It is envisaged that this option would only be offered to a small number of students.

7. The following other options to be further investigated with a view to the logistics/suitability issues being resolved:
- Thesis
 - Case Studies (other than Module 4)
 - Presentations

Each of these aspects is discussed further below.

Examinations

It is recommended that “adjusted” exams be used for the main assessment of each module.

Adjusted exams are exams set such that a good student (experienced practitioner level?) could complete it in a prescribed proportion of the time allowable. For example, if the exam being set is a 3 hour exam, the questions would be set such that an experienced practitioner would be able to perform the exam in 2 ¼ hours. This allows all students to be able to perform adequately under the time constraint and does not disadvantage the newer students or the ones lacking practical experience.

We envisage the workload time would be set between 50% and 90% of the allotted time. The percentage used would be at the discretion of the examiner(s) as they would be in a better position to understand the level of practical engagement required in the exam. We envisage that the higher the practical engagement the lower the percentage.

Moving to adjusted exams rather than the current examination process would require some training of examiners in actual exam setting but should not require additional resources.

Internal Assessment

The internal assessment for Module 4 has been discussed in considerable detail in Section 5. The comments here are therefore restricted to Modules 1-3.

We recommend that between 10-20% of the final mark in each course be derived from internal assessment (non-examination work). At least initially, this internal assessment should be primarily in the form of assignments and this will necessitate a significant change from the current process.

Assignments currently don't count toward marks and historically there has been heavy reliance on regurgitating past assignments or having a two-year cycle of assignments that can be updated gradually.

A move towards assessable assignments will require fresh assignments for each Module sitting and this will be a significant impost on resources (see Section 8).

It is envisaged that the move to two sittings each year and half yearly modules would reduce the number of assignments from 8 per subject to 2 – 3 per subject.

Why make assignments assessable?

There are a number of benefits associated with the introduction of assessable assignments:

Benefits to students:

- Removes some of the pressure from the exams
- The considerable work of doing the assignments does not go “to waste” as it currently seems to in the eyes of many students
- The work done counts towards the final pass (up to 10-20%), thus allowing the student to spread the workload to some extent
- The student will receive credit for exhibiting skills that can’t be tested in an exam environment
- Marked assignments should be returned more quickly if they count for assessment
- Fresh assignments with up to date solutions will improve the learning experience
- Counting for assessment should encourage students to put more work into the assignments, even encourage discussion amongst peers or research with more experienced actuaries, which will lead to a better understanding of the course.

Benefits to Institute staff

- Fewer complaints from students about assignments not counting or marking being late
- Less administration involved in following up markers as they will be more mindful of quick marking if the assignments count towards assessment
- Fewer assignments (by number) under the new system will make the logistics easier.

Benefits to Examiners / Course writers

- Gives the examiner further information for the “grey area” students by allowing access to the assignment results, which could not be used reliably if not assessable
- Allows skills and abilities to be tested in the assignments that cannot be tested in an examination environment, thus improving the capabilities of qualifying actuaries.

Benefits to the Institute

- Assists in positioning the Institute as a first class educator throughout Asia - this may not be the case if we continue to recycle assignments.

However there are also many criticisms associated with making assignments assessable. These include plagiarism, complexities associated with determining the final result and resourcing. Each of these issues is discussed below.

Plagiarism

This can cover a range of behaviours. The main areas are discussed below:

- Collaborating with other students

Although this is often levelled as a criticism, we actually see collaboration on assignment questions as beneficial as the discussion deepens knowledge and allows exploration of the full issue. Very few of us work in an isolated manner and in fact peer review is encouraged in the practical world.

- One student providing answers to another who then copies

This is generally considered “cheating”. Our view is that this should happen to a lesser extent if the assignments are assessable, as students would be more reluctant to hand work over when competing for marks. It is also unlikely that a student who does this will learn sufficiently from the experience to pass the exams. “Good” students shouldn’t need to adopt this approach, as the assignments are relatively easy for them and their attitude is likely to be one of using the assignments as a learning experience. “Poor” students will have missed out on their opportunity to learn and it may be difficult for them to subsequently pass the exam.

- Consulting with colleagues

Again people often see this as a negative, but the Taskforce believes that this can be beneficial to the student. A student who can find a source, perform their own research, discuss an issue and then report the results (ie. do the assignment) is exactly what we are trying to train for. After all, this is how we expand our skills and knowledge when we are actually working. The process that the student goes through in doing this can only improve their knowledge and abilities.

Complexities in the final assessment

The weighting of the final examination against the assignments should prevent any students who haven’t a genuine understanding of the subject matter from passing due to a good assignment mark alone.

We believe that the exam result would always take precedence over the pass or fail of a student, with the assignment marks being looked at as an additional source of information providing clarity for the “grey area” students.

While this does create some practical difficulties, discussions with former examiners indicate it would be a problem they would like to have, as it is very difficult trying to decide upon the students in the “grey area” between clear pass and clear fail when the exam answers are the only source of information.

Resourcing

Another criticism that has been levelled at the assignments being assessable is that it will require vastly increased resources to ensure consistency. While consistency is important, there are other ways of ensuring this than double marking each assignment. One example of this is to scale the marks from each marker on a normal distribution and then recalibrate across the board to ensure the ranking of students is maintained accurately. While double marking is desirable for exams counting for such a large proportion of the assessment, the same rigour is not considered necessary for such a small proportion of the overall assessment.

Assessable assignments will increase the resourcing strain on the course rewriters, as they will have to provide a fresh assignment with each course. It may further increase their load and would also increase the examiners’ loads if the examiners wanted to have active involvement in the setting of assignments and provision of model solutions.

The resourcing strain on course writers of having to complete fresh assignments each sitting is somewhat mitigated by the reduction in the number of assignments to around two for each of Modules 1-3.

The Taskforce recommends that fresh assignments and model solutions be prepared each year, even if the assignments are not assessable. It would be difficult for the Institute to be seen as a leading educational force in the Asia Pacific with out of date assignments and solutions being recycled year after year.

Assessable assignments will also tighten the timetable for assignments to be marked as there will be a greater onus on markers to return assignments to students in a timely fashion.

An alternative to assessable assignments is that successful completion of the assignments be a prerequisite to sitting the exam. This is in line with the current approach where students must make a “reasonable attempt” prior to being able to sit the exams.

Viva Voce

Viva is short hand for viva voce, which means “live voice”. Essentially students are interviewed by a panel of experts who decide if a pass or fail is to be awarded on the basis of the responses to the questions asked.

Such an assessment process would be too time intensive and difficult to do as an alternative to exams for all students. However, it is recommended to be explored further as an alternative option to resitting examinations for those students who meet specific criteria.

Recommended eligibility needs to be considered in more detail but could be for borderline students who have sat a subject at least twice and the most recent attempt was a B pass.

Provided eligibility criteria are met, the viva would be at the option of the student and he / she would have to pay an amount to cover any associated costs eg set up costs, room hire, panel costs etc. A panel would be convened for the relevant subject and the student(s) would stand or sit before the panel and be given a scenario that they would have to talk through. The panel would be able to ask questions etc, the final aim being to determine if the person has sufficient ability to practice.

The logistics (timing, resourcing, costs/fees, format, eligibility criteria) still need to be investigated and approved.

Ideally the timing of the Viva process (student preparation time, interview, conclusion and results) would fit between results day and the following enrolment due date, so that, if unsuccessful, the student could then enrol for the next semester.

Other Options

Other options that should be investigated as assessment methods in the longer term include:

- Thesis
- Presentations

As set out in Section 5, case studies are being considered as a core part of the Module 4 course delivery and assessment. These could also be extended to the other Modules over time.

Interaction with CPD

It is preferable that the method used to assess the core subjects be consistent with the method used for assessing the CPD programs. We have kept this in mind when determining our recommendations and feel that the recommendations above could apply equally to CPD as core subjects. The difference that may occur, and this would be viewed favourably, is that the CPD program may take up some of the other options suggested in this paper and at least test them as assessment methods.

7. TRANSITION RULES

The proposed new structure for Part III has some significant differences to the current structure. To ensure that all students transition to the new system as easily and fairly as possible the following has been considered:

- The length of any transition period
- The details of the transition system including how subjects in the old structure will map onto the subjects in the new Part III structure
- All possible subject combinations that students may wish to take to ensure that the transition system works for everyone

Principles

In developing the transition system the following principles were followed. Principles 1 to 3 were taken from the communication to students on 11 February 2003 (Appendix 4).

1. A pass in a Specialist subject in 2004 or earlier will provide students with an equivalent pass for 2 modules under the new structure from 2005. For Specialist subjects other than Investment, this will apply to Modules 2 and 3. A pass in the Investment Specialist subject will give an equivalent pass for Module 1 and one other Module from 2005.
2. In 2004, it will be possible to pass half a Specialist subject and, in most circumstances, then earn an equivalent pass for one Module under the new structure from 2005.
3. Throughout the transition period all students will be required to pass the equivalent of 4 modules in order to complete Part III.
4. Students wanting to specialise in a particular area should not be advantaged or disadvantaged relative to other students.
5. The transition arrangements will aim to minimise disadvantages to any students.
6. Students should not be able to instantly qualify simply by changing Part III.

General Structure

The following structure will be adopted:

- In 2004 all specialist subjects (except Finance) will exist as one-year subjects and have an examination consisting of 2 papers, with both papers held at the end of the year. A pass in either of these papers will lead to a pass in the equivalent module in the new structure.

- In 2004 Finance specialist will have the same structure as for 2003 with an SIA component as well as an examination at the end of the year consisting of 2 papers.
- From 2005, the new structure will be adopted, with Modules 2 and 3 including a combined Investments and Finance course that will replace the existing Finance and Investment specialist courses. For this course, Module 2 will be biased towards the Investment course and Module 3 will be biased to the Finance course.
- All other proposed changes will be implemented from 2005, including the offering of all modules twice a year.

Proposed Transition Arrangements

- From 2005 all new students to Part III course will be required to pass Modules 1 to 4 in order to complete Part III under the new arrangements.
- Existing students who have failed all the subjects they have attempted will have the option to try to pass two specialist subjects under the current system by the end of the transition period, but should be strongly recommended to sit Modules 1 to 4 from 2005.
- From 2007 onwards all students will be required to pass Modules 1 to 4, or their equivalent, in order to complete Part III.

This implies that the transition period for the new Part III structure will be two years ie the proposed transition years will be 2005 and 2006. It is assumed that all modules will be offered twice a year from 2005.

Students wishing to complete Part III under the current system will have until the end of the transition period to do so. For example, a student with a pass in Superannuation and Planned Savings specialist and Paper 1 of General Insurance will have until the end of 2006 to complete Paper 2 of General Insurance in order to qualify. After the end of 2006 they will need to pass the equivalent of Modules 1 to 4. In this case, they will still retain a credit for Modules 2 and 3 of Superannuation and Planned Savings and Module 2 of General Insurance but will now need to complete Modules 1 and 4 in order to complete Part III.

Part III passes in 2004 or earlier will be directly equivalent to passes in the new Part III system from 2005. These “equivalent” passes will not expire. The table below summarises this mapping.

Summary of Equivalent Passes

Paper(s) passed in 2004 or earlier	Equivalent passes given
LGS ¹ Specialist in 2004 or earlier	Modules 2 and 3 in the equivalent subject
LGS Paper 1 only in 2004	Module 2 in the equivalent subject
LGS Paper 2 only in 2004	Module 3 in the equivalent subject
Investments Specialist in 2004 or earlier	Module 1 and Module 2 of Investments/Finance
Investments Paper 1 only in 2004	Module 1
Investments Paper 2 only in 2004	Module 2 of Investments/Finance
Finance Specialist in 2004 or earlier	Modules 2 and 3 of Investments/Finance
Finance Paper 1 only in 2004	Module 3 of Investments/Finance
Finance Paper 2 only in 2004	Module 3 of Investments/Finance

¹LGS stands for Life insurance, General insurance or Superannuation and Planned Savings

In the opinion of the Taskforce, this structure meets all the principles stated above. In particular, no aspect of the transition structure contradicts any previous correspondence to students.

Further details of these arrangements and the rationale behind them are given below.

Details of Proposed Transition

All students that pass a subject in 2004 or earlier or part of a subject in 2004 will earn an equivalent pass under the new system. The only exception to this is the SIA component of Finance, for which no credit will be given under the new system. After the two year transition period, many students with passes in at least one module of two different subjects will need to pass an additional subject to complete Part III under the new system.

For example, consider a student who has passed Finance specialist and also the equivalent of Module 2 of Life Insurance. During the transition period they can pass Module 3 of Life Insurance to qualify. However, if they fail to do so by the end of 2006, they will still have to pass Modules 1 and 4 to qualify.

Students will get four chances at completing Part III under the old structure by 2006. The two-year transition period is equivalent to a four-year transition period in the current structure.

Further detail of the rationale behind this decision and descriptions of the students affected are given below.

During the transition period students have the choice of studying subjects under the current structure or under the new structure. In most cases these subjects are effectively the same. The only exception is Finance which is being combined with investments and therefore reduced from a one-year course to a half-year course. However, due to the cost and resource constraints of holding two streams of Finance in 2005, the current Finance course will not be offered after 2004.

Instead, students wishing to complete Finance specialist by the end of the transition period will need to pass the new Investments/Finance specialist subject.

The table below then outlines the equivalent modules that students need to pass if they wish to complete Part III under its current form by the end of the transition period.

Equivalent Passes required to complete the current Part III system by the end of the Transition Period

Subjects/Papers Remaining at the end of 2004	Modules to complete by 2006 to qualify
LGS Paper 1	LGS Module 2
LGS Paper 2	LGS Module 3
LGS Papers 1 and 2	LGS Modules 2 and 3
Investments Paper 1	Module 1
Investments Paper 2	Module 2 in Investments/Finance
Investments Papers 1 and 2	Module 1 and Module 2 in Investments and Finance
Finance SIA course	Finance SIA course
Finance Paper 1	Module 3 in Investments and Finance
Finance Paper 2	Module 3 in Investments and Finance
Finance Papers 1 and 2	Module and 3 in Investments and Finance

This table implies that the SIA course needs to be passed by any Finance student wishing to qualify under the existing Part III structure. This requirement ensures that Finance students in 2005 and 2006 will be treated equally to those in previous years.

Rationale of Proposed Transition

The rationale for the recommendations outlined above have been split into four parts:

- Two-Year Transition Period
- Investments and Finance
- Treatment of SIA component of Finance
- Life insurance, General insurance and Superannuation

Two Year Transition Period

The length of the transition period affects students who intend to complete Part III without passing Module 1 and/or Module 4 or their equivalents under the new system. These students will include:

- *Those who have completed one specialist and one paper of another specialist, but not paper 1 of Investments.*

These students will under normal circumstances wish to complete their one remaining module in order to pass. Those whose one paper is paper 1 of Investments will have an equivalent pass for Modules 1 to 3 and will only be required to pass Module 4 to qualify.

A further exception is for students who have passed Finance specialist and paper 2 of Investments as they will only have an equivalent pass for two modules and so will need to pass Modules 1 and 4 in order to qualify.

- *Those who have completed one paper only of two different specialists, but not paper 1 of Investments.*

These students have two options: (1) to complete the remaining module for each specialist subject; and (2) to complete the remaining module for one chosen specialist as well as Modules 1 and 4. Option 1 has the benefit of fewer modules to pass, but has the problem that the student must qualify within the transition period.

Students with a pass in paper 1 of Investments and a pass in one other paper will earn a pass for Module 1 and Module 2 or 3. To qualify they will just need to pass the remaining Module 2 or 3 as well as Module 4.

Another exception are those students who have passed one paper of Finance and paper 2 of Investments. As these subjects are being combined from 2005 they relate to the same specialist area and so only Modules 1 and 4 need to be passed in order to qualify.

- *Those who have completed one specialist and who wish to complete another particular specialist in order to qualify.*

For example, a student may have passed Superannuation and Planned Savings specialist and they want to sit Life Insurance specialist as they need aspects of both courses in their work. Or they may want to sit Life Insurance specialist as they have already attempted it once and do not want to learn a new course from scratch.

Despite the exceptions, there will be a significant number of students in these situations at the start of 2005. The advantages and disadvantages of a one versus two year transition are summarised in the table below.

Benefits of a One versus Two Year Transition Period

Benefits of One-Year Transition	Benefits of Two-Year Transition
<ul style="list-style-type: none"> - Makes minimum investment knowledge compulsory one year earlier - Makes business applications knowledge compulsory one year earlier 	<ul style="list-style-type: none"> - Gives students in the above situations more time to qualify under the current structure - Does not disadvantage students who do not wish to study in 2005 for personal reasons

On balance, a two year transition period was agreed to ensure students who do not wish to study during 2005 for personal reasons are not disadvantaged.

Investments and Finance

Based on our understanding to date, the Investments and Finance subjects within the new structure will have the following content:

- Module 1 - Performance Monitoring and Manager Selection ie. more asset consulting and portfolio management basics. This is similar to part of the current Investments subject that is intended to be covered in paper 1 of the 2004 course.
- Module 2 and 3 of new combined Investments and Finance subject – Focuses on corporate and security valuation and is covered to some extent in both the current Investments and Finance syllabuses. It is intended that Module 2 in the new system will be biased towards the Investments course and Module 3 will be biased towards the Finance course.

As the development of the new Investments/Finance subject is still to be concluded, it is possible that the subject content described above could change significantly. In that case the recommended transition arrangements may need to change.

Based on these course contents, students in the Investments subject should gain the following equivalent passes:

- a pass in Investments specialist in 2003 or earlier should earn students a pass for Module 1 and Module 2 of Investments/Finance as these modules are most closely related to the current Investments course
- a pass in Investments paper 1 in 2004 should earn students a pass for Module 1 as their syllabuses have significant overlap
- a pass in Investments paper 2 in 2004 should earn students a pass for Module 2 of Investments/Finance as their syllabuses have significant overlap.

Students in the Finance subject should gain the following equivalent passes:

- a pass in Finance specialist in 2003 or earlier should give students a pass for Modules 2 and 3 in Investments/Finance. This is consistent with student communication that a pass in a specialist subject will earn students an equivalent pass for two modules in the new system. No other two modules are as closely related to Finance as these two.
- a pass in Finance in either paper 1 or paper 2 should give students a pass for Module 3 in the Investments/Finance subject. The new system effectively reduces the current Finance specialist course into one module. It therefore makes sense to only offer an equivalent pass for Module 3 if only one paper is passed in 2004.

Treatment of SIA Component of Finance

The existing Finance course is different to all other specialist subjects in that it has an extra component on top of a six-hour, two-paper end of year exam. This extra component is offered through the Securities Institute of Australia (SIA). The transition arrangements for Finance are therefore more complex than for any other subject.

There are several options in how the SIA course should be treated for transition for those students who studied Finance prior to 2005. The main options are as follows:

1. Whether or not a pass in the SIA course is required to complete Part III from 2005 ie. will students automatically qualify if they only have the SIA course to complete?
2. Whether or not the SIA subject gives students credit to part or all of a Module under the new system.

Allowing students to qualify just because of the change in the system is contrary to the transition principles stated above. Therefore, Finance students wishing to complete Part III with two specialists before the end of the transition period will need to pass the SIA subject.

Giving credit to SIA passes in the new system has some appeal, but this should be balanced against the extra complexity and confusion this would generate. On balance it was decided to give no credit to the SIA course in the new Part III. This choice, as well as being simple, would also be appealing to the majority of students as it would make their transition easier.

Therefore, we have the following outcomes:

- All Finance students wishing to qualify with two specialists have been treated equally.
- The SIA course has no credit in the new Part III system.

Life, General and Superannuation and Planned Savings (LGS)

There is continuity of the LGS courses into the new Part III and so it is common sense that an old LGS specialist pass gives students a pass for Modules 2 and 3 in the new structure.

Students with some passes in the LGS subjects may fall into the following categories which are of special consideration:

- Some students may be just off completing the exams at the end of 2004 by having passed one LGS specialist in 2004 or earlier and passed either paper 1 or 2 of their second LGS specialist in 2004.

These students can complete the exams in 2005 or 2006 by passing the remaining Module 2 or 3 of the second specialist. This is a fair outcome for these students who are so close to qualification. However, if they have not completed the remaining module by the end of 2006 they will have lost their opportunity to qualify by this route. After the end of 2006 they will need to pass Modules 1 and 4 in order to complete Part III.

- In 2004 some students may pass paper 1 or 2 in one LGS course and paper 1 or 2 in another LGS course. So as not to disadvantage these students they should be given a pass in the two equivalent modules within the new structure. They will then have until the end of 2006 to complete the two remaining modules. After the end of the transition period these students will need to pass Modules 1 and 4 as well as any remaining modules in their chosen specialist area in order to qualify.

These student categories are also covered in the section above on the rationale for the two-year transition period.

8. RESOURCING AND DELIVERY

Resourcing is clearly the major challenge for delivering the revised Part III structure as set out in this report.

The Resourcing and Delivery sub-committee has undertaken initial assessments of the impact of the proposed changes on resourcing and delivery options and requirements. There will be a significant impost on resources in both implementing the new structure and maintaining it on an ongoing basis.

Key areas identified as having an impact on resources are:

- moving to a twice yearly offering of subjects increases the workload for examination writing and marking, as well as course reviews
- timeframes will be much tighter with two study periods annually
- writing new assignments each study period will require additional resources (depending on the number of assignments relative to the current Part III structure)
- adopting internal assessment via assignments and case studies increases the demands on tutors, assessors and assignment writers.
- developing and conducting a five day intensive for Module 4 will require expert assistance in preparing and conducting the course to an appropriate professional education standard.

Current And Proposed Resources

Steps in the education process

The responsibility for the various steps within the current Part III education process, all of which are undertaken by volunteer member resources, have been identified. These steps were categorised by the taskforce according to:

- those which must rest with the IAAust due to the necessity to maintain standards and control of the education process (and hence are currently and would continue to be undertaken by practice committees, education committees, and/or the Board of Examiners). These include syllabus development and course review, assignment review, examination paper review, assessment of borderline results, and recommendations for passes. These roles are marked in *italics* in the summary list below
- those which require actuarial skills/knowledge but could be undertaken either on a voluntary or paid (or outsourced) basis. These include course writing, assignment writing and marking, exam writing and marking, tutorial preparation and delivery).

- those that could be undertaken by others with particular financial (but not necessarily actuarial) skills, again on either a voluntary or paid (outsourced) basis. These include some course writing, assignment writing and marking, exam writing and marking, depending on the subject/area.

Steps in the Part III education process currently managed by Volunteers:

Roles which must rest with the IAAust due to the necessity to maintain standards and control of the education process are marked in italics below.

1. Course Development
 - *Syllabi development and review*
 - rewriting/updating course materials
2. Examinations
 - Exam writing
 - Exam scrutineering
 - *Board of Examiners review and approval*
 - Exam marking
 - *Assessment of results*
 - *Review of Borderline candidates*
 - *Producing Board of Examiners Report*
 - Writing student exam reports
3. Assignments
 - Assignment writing
 - *Assignment reviewing (standard, course coverage etc)*
 - Assignment marking
4. Tutorials
 - Tutorial preparation
 - Tutorial delivery
 - Web forum management

Note that these steps do not include the IAAust education staff and administrative support/resources required to manage the Part III education delivery and volunteer management.

Student numbers

Part III student numbers have been steadily increasing in recent years, with 446 enrolled in Part III in 2003, compared with 365 in 2002, and 300 in 2001. It is likely that this will continue to grow, as we see the effects of ANU and UNSW producing graduates through their Accredited Actuarial Part I and II courses. (Both of these universities were accredited in 2000.)

The sub-committee has produced a simple Student Numbers Model to project possible student numbers enrolled in each Module for each period. This model will be further developed over the next month to allow appropriately for a number of factors. However current indications from the model are that after 7 or 8 years, there may be over 1,000 students involved in the examination process each year.

Voluntary hours

An assessment was made of the number of hours provided in 2002 (on a voluntary basis) by IAAust members to deliver the Part III education program. An estimate was also made of the number of hours that would be required in 2005 if the current Part III structure was still in place. This was compared to the number of hours expected to be required in 2005 if the proposed Part III structure is introduced. Note that this assessment effectively assumes that there is minimal change to the current approaches and methods used for education delivery and operations, other than accommodating the additional frequency and number of courses and the introduction of Module 4 (Business Applications).

Summary of voluntary hours

Steps in Part III educ program	Hours in 2002 current Part III structure (student numbers: 365)	Hours in 2005 with current Part III structure (assuming a 15% increase in 2004 & 2005, giving student numbers in 2005 of around 580)	Hours in 2005 with new Part III structure (also based on student numbers of around 580 in 2005)		
			Modules 1-3	Module 4 (Business Appl'ns)	Total
Course review/updating	1,100	1,250	1,350	150	1,500
Examinations	1,768	2,522	3,892	300	4,192
Assignments	893	1,470	1,575	0	1,575
Tutorials	476	476	468	1,210	1,678
TOTALS	4,237 (or 106 weeks)	5,718 (or 143 weeks)	7,285 (or 182 weeks)	1,660 (or 42 weeks)	8,945 (or 224 weeks)

Note: Tutorials in Module 4 includes the development and delivery of the residential case study intensive, including assessment.

Currently, approximately 4,200 voluntary hours are given by members to support the education program. However it is important to note that the number of hours required is likely to increase by around 36% or 1,500 voluntary hours, to 5,700 hours regardless of the changes to Part III. This is simply due to the increase in student numbers anticipated in 2005.

Under the proposed Part III structure it is estimated that the required hours will increase by around a further 56% to approximately 8,900 hours. (Again, these hours do not include the IAAust education staff and administrative resources needed to manage and coordinate the education delivery and the volunteer management.)

The majority of the hours required for examinations (which primarily comprises exam marking) and for assignments is dependent on student numbers. The required hours for the other steps in the Part III education process are largely “fixed” according to the number of modules, subjects, and/or assignments provided.

The roles that have been identified by the sub-committee as requiring to be managed or undertaken by IAAust committees total approximately 1,000 hours. This leaves approximately 7,900 hours required to deliver the IAAust Part III education program that could be provided by volunteer resources or could be outsourced.

The major increases in the required hours are due to:

- for each subject, assignments, tutorials and examinations would be held twice per year. This effectively doubles the time/resources required.
- assignments being compulsory for all students – currently about 50% of students complete assignments, as they are only compulsory for new students. (However, the number of assignments per Module equivalent will decrease i.e. currently there are 7 assignments over a 12 month course, and the proposal is to have 2 assignments per 6 month course)
- the delivery of Module 4 (Business Applications) which may require up to 4 residential courses in three locations, twice per year.

Resource Options

It would appear from the above that the IAAust can no longer rely purely on volunteers to deliver the Part III education program. This will be the case regardless of the changes in Part III that are proposed. Increases in student numbers will require an increase in volunteer hours and as volunteer resources are already stretched to their limit in some areas, it is important to consider alternatives to the current voluntary resourcing of IAAust’s Part III education.

Resource options that could be considered include:

- Members (unpaid) – either volunteers as at present, or on a compulsory basis for some or all members as part of CPD requirements
- Staff actuaries (part-time or full time) – for example, the UK employs five staff actuaries to develop and manage the education program. Some work is still undertaken by volunteers. The skills of the staff actuaries need to cover the course practice areas.
- Contracted actuaries (part-time)
- Education providers: eg.
 - Deakin Prime (who manage the delivery and examination of the FPA courses on-line. DP works with FPA committees, who have control over

- syllabus and standards, but all delivery is outsourced to DP who employ Financial Planners and education specialists to undertake this work)
- Act Ed (or some similar group) – who develop written materials for UK courses
 - Universities –actuarial departments/centres developing and delivering courses. (Although initial discussions with the universities have raised two issues: a) economics of scale: the universities are unlikely to be interested in the development and delivery of courses with small numbers, and b) distance education: few universities offer distance education and the costs of setting this up are significant.)
- Individual university staff contracted to undertake some of the roles (eg. assignment writing and marking, exam writing and marking) – this could involve both actuarial and non-actuarial staff
 - IAAust Education Business: the IAAust developing a business arm, similar to Deakin Prime, and developing and delivering the courses on a commercial basis. This could include electronic delivery.

It is expected that the final recommendations will include a mixture of the above options for different subjects and modules. Further analysis on costs and feasibility is required and will be undertaken over the next month as part of the development of more detailed recommendations, costings and business plans for Part III education.

Fees

Currently the Part III education program is self-funding, including the IAAust staff and administration overheads. The fee for each Part III course is currently \$2,200. There is no doubt that, with the proposed changes, the resources required (and hence the cost) to offer the Part III courses will increase. Consideration needs to be given as to whether the Part III courses should continue to be self-funding (direct off-set from student fees), or an alternative financing model used. This may include a subsidy from member subscription fees or other sources of funding.

To provide some comparison, set out below are details of the costs for gaining Fellowship qualification through the education program of the UK and US professional actuarial bodies, with the fees for the specialist component (which is broadly equivalent to Part III) indicated. These costs assume that students pass each course on their first attempt and hence show the minimum cost. Also provided is a summary of the costs for gaining other professional qualifications, after completion of a university degree.

Comparison of International Actuarial Qualification Costs

ACTUARIAL PROFESSIONAL BODY	TOTAL COST OF QUALIFICATION (does NOT include degree/university costs)	COST OF SPECIALIST COMPONENT OF EDUCATION PROGRAM (ie Part III equivalent)
IoA (UK)	UK£8,423 (A\$20,000) (includes course materials, assignment marking, tutorials and exam fees for 101-109, 201, 4 x 300 series and 1 x 400 series; does not include Prof Course)	UK£1,041 (A\$2,770) (1 x 400 series) <i>(newly qualified actuary salary: approx UK£45,000)</i>
SOA (US)	US\$5,125 (A\$8,300) (includes study notes and exam fees does not include tutorials and assignment marking (not available); does not include Prof Course)	US\$2,480 (A\$4,000) (Courses 7 and 8) <i>(newly qualified actuary salary: approx US\$90,000)</i>
IAAust (Aust)	A\$7,500 (includes exemption fees for Parts I and II; course material, tutorials, assignment marking and exams for Part III; does not include Prof Course)	A\$4,400 (2 x \$2,200 per Part III subject) <i>(newly qualified actuary salary: approx A\$100,000)</i>

Comparison of Other Professional Qualification Costs

Professional Qualification	Cost in \$A (POST university degree)
Solicitor	\$7,500
Barrister	\$3,600
CFA	\$4250 - \$5500 (depending on time of enrolment)
FPA	\$10,000 (\$7,000 for Diploma of FS & \$3,000 for FPA qual)
Surgeon	\$24,810
Chartered Accountant	\$5,000
MBA	Up to \$40,000

With these comparisons, and the principle that the IAAust wishes to remain competitive with other actuarial organisations, a fee of approximately \$1,000 - \$1,500 per Module 1, 2 and 3 could be considered. The fee for Module 4 is likely to be significantly higher, due to the residential component. (As an indication, the fee for the Health Financing course (6 days residential) in 2002 was \$4,500, and the Professionalism Course (2.5 days residential) was \$1,300.)

Delivery Options:

The Resourcing and Delivery sub-committee has not yet considered in detail possible delivery options, however options to be considered include:

For Modules 1-3:

- hard-copy or disc correspondence courses (as is), with face-to-face tutorials and video tutorials – managed through the IAAust or through an Education Provider

OR

- Web-delivery: This will incorporate one-off development costs, infrastructure costs (one-off and ongoing), costs for managing electronic courseware, plus all costs associated with assignments, exams etc – managed through the IAAust or an Education Provider.

For Module 4

- hard copy or disc of reading materials (managed through IAAust or an Education Provider); plus face-to-face 5 day residential course (managed through the IAAust or an Education Provider).

The delivery alternatives that are possible/practical will vary depending on the resourcing model and options that are used.

9. NEXT STEPS

Other Issues For Consideration

Other qualifications

The possibility of cross recognition with other relevant qualifications, such as the Chartered Financial Analyst (CFA) qualification, is still to be considered by the Taskforce. Options to be explored include IAAust members who complete a specific Part III Module being granted a ‘fast track’ through parts of another relevant qualification, or the IAAust recognising another relevant qualification as equivalent to a specific Part III Module.

Changes to Part I

The IAAust is currently considering whether to adopt the new 2005 UK Part I syllabus (through Council Education Committee). The proposed UK Part I changes include placing a number of objectives previously in Part I subjects into Part III specialist courses. This has implications for the Part III Review and, if the IAAust resolves to adopt the new UK Part I syllabus from 2005, will need to be addressed by the Committees responsible for developing Modules 1, 2 and 3 for 2005.

Professionalism Course

The Professionalism Course, the final step in the Fellowship pathway, will be impacted by the changes to the Part III structure. There is the possibility of some duplication in material between Module 4 and the Professionalism course in the areas of professionalism and communication skills and suggestions have been made that the Professionalism Course could be incorporated into Module 4. The Taskforce does not believe that this is a realistic option given the already full syllabus for Module 4.

The timing of the Professionalism Course will also need to be considered, if it is to continue. Currently it is conducted each February following results from the October examinations. Under the new structure, students will have the opportunity to finish Part III at two points during the year. It may therefore be necessary to conduct the Professionalism Course twice a year or allow students to attend the Professionalism Course prior to completing Part III so that there is no delay in their ability to use the FIAA qualification.

The syllabus and the timing of the Professionalism Course is beyond the scope of the Taskforce but will be reviewed by Council Education Committee. This review should address the issues raised in this report and other considerations such as the possibility of requiring completion of a Professionalism Course for qualification as an Associate.

Next Steps

The Taskforce has presented its report to Council and the following recommendations have been agreed in principle:

- That the new structure as proposed by the Part III Review team be approved
 - a compulsory investment management course be established (Module 1)
 - the syllabus of the existing life insurance, general insurance and superannuation and planned savings courses be split into two modules (Modules 2 and 3)
 - a new combined Investment and Finance course be established as two modules (Modules 2 and 3)
 - a new Business Applications module be established (Module 4)
 - the Business Applications module be taught via a combination of self study material and a 5-day intensive residential course
 - the new modules be offered twice yearly from 2005

- That the proposed assessment methodology be adopted
 - the assessment for Modules 1-3 be a combination of assessment based on assignments and examination (maximum 20% on assignments)
 - that the assessment for Module 4 be a combination of assessment based on a case study (50%) and examination (50%)

- That the proposed transitional arrangements be approved
 - That a two year transition period exist (2005 and 2006) in which to qualify under the old structure
 - That Part III subjects passed prior to 2004 be given credit of two modules in the new structure
 - That a pass in one paper in 2004 be given a credit of one module in the new structure

However Council has adopted these recommendations subject to a suitable business plan being developed. This business plan must demonstrate the feasibility of delivering the recommended structure with an adequate level of resources and within an acceptable level of cost to both the students and the IAAust.

Section 8 highlights the wide range of issues associated with resourcing and cost constraints that may be inherent in the implementation of the revised Part III structure. Any constraints on resources or costs may require some of the above recommendations to be modified eg. only offer modules once a year, not adopt assessable assignments until at least 2010 etc.

The following principles have been agreed by Council to assist the Taskforce in developing the business plan.

- *There are some tasks associated with the education process which must continue to be undertaken by the IAAust and its committees. However there are other tasks which could be potentially “outsourced”.*

These were discussed in Section 8 and the areas the Taskforce believes are required to remain in the control of the IAAust through the Board of Examiners, Council Education Committee and Practice Committees are:

- Syllabi development and review
 - Board of Examiners review and approval
 - Assessment of results
 - Review of Borderline candidates
 - Producing Board of Examiners Report
 - Assignment reviewing (standard, course coverage etc)
- *The IAAust is no longer able to continue to rely purely on volunteers to deliver the Part III education program and hence other options must be considered.*

As discussed in Section 8, the changes required to Part III will have a significant impact on resources with an approximate doubling of the hours required in 2005 over those in 2003. Note that at least 1,500 of these additional hours would be required under the current Part III system due to an increase in student numbers only. Are there any options canvassed in Section 8 that Council does not wish to consider for strategic reasons?

- *The Part III subjects and/or overall education structure should be self-financing (as at present).*
- *It is desirable for the cost relativity between the IAAust and other actuarial qualifications to be maintained within an acceptable range.*

Being cost competitive with other international actuarial education providers may restrict what we are able to achieve in the Part III process.

- *It is acceptable to have different resourcing and delivery models for different course modules.*

Options could include web delivery, information on disk, lectures and other options canvassed in Section 8.

Time-line and Business Plan

Work has commenced on developing a business plan for the implementation process. Three dates have significance in this process:

<ul style="list-style-type: none"> ▪ June 2003 	<ul style="list-style-type: none"> ▪ The detailed syllabus of Module 1 (Investments) and Module 2 and 3 (Finance and Investments) to be finalised. ▪ For Module 4: <ul style="list-style-type: none"> - Prepare a detailed syllabus - Refine the resource requirements and delivery options ▪ Determine the required content of the course material
<ul style="list-style-type: none"> ▪ October 2003 	<ul style="list-style-type: none"> ▪ Students will be making their choice of subject for 2004 and hence will need to be informed of proposed changes and final transition rules. ▪ The existing Part III courses to be updated (as per annual review) and if possible to be spilt into Modules 2 and 3 ▪ The guide for examiners to be amended for 2004
<ul style="list-style-type: none"> ▪ August 2004 	<ul style="list-style-type: none"> ▪ The full course split completed, adjusted course materials completed (if not completed for 2004) and assignments written and aligned for Modules 1 -3. This timing is necessary to provide the examination team enough time to prepare for the April 2005 examinations. ▪ The course material for Module 2 and 3 Finance and Investments to be completed. ▪ Course materials for Module 4 (Business Applications) to be drafted. ▪ The guide for examiners to be amended for 2005.

The Taskforce intends to deliver a more detailed business plan and recommended approach for resourcing and delivery for the June 2003 Council meeting. This business plan will take into account any feedback received via exposure of the report on the IAAust website and discussion at the IAAust 2003 Biennial Convention in Coolumb, May 2003.

APPENDIX 1: BRIEF FOR IAAUST PART III IMPLEMENTATION TASKFORCE AND SUB-COMMITTEES

IAAust Council reviewed the Part III Review Report finalised in August 2002 and made the following resolutions

That Council endorses the Part III Review Report presented to Council and the direction of the Part III proposal.

That Council congratulates the Part III Review Taskforce for its work over the last 18 months.

That a Taskforce be formed by CEC to manage the development and implementation process, and that a report be brought to Council by April 2003 with a fully detailed model and funding proposal.

That Council notes there may be future funding requirements for the implementation of the Part III Review (incorporated into the overall Education Plan) of approximately \$30,000 in 2002-2003.

This brief outlines the role and responsibilities of the Part III Implementation Taskforce. The Taskforce has been formed, and includes the chairs of several sub-committees (see detailed listing below):

The Taskforce consists of:

Donna Walker (overall Chair)
Amanda Aitken
Michelle Aspery
Paul Carrett
Stuart Crockett
Sue Howes
Carolyn MacLulich
Helen Martin
David Service
Martin Stevenson
Adam Stolz

The Implementation Taskforce is to provide a report to IAAust Council in April, 2003, with final recommendations and costings on the changes to Part III including:

1. Course outlines for Modules 1, 2 and 3, including options for modes of delivery
2. Course outline, and mode of development and delivery, for Module 4

3. Assessment options for all Modules
4. Costings, in both financial and volunteer labour resources, for the development and delivery of all Modules
5. Realistic timeline, including communication to students
6. Business plan for the development and delivery over a 3 year period
7. Transition arrangements
8. Compatibility with international education developments for 2005, particularly changes UK syllabi
9. Relationship of Part III changes to current Part I and Part II syllabi, and suggestions for was to address in Part I and II reviews for 2005
10. Other issues that the Taskforce thinks Council should consider

Each sub-committee is responsible for further developing one area of the proposed changes to Part III and has the following specific responsibilities

Module 1 Sub-committee

Paul Carrett (Chair), Michelle Aspery, Stuart Crockett, Peter Worcester

- course outline for Module 1
- options for modes of delivery of Module 1
- assessment options for Module 1
- indicative costings for Module 1 in both financial and volunteer labour resources
- timeline

Modules 2 & 3 Sub-committee

Martin Stevenson (Chair), Michelle Aspery, Deborah Driussi (GI), Sue Howes (Life), Jeff Humphries (Superannuation), Fred Neville (Superannuation), Lon-anh Nyang (GI), Peter Worcester (Finance)

- course outlines for Modules 2 and 3 (this encompasses course outlines for the ‘spilt’ courses of General Insurance, Life Insurance, Superannuation & Planned Savings, Finance)
- options for modes of delivery of Modules 2 and 3, in each subject area
- assessment options for Modules 2 and 3, in each subject area
- indicative costing for Module 2 and 3, in each subject area, in both financial and volunteer labour resources
- timeline

Module 4 Sub-committee

David Service (Chair), Alexander Austin, Stephan Kaise, Carolyn MacLulich, Richard Madden, Peter Martin

- course outline for Module 4
- options for modes of delivery of Module 4, and possible delivery partners and associated arrangements
- assessment options for Module 4
- indicative costings for Module 4, in both financial and volunteer labour resources
- timeline

Transition Sub-committee

Adam Stolz (Chair), Zarina Dubash, David Isaacs, Peter Londregan

- transition arrangements for students already embarked on the Part III education program
- transition timeline, including communications to students
- any financial implications of transition arrangements

Assessment Sub-committee

Sue Howes (Chair), Sue Clark, Steve Taylor

- (with above committees) range of options for assessment of each Module
- outline of system for managing assessment processes, including resource implications

Resourcing/Delivery Sub-committee

Helen Martin (Chair), Michelle Aspery, Ron Champion, Deborah Driussi, Gillian Harrex, Richard Lyon, Carolyn MacLulich, Kaise Stephan

- overview of delivery options for full Part III program
- overview of costings for full Part III program, in both financial and volunteer labour resources
- business plan for the resourcing and delivery over a 3 year period

APPENDIX 2: EXISTING INVESTMENT & FINANCE SYLLABI

The Existing Investment Management Course

Unit 1	The General Investment Environment
Unit 2	Investment Objectives
Unit 3	Investing in Derivatives and Fixed Interest
Unit 4	Investing in Equities
Unit 5	Investing Internationally and in Property
Unit 6	Selecting an Investment Manager
Unit 7	Monitoring of Experience
Unit 8	Review the Model and Assumptions
Unit 9	Professional Practice

Outline of Existing Finance Course

MODULE 1 - CORPORATE FINANCE

1. Capital Budgeting & Risk
 - Expected return and risk
 - Business risk and financial risk
 - Capital structure and expected return
 - Weighted average cost of capital
 - Certainty equivalents
 - Sensitivity
 - Break-even analyses
 - Simulation
 - Decision trees
2. Dividend Policy
 - Forms of dividend
 - Taxes and dividend policy
3. Capital Structure & Cost of Capital
 - Effect of leverage
 - Taxes and capital structure
 - Bankruptcy costs
 - Pecking order hypothesis
 - Interactions of investment and financing
 - Limitations of weighted average cost of capital
4. Option Valuation & Corporate Liabilities
 - Option payoffs and simple valuation
 - Default on debt as an option

- Real options
 - Option to abandon
 - Valuation of warrants and convertibles
5. Debt Financing
- Valuing risky debt
 - Term structure
 - Repayment provisions
 - Leasing
6. Mergers & Acquisitions
- Motives for mergers, estimating costs, mechanics, tactics, legal requirements

MODULE 2 - CAPITAL MARKETS MODULE

1. Futures, Swaps, & Interest Rate Options
- Contract specifications, payoffs, uses, market mechanisms, trading strategies
2. Option Valuation
- Black-Scholes model and adjustments
 - Wiener process and binomial model
 - Empirical distributions, modelling volatility
3. Valuation of Interest Rate Derivative Securities
- Forward and futures prices, valuation of swaps, term structure theories
 - Wiener processes and binomial model for interest rates
 - Valuation based on market price of interest rate risk
 - Equilibrium arbitrage free models
 - No arbitrage term structure fitted models
4. Exotic Options
- Basket options
5. Hedging
- Delta, theta, gamma, rho, vega hedging
 - Synthetic option replication
 - Portfolio insurance
6. Credit Risk
- Default risk on derivatives
 - Bank capital adequacy requirements.

APPENDIX 3: ASSESSMENT METHODS

Exams (time constrained open or closed book)

An examination is set for a group of students to sit in a given time. The students may or may not be able to take materials into the examination room with them. Our exams are currently open book.

Advantages

- Tests knowledge
- Familiarity (this is the method we currently use)
- Universally understood as a method
- Can't cheat (well not easily anyway)

Disadvantages

- All or nothing, particularly if only once per year, and many students perform poorly under the pressure
- To some extent the ability to sit exams well is being tested rather than the ability to practice as an actuary
- Does not test other skills and attributes that are desirable in an actuary
- Low pass rates mean the exam process can drag on too long and good people are lost along the way
- Difficulty of examiners in determining who should pass and who should fail in the grey area, without any other method of assessment to rely upon
- Wasted resources due to constant re-sitting from low pass rates. For example, if you have 100 students and a pass rate of 30% for a subject, in the first year 30 go through and 70 re-sit with others. Say 30% of these pass (probably a bit higher, but go with me here) this results in 49 re-sitting, then 34 and let's say they all pass this year. This means you have examined 253 people to get 100 through the exams. Obviously in practice you lose some good people along the way.
- Unfairly advantages those who have experience in a particular field over those who do not due to the time constraints on essentially practical questions
- Unfairly penalises a person who takes longer to provide a better answer

Resourcing

As this is the method we use now there would be no discernible change to the resourcing requirements.

Adjusted exams (time constrained open or closed book)

This is where an examination is set such that a good student (experienced practitioner?) could complete it in a prescribed proportion of the time allowable. This is the method that many universities use.

For example, if the exam being set is a 3 hour exam the questions would be set such that an experienced practitioner would be able to perform the exam in 2 ¼ hours. This allows all students to be able to perform adequately under the time constraint and does not disadvantage the newer students or the ones lacking practical experience.

Advantages

- Tests knowledge
- Familiarity (this is similar to the method we currently use)
- Universally understood as a method
- Can't cheat (well not easily anyway)
- Fairer to students who take longer to answer or have little/no practical experience
- Takes some of the pressure off the exam and allows attributes other than exam ability to be tested with the extra time being allowed

Disadvantages

- All or nothing, particularly if only once per year
- Does not test other skills and attributes that are desirable in an actuary
- Difficulty of examiners in determining who should pass and who should fail in the grey area, without any other method of assessment to rely upon
- May allow weaker students to pass.

Resourcing

There would be no discernible change to resourcing requirements, however it may ease the administrative burden if it allows a few more students to pass that currently don't due to stress or time restrictions.

Open exams

This is where you have an exam but no time constraint to completing it. In the practical actuarial world of actuarial work there is no time constraint on the work to be done. Examiners may be able to obtain a better idea of the true calibre of a student under this method as it would allow more practical questions to be set.

Advantages

- Tests knowledge
- Familiarity (this is similar to the method we currently use)
- Universally understood as a method
- Can't cheat (well not easily anyway)
- Fairer to students who take longer to answer or have little/no practical experience

Disadvantages

- All or nothing, particularly if only once per year
- To some extent the ability to sit exams well is being tested rather than the ability to practice as an actuary
- Does not test other skills and attributes that are desirable in an actuary
- Difficulty of examiners in determining who should pass and who should fail in the grey area, without any other method of assessment to rely upon
- Difficult to administer the examination process – how long is long enough and finding people to man the exam rooms with an open ended time frame would be difficult
- Not necessarily fair if some students are learning relevant material on the job while others have no exposure in a practical situation
- If all exams are made open exams then it puts undue constraint on the examiners to design questions that are suitable for this purpose. It is also possible that unlimited time may be unsuitable for some exams/examiners. It may therefore be best if the examiners are given the option of having all or part of their papers timed or untimed.
- More marking – potential for students to provide longer, less clear and concise answers.

Resourcing

There will be additional resources required to administer the exams. It may also be the case that setting these types of exams may take more time for the examiners than regular exams.

Tutorials

It has been suggested that the tutorials be “beefed up” so that they can count towards assessment. The best way that this could possibly be achieved would be to use the tutorials as a forum where other methods of assessment could be used, eg presentation of results, explanation of a model solution, workshops, case studies etc.

This may be able to be done effectively using on-line discussion groups, which Macquarie seems to have had some success with.

Advantages

- Allows for testing of abilities as well as knowledge
- Takes away the all or nothing approach of exams
- Provides a forum for delivery of other methods
- Makes the tutorials more relevant and useful to all students if the marks count
- Makes tutorials more worthwhile for the volunteers who organise them as they count for marks

Disadvantages

- Could not be used as the only method due to practical problems
- Difficulty of reaching all students (overseas and remote), although improving internet technology would generally assist with this
- Hard enough to resource tutorials at present, would add greater workload to tutors

Resourcing

This will strain the tutorial and administration functions that are already largely provided by volunteer labour.

Assignments

Currently these don't count toward marks. Historically these have been regurgitated past assignments. It would be unlikely that there is a student who couldn't obtain the model solutions before they did the assignment for the first time.

There are a number of problems/issues that result from this approach:

- We can hardly hold ourselves up as a better standard of educator, examiner or a professional body if we cannot provide fresh assignment questions, pitched at the correct level with good model solutions for each cohort of students that comes though. We currently consider the standards of just about every other examining body deficient to our own, but cannot meet their basic tenets. Having said this, many of the education groups have been overhauling their courses and providing fresh assignments in the last couple of years.
- It is a demoralising experience for the students – we expect them to spend hours performing original work on very difficult questions yet this counts for nothing toward their results
- It is demoralising for Institute staff, who constantly get complaints about these not counting
- It is demoralising for Institute staff, who perform a considerable amount of work around the assignment process only to see it count for nothing for students
- Because they don't count for marks lazy practices such as recycling assignments has become the norm.

Assignments if used as an assessment method

Assignments are unlikely to be a viable assessment method alone. It is acknowledged, however, that allowing some proportion of available marks to be used for this method would be beneficial for students and Institute staff. As well as this it allows other skills and abilities to be tested, as assignments can be set to test a range of abilities that cannot be assessed in the examination room. We would suggest that assignments count for between 10% and 20% of the available assessment marks.

One of the main criticisms of assignments by actuaries is that they are not a good method because they allow students to “cheat”. While we agree that recycling assignment questions so that the model solutions can be copied or adjusted and copied is bad practice when assignments count for marks, we can easily overcome this by putting the work in to provide new assignment questions each year. One of the definitions of “cheating” that has been aired many times is “students working together”. Is this really a problem? Genuinely working together on a problem deepens understanding and knowledge and will produce a better candidate for the exam. Any plagiarism would effectively sort itself out, however, as:

- if the assignments count students will be more reluctant to provide answers to others;
- any student who copies without understanding will either be caught or caught out when they try to do the exam, as this will definitely not help their understanding.

Advantages

- Tests knowledge
- Familiarity (this is part of the method we currently use)
- Universally understood as a method
- Can be used to encourage group work
- Allows students who take longer to produce good answers to compete
- Improves education practices
- Improves student, Institute and course writer morale
- Allows questions to be asked, and skills tested, that cannot be done in an exam situation
- Takes the edge off the exam and thus reduces pressure on the student
- Can assist examiners in forming a view on a border-line student if assignment work is available
- Will encourage markers to mark and return assignments in a timely fashion if the marks count
- Encourages students to seek out the view of others.

Disadvantages

- Issues with plagiarism – mitigated by the existing ability of the education resources to be able to identify this
- Examiners may wish to vet the assignment questions and model solutions, which will add both complexity and workload to both examiners and course writers.
- Skills and abilities required to be an actuary in practice still haven’t been tested

Resourcing

This would increase the resourcing strain on the course rewriters, as they would have to provide a fresh assignment with each course. It may further increase their load and would also increase the examiners' loads if the examiners wanted to have active involvement in the setting of assignments and provision of model solutions.

Oral presentations

This option is somewhat misunderstood. Firstly let us dispel the fanciful assumption that this involves students standing in front of their fellows presenting overheads and a talk on a range of topics such as "Why footwear workers in 3rd world countries are exploited". What we are suggesting here is presenting the results of research, putting forward a plan for a project requiring funding to a group of executives, presenting results or reports to boards of directors and other similar parties.

Advantages

- Tests knowledge
- Tests "other" skills and abilities required in a practising actuary
- Can be used to encourage group work
- Allows students who take longer to produce good answers to compete
- Allows students with a broader skill set to have these count toward their assessment
- Allows questions to be asked, and skills tested, that cannot be done in an exam situation
- Is a forum where questions can be asked so that a complete view of the student's abilities can be tested
- Takes the edge off the exam and thus reduces pressure on the student
- Can assist examiners in forming a view on a border-line student if results available or tutor is available for questioning

Disadvantages

- Possibly a complaint about plagiarism or ability to get another person to produce materials – mitigated by the student having to explain in a live setting and being subjected to questioning
- Distance is an issue – remote and overseas students are difficult to cater for, however online is a possibility or this may be able to be done with the assistance of suitable actuaries in the regional centre
- To be well tested a non-actuarial person of suitable calibre may need to be found to determine whether the student has in fact imparted their information clearly and concisely – specialist skills are needed to assess all aspects of presentations.
- Consistency across the various centres is also an issue.
- Lack of flexibility in timing of assessment – examiner cannot easily discuss with another colleague.

Resourcing

This is likely to require considerable extra resourcing to organise and to find a suitable panel of markers/questioners. The logistics may also cause a problem.

Another option is to make this part or in conjunction with the professionalism course, but maybe it is a bit late then. It is also important that this aspect not be done in such a way as a student on the professionalism course could then technically fail by virtue of failing this part of the course – which leads to all sorts of practical difficulties.

Oral presentation of case study results

This is a slightly different take on the above, but it does add a bit more depth to the process. The discussion on the case study aspects is below. The presentation of results adds a dimension to the case study approach that allows the individual's abilities and understanding to be put to the test, rather than being carried by the group or others.

Case Studies

A case study is provided to the student. To give an idea it may something like the following:

- Each student is provided with a set of accounts for a company – each set is different and relates to a different company (be they made up of morphed from the others in some way)
- A set of events is then described to all the students and the case study involves each of them figuring out for their company how this will affect it and the advice they would give to the board
- Results are handed in or presented and marks awarded for a range of aspects.

Advantages

- Tests knowledge
- Tests “other” skills and abilities required in a practising actuary
- Can be used to encourage group work
- Can be set to discourage plagiarism
- Allows students who take longer to produce good answers to compete
- Allows students with a broader skill set to have these count toward their assessment
- Takes the edge off the exam and thus reduces pressure on the student
- Can assist examiners in forming a view on a border-line student if results available or tutor is available for questioning
- A method employed by many of the top management and business schools

Disadvantages

- Very labour intensive
- Distance may be an issue, but this may be able to be allowed for in a variety of ways – online discussion groups, written report submission followed up with series of E-mail question and answer sessions – there are bound to be a number other ways
- Would be beneficial to have non-actuarial people to mark the ability to communicate – which adds complexity
- Consistency across the various centres may be an issue

Resourcing

Logistics may cause a problem. If they don't then it is likely that this will be quite a labour intensive method for the people designing the case studies, marking criteria and method of delivery. These would also be quite labour intensive to mark well.

Group projects around case studies

Same as above, but the case study is designed specifically so that the students learn more by collaborating rather than less. Again you would have to be able to test each team member's understanding of ALL the issues by the end of the process. This may disadvantage students who are remote from others, thus the Institute education staff would have additional work to do in forming groups of students to work on the projects to ensure all had a group to belong to.

We may also be assessing the strongest candidate rather than individuals in each group. A candidate may do well or poorly because he is randomly included in a good or weak group.

Training courses

Using external training courses would enable the outsourcing of some of the work to a third party. Under this option we would find suitable courses and let the marks from these count toward the assessment of the student.

Advantages

- Reduces our workload
- Benefits obtained by using courses and materials designed and produced by education specialists

Disadvantages

- Finding suitable courses – content
- Finding suitable courses – marking standards and consistency

- Being brave when the assessments of these other courses are criticised by students is difficult

Resourcing

This would reduce resourcing requirements once suitable courses are found. The exercise to identify such courses would considerably drain resources.

Work experience / Mentoring

The idea here is that a senior actuary determines the practical abilities of a student and certifies that they are suitable to be practising. The issues here are:

- The certifier/mentor would have to be someone at arms-length to the person being assessed. Otherwise there is the risk of subjectivity in the appraisal process. This makes it a difficult process to achieve.
- The mentor would have to have a close association with the person and spend quite some time talking through the issues being faced in the workplace and asking questions etc. This is extremely time-intensive for both parties. This method is used with project management certification, but then it is almost impossible to examine the practical application of project management skills in any other way.

Advantages

- Tests knowledge
- Tests “other” skills and abilities required in a practising actuary
- Allows the “real” abilities of students to be assessed in the workplace
- Allows questions to be asked, and skills tested, that cannot be done in an exam situation
- Is a forum where questions can be asked so that a complete view of the student’s abilities can be tested
- Takes the edge off the exam and thus reduces pressure on the student
- Can assist examiners in forming a view on a border-line student if results available or tutor is available for questioning
- The student, and the industry as a whole, would benefit greatly from the grounding obtained from this method

Disadvantages

- Difficult for any students that don’t currently work in the industry to be suitably assessed
- Very resource intensive
- Suitable mentors may not always be available
- Time consuming for the mentor
- Distance may be an issue – remote and overseas students could be difficult to cater for if they are isolated from other actuaries
- Consistency across the various centres is also an issue

Resourcing

Very resource intensive and sufficient suitable volunteers for this type of time commitment may be difficult to find.

Workshops

Groups would be brought together to workshop ideas or issues. Participation would count toward assessment.

Advantages

- Tests knowledge
- Tests “other” skills and abilities required in a practising actuary
- Allows questions to be asked, and skills tested, that cannot be done in an exam situation
- Is a forum where questions can be asked so that a complete view of the student’s abilities can be tested
- Takes the edge off the exam and thus reduces pressure on the student
- Can assist examiners in forming a view on a border-line student if results available or tutor is available for questioning

Disadvantages

- Difficult for regional/remote students
- Very resource intensive
- Difficult to assess students that are quiet in a large group
- Difficult to manage loudmouths
- Assessments may be highly variable between students due to personality differences
- Likely to add significantly to course costs for students further away

Resourcing

Very resource intensive and likely to be costly for students

Thesis

Students would be allowed to write a thesis in place of one or more Modules.

The student would elect this method and submit their subject/area/research topic to a panel of actuaries for assessment. The criteria for assessment would be something along the lines of being of benefit to the profession and showing sufficient depth of knowledge of the relevant subject area.

Advantages

- Research of long term benefit may be developed

- Takes pressure off for a student who prefers this method to an examination

Disadvantages

- Does not test broad knowledge – tests depth on a very limited topic, not breadth, which is necessary to practice
- Does not test “other” abilities required to be a practising actuary
- Approval of topics and administration is time consuming
- Monitoring of these students is time consuming and difficult
- Depending on the topic chosen, finding a suitable actuary with sufficient depth of skills in this area who is available to monitor the student may be very difficult
- Very resource intensive
- Distance may be an issue – remote and overseas students could be difficult to cater for if they are isolated from other actuaries
- Consistency between students would be difficult to ascertain
- Universities encourage these for several reasons – to obtain funds, the prestige and marketing pull of their doctoral students and results, the ability to obtain government grants. None of these really apply to us, so is it a good fit for the labour involved?

Resourcing

Very labour intensive.

Viva

Viva is short hand for viva voce, which means “live voice”. The medical specialist examinations use this method and the top UK teaching hospitals use it for a number of their exams. As an example, the anatomy and physiology exam in the UK consisted of a panel of extremely senior practising specialist surgeons and physicians – generally 5 to 7. The students would be given a time they had to be in a waiting room ready to go in. One student at a time goes in and they are handed a jar with a pickled body bit in it (lots of jars for the panel to choose from). They are asked to identify the bit, identify if it is diseased and if so what is the problem and describe a treatment regime for the patient if they had come across it in a human being in that state. The student stands in front of the panel right there and then and off they go. They pass or fail on this one event.

This would be too time intensive and difficult to do as an alternative to exams for all students, but it may be a good option for a student who has failed the exam a couple of times. One possible method of use is set out below:

If a student has say had 2 attempts at a subject and the last of these were a “B” pass, then they could opt to have a viva. The student would have to pay an amount to do it to cover set up costs etc. A panel would be convened for the relevant subject and the student(s) electing to do this would stand or sit before the panel and be given a scenario that they would have to talk through. The panel would be able to ask questions etc. The final aim being to determine if the person has sufficient ability to practice.

Advantages

- Caters for students who do not perform well in an examination environment
- Reduces resourcing requirements for administration and examinations as students have an alternative to the exams
- Allows “other” skills that an actuary requires to be tested thoroughly
- Fully tests knowledge and abilities
- Allows questions to be asked and answered, so a full assessment of abilities can be made
- Takes pressure off the examiners to some extent around the grey area students as another avenue is available to the student
- Pays its own way, thus alleviating volunteer resource pressures to some extent
- Convening a panel would be less difficult if members are paid for attendance
- Having a panel sit for a cohort is an efficient use of resources and provides a consistent approach and assessment
- Forward looking – demonstrates we are creative in our examination approach and also considering the communication of the results in clear fashion.

Disadvantages

- Logistics may be tricky, but not impossible. Could be held in a number of centres depending on demand, or if low demand may be sufficient incentive for a student to attend centrally anyway
- Could not be provided for all students as would be too labour intensive and logistically difficult
- May be difficult for those students for whom English is a second language?

Resourcing

Quite labour intensive, but ability to charge for it removes reliance on volunteers and allows suitable calibre people to be obtained reasonably easily.

APPENDIX 4: NOTICE TO MEMBERS (Feb 2003)

Part III Changes – Information on Initial Transition Arrangements

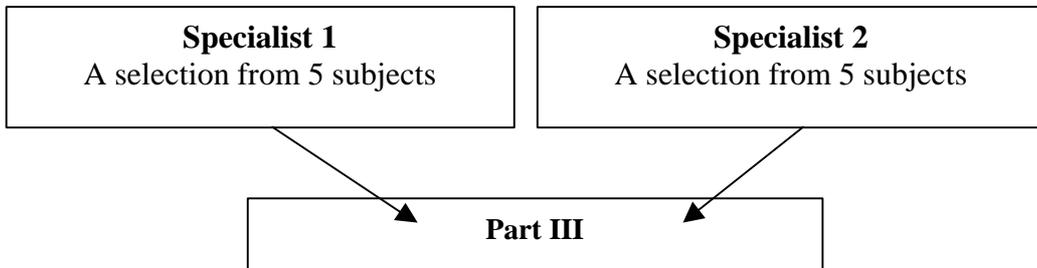
This notice is to update you on the current status of the changes to the IAAust Part III course. If you are studying or intending to study Part III, this notice may help you make decisions on which subject(s) to sit in 2003 and beyond. If you have any questions please contact Michelle Aspery, Education Manager at the IAAust on +61 2 9233 3466 or email michelle.aspery@actuaries.asn.au.

Last year, the IAAust Council ratified a plan to implement changes to the Part III course. An email was sent to all students on 13 September 2002 providing an update and outlining the aims of the proposed changes. For more information about the reasons for the changes, please refer to the report prepared by the Part III Review Taskforce called “A Proposed Strategy for Future Part III Education”. This report was presented to members for feedback during 2002. Information relevant to the Part III review can be accessed on the IAAust website at www.actuaries.asn.au. (at Education page: Part III Review).

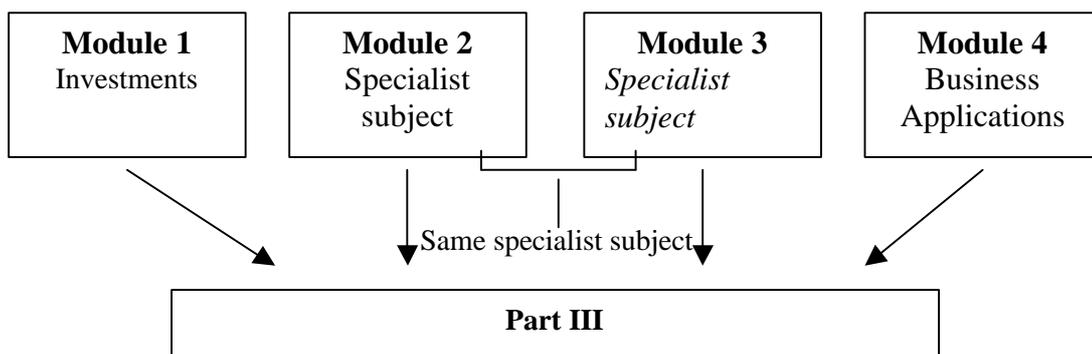
The changes

The changes can be summarised in the following diagrams.

The **current arrangements**, where students select two Specialist subjects from five, are as follows:



The **new arrangements** are as follows:



The key characteristics of the planned new structure are:

- four half-year long subjects (“modules”);
- two compulsory modules - “Investments” (Module 1) and “Business Applications” (Module 4);
- the other two modules (Module 2 and Module 3) to be studied from the same practice area.

As part of the transition to this new structure, the major changes will take place from 2005. As such, the broad course structure for 2003 and 2004 will be the same as in previous years.

Transition arrangements and planning

The following transition principles need to be highlighted:

- A pass in a Specialist subject in 2004 or earlier will provide you with exemption from 2 modules under the new structure from 2005. For Specialist subjects other than Investment, this exemption will apply to Modules 2 and 3. A pass in the Investment Specialist subject will exempt you from Module 1 and one other Module from 2005
- In 2004, it will be possible to pass half a Specialist subject (that is, one of the two exam papers) and, in most circumstances, then be exempt from one Module under the new structure from 2005.

It should be noted that this special arrangement for 2004 will provide students with the opportunity to pass half a Specialist subject. This opportunity has not been available previously.

The following summarises the current plan for implementing the new Part III.

In 2004:

- All students will be required to pass two full Specialist subjects in order to qualify as a Fellow.
- All five Specialist subjects will exist as one-year subjects and have an examination consisting of 2 papers, with examinations for both papers held at the end of the year.
- For all Specialist subjects other than Investments, passing paper 1 in 2004 will exempt you from Module 2, and passing paper 2 in 2004 will exempt you from Module 3 in 2005. However it will not be possible to be exempt from both Modules 2 and 3 by passing papers in different Specialist subjects.
- For the Investment Specialist subject, passing paper 1 in 2004 will exempt you from the new compulsory Investments module (Module 1) in 2005, while passing paper 2 in 2004 will exempt you from one other Module, the details of which have not yet been finalised but will be confirmed during 2003.

In 2005:

It is planned to implement the remainder of the proposed changes in 2005 – including the compulsory Investments module (Module 1) and the Business Applications module (Module 4). However, the final design of each Part III module is yet to be finalised for 2005 and beyond. This table summarises the current position:

Current plans for Part III implementation

<i>Year</i>	<i>Proposed Changes</i>
2003	No change
2004	Offer all five Specialist subjects as one-year subjects, but with examinations consisting of 2 exam papers (each paper covering a half (or one ‘module’) of the course), with examinations at the end of the year only.
2005	Split Part III subjects into 2 modules (and it is anticipated that examinations be offered twice a year) Introduce half-year compulsory Investments module (Module 1) Introduce half-year compulsory Business Applications module (Module 4)

We appreciate your patience throughout this process and we will endeavour to communicate developments on a regular basis. Again, if you have any queries, please contact Michelle Aspery at the IAAust office.

With best wishes for your studies

David Knox
Chair, Council Education Committee
7 February 2003

APPENDIX 5: TRANSITION CASE STUDIES

Following are some example case studies of students intending to continue their studies in 2005 and beyond:

1. Anne has passed a General Insurance specialist in 2004 or earlier. She therefore has equivalent passes for Modules 2 and 3 in General Insurance. During the transition period she has the option to try and pass Modules 2 and 3 of another specialist. However, this is a risky strategy, as a pass in just Module 2 or Module 3 of her second specialist would not be given credit after the end of the transition period. It would be recommended that she aim to pass Modules 1 and 4 to complete the exams.
2. Kim has passed Life Insurance paper 1 in 2004. He therefore has passed Module 2 in Life Insurance. He needs to pass Module 3 in Life Insurance as well as Modules 1 and 4 to complete the exams.
3. Cathy passed Superannuation and paper 1 of General Insurance in 2004. Under the rules for the transition period she can complete the exams by passing General Insurance Module 3 before the end of the transition period. If she doesn't pass it by this time, she will need to obtain Modules 1 and 4 to qualify. She therefore effectively loses credit for paper 1 of General Insurance after the end of the transition period.
4. David passed paper 1 in General Insurance and paper 2 in Superannuation in 2004. He will gain an equivalent pass for Module 2 in General Insurance and Module 3 in Superannuation under the new system. In order to qualify David can choose to sit Module 3 in General Insurance and Module 2 in Superannuation, but he must pass these by the end of 2005 before the transition period ends. Alternatively he could choose General Insurance or Superannuation as his main specialist and therefore only gain an equivalent pass in one module. Under this scenario he would need to pass Modules 1 and 4 as well as the remaining module in his chosen specialist. Although under this scenario he needs to pass one more module, he does not have any time constraints in when he must qualify.
5. Kathleen passed Investments specialist in 2004 or earlier. She will earn passes for Modules 1 and 2 under the new system. She has the option to try and pass another specialist during the transition period, but this would be a risky strategy, as she would only have until the end of the transition period to complete Part III. A more sensible strategy would be to take Module 3 in Investments/Finance and Module 4.
6. Bob has passed Finance specialist in 2004 or earlier. He will earn an equivalent pass for Modules 2 and 3 of Investments/Finance. He has the option of trying to pass another specialist during the transition period, but a less risky option would be to pass Modules 1 and 4 in order to qualify.

7. Jessica has passed Investments specialist in 2004 or earlier and Finance paper 1 in 2004. She has therefore passed the equivalent of Module 1 and Modules 2 and 3 of Investments/Finance. She will just need to pass Module 4 from 2005 to qualify.
8. Derek has passed Finance specialist in 2004 or earlier and Investments paper 1 in 2004. He therefore has passed Module 1 and Modules 2 and 3 of Investments/Finance. This means he will need to pass Module 4 to qualify.
9. Emma has passed Finance specialist in 2004 or earlier and Investments paper 2 in 2004. She can complete Part III by passing Module 1 during the transition period. If she fails to pass Module 1 by the end of the transition period she will only have equivalent passes for Modules 2 and 3 of Investments/Finance at that time. In order to qualify she will need to pass both Modules 1 and 4 after the end of the transition period.
10. Luke has passed Finance paper 1 in 2004 and Investments paper 1 in 2004. He will have a pass for Module 3 of Investments/Finance and Module 1. He will need to complete Module 2 of Investments/Finance and Module 4 in order to qualify.
11. Penny has passed Finance paper 2 in 2004 and Investments paper 2 in 2004. She has earned an equivalent pass for Modules 2 and 3 of Investments/Finance. She will need to pass Modules 1 and 4 to complete Part III.
12. Peter has passed Life Insurance specialist and Investments paper 1. He has therefore passed Module 1 and Modules 2 and 3 of Life Insurance, and so will only need to pass Module 4 to qualify. An alternative option is for Peter to try and pass Module 3 of Investments/Finance by the end of the transition period as doing this will give Peter the equivalent of Life Insurance specialist and Investments specialist.
13. Fiona has passed Superannuation specialist and Investments paper 2. She has earned an equivalent pass for Modules 2 and 3 for Life Insurance and Module 2 of Investments/Finance. In order to qualify she can choose to try and pass Module 1 by the end of the transition period. However, after the end of the transition period she must pass both Modules 1 and 4 to qualify.
14. Jack has passed General Insurance paper 1 and Investments paper 1. He will get equivalent passes for Module 2 of General Insurance and Module 1. He will need to complete Module 3 of General Insurance and Module 4 to qualify. Alternatively he could try to pass the equivalent of two specialists by the end of the transition period by passing Module 3 of General Insurance and Module 3 of Investments/Finance.
15. Yolanda passed Superannuation paper 2 and Investments paper 2 by the end of 2004. She has therefore passed Module 3 of Superannuation and Module 3 of Investments/Finance. She can choose to complete Module 2 of

Superannuation and Module 1 to qualify, but must do so by the end of the transition period. The alternative is to use just one of her passes for Superannuation and Investments/Finance. She will then need to complete the remaining module in Superannuation or Investments/Finance as well as Modules 1 and 4 in order to qualify.

16. Jeremy has passed Superannuation specialist and Finance specialist but not the SIA course at the end of 2004. He can qualify before the end of the transition period by passing the SIA course. If he doesn't pass this by the end of the transition period, he will need to choose either Superannuation or Finance as his specialist, and complete Modules 1 and 4 in order to qualify.
17. Tanya has passed Finance specialist but not the SIA course at the end of 2004. She can qualify by the end of the transition period by passing the SIA course and the equivalent of one other specialist. Alternatively she can choose to qualify under the new system by passing Modules 1 and 4 only. As well as only have to pass two subjects instead of three, the benefit of the latter option is that it doesn't expire at the end of the transition period.