

Newsletter

The Society of Actuaries in Ireland

October 2000

Editorial

Welcome to the October 2000 newsletter. The Society's calendar of events has already included a number of very informative seminars and evening meetings. Another important date to note in your diaries is Thursday the 9th of November. There is a morning symposium in the Conrad Hotel on the topic of 'Regulation /self-regulation of the profession'.

A new addition to the newsletter is our 'Question Time' feature – many thanks to Colm Fagan for being the first candidate in the hot seat. We plan to extend the feature to include 'volunteers' from a number of different disciplines over the next few editions.

Over the summer months, the PR/Communications Committee have continued with their work on Position Papers. Three draft papers were presented to the Life and Pensions Committees at a recent meeting. The topics covered were; Life Assurance Taxation Changes, Approved Retirement Funds and Endowment Mortgages. Considerable debate was generated by the papers, with a variety of opinions expressed regarding their content and purpose. It has been agreed that the individual committees will produce final draft papers for presentation to Council

Articles for future editions of the newsletter are always welcome and can be sent to either Frances Kehoe, Michelle Roche or Mary Butler. The next issue will be published in December



Left to right: Adrian Lee, Mark Caslin, Bill Muysken, Matthew Annenberg, Jimmy Joyce, Ronan Smith, John Caslin.

Currency Overlay and Currency Fund Management

In view of the growing awareness and importance of currency risk in investment portfolios, the Society of Actuaries in Ireland and the Society of Investment Analysts in Ireland organised a seminar on Friday 15th September 2000 to discuss currency risk management for pension funds and investors. Delegates heard from four leading experts in the field of currency risk management, namely, Matthew Annenberg of SSB Citibank, Mark Caslin of Alder Capital, Adrian Lee of Lee Currency Overlay and Bill Muysken, Chairman of Mercer's Global Manager Research Committee.

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Currency Overlay continued . . .

Bill Muysken opened by pointing out a number of 'commonly held beliefs' about currency hedging, including:

- Hedging is a waste of time because the long-term impact on returns is virtually zero;
- The best way to reduce currency risk is through active currency management;
- The best performing equity markets tend to have the strongest currencies;
- It is impossible to add value by trying to forecast exchange rate movements.

These 'commonly held beliefs' were then exploded and shown up to be myths.

Bill said that the most common method of hedging currency exposure is to use forward foreign exchange contracts. These are agreements to buy or sell an agreed amount of one currency for an

agreed amount of another currency at a fixed rate of exchange at some time in the future.

The cash flow implications of currency hedging need to be examined too. Even if the hedge is perfect and currency profits/losses on the underlying portfolio are exactly offset by losses/profits on the currency hedging instruments, the cash flows may not match. Profits/losses on the underlying portfolio are only realised when they are sold whereas profits/losses on hedging instruments like forwards are only realised when they are rolled over or closed out.

The key to understanding currency exposure management issues is to separate two issues:

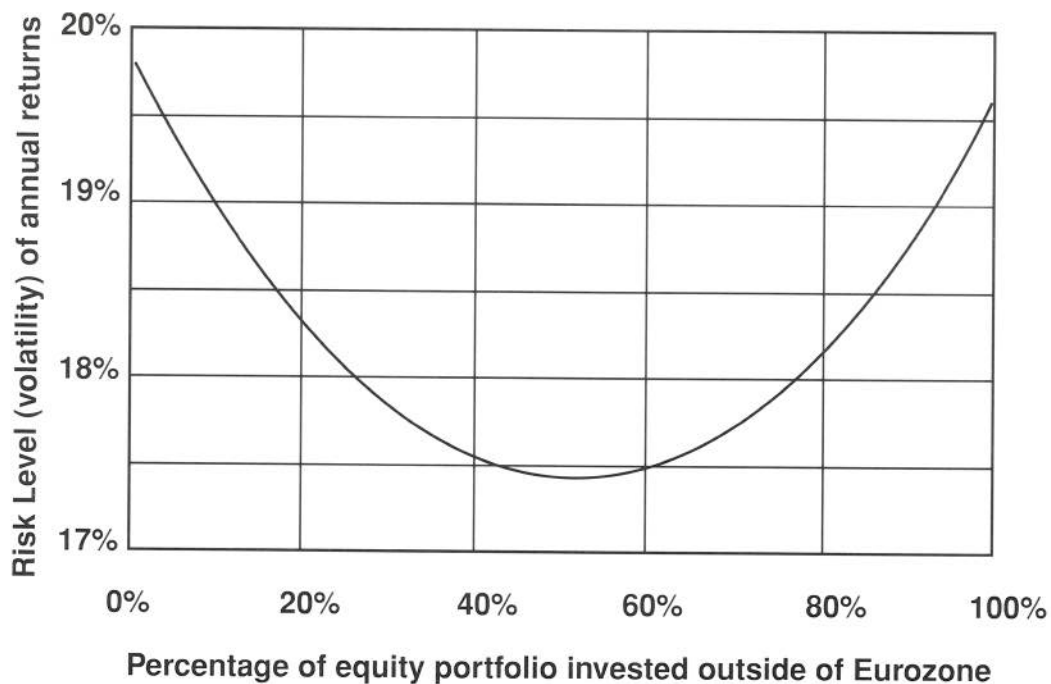
1. The long-term strategy issue. (What should the currency exposure in the benchmark portfolio be?)
2. The implementation issue. (Should the currency exposure, relative to the benchmark portfolio, be

managed actively, passively or by doing nothing?)

The long-term strategy issue:

The answer to the first question should take into account long-term risk and return implications of the choice of currency exposure inherent in the benchmark portfolio. Taking return into account is easy. Getting a handle on risk (defined here as the standard deviation of nominal returns) is more difficult. Risk matters to investors and trustees, even those concerned with maximising long-term returns, as reducing risk in one part of the portfolio allows you to invest more in risky assets which are expected to earn a higher long-term return.

As an example, Bill looked at a Eurozone-based investor who invests 100% in equities. If currency hedging were ignored, how would the risk level vary with the percentage of equities invested outside the Eurozone? Figure 1 below has the results. → *contd. on page 3*



Currency Overlay continued . . .

Figure 2 below shows what the impact of hedging currency exposures would have been.

The implementation issue

To answer the second question, investors and trustees need to ask whether there are inefficiencies in the currency markets and who is best placed to exploit them. Currency markets are inefficient due to the presence of market participants that are not particularly price sensitive such as:

- Central banks trading currencies in an attempt to reverse currency trends;
- Companies and other institutions hedging unwanted exposures;
- International investors implementing underlying investment transactions.

Bill quoted from a paper by Brian Strange¹ who analysed the performance since inception of 152 active currency overlay accounts which showed that:

- The average outperformance was 1.9% per annum and
- 121 (80%) of overlay managers outperformed since inception.

Follow-up studies published since then have reported results consistent with Strange's paper.

Bill concluded by making three points:

- There is a strong case for using active rather than passive currency management; but
- Some managers are better at active currency management than others;
- You should set limits on the scope for active currency management in keeping with your tolerance for short-term under performance.

Matthew Annenberg outlined what he regarded as the overlay manager's 'tools of the trade' which consisted of:

- Constant Proportion Portfolio Insurance (CPPI);

- Minimum-risk optimisation;
- Fundamental currency valuation;
- Technical analysis.

He then showed how the tools fitted with various currency overlay mandates that trustees might award. For example, the fundamental currency valuation approach tended to work well with mandates that gave an overlay manager a high level of discretion whereas the CPPI tool tended to work best with tightly written mandates.

The CPPI tool approximates the performance of a low-cost put option on the foreign currency. The hedge ratio increases as the investor's base currency appreciates against the foreign currency. The hedge ratio is recalculated daily. However to reduce transaction costs, the hedge ratio is adjusted only when it moves beyond threshold values set in advance.

Adrian Lee showed in his talk that currency hedging reduced the risk associated with international investment. He also addressed the issues of currency benchmarks for portfolios and the efficiency of the currency markets. He pointed out that the conditions for an efficient market did not exist. He concluded, similarly to Bill, by showing that currency markets failed on all four of his tests

for an efficient market, which are:

- Many buyers and sellers;
- Common information available to all participants;
- Common objectives among the participants;
- Absence of barriers to entry.

Mark Caslin said that the key characteristics of a good currency overlay manager were:

- Ability to forecast the direction of moves in currency pairs;
- Ability to forecast, measure and control risk.

He pointed out that since the introduction of the euro the volatility of the base currency of Irish investors had increased against the Yen and had increased substantially against the US\$.

He also posed the question: 'Can we forecast currency movements?' and concluded that with the right mathematical tools we could. Mark pointed out that it was not enough to be able to forecast the direction of currency moves; one needed to be able to forecast the size of moves in order to manage the risk in currency overlay strategies.

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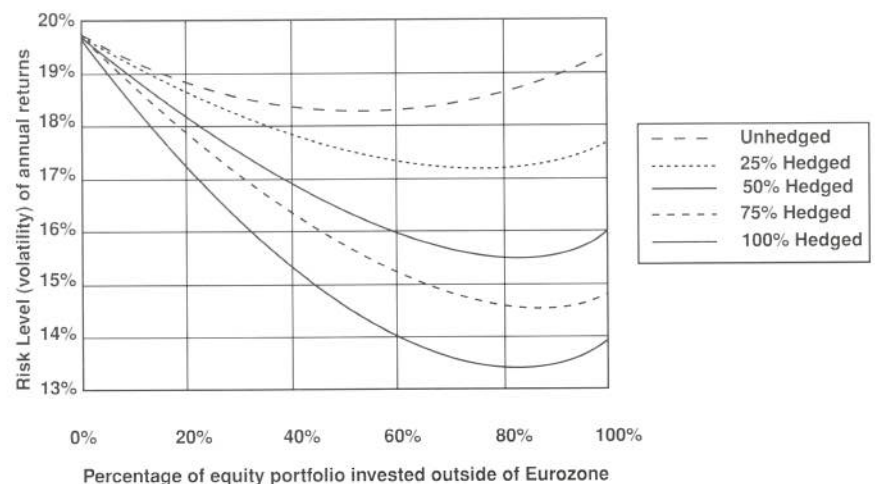


Figure 2: Historical Impact 1.1.1974 to 30.6.2000, Source: Bridgewater Associates

Currency Overlay continued . . .

He pointed out that if global growth slows and equity markets fall, companies may be expected to stump up the extra cash for their pension funds just when they are facing falling revenues themselves. He went on to explain how trustees could target the same return with lower risk by investing in a currency fund and avoid over exposure to the equity markets.

He pointed to international trends in this area. For example in the UK, it was reported that the Stg£23bn Coal Pensions Fund, the largest in the UK, would substantially increase its exposure to alternative investments as a way of insuring against market losses. In the US, the California Public Employees' Retirement System, the largest public pension fund in the US, was reported to be looking to invest up to US\$11bn of its US\$160bn portfolio in alternative investments.

The conference was timely as the National Treasury Management Agency (NTMA) will face the same decisions as pension funds only on a much larger scale. The NTMA is expected to take over management of approximately £4.8bn in assets when the legislation is passed to allow them to manage the National Pension Reserve Fund.

Discussion

An unusually long discussion of some of the issues raised took place after Jimmy Joyce opened the debate up to the floor.

The following are a sample of the issues arising from the discussion:

- Most equity investments had inherent foreign exchange risk in that their revenues and/or costs were exposed to foreign exchange risk. The panel concluded that only the explicit foreign exchange risk could be hedged. Implicit foreign exchange risk in company earnings and/or costs could not be hedged at the portfolio level.
- The issue of the cost of currency overlay arose and the panel suggested a range of fees from 10 basis points for a large fund to 30

basis points for smaller funds requiring very active currency overlay management.

- Jim Golden, from the NTMA, raised the issue of the difficulties in managing foreign exchange risk for emerging market currencies.
- The issue of how many pension funds used currency overlay managers arose. Bill Muysken quoted from a Japanese survey of the world's largest pension funds spanning the US, the UK, Canada, Australia and Japan. The funds in question covered US\$400bn of assets. 11 out of the 111 respondents to the survey said that they used currency overlay managers. 10 out of the 11 said that they were very satisfied with the performance of their overlay manager. Adrian Lee said that almost all of the largest pension schemes in the US used currency overlay managers. •

John Caslin

All-Ireland "Actuarial" Medal

Congratulations to Maurice Lyons who was a member of the Kerry panel that was recently crowned All-Ireland football champions.

Maurice is based in Dublin and works as a trainee actuary for Mercers. By winning an All-Ireland medal he has followed in the footsteps of his late uncle, the legendary "Tiger" Lyons. With all the players occupations listed on the match programme, I wonder is this a first for the actuarial profession?

Incidentally, that was not the only actuarial connection with the Kerry team. Maurice's club-mate Kenneth Dillon was also on the Kerry panel and has two brothers, Barry and Niall, working as trainee actuaries in Dublin.

Scheme Actuary Certificates

In April 1998 the Society introduced certification for scheme actuaries. Recently the Scheme Actuary Certificate Committee (SAC Committee) has been in receipt of applications from newly qualified Fellow Members. The SAC Committee has now decided that in their view, Fellow Members of the Society should have at least one year's post qualification experience in order to obtain a scheme actuary certificate. Where the period since qualification is more than one but less than three years, appointment of a 'mentor' should be required for the balance of the period. This requirement is in line with the rules of the Faculty/Institute of Actuaries. The Council of the Society has endorsed this decision. •

Jim Brophy
Chairman
Scheme Actuary
Certificate Committee

Members of the Appointed Actuary and Scheme Actuary Certificate Committee:

Jim Brophy (Chairman), John Caslin, Frank Downey, Pat Healy, Brendan Kennedy, Yvonne Lynch, Kevin Murphy, Micheal O'Briain, Philip Shier, Mary Butler (Secretary)

Papers – MBA students

We are presently seeking members willing to write papers for presentation to the Society in the year 2001. In particular we are aware that a number of members are at present studying for MBAs. May we make a suggestion to those of you in this position (and for whom the actuarial exams clearly could not satisfy the need for continual studying and acquisition of knowledge) - wouldn't a presentation to the Society be an ideal way to round off your MBA thesis? Please contact any member of Council if you are interested in presenting a paper. We look forward to hearing from you. •

Stephen Doyle
Honorary Secretary

Irishman becomes President of the Faculty of Actuaries

For the first time, one of the main international actuarial bodies - the Faculty of Actuaries - has appointed an Irishman as its President. David Kingston gave his inaugural Presidential Address in Edinburgh on Monday October 2nd.

David was President of the Society of Actuaries in Ireland from 1983 to 1985. He is also Chairman of the Irish Stock Exchange and a director of a number of other companies in the insurance and investment areas. He was Managing Director of Irish Life from 1984 to 1998.

In his address, David encouraged the actuarial profession to lead the debate in a number of areas which are of importance to the broad economy. These include:

- The need to restructure pension benefits to allow for an ageing population where many people will remain economically active beyond 65.
- The need to cater for a much wider range of advice to pension

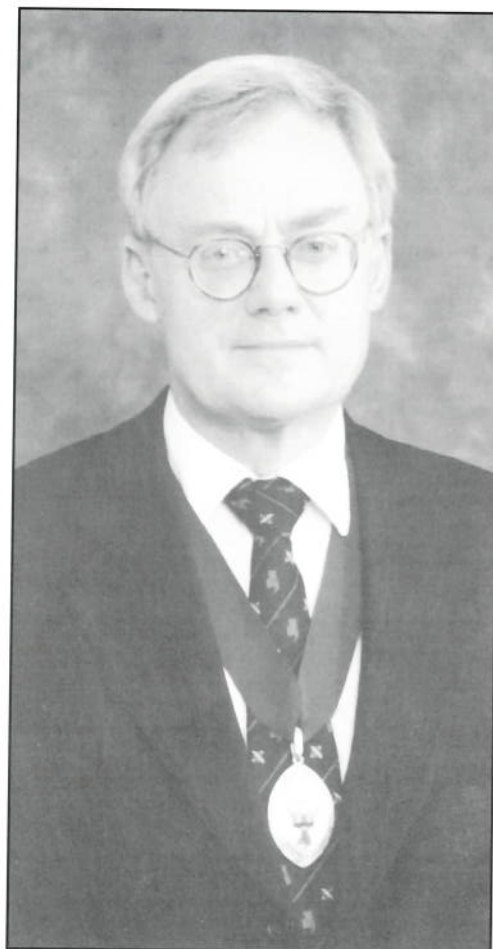
fund trustees and members in this new flexible world. The choice of investment funds will widen and many, if not all, pension fund members will need to be advised on these choices.

- The need to examine whether a new form of mutual company structure for insurance companies can be created. More and more companies are demutualising; is there an alternate structure which will offset the 'short termism' which seems difficult to avoid for quoted companies?

David went on to express his views on the development of the role of the Faculty of Actuaries, citing the successful development of the Society of Actuaries in Ireland as a source for new ideas.

Press Coverage

The Irish Times, Irish Independent, The Irish Examiner and on RTE's *Morning Ireland* programme.



David Kingston

Congratulations to our new qualifiers:

Jane Gleeson
- Norwich Union
Brian O'Donoghue
- Mercers
George O'Dwyer
- Scottish Provident
Alan Dunbar
- Standard Life

The new qualifiers reception will take place in March 2001 in the Stephen's Green Club at David Kingston's address to the Society as President of the Faculty.

Calendar of Events

November and December 2000

Thursday 9 November **Morning Symposium**
"Regulation/self-regulation of the profession"
Speakers from the actuarial, legal and accountancy professions.

Wednesday 22 November **Evening Meeting**
"Education Strategy"
Lis Goodwin

Tuesday 5 December **Evening Debate**
"E-Commerce"
Organised by the General Insurance Committee

Tuesday 12 December **Evening social gathering**
Christmas Drinks
Hosted by the President

All Meetings (with the exception of the Symposium on 9th November) will be held at 6.30p.m. in the Stephen's Green Club, 9 St. Stephen's Green, Dublin 2 and followed by dinner at 8.30 p.m. The Symposium will be held in the Conrad Hotel, Earlsfort Terrace, Dublin 2.

A Critical Review

by Azim Dinani and Dave Grimshaw

The first evening session after the summer break kicked off with a very comprehensive presentation from two members of the Institute's Critical Illness Healthcare Study Group (the 'Dream Team' as they modestly call themselves). They lived up to their billing and produced a lively debate on the many topical issues concerning critical illness business.

Market Overview

Azim Dinani started the evening with an overview of the market, outlining the huge growth in sales of critical illness products over the last ten years. Within the critical illness market, the emphasis has shifted from accelerated endowment to accelerated term assurance products. Stand-alone products have not sold to anything like the same extent as accelerated products in the U.K. While direct sales forces were the main distributors in the early years, brokers and bancassurers have shown increasing interest in this sector of the market, with brokers now sourcing approximately 31% of new critical illness business in the U.K.

On the product side, it appears that the race to include more and more illnesses is finally ending. New features such as "buy-back" (a concept born in Australia) and second event critical illness are now becoming more prevalent in the market.

Base Table

One of the objectives of the Study Group was to develop a base table for benchmarking. The resultant table was called CIBT93 and is based on experience from 1991 - 1995. The table covers all core conditions, including TPD. It is a population table with aggregate smoker and non-smoker rates. No attempt was made to adjust the table for insured lives. In this respect it differs from the Irish IC94 table. Neither table makes an adjustment for selection.

Experience Analysis

Dave Grimshaw then discussed the experience analysis carried out by the

Study Group. Two sets of data, covering the 1991/95 and 1996/97 periods, were collected from participating offices. The analysis indicated that there was a strong selection effect. However, given that the experience is still very young, it is difficult to ascertain what the select period might be and the speakers advised that these results should be treated with caution. Smoker differentials were lower than expected, but this is expected to increase with experience. Cancer dominates female claims and multiple sclerosis claims seem to be on the increase. Stand-alone business was compared with its accelerated counterpart. However, the speakers stressed that the stand-alone results were less credible, as there were only 500 claims in total on which to base their analysis.

There was considerable variation in results between offices, with the best office demonstrating experience of 23% while the worst office had claims running at 53% of the base table. Experience was also analysed by distribution channel with bancassurance and IFA operations experiencing claims at the 37% and 34% level respectively. Experience for direct sales forces was considerably worse at 51%. This was queried later when the discussion was opened to the floor. The speakers were reluctant to reach any firm conclusions, citing the early entry of direct sales into this line of business, when anti-selection was more prevalent, as a possible explanation. In addition, a lot of bancassurance business is of the mortgage protection type, where experience is generally lighter.

Reserving

Azim returned to discuss reserving issues. 75% of offices use reinsurers' rates, while 4 (out of 45) offices use IC94. The average valuation margin for reviewable and unit-linked business currently stands at 23%. This margin increases to 35% for guaranteed business. Most offices use an additional allowance for future deterioration of 1% - 2% p.a. for guaranteed business.

Current Trends

Current trends were then discussed. Medical advances are having an obvious impact, with genetic fingerprinting potentially creating a whole new environment. The incidence of heart disease continues to reduce while multiple sclerosis seems to be increasing. It was suggested that the impact of prostate cancer could be a potential pricing 'time bomb'.

Discussion

The discussion was then opened to the floor and a number of issues were discussed. Disappointment was expressed that the Study Group did not produce a life assured table, given the high quality of the work that was otherwise produced. The speakers felt that the experience was not sufficiently mature to produce a trustworthy table and felt that it would be unwise to produce a table which some offices might blindly follow, without understanding its limitations. The CMI is currently undertaking a major investigation (which will incorporate the data gathered by the Study Group), at the end of which it is hoped a life assured table will be produced.

The potential risk of anti-selection was raised, given the current advances being made in the area of genetic testing. Particular concern was expressed at the exposure under guaranteed contracts and it was suggested that guarantee periods may have to reduce in the future in light of the rapid pace of medical advances.

The high rates of claim declinature (up to 57% for TPD) evoked some concerns from a regulatory viewpoint. It was suggested that marketing materials may not be as clear as they could be.

Overall, the very high quality of the paper was praised and the lively nature of the debate testified to the level of interest it generated. •

Ann Dalton

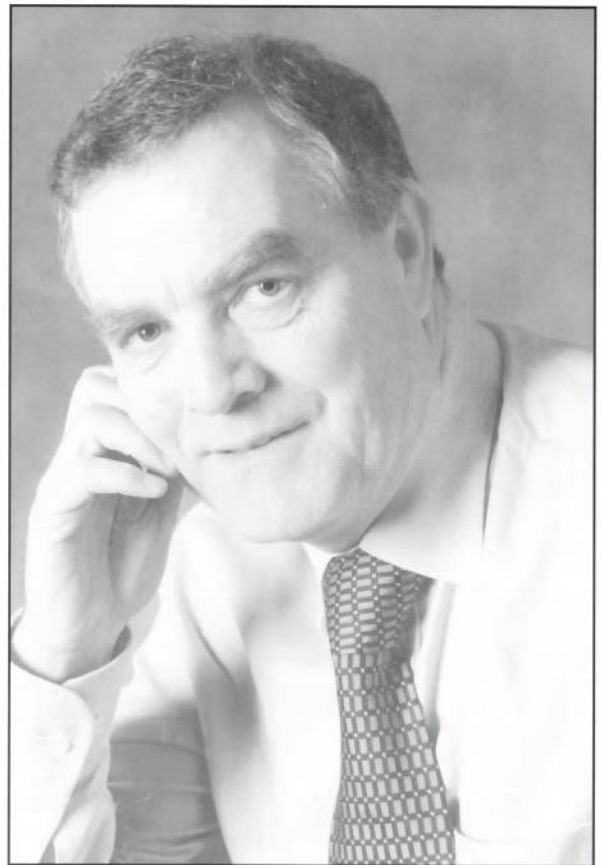
Question Time

Colm Fagan

Career Summary

A varied career, to put it mildly. In succession, "Mr. maturity guarantees", pension consultant, bancassurer, entrepreneurial consulting actuary, and now, executive of an international multi-discipline e-commerce business.

- Full name: Joseph Colm Fagan. Dropped the Joseph on birth.
- Marital status: Married (to Mary)
- Year of qualification: 1977
- Current employment: MD of Life Strategies.
- Time you start work – not obligatory to answer !! Try to avoid rush-hour. Getting earlier and earlier.
- If you weren't an actuary what would you be? Don't know – possibly a meteorologist.
- What is the worst thing about being an actuary? Not much now! Painful memories of part-time study as a young parent.
- Pet hates: Ill-tempered dogs.
- Favourite actuarial joke: The one about the actuary and the marketing balloonists.
- Would you recommend the actuarial profession to someone leaving school now? Absolutely! I'm trying to convince my youngest son to consider the profession.
- Favourite holiday location: Personally, a tiny village in the mountains of northern Tuscany. Not a view shared by Mary. (Sin scéal eile).
- How do you relax? Reading, walking, cruiser racing (just crewing).
- Last book you read: Stalingrad (not counting an Italian primer).
- Favourite tittle / beer: Smithwicks with a Guinness head.
- Favourite Dublin hostelry: Espresso Bar, St. Mary's Road.
- What famous person from history do you most admire? Charles Darwin.
- Favourite TV / Radio programme: Feargal Keane's bios of pop legends.
- What car do you drive? Succumbed to Mercedes last year.
- Most embarrassing moment: Too many, too embarrassing to admit.
- Favourite music: Still trying to outgrow 1960's pop.
- Dying words: No complaints – it's been a good life.



Golf Society

It has been my privilege to captain the Golf Society in a memorable year. As usual, there have been two main focuses to our activity - the match play competition and the outing. The magnificent trophy donated by Piers Segrave-Daly was competed for by 23 entrants to the matchplay competition. This was whittled down to the final two of Eamonn Heffernan and Maurice Whyms who enjoyed a titanic battle over the 18 holes of Hermitage Golf Club. This match went all the way to the wire but, after a dramatic finale, Maurice emerged the victor for a second year in succession. Our congratulations to Maurice and to Eamonn for battling so gamely in the final. Will Maurice make it three in a row next year? The Society returned to the magnificent setting of Hermitage for our outing on 11th August. We had a record entry this year of 49 golfers including 8 guests and 5 ladies. We were honoured to include the Vice President of Hermitage, Pat Burke, amongst our guests. We were blessed with some atypical balmy weather, which facilitated some superb

scoring, particularly by the winner, Bryan O'Connor, with 41 points. The golfing highlight of the day must have been the eagle 2 on the par 4 eighth by Brendan Lynch. For the record, the prizewinners from the outing were as follows:

- 1st: Bryan O'Connor (41 pts.).
- 2nd: Brendan Lynch (40 pts.)
- 3rd: Liam Quigley (38 pts., on back 9)
- B9: Edel O'Connell (20 points)
- F9: Tom Barry (20 points)
- Guests' Prize: Dermot O'Beirne (38 pts.)
- Ladies' Prize: Martina Walsh (38 pts.)
- Nearest the Pin: Neil Herlihy
- Retirement Prize: Steve Payne

We were treated to a memorable day by Hermitage which culminated in further analysis of the day's events over the meal and drinks. As I said, I thoroughly enjoyed my five minutes of fame in the captaincy hotseat. I am delighted to pass the baton to Maurice Whyms for 2001. I wish Maurice the best of luck with his year. •

Tony O'Riordan
Captain

Pass Rates for Irish Students lag UK Average

An analysis of the pass rates for Irish students in the April 2000 examinations makes disappointing reading. The pass rate of those sitting in the Dublin centre lagged that of the UK average by a significant margin as highlighted in the table opposite.

This is a turnaround from the trend evident in years past of the Irish rate being persistently higher than the UK average. The increased daytime workload in these busy times is perhaps having an effect. Whatever the reason, the trend is a source of concern and warrants further investigation and action if it persists in April next.

The disappointed students may take some heart from Milton Friedman's recent autobiography, *Two Lucky People: Memoirs*. Professor Friedman, a Nobel Prize winner in Economics in 1976 records:
 "The only paying occupation I had heard that used mathematics was

Table: Irish and UK Pass Rates in Actuarial Exams Compared, April 2000

Subject	No. sitting in Dublin	Dublin Pass rate	UK Pass Rate	Ratio of Dublin to UK Pass Rate
101	26	19.2%	44.2%	0.44
102	33	36.4%	59.6%	0.61
103	23	47.8%	58.8%	0.81
104	25	40.0%	41.9%	0.96
105	8	37.5%	47.9%	0.78
106	15	26.7%	51.5%	0.52
107	17	52.9%	72.9%	0.73
108	13	53.8%	54.4%	0.99
109	7	42.9%	55.5%	0.77
201	46	28.3%	37.8%	0.75
301	53	43.4%	51.4%	0.84
302	42	50.0%	51.6%	0.97
303	46	34.8%	40.7%	0.85
304	51	54.9%	40.8%	1.35
401	2	50.0%	46.7%	1.07
402	17	41.2%	39.4%	1.04
403	2	0.0%	32.5%	0.00
404	8	12.5%	39.5%	0.32
Overall	434	40.1%	48.4%	0.83

actuarial work, so I had informed myself about that and planned to become an actuary. An academic career never entered my mind. I stuck to my original intention for some years, going so far as to take some of the examinations required to become

a fellow – by far the most difficult exams I have ever taken. I passed several and failed others before I abandoned the attempt."

Shane Whelan

On the Move

⇒ Fellow Members

Frank O'Callaghan has moved from Lifetime Assurance to **Canada Life**

Conor Daly has moved from Mercer to join **HLD Actuarial Consultants**

John Lynch has joined **HLD Actuarial Consultants** from Standard Life

Noel Collins has moved from AIB Investment Managers to join **Mercers**

Adrian Daly previously with Hibernian Group and **Olga Daly** previously with EBC Frankona have launched **Solmon.com**

Declan Lavelle has moved from Norwich Union to **Halifax Insurance Ireland**

James Mulrooney has moved from Hibernian Life and Pensions to join the **Government Actuary's Department in London**

⇒ Students

Jean Dore (née O'Brien) joins **Halifax Insurance Ireland** from PricewaterhouseCoopers



Society of Actuaries in Ireland

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