


# International News

ISSUE 53 APRIL 2011

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# International News

ISSUE 53 APRIL 2011

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This newsletter is free to section members. A subscription is \$20.00 for nonmembers. Current-year issues are available from the communications department. Back issues of section newsletters have been placed in the SOA library and on the SOA website ([www.soa.org](http://www.soa.org)). Photocopies of back issues may be requested for a nominal fee.

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## Editor's Note

By Carl Hansen

The beginning of 2011 marks a time of transition for the *International News* editorial staff. Cathy Lyn and Genghui Wu have completed their time on the editorial staff of *International News*. Thank you to both of them for their efforts on behalf of the International Section and the newsletter in particular. Genghui continues to serve on the International Section Council, while Cathy remains a strong friend of the council and active on many Caribbean and international fronts. Joining the editorial staff are Ben Marshall and Jill Hoffman. Ben is based in Toronto and he currently serves on the International Section Council. Jill has been a frequent contributor to *International News*, especially on expatriate issues. Jill is another Canadian currently based in Singapore.

As the lone non-Canadian on the editorial team, I feel that it is my duty to add some variety. As a result, I have recently relocated from my long-time home of Seattle to Guernsey in the Channel Islands. In case you are not aware, Guernsey is an island with about 65,000 people just off the north coast of France. It is a British Crown Dependency, so there are many influences coming from the north side of the Channel. However, the proximity to France is evident, especially in place names. As an international finance center, Guernsey plays host to many representatives of the banking and insurance industries. It likely boasts one of the highest concentrations of actuaries per capita in the world!

I know that many readers of *International News* are currently working outside their home country. For those of you who have not yet worked abroad, I encourage you to consider it. I am on my second non-U.S. stint now, having also worked in London. Working and travelling internationally with an open mind will give you a much broader perspective on your work, your home country, and especially yourself.

Finally, please consider an entry for the annual Country Feature Article Competition. We are always looking for new authors and topics. More details can be found on page 22.



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## Chairperson's Corner

By Alan Cooke

I consider myself very privileged to serve you as the International Section Council chairperson for the 2010-11 council year. There are many interesting international activities under way in 2011 both by your council and by other parts of the Society of Actuaries, (SOA) so this is an exciting year on the international front. Before I discuss these activities in more detail, I would like to express my personal concern to our Japanese colleagues as the humanitarian crisis continues to unfold in Japan. The thoughts of International Section members everywhere are with the Japanese people as they face these difficult challenges.

As mentioned in my November blast e-mail our main 2011 objective is to increase our International Section membership by continuing and expanding the services we have been providing to our members. These services include our Ambassador Program, the *International News*, overseas seminars, SOA meeting sessions, international experience studies and the Country Feature Article competition. We are also reaching out to other sections to cosponsor more activities.

Alycia Slyck is coordinating our Ambassador Program this year, and she is working on expanding its activities and extending it to more countries in 2011. We added 11 countries to the Ambassador Program in 2010, bringing the total number of countries where we have ambassadors to 27.

We have already added an additional three ambassadors in 2011 and will be introducing them as well as future ambassadors to you through this newsletter. You are encouraged to visit the International Section page on the Society of Actuaries website to learn more about the Ambassador Program.

Our newsletter, *International News*, continues to provide a wide range of quality reading material under the leadership of our hardworking editor, Carl Hansen. We are conducting our popular Country Feature Article competition again this year and have decided to award a second as well as a first prize. The quality of these articles is always high, and we are finding it difficult to pick just one winner each year. You are encouraged to submit your entry by May 15, 2011. The rules for this year's competition were summarized in my January blast e-mail and may also be found on page 22 of this newsletter.

We have planned a seminar on international financial reporting for insurers in Hong Kong, Aug. 28-31, and several seminars are planned in other countries on this and other topics, such as variable annuities. I was invited to speak recently on global pension issues at the Current Issues in Retirement Benefits meeting sponsored by the Institute of Actuaries of India in Mumbai. My experiences there confirmed the value of the exchange of information that can occur at such seminars.

The International Section will again be sponsoring learning sessions at the SOA Annual Meeting as well as at other SOA meetings such as the Health Meeting and the Life & Annuity Symposium. Your suggestions on meeting topics are always very welcome. We will also be co-sponsoring the international reception at this year's Annual Meeting in Chicago, and we are planning to make it the biggest and best reception yet. We hope you can join us for this evening of fun and networking.

As Darryl Wagner reported in earlier issues of the *International News*, the SOA established a task force in 2010 to review its international membership strategy. The International Section has been well-represented on this important task force as I have been fortunate to serve on it along with Darryl, our staff partner Martha Sikaras and our Board liaison Ronald Poon-Affat. In January 2011, we had a full-day discussion to refine our strategic priorities and develop tactics. Our main conclusion was that the quality and portability of the SOA credential, as well as support of member communities, are our key global value propositions and that our future growth must not compromise this quality. At the March 7-8 SOA Board of Directors meeting, the Board provided guidance on and indicated its support of this strategic direction. A revised strategy will be presented to the Board at its June meeting, which will include a summary of information gathered from interviews of international members and, where possible, recommendations regarding international growth opportunities, as well as operational enhancements that support international mem-

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## 2011 INTERNATIONAL PENSIONS COLLOQUIUM IN EDINBURGH



The Pensions, Benefits and Social Security (PBSS) Section of the International Actuarial Association (IAA) is one of the seven sections of the IAA set up for the benefit of individual actuaries. The PBSS Section aims to bring together and support actuaries working in the private sector pensions practice area, as well as actuaries working for social security institutions and other public sector pension entities, including regulators and guarantee funds. Through its international membership and global perspective it is of particular interest to actuaries who want to learn from practices elsewhere in the world, and it is well-placed to address public policy issues relating to pensions and social security and to assist the actuarial profession to serve the public interest in this important field.

On September 26-27, 2011 the PBSS will hold a colloquium in Edinburgh, Scotland, co-hosted by the Institute and Faculty of Actuaries, with an overall theme of International Challenges in Providing a Safe and Sustainable Retirement. The meeting will be held at the Royal College of Physicians in Edinburgh and is expected to attract a thoroughly international level of participation. Sessions will include keynote lectures from eminent figures from the world of pensions, panel sessions on topical pension issues and workshops involving the presentation of submitted papers.

The topics for the conference and online registration are available through the PBSS website [www.actuaries.org/Edinburgh2011/](http://www.actuaries.org/Edinburgh2011/). Discounted participation fees are available for members of the PBSS Section—any actuary can join up by checking the box on the dues renewal for your own association, or, if you missed that opportunity, by contacting the IAA Secretariat directly ([christian.levac@actuaries.org](mailto:christian.levac@actuaries.org)).

Edinburgh is an outstandingly beautiful city and offers participants opportunities for exploring its history, architecture and culture, as well as providing a great jumping-off point for exploring Scotland.

For more details, contact Pamela, the secretary to the Organising Committee ([Pamela.Attieh-Durrant@actuaries.org.uk](mailto:Pamela.Attieh-Durrant@actuaries.org.uk)).

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ber communities. We will keep you updated on the task force's progress and its impact on the International Section's activities.

An SOA Advisory Team made up of SOA members in Canada has been recently set up that will work on the business plan for the SOA to more fully engage its Canadian members. The SOA's goal is to increase the value of its research and continuing education programs to our Canadian members and candidates. To do this, the SOA will use a strategy of establishing a closer partnership with the Canadian Institute of Actuaries, developing dedicated Canadian educational programs, and adding the new role of a local Canadian staff person.

We very much want to hear from you on how our council can better serve you. Please do not hesitate to contact our section specialist, Jill Leprich, at [jleprich@soa.org](mailto:jleprich@soa.org) with your suggestions. □

## Ambassador's Corner

Raymond Lai, FSA, is the new SOA ambassador in Malaysia. His biography and work plan follows.



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### Biography

Raymond Lai, FSA, is currently the chief risk officer for Uni.Asia Life. Formerly, he was the chief actuary and appointed actuary for Uni.Asia Life Assurance for over 10 years. He managed all actuarial work that supported product development, pricing, reinsurance, financial reporting and projection and product filing and risk management. Prior to joining Uni.Asia, he started his career with Aetna Universal Insurance Bhd (renamed ING Insurance) in 1991 served as assistant vice president in the Actuarial Department.

Previously, he was the past president of the Actuarial Society of Malaysia (ASM) for 2007 and 2008 and is actively promoting the actuarial

profession in career and education fairs in Malaysia. He has been frequently invited by many reputable colleges and universities in Malaysia to give public talks on prospect of the actuarial profession in Malaysia.

He is also a fellow of the Society of Actuaries (FSA), a certified financial planner and a fellow of Actuarial Society of Malaysia. He is a member of the next East Asian Actuarial Conference (EAAC) organising committee.

### Work Plan for 2011-12

- Assist SOA in communications with members in Malaysia.
- Contact universities offering actuarial program in Malaysia about the profession.
- Give career talks at universities and colleges regarding exam systems.
- Set up country Web pages for Malaysia on SOA website.
- Update universities offering actuarial programs about the latest education changes in the future.
- Attend and participate in local actuarial events.
- Assist in identifying appropriate continuing professional development opportunities.
- Work closely with Actuarial Society of Malaysia and universities' actuarial clubs about the SOA's development.
- Promote the use of the SOA website and country Web pages as information resources.
- Assist in promoting CERA credential to members in Malaysia.
- Assist in the logistics for official visits to the region by members of the Board of the SOA.

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## Egyptian Insurance Market

By Mohamed F. Amer



Mohamed F. Amer, FSA, is president of the Egyptian Society of Actuaries in Cairo, Egypt and the SOA ambassador in Egypt. He can be reached at [mfamer@link.net](mailto:mfamer@link.net).

Insurance in Egypt was nationalized in 1956 and all existing companies were amalgamated eventually to three public sector companies and one reinsurance company.

In the early 1980s, the insurance law was changed, allowing private insurance companies to be licensed. The number of companies grew steadily to the current status of 29 insurance companies.

Thirteen companies are property and casualty only; six life insurance only; one cooperative insurance association; nine companies were licensed for life and non-life and will be allowed a short period to split or merge a line with another entity.

There are 638 private insurance funds that provide complementary pensions to subscribers. Some key indicators for the Egyptian insurance market may be found in the following tables.

### KEY INSURANCE INDICATORS

#### Insurance Premiums in GDP

Insurance Premium/GDP  
FY 2003/04 - FY 2008/09

Fiscal Year	Insurance Premium/GDP (%)
FY July 1, 2003/ June 30, 2004	0.85
FY July 1, 2004/ June 30, 2005	0.80
FY July 1, 2005/ June 30, 2006	0.83
FY July 1 2006/ June 30, 2007	0.95
FY July 1, 2007/ June 30, 2008	1.2
FY July 1, 2008/ June 30, 2009	1.1

## Insurance Premiums

(Egyptian Pounds million)

Item	2004/05	2005/06	2006/07	2007/08	2008/09
Public Sector Companies	3,016	2,993	3,145	3,633	3,857
Egyptian Private Sector Companies	433	505	398	1,039	865
Foreign Private Sector Companies	840	1,093	2,086	2,777	2,717
Total	4,289	4,591	5,629	7,449	7,439

## Claims

(Egyptian Pounds million)

Item	2004/05	2005/06	2006/07	2007/08	2008/09
Public Sector Companies	1,956	2,857	2,712	2,727	2,720
Egyptian Private Sector Companies	204	242	331	571	332
Foreign Private Sector Companies	229	340	624	918	1,486
Total	2,389	3,439	3,667	4,216	4,538

## Net Profits

(Egyptian Pounds million)

Item	2004/05	2005/06	2006/07	2007/08	2008/09
Public Sector Companies	541	619	751	906	471
Egyptian Private Sector Companies	65	67	76	100	59
Foreign Private Sector Companies	(15)	15	69	79	83
Total	591	701	896	1,085	613

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## SOA Approves New Courses at the University of Buenos Aires as Valid Education Experience

By Javier Campelo



Javier Campelo, ASA, is director of actuarial services at Re Consulting, Buenos Aires, and the SOA ambassador in Argentina. He can be reached at [jcampelo@re-consulting.com.ar](mailto:jcampelo@re-consulting.com.ar).

The Society of Actuaries has approved new courses at the University of Buenos Aires (UBA) as Valid Education Experience for the three VEE topics: Economics; Corporate Finance and Applied Statistical Methods.

The VEE requirement is jointly sponsored by the Society of Actuaries (SOA), Casualty Actuarial Society (CAS) and Canadian Institute of Actuaries (CIA). The VEE topics are not prerequisites for the preliminary exams (Exams P, FM, MLC, MFE and C) and may be fulfilled

independently of the exam process. However, you must pass two SOA or CAS actuarial exams before applying to have your VEE credit added to your record.

Those actuarial students from the UBA who have passed the following courses with a grade of six (or above) at that university:

- (a) Actuarial Statistics & Statistics II; or (b) Econometrics, will be able to apply for the VEE in Applied Statistical Methods.
- (a) Financial Administration, will be able to apply for the VEE in Corporate Finance.
- (a) Microeconomics I & Macroeconomics and Economic Policy; or (b) Microeconomics I & Macroeconomics I; or (c) Economics II (Macro) & Economics III (Micro), will be able to apply for the VEE in Economics. □

### Become an International Section Leader!

Each year, one-third of the International Section Council is replaced with new volunteers—people like you—who plan and execute the section's activities. The 2011 section council election is fast approaching, so now is your opportunity to move from section member to section leader.

You can find information on the general roles and responsibilities of section council members on the Society of Actuaries website. Or better yet, contact a current member of the International Section Council [www.soa.org/international](http://www.soa.org/international). If you'd like to be a candidate for election, please contact Susan Martz at [smartz@soa.org](mailto:smartz@soa.org) no later than Friday, May 13th.



# Get the news. Now it's easier.

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- Research Front
- In Memory
- A Category of Its Own
- Member Poll

## making news

**Actuary Listed Best Career of 2011**  
FSA Stuart Klugman quoted in this article about his profession.

**Women Outlive Men, But Don't Plan for It**  
FSA Anna Rappaport is quoted in *Reuters* about the impact of retirement on women. The article reports that half of American women will live past age 85, but very few are planning for it.

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# Target Volatility Asset Allocation Strategy

By Leong Chew

**INTRODUCTION** Volatility-managed funds, which focus the measurement of an investor’s risk appetite on the volatility of the portfolio, have grown popular in the Asian markets recently, particularly in Japan. Utilizing a complex rebalancing strategy to manage investment allocations, volatility-managed funds provide significant advantages to the investors and insurers offering variable annuity (VA) guarantees around these funds. This article discusses a typical volatility-managed strategy and presents performance comparisons between volatility-managed funds and other comparable market strategies. The advantages of target volatility-managed funds to investors and insurers are also included.

## DESCRIPTION OF TARGET VOLATILITY ASSET ALLOCATION STRATEGY

Varieties of asset allocation models exist in the current VA market. This article will focus on fixed asset allocation, constant proportion portfolio insurance (CPPI) and target volatility asset allocation.

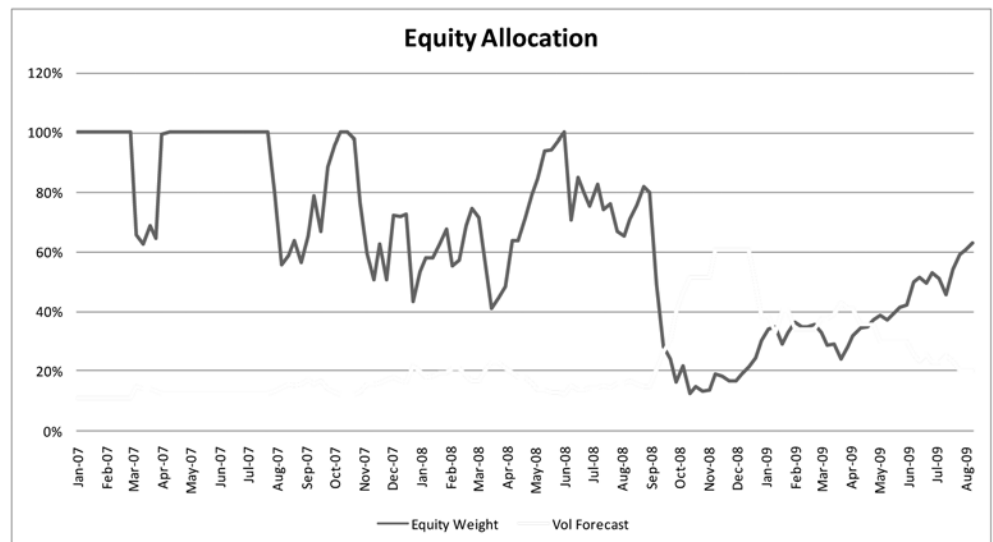
For the fixed asset allocation strategy, account value is allocated on a constant proportion basis between baskets of equity and bond funds. The account value automatically rebalances between these funds on a predefined interval, usually weekly, monthly or quarterly. With this strategy, funds with higher growth rates, on a relative basis, tend to subsidize funds with a lower growth rate. This strategy has provided a useful mechanism for financial institutions to define investors’ risk tolerance in terms of conservative, moderate or aggressive.

The CPPI strategy deploys a dynamic trading strategy between equity and bond funds that enables investors to capture market upside potential with targets to achieve the notional guarantee at the maturity of the investment horizon. Assets under this strategy are rebalanced according to a predefined set of rules. CPPI is popular in Asian and European countries.

The target volatility asset allocation strategy rebalances fund allocations to maintain a target portfolio volatility, dynamically rebalancing the fund allocations between equity and bond assets based on the predicted volatility of each asset class. This strategy has begun to gain strong momentum in Asian countries, particularly in Japan.

The chart in Figure 1 illustrates how the predicted equity volatility (and bond volatility, not illustrated in this chart) affects the allocation to

**Figure 1:**  
Equity Allocation versus Predicted Volatility under the Target Volatility Allocation Strategy



The target volatility asset allocation strategy rebalances fund allocations to maintain a target portfolio volatility ...

the equity assets. This illustrative portfolio targets an overall 16 percent annualized volatility. In general as equity volatility increases, the equity allocation decreases to maintain the target volatility of 16 percent.

#### HISTORICAL COMPARISON OF STRATEGIES

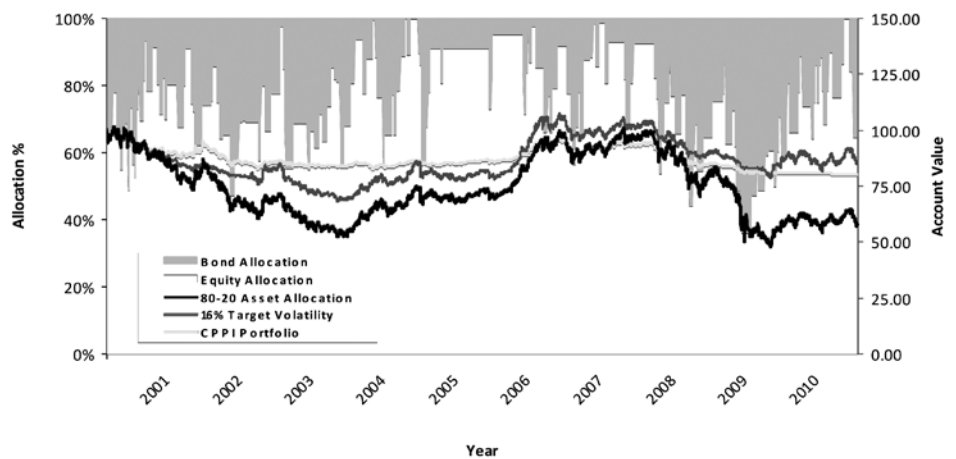
Putting these three strategies into practical perspectives, a hypothetical portfolio consisting of Japanese equity (TOPIX) and Japanese bond (Japanese 5-year swap) may be considered over the 10-year period from January 2000 to May 2010. The fixed asset allocation strategy assumes a constant 80 percent equity allocation and 20 percent bond allocation. The CPPI strategy assumes a notional protection of 80 percent of the invested capital. The target volatility asset allocation strategy targets an annualized portfolio volatility of 16 percent.

The chart in Figure 2 shows the illustrative performance of this hypothetical portfolio. The area in the background indicates the equity/bond allocations for the target volatility asset allocation strategy.

At the beginning of 2008, fund values under the three strategies all came in at approximately the same level. As the global market encountered its severe downturn late that year, accompanied by a decreasing interest rate level with a spiking of the volatility level, the fund value under the fixed asset allocation strategy took a 35 percent loss in value.

Fund values under the CPPI strategy experienced a less severe decline because, as bond allocation approaches 100 percent, a near cash-

**Figure 2:**  
**Illustrative Comparison of Portfolio Performance under Various Strategies**



lock situation occurs (100 percent allocation in bond or cash assets). The fund value remained at this level and did not participate in the market recovery toward the second half of 2009 because a significant portion of the fund value remained in the bond allocation. Nevertheless, the notional protection value (80 percent of initial deposit) is protected under this strategy.

Under the target volatility asset allocation strategy, a significant portion of assets is transferred into bond funds because of the spike in the volatility level toward the end of 2008, shielding the fund value from the significant market decline. The decline in volatility level since the second half of 2009 increased the equity allocation and allowed the participation in the equity market movements, both upwards and downwards.

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### ADVANTAGES OF TARGET VOLATILITY ASSET ALLOCATION STRATEGY TO INVESTORS AND VA WRITERS

The target volatility asset allocation strategy presents key advantages to investors:

- **A better representation of an investor's risk tolerance:** The conventional approach of using fixed percentages in equity allocations (e.g., 20 percent equity as conservative, 50 percent equity as moderate and 80 percent equity as aggressive) as a measurement of an investor's risk tolerance may not accurately represent an investor's risk appetite under current market conditions. An investor with moderate risk appetite would never expect a 30 percent loss of portfolio value in a severe market downturn. Rather, when considering investment choices, an investor will review the maximum loss tolerance level and the expected range of gain or loss. Volatility of the portfolio offers a better measure. By maintaining the target volatility of the portfolio, the portfolio returns will likely meet the risk tolerance of investors. Hence, this strategy targets the level of risk directly.
- **Prevention of cash-lock situation:** With the CPPI strategy, a severe market downturn (typically echoed with a high volatility level) may lead to 100 percent allocation in bond or cash assets, a situation commonly known as cash-lock. Cash-lock situations are triggered to protect the notional guarantee amount but they prevent further equity market participation should the market recover in the future. The target volatility asset allocation strategy enables future equity market participation when the equity volatility level decreases (a common observation in an upward-trending market) for potential upward movements.

The following represent several key advantages to VA writers who offer the target volatility asset allocation strategy in the fund selections:

- **Eliminate or limit exposure to volatility risk:** Because portfolio volatility is kept within the target volatility, the target volatility can be used directly in the monthly GAAP or IFRS reserve valuation. With volatility set at a target level, reserve movements that are due to volatility impact are practically eliminated. With volatility risk eliminated or limited, statutory reserves and capital requirements are more effectively stabilized.
- **Integration with VA hedging program:** Keeping volatility at target levels allows the Vega exposure of the portfolio (sensitivity to change of volatility) to be largely eliminated. Challenges faced by VA writers in hedging Vega risks include limited liquidity in hedge instruments, a high volatility level that leads to expensive volatility prices, and difficulties finding instruments that match the maturity of the underlying liability.
- **Reduction in cost of guarantees:** The containment of volatility risk will also lead to the reduction in cost of VA guarantees. This represents a win-win situation because the reduction in cost of guarantees can be translated into the reduction in guarantee fees, which may make the product much more appealing to customers.

### CONCLUSION

Taking accurate measure of investors' risk tolerance remains crucial, especially in a volatile market environment, to prevent portfolio losses beyond expectations of investors. The target volatility asset allocation strategy provides an

efficient mechanism to address the risk management issues for both investors and VA writers under various conditions. However, it is important to note that this strategy does not guarantee outperformance against other strategies. Nevertheless, it allows an alternative perspective to define the risk classification of investors.

#### **DISCLAIMER**

*Past performance is not indicative of future results. Recipients must make their own independent decisions regarding any strategies or securities or financial instruments mentioned herein.*

*Any discussion of risks contained herein with respect to any product or service should not be considered to be a disclosure of all risks or a complete discussion of the risks involved.*

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## Equity-Based Insurance Guarantees Conference

**May 30-31, 2011**  
Hong Kong

**June 2, 2011**  
Tokyo, Japan

This seminar is designed to give professionals with limited-to-moderate experience an understanding of how to better quantify, monitor and manage the risks underlying the VA and EIA products.

Learn more at [www.soa.org](http://www.soa.org).





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## The Greek Insurance Market in Critical Periods

By Ioannis Chatzivasiloglou

When I was appointed as an SOA ambassador for Greece last year, I was asked to write an article for *International News* describing the insurance sector of my country. So, I opened my PC, made a cup of traditional Greek coffee with well-brewed coffee beans to accompany me with my expedition and I started to write ...

The first insurance company that was established in Greece, in our modern era, was called “The Greek Insurance Shop” in 1829 in the island of Syros. Since then and until the end of the 19<sup>th</sup> century, more than 60 insurance companies were established in Greece, mostly in the marine business. These insurance companies also developed banking activities (it was not illegal at that time): they were providing marine

loans and they were accepting interest-bearing deposits. Their main characteristic was that they were centered on the Greek shipping industry. As a consequence of the Greek shipping crisis after 1870 (following the introduction of steamboats), most of them were driven out of business gradually.

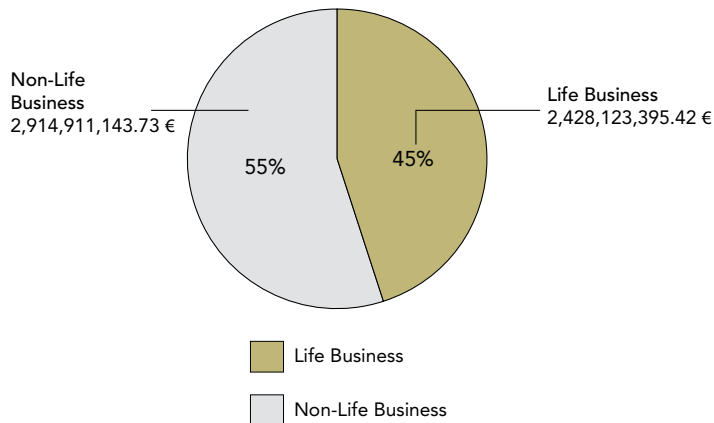
As a response to the shipping crisis, the insurance industry started to expand their business, providing fire and earthquake coverage and soon insurers started to provide the full gamut of non-life products.

The first establishments worth mentioning in the life business were made at the beginning of the 20<sup>th</sup> century with two mutual insurers. The first was liquidated eight years after its authorization, and the second was demutualized to a public company two years after its authorization.

Currently, there are 52 insurance companies authorized and operating in Greece: 11 of them are in the life business; 30 are writing non-life business; and 11 are composite (they are allowed to write both life and non-life business). The total insurance premiums that were written in 2009 were about 5.3 billion euros, about 2.2 percent of Greek GDP. Non-life insurance premiums were about 2.9 billion euros and life insurance premiums were about 2.4 billion euros (see Graph 1).

According to data referring to the third quarter of 2010, there is a 3.9 percent decline in life premiums and a 3.9 percent increase in non-life premiums.

**Graph 1: Greek Insurance Market 2009**



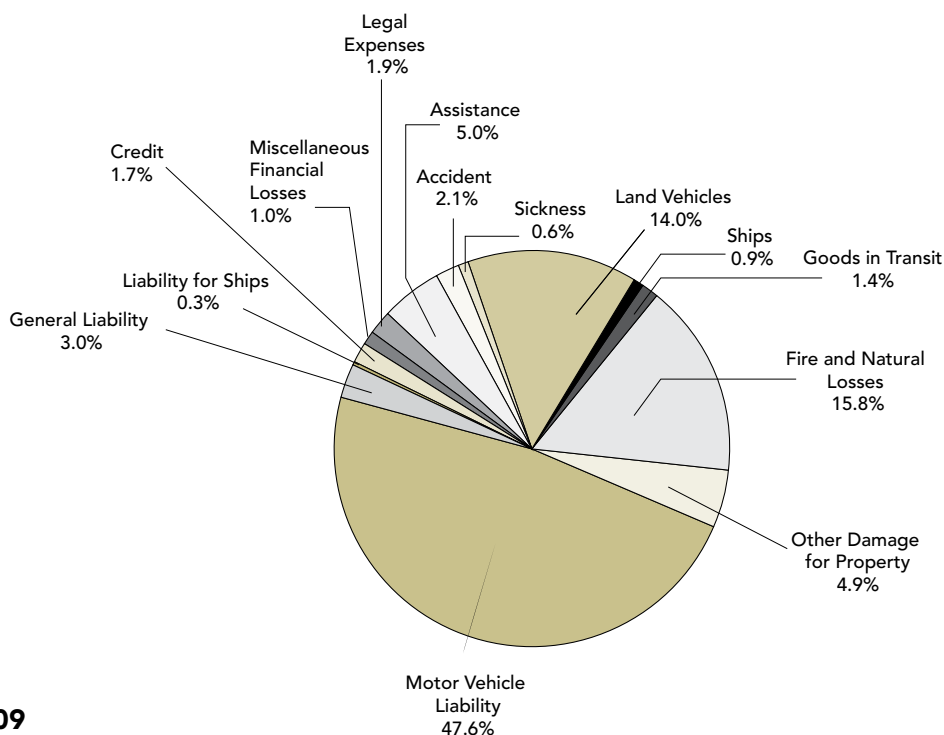
Currently, there are 52 insurance companies authorized and operating in Greece: 11 of them are in the life business; 30 are writing non-life business; and 11 are composite (they are allowed to write both life and non-life business).

The Greek insurance market shows a dynamic growth as it grew, on average, at 6 percent annually over the last five years, but this dynamic is reducing, embodying the effect of the current financial crisis.

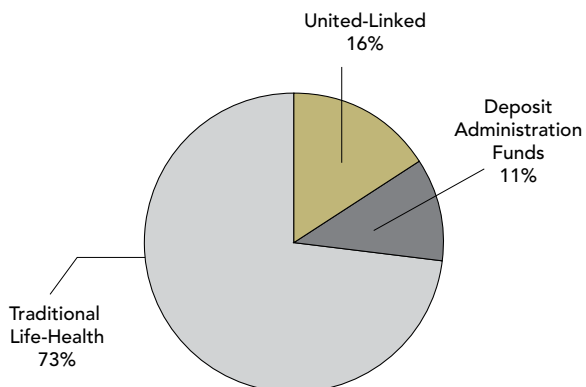
The greatest part of non-life premiums—about 62 percent—are in respect of motor vehicle coverage (either in the form of collision damage or third-party liability). The allocation of non-life premiums to classes of business is depicted in Graph 2.

With regards to life business, the Greek market focuses on traditional life products as well as health coverage. Unit-linked business, with or without guarantees, represents only a small fraction of life business, about 16 percent in terms of premiums. The allocation of life premiums to classes of business is depicted in Graph 3.

**Graph 2: Allocation of Non-Life Business per Class 2009**



**Graph 3: Allocation of Life Business per Class 2009**



The Greek insurance market was traditionally considered as concentrated. In the non-life business, the trend is to spread the business to more insurers. In 2009, the top five non-life insurance companies had 48 percent of market share, whereas, in 2010, their market share was reduced to 44.4 percent. The next five companies, although they had 23 percent of market share in 2009, had their market share was reduced to 20.8 percent in 2010. Analysis is provided in Table 1.

CONTINUED ON PAGE 16

The Greek Insurance Market ... | from Page 15

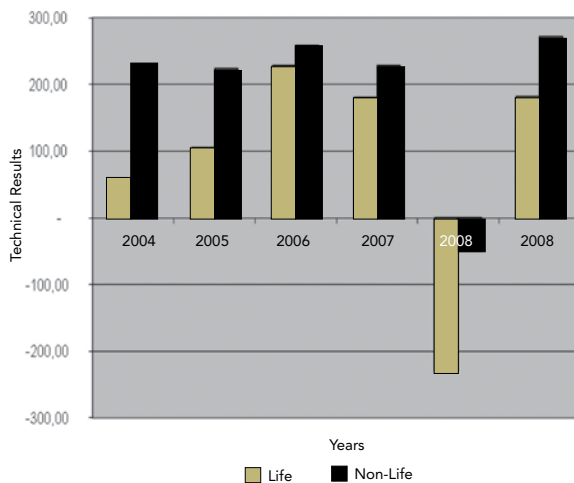
**Table 1**  
**Spread of Non-Life Business (in terms of written 2009 premiums)**

	Market share in 2009	Market share in 2010
Top 5 companies	48%	44%
Top 10 companies	71%	65%

**Table 2**  
**Spread of Life Business (in terms of written 2009 premiums)**

	Market share in 2009	Market share in 2010
Top 5 companies	68%	74%
Top 10 companies	88%	94%

**Graph 4:**  
**Technical Results (in million euros)**



In life business, things are totally different and concentration is more prevalent. The top five insurance companies have 74.1 percent of market share in 2010 (from 68 percent in 2009). The next five companies have 20 percent of market share (both in 2009 and 2010). Analysis is provided in the Table 2.

Non-life rates have been soft for several years, but there are signs that they are hardening. Year 2008 was the first bad year in terms of technical results for both life and non-life companies, as they were negative for the first time in a lot of years and the return on capital was negative after a period of high returns. (See Graphs 4 and 5.)

The capital position and the amount of technical reserves constantly increased over the last years, with a small decrease in year 2008.

The last 12 months have become a landmark for the Greek economy. The severe widening of the government bond credit spreads (almost to 1000 bp), the borrowing arrangements with the International Monetary Fund (IMF) and the initiation of an European Union (EU) supporting mechanism, with the use of a network of bilateral loans between EU member states, are the main events that have overwhelmed every economic activity. These arrangements were followed by severe contractionary policies and severe government spending cuts. The civil servants have seen their salaries reduced by more than 20 percent and unemployment has been increasing slowly but steadily. These phenomena have affected almost all Greek insurance companies as their bond portfolio, mostly invested in Greek government bonds, has lost a big part of its value. In addition, life insurers see their surrender rates increase and their premium income slowly decrease.



“The Greek insurance market is in the middle of a major transformation as it is preparing for the implementation of Solvency II from 2012 onwards. ”

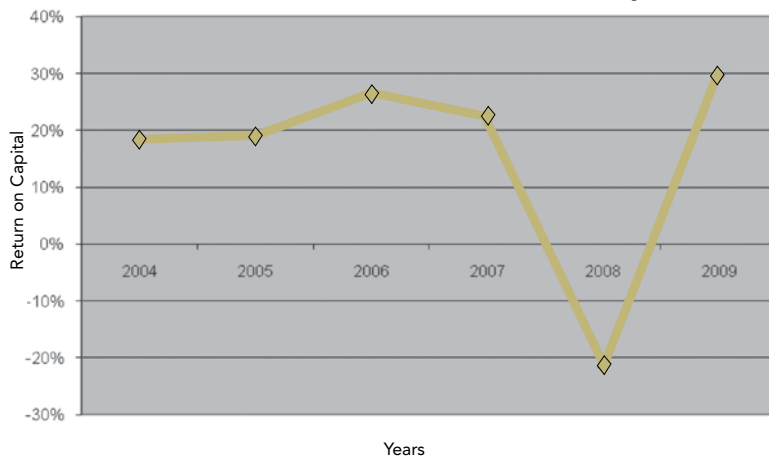
In addition, the Greek insurance market is in the middle of a major transformation as it is preparing for the implementation of Solvency II from 2012 onwards. Solvency II, highly affected by Basel II, is a new and highly challenging regulatory and supervisory regime that is going to affect each and every aspect of insurance operations and the way that insurance business is being managed and conducted in general, throughout the EU. The preparedness in Greece is twofold: both from the side of the Greek insurance companies and from the side of the Greek supervisory authority, which very recently has merged with the banking supervisory authority, which also has a significant role as the central bank of Greece.

If we can differentiate between “organic” periods, which are characterized by accepting a comprehensive doctrine as an authoritative guide to life, stability and steady progress and “critical” periods, where the doctrine comes to be seen as an obstacle to further progress, the current period in Greece would be characterized definitely as a critical one. The current bet is to succeed in fully exploiting the benefits of the changing environment and the emerging opportunities to formulate a doctrine, rid of the rigidities of the previous one that will lead to the next organic period of stability and progress.

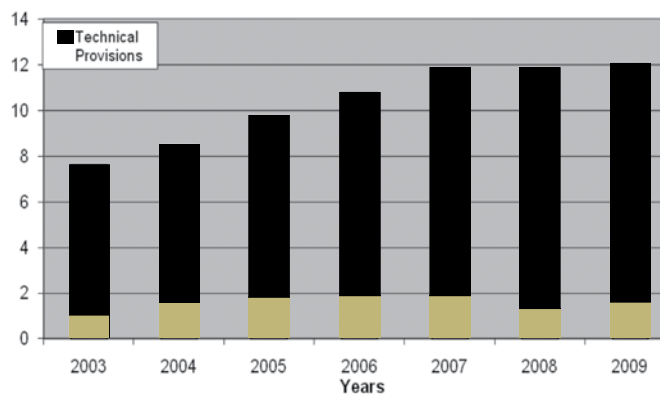
**DISCLAIMER:**

The present article reflects author's own views and should not in any case be perceived as reflecting official views of any of the European or National Regulatory or Supervisory Institutions and Committees. □

**Graph 5:  
Greek Insurance Market - Return on Capital**



**Own Capital and Technical Provisions (in billions euros)**



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Alan Cooke, FSA, FCIA, MAAA, is a retired actuary in Vancouver Canada. He can be reached at [vancooke@telus.net](mailto:vancooke@telus.net).

## Seminar on Current Issues in Retirement Benefits in India

By Alan Cooke

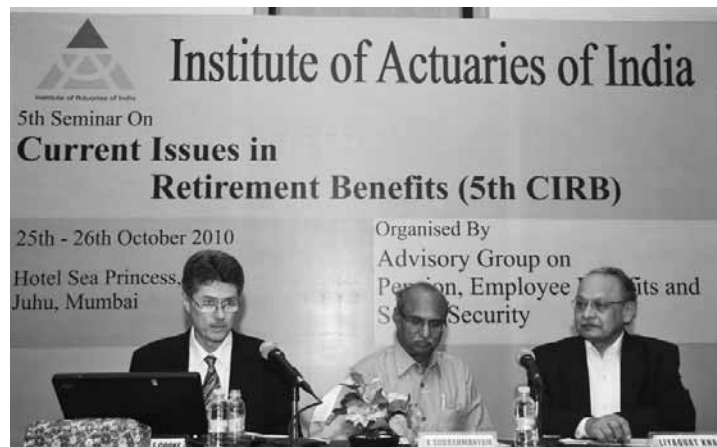
I was invited by the Institute of Actuaries of India (IAI) to provide a global pension perspective at their October 25-26, 2010 Seminar on Current Issues in Retirement Benefits in Mumbai, India. The purpose of the seminar was to provide a general and technical update to all Indian professionals who are involved in the design, management, accounting and evaluation of employee benefit schemes. The full report on the seminar, written by Kirti Kothari, may be found in the November 2010 issue of the IAI newsletter, *The Actuary*, on the IAI website ([www.actuariesindia.org/Publication\\_and\\_Library\\_Facility/actuary\\_india.htm](http://www.actuariesindia.org/Publication_and_Library_Facility/actuary_india.htm)).

The seminar started with the inaugural address by the IAI President, **Mr. Liyaquat Khan**. This was followed by the first session on global pension issues in which I discussed the pension challenges and reactions by the various pension plan stakeholders arising from the global financial crisis that started in 2008. It should be noted that India largely avoided the pension problems faced in the rest of the world due to its investment strategies.

The second session was entitled “**Social Security and the Role of Actuaries**,” in which I focused on the importance of social security work and the practical and political considerations actuaries face in providing advice in this area. This was illustrated through a case study relating to the funding of the Canada Pension Plan.

**Dr. K. Sriram**, consulting actuary, then shared some perspectives in the Indian context, notably the key actuarial issues in old age income security, the transition to a defined contribution environment and key actuarial issues in social insurance plans.

**Mr. K. Subrahmanyam**, chairperson of the IAI Advisory Group on Pensions, Employee Benefits and Social Security, gave an expanded



L-R: A.Cooke, chairperson of the SOA International Section, K. Subrahmanyam, chairperson of the IAI Advisory Group on Pensions, Employee Benefits and Social Security and L. Khan, president of the IAI.

Indian perspective on what is social security and who the providers and beneficiaries are (including the organized, unorganized and senior citizens).

**Mrs. Rani Singh Nair**, executive director, PFRDA, gave a stimulating presentation on **the new pension system** that was recently introduced in India. It was interesting to note that this is a defined contribution approach where lifecycle funds are one of the investment options for participants.

Subsequent speakers covered topics such as India’s unfunded pension obligations, new developments in non-pension benefits, the status of new accounting standards in India, opportunities for Indian actuaries, issues for plan sponsors and regulatory trends, both globally and locally.

All of the presentations were followed by very lively question and answer sessions. Certainly this was one of the most interesting actuarial meetings I have had the opportunity to attend. The full presentations can be downloaded from the Institute of Actuaries of India website (<http://www.actuariesindia.org/CIRB/CIRB5.htm>). □



N.V. Subramanyan, MBA, ACII, FIII, CAIB, is practice leader—insurance at NIIT Technologies Limited in India. He can be reached at [subramanyan.nv@gmail.com](mailto:subramanyan.nv@gmail.com).

## A Study on Emerging Health Conditions Among the Aged in India and the Sufficiency of Medical Framework and Health Insurance

By N.V. Subramanyan

**Editor’s Note:** *N.V. Subramanyan, Practice Leader—Insurance, NIIT Technologies, was a presenter at the 2011 Living to 100 fourth triennial symposium that drew attendees from 17 countries, nearly 50 participating organizations/sponsors and speakers from all over the world. The full paper is one of 35 papers that were presented at the symposium and will be included in an online monograph expected to be completed in the spring. More information on this research effort can be found at <http://livingto100.soa.org/default.aspx>.*

### SYNOPSIS

Over the decades, the number of aged in India has steadily increased. However, the percentage of the aged to the total population has been declining somewhat, especially since it is masked by the increasing number of younger members of the population. The gradual shift from basically an agrarian economy to an industrialized economy—mainly one based on the information technology focused society—has had a telling effect. For instance, the prevalence of lifestyle diseases such as diabetes mellitus, cardiovascular diseases, etc. has been increasing tremendously. For example, there is an alarming rise in prevalence of diabetes, which has gone beyond epidemic form to a pandemic one with the number of diabetic patients more than doubling from 19 million in 1995 to 40.9 million in 2007 and is projected to touch 69.9 million by 2025.<sup>1</sup>

Similar is the Indian experience with hypertension patients and also the incidence of Alzheimer’s, etc. especially among the elderly. This spurt of diseases and the resultant morbidity are severely affecting the quality of life of the elderly. Further, a matter of grave concern is that since the prevalence is also increasing rapidly

among the younger generation, the number of the elderly affected in the future is certain to be high, which should set the time and energy spent in addressing the situation to be increased immediately to have any chance of avoiding a catastrophe. The silver lining is that reputed research institutions such as the Centre for Cellular & Molecular Biology and also some defense institutions are conducting studies to work out ways to deal with and control the problem.

However, what compounds the difficulty at the grassroots level is that the medical and health care infrastructure in India is perhaps inadequate to meet the challenge considering the sheer magnitude of the population. Ironically, even though the cost of medical treatment is low in India compared to developed countries, it is still beyond the reach of the common Indian as the health insurance industry is still developing. The absence of a social health care policy and health insurance setup makes the scenario scary. Without a doubt, India seems to be sitting on a major crisis ticking all the time that could have serious consequences at the economic, social and humanitarian levels.

The present paper is an attempt to study the situation, analyze and estimate, using actuarial tools, the effect on the economy with particular focus on the present and future aged segment of the population, identify opportunities for the insurers to address the situation and finally to suggest remedial measures to deal with the situation. Medico-actuarial studies in this area will also be covered. □

### ENDNOTES

<sup>1</sup> Indian Council of Medical Research Task Force.

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