

International News

ISSUE 54 AUGUST 2011

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International News

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Editor's Note

By Carl Hansen

This is the time of year when we wrap up our annual Country Feature Competition. We are pleased to announce the winning article for this year is "Health Care System Reform" written by Davout Yean, featured on page 12 of this issue. The second place article "Occupational Pensions Plans in Germany" by Norman Dreger is on page 17. We also feature several other excellent articles in this issue, including others from the competition. More articles from the competition will appear in the next issue of *International News*. Thank you to all of this year's authors. It's not too early to start planning for the 2012 competition!

As I mentioned in the April Editor's Note, I have recently relocated to Guernsey in the Channel Islands. So far, it has been an incredible adventure, both personally and professionally. In May, I attended the Channel Islands Actuarial Association Annual Dinner, perhaps one of the few black-tie affairs for actuaries anywhere in the world! My experience so far has reminded me to keep an open mind to other ways of approaching issues. Measurable growth can come quickly by embracing differences and learning from them. We can all benefit from the differing perspectives of colleagues from around the world. We hope that *International News* is a valuable conduit for this process.

As you may already know, now is the time for Society of Actuaries (SOA) elections for the leadership of the organization. Please participate in this important process (if you have not already done so) to make sure that the SOA and the future of the profession continue to represent your interests. □



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Alan Cooke, FSA, FCIA, MAAA, is a retired actuary in Vancouver, Canada. He can be reached at vancooke@telus.net.

Chairperson's Corner—Embracing International Opportunities

By Alan Cooke

Before updating you on your International Section Council's current activities, I would like to talk generally about international actuarial opportunities.

As a retired international actuary, I was privileged to have enjoyed a career of working experiences very different from what I would have enjoyed practicing purely in a domestic environment. I expect most of you, as readers of *International News*, have also been involved in interesting international activities or at least have the intellectual curiosity to want to know more about what actuaries in other countries are doing. Many of you undoubtedly have also had the opportunity to work in one or more countries other than your country of birth and thus have a direct appreciation of the joys and challenges of working in a different culture. To those of you who have not yet had this energizing experience, I would strongly recommend you consider it at some time in your working career. As actuaries, we are blessed with having one of the most internationally portable professional designations that exists.

One international area, which may not be on the radar of most international actuaries, is doing work in developing nations. This may be done not only as a career but also on a temporary basis. For example, many actuaries do these paid or unpaid projects during a sabbatical from their employer, between jobs or after they have retired. Opportunities exist in almost every area of actuarial expertise. One of my retirement "jobs" is acting as the vice-chairperson of Actuaries Without Borders (AWB). AWB is one of many organizations that manage actuarial projects in developing countries. Shiraz Jetha, the current AWB chairperson, submitted an excellent article on the work of AWB in the August 2010 issue of *International News*. Either one of us would welcome your queries on work and opportunities within developing countries.

At the 2011 SOA Annual Meeting in Chicago, the International Section will be co-sponsoring two sessions with the Actuary of the Future Section on interesting (not just international) activities that actuaries are doing in retirement and what younger actuaries can do during their work-

ing lives to prepare for such opportunities. We have an interesting range of speakers lined up for the sessions, so we hope many of you can attend these as well as the other sessions that the International Section is co-sponsoring.

We have successfully completed our annual Country Feature Article competition. As usual the quality of the articles was very high and it was difficult to pick the two winners. The first and second-prize articles appear in this issue of *International News*, and the other submitted articles will appear in future issues of *International News*.

As you can see from this issue's Ambassador's Corner, our Country Ambassadors have been very busy and we are pleased to introduce you to several new ones. We continue to recruit new Ambassadors whom we will introduce to you in future issues.

Our seminar on international financial reporting for insurers in Hong Kong is fast approaching, August 28 to 31, and several seminars are planned in other countries on this and other topics. Please check the International Section's SOA website or the advertisements in this newsletter for more details.

The International Section recently co-sponsored popular sessions at this year's Health Meeting and the Life & Annuity Symposium. Your suggestions on future meeting topics are always very welcome. We will also be sponsoring the international reception/dinner at this year's Annual Meeting in Chicago. We hope you can join us for this evening of fun and networking.

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

Ambassador's Corner Updates



SOA members gather in downtown Tokyo.



WARREN RODERICKS
Japan

Warren Rodericks, FSA, is Society of Actuaries' Ambassador for Japan. He can be reached at warren.rodericks@tohmatsumi.co.jp.

On Friday November 26, 2010, a social event was held for SOA members in downtown Tokyo

with around 20 people participating, including a guest from the Institute of Actuaries of Japan (IAJ). There are about 50 SOA members in total working in Japan and the vast majority of them are from other countries who are working for multinational insurance or consulting companies. Since there are not a lot of opportunities for the members to gather together, it was a good chance to meet, socialize and learn about the different kinds of actuarial roles that our fellow SOA members are performing in Japan. Overall the event was well-received. Several enthusiastic members even continued on to a second venue and finished the night in typical Tokyo fashion at a Karaoke bar. □

RAYMOND LAI
Malaysia



Raymond Lai, FSA, is Society of Actuaries' Ambassador for Malaysia. He can be reached at lyk@uniasialife.com.my.

During the past four months, I have conducted four career talks at universities and colleges.

In total, about 150 to 200 students attended the career talk on actuarial science with many queries being answered before they decide on the type of course to pursue. In Malaysia, the actuarial science courses are offered by both public and private universities. Among them are National University of Malaysia, Univer-

sity of Malaya, Inti University College, Help University College, and UTAR. These are the major universities and colleges the students will attend if they do want to pursue the actuarial science course locally.

The Actuarial Society of Malaysia (ASM), PIAM (General Insurance Association), and MTA (Malaysia Takaful Association) jointly organized the General Insurance and Takaful Actuarial Seminar with the theme Taking Calculated Risks in May 2011. The main objective of the seminar was to promote and encourage development of actuarial related expertise in the general insurance and Takaful industry.

The first day session was for a wider audience including senior management and non technical executives and the second day session was focused on technical actuarial issues and catered for technical/actuarial executives.

The 16th East Asia Actuarial Conference (EAAC) will be held in Kuala Lumpur, Malaysia 10–13 October 2011. The theme of the conference is “Venture into Uncertainty, Capture Opportunities.”

As the organizer of the 16th EAAC, Actuarial Society of Malaysia (ASM) is committed to providing a high quality conference with wide participation from the actuarial profession from the East Asian region.

EAAC is a biennial event and the largest actuarial event for the profession in the East Asian region. The past EAAC attracted on average more than 500 delegates from EAAC member countries, Australia, Hong Kong, India, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand. This conference will be promoted to non EAAC countries such as China, Vietnam, Pakistan, Sri Lanka, United States, United Kingdom and New Zealand.

We have provided a wide range of sponsorship packages to suit your needs. If you are interested in sponsorship opportunities or would like to submit a paper and presentation, please visit the official website of 16th EAAC, <http://www.actuariesasia.org>.

As a current member of the organizing committee of 16th EAAC, mainly responsible for sponsorship opportunities, I can also be contacted with questions or for more information about the event. □



JAVIER CAMPELO
Latin America and Caribbean

Javier Campelo, ASA, is Society of Actuaries' Ambassador for Argentina & Regional Ambassador Coordinator for Latin America and Caribbean. He can be reached at jcampelo@re-consulting.com.ar.

AMBASSADOR'S ACTIVITIES IN ARGENTINA:

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

CONTINUED ON PAGE 6

We pass along our congratulations to our team, which worked very hard on this project, helping with the translation of the syllabi and guiding the actuarial students with the documentation needed. We thank the Director of the actuarial degree at University of Buenos Aires (UBA); the President of the Argentine Actuarial Institute (IAA) and the President of the Actuarial Commission at the Professional Council of Economic Sciences (CPCE) for their involvement in this endeavor.

UPCOMING PLANNED EVENTS IN ARGENTINA:

In early November, we will be holding the 12th Argentine and Latin American Actuarial Conference at The University of Buenos Aires.

We hope to repeat the success that we had at the 11th conference last year. We are very thankful to Ronald Poon Affat and Darryl Wagner, members of the Board of Directors of The Society of Actuaries, who have expressed their willingness to participate in this year's event and offered to arrange for top-level international speakers to come to Buenos Aires.

HIGHLIGHTS ABOUT THE ARGENTINEAN MARKET:

Argentina has changed reinsurance rules: purchase of reinsurance must now be through national or registered reinsurers. This resolution follows the measures Argentina adopted in compliance with the Financial Action Task Force (FATF-GAFI), a global anti-money laundering organization.

A specific waiver must be obtained from the Argentinean Insurance Superintendency (SSN) to write a contract from the reinsurer's home jurisdiction, when such a contract cannot be obtained in the local market. Even under such exceptional circumstances, foreign reinsurers

must still register with the SSN after obtaining approval to write any specific risk.

After Sept. 1, 2011, reinsurers not registered are banned from accepting reinsurance operations within the Argentine territory. □



NHON LY
Vietnam

Nhon Ly, FSA, FCIA, is Society of Actuaries' Ambassador for Vietnam. He can be reached at nhon.ly@aia.com.

Last August we held the 2nd Vietnam Actuarial seminar in Ho Chi Minh City. We had the honor of welcoming two guest speakers, Peter Duran and Michael Lockerman from the Society of Actuaries who were willing to take time and an additional flight from Hong Kong to come over to Vietnam and present topics that ranged from IFRS for Insurance to Risk Margins, Mortality Studies and Undistributed Par Profit Reserves. This is an important event as it is the only opportunity during the calendar year that allows all actuaries and actuarial students working in Vietnam to be exposed to current actuarial topics as well as to meet and network. This year we had over 60 attendees from 11 of the 12 life insurance companies currently operating in Vietnam. We would like to thank the International

Section of the Society of Actuaries for their support as it is allowing us to continue to build an actuarial community in a country where the actuarial profession is still in its early stages of development. We are looking forward to many more actuarial seminars in the future and welcoming guest speakers from other parts of the world to share their knowledge and experience with the Vietnamese actuarial community.



TZE PING CHNG
Hong Kong

Tze Ping Chng, FSA, MAAA, is Society of Actuaries' Ambassador for Hong Kong. He can be reached at tze-ping.chng@hk.ey.com.

STUDENT PANEL SESSION AT THE CHINESE UNIVERSITY OF HONG KONG

On March 7, the SOA hosted a student panel session at the Chinese University of Hong Kong. SOA Hong Kong ambassador, Tze Ping Chng, along with Chun Nam Ng, an actuary at the investment banking unit of Royal Bank of Scotland, served as the panelists, answering students' questions about the actuarial profession. The session started with the panelists sharing their experience working at insurance companies, consulting firms, as well as other non-traditional roles. The floor was then opened up for questions from the student audience. Turnout

for the session was very strong, with over 60 students filling up the lecture hall. The enthusiastic audience peppered the panelists with good questions, making the entire session lively and informative. The SOA would like to thank the faculty, in particular Dr. Chan Wai Sum, Dr. Albert Wong Chun Shan, and Ms. Ruby Ching for their support in making the session a success. □



Student Panel session at the Chinese University of Hong Kong.



Tze Ping Chng and Chun Nam Ng answer students' questions about the actuarial profession.

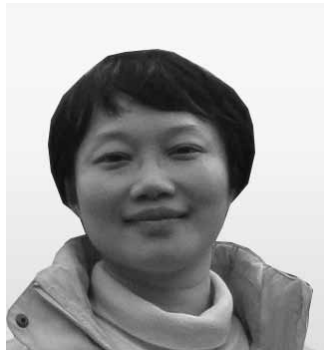
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Ambassador's Corner ... | from Page 7

New Ambassadors

The International Section is pleased to advise that Ambassadors have recently been appointed for four more countries: Taiwan, France, Ireland and Mexico. We extend a warm welcome to all our new Ambassadors.

In this edition of the Ambassador Corner, we are providing biographies and 2011-12 work plans for these new Ambassadors. We will continue featuring articles from all of our ambassadors on their respective countries.



ALICE CHENG 鄭淑芳
Taiwan

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Biography

Alice Cheng is Head of the Agency Planning Department with NanShan Life Insurance Company. She is currently responsible for strategic plans for agency management and development. Before joining the Agency Planning

Department, she covered the corporate planning function, actuarial function, and was responsible for the retirement profit center with NanShan Life.

Alice has extensive experiences of life insurance in Taiwan after around 18 years of services. Before joining NanShan Life, Alice worked with other international insurers such as Winterthur and ING (Life of Georgia) on functions such as product development, financial reporting, valuations, business planning, etc.

Alice has been an active participant on the SOA China Region Committee since 2003, and played a key role in coordinating the joint regional seminar for Taiwan's sessions since then. She has strong commitment to helping develop local actuarial talents, by sharing experiences, and coordinating seminars to invite international speakers to share their experiences. Alice has taught actuarial courses in LIA, and spoken at Taiwan universities.

Alice holds a Master in Actuarial Science from University of Iowa, Iowa City, U.S. She is a fellow of the Society of Actuaries.

Work Plan

Assist the SOA in coordinating jointly sponsored seminar, such as SOA-CRC joint regional seminar, IFRS seminar, etc.

- Assist the SOA in communications with members and correspondents in Taiwan.
 - Contact members of the SOA in Taiwan. Develop a list of concerns.
 - Maintain connections and dialogues with universities, promote the actuarial profession in university.
 - Assist in establishing exam centers as needed.
- Assist the SOA in communications with local regulators, Insurance Bureau.

- Assist the SOA in communications with The Actuarial Institute of The Republic of China (AIROC).
- Coordinate with AIROC regarding jointly sponsored seminars, research projects.
- Maintain connections and dialogues with AIROC, and timely communicate for topics related to the SOA.
- Write year-end report on developments in Taiwan. □



LUC POMERLEAU, ASA
France

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Biography and Work Plan

Luc Pomerleau works in employee benefit consulting for Premium Consulting in Paris. Prior to working in France, he has worked in Canada, the United States and Belgium. He is an associate of the Society of Actuaries. His main objective as an SOA Ambassador is to strengthen the links between the SOA members in France as well as the SOA relationship with members of the Institut des Actuaire. □



DR. PIN CHUNG,
Ireland

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Biography

Dr. Pin Chung is the Chief Financial Officer and Chief Investment Officer in R+V International Business Services, Ltd., Dublin, Ireland. His responsibilities include: supervise set up of the hedge modeling unit; supervise development of possible hedging strategies for the guarantees in R+V's Variable Annuity business; supervise reviewing and controlling of external investment partners; deliver effective financial and management control infrastructure; provide leadership to IT and administration teams.

Prior to R+V International, Pin was a vice president with Allianz Investment Management in the firm's Minneapolis, Minnesota office. Pin was the leader of the Asset-Liability Management and Strategic Asset Allocation team,

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which provides ALM/SAA services for the North American Life and P&C insurance subsidiaries of Allianz, SE. Pin has more than 10 years of experience in a variety of areas including: hedging, asset liability management, financial modeling and investment management for a variety of life and annuity products.

Pin is an associate of the Society of Actuaries (ASA) and a member of American Academy of Actuaries (MAAA). He is also certified as a financial risk manager (FRM) by the Global Association of Risk Managers (GARP). Pin earned a Bachelor of Science degree in Mathematics from Tung-Hai University in Taichung, Taiwan, and a master's degree in Mathematics and a second master's degree in Actuarial Science and Statistics, both from the University of Iowa. He obtained his Doctor of Philosophy in Economics from Iowa State University.

2011-12 Work Plan

My work plan as an SOA Ambassador for Ireland includes:

- Assist the SOA in identifying continuing professional development opportunities
- Assist in the logistics for official visits to Ireland by members of the board of the SOA
- Promote the use of the SOA website and the Society of Actuaries of Ireland website
- Survey members to identify needs; follow up with International Section and SOA
- Write one article for inclusion in *International News*
- Write year-end report on development in Ireland □



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Jorge Luiz López Araiza is the new Society of Actuaries' Ambassador for Mexico. Jorge has an actuarial degree from the Anahuac University and is the first associate of the Society of Actuaries in Mexico (1995). He is C.F.O and Chief Actuary, as well as Vice President for the Latin American Region, at Prudential Seguros Mexico. □



SOCIETY OF ACTUARIES

Annual Meeting
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SOA 2011

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Join us at the SOA 2011 Annual Meeting & Exhibit in Chicago—the SOA's largest networking opportunity. Roll up your sleeves. This is the event where you dig in and get tons of takeaway. More than 100 hearty sessions, full of just what you need for professional growth—and offering loads of CPD credit. Speakers who'll move you to take action. And networking opportunities where you'll find other doers like yourself.

Be sure to sign up for these informative sessions:

Session 61 Panel Discussion

Where Enterprise Risk Management Meets Capital Management

The presenters will discuss the rapidly evolving global regulatory and industry developments that have an important influence on both ERM and capital management practices.

Session 73 Panel Discussion

Managing Longevity and Mortality Risks and Their Global Activities

Understand the mortality and longevity risk and recent international developments.

Ready to get it done? Head to SOAAnnualMeeting.org.



Davout Yean, FSA, is an assistant president at Taikang Life Insurance Co Ltd in Beijing, China. He can be reached at tofu.yean@gmail.com.

Health Care System Reform 中国制造 (Made in China)

By Davout Yean

At almost the same time that the Obama administration pushed the U.S. health care reform, in another hemisphere, China (accounting for one fifth of the world population), was also engaged in a large-scale health care reform.

In April, 2009, the Chinese government launched the most comprehensive Health Care System Reform ever. The goal: to establish and improve the basic health care system covering most urban and rural residents, and to provide the people with safe, effective, convenient and affordable health care. There is no doubt that this “Made in China” health care reform will become the world’s most extensive health care system reform because it will inevitably affect many players in the game such as the local governments who currently administrate the program, the medical professionals who provide the care, the pharmaceutical manufacturers who provide the medicines, and the very large population who participate in the program, etc.

If we say that the U.S. health care reform is difficult and painful, then China’s health care reform is even more difficult and complex. To fully understand the reasons for this reform, we have to trace its history.

Mao founded the New China in 1949 and led the country under the planned economy for the following 30 years (1949–1978). The government was the only enterprise and established the first health care system. It used about 3 percent of GDP on health spending to provide the basic coverage for a very large population; the average life expectancy increased from 48 years to

67 years; infant mortality rate decreased from 180 per 1,000 to 40 per 1,000. The achievement was once recognized by the World Health Organization in the 1970s.

In this period, the government established the urban and rural medical service network with a large number of hospitals, clinics and health centers in cities and rural areas to improve the accessibility. It also built a health and epidemic prevention system. Many highly infectious diseases were basically eliminated and a variety of endemic and parasitic diseases was effectively under control.

In terms of the health care coverage, there was a clear divide between urban residents and rural residents given two health care programs available. The “Urban Program” was clearly designed to meet the need of urban employees or retirees and their dependents. Government or enterprises paid for the health care expenses incurred by its participants where employees and retirees had zero co-payment and dependents had partial co-payment.

The “Rural Program” was under a mutual-assistance mechanism for rural population, i.e., voluntary mutual aid and collective masses by the farmers to raise funds for the co-payment. About 90 percent of the population was covered under this program.

The shortcomings of this period were very obvious. The government’s overall health spending was very low and leading to insufficient care, especially for farmers due to limited medical providers in the rural areas. It also hindered the

The planned economy came to its end after Mao's death. In 1979, Deng's government promoted economic reform and opening up China to the world. China gradually made the transition from a planned economy to a market economy.

development and advancement of the medical technology. Economic and social development was imbalanced, resulting in large differences in the quality of levels of health care and the development of the medical service network in urban and rural areas. The current funding scheme could not keep up with the pace of the rapid growth of medical costs. Lastly, the system lacked cost sharing and risk control. There was no doubt that this system could not effectively meet the public need.

The planned economy came to its end after Mao's death. In 1979, Deng's government promoted economic reform and opening up China to the world. China gradually made the transition from a planned economy to a market economy. In the next 30 years (1979–2008), many changes took place within the health care system due to the external economic changes. On a positive front, the ownership of medical institutions (hospitals and clinics) was no longer solely under the government. Private-owned medical institutions emerged as well. The number and capacity of health care facilities and the number of medical professionals increased remarkably compared with the planned economy period. The quality of medical personnel and their diagnostic ability increased rapidly with the advanced medical technology and equipment. The internal operating efficiency and ability to carry out the complex treatments improved across the board.

Serious problems were encountered during 1979–1998. The urban program under the old health care system could not be sustained due to the rapid increase of the health care costs. It became a huge burden for both the government

and the enterprises. The rural program quickly decomposed as a lot of farmers relocated to cities to seek out opportunities. The coverage rate hit a historical low in the late 1990s.

The Chinese government began to gradually reshape the health care system in 1998. The first program, Urban Employees' Basic Medical Insurance (UEBMI), was established in 1998 for urban employees who work for state-, private-, or foreign-owned institutions or social organizations. There was a fundamental shift in the program funding from government to employer and employee's contributions.

The second program called New Rural Cooperative Medical Scheme (NRCMS) was established for rural residents, who comprised 70 percent of the population in China at that time.

The third program, Urban Residents' Basic Medical Insurance (URBMI), covers dependents of the enrollees of UEBMI—students, migrant workers and urban residents who don't have jobs.

Though the coverage rate was much better under these new programs, they were not problem-free either. Government health spending had dropped and personal medical costs were rapidly rising. From 1979–2008, the government health expenditure fell from 32 percent to 25 percent, once as low as 15 percent during the period. Personal health spending increased from 20 percent to 40 percent.

Health care resources such as advanced medical technology and skilled professionals were

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Program	UEBMI	URBMI	NRCMS
Inception	1998	2007	2003
Eligibility	Employees	Residents w/o job	Farmers
Funding	Employer-6% payroll Employee-2% payroll	Resident-contribution Gov yearly Subsidy (at least \$30 pmpy)	Farmer-contribution Gov Subsidy (at least \$30 pmpy)
Administration	Local Gov agencies	Local Gov agencies	Local Gov agencies
Account	·Individual Account ·Public Account	Public Account	Public Account
Co-insurance	Co-payment Deductible Maximum amount: 6 times of local annual average salary	Co-payment Deductible Maximum amount: 6 times of local annual average salary	Co-payment Deductible Maximum amount: 6 times of average disposable an- nual income of local farmers
Coverage	OP and IP variation slightly different	Limited OP (certain chronic diseases), IP	Very limited OP, IP
Mandatory	Yes	No	No

heavily concentrated in the big cities, which in turn attracted the influx of patients to the big cities for better care. The health care network in rural areas had shrunk and was left far behind the urban areas. The outbreak of SARS also exposed the vulnerability of the public health system. The drug production, distribution and price formation mechanism was greatly imbalanced and lacked fair competition. During this transition period, medical professionals who used to be on the government payroll during the planned economy, were only partially paid by the government fund or subsidy. At the same time, the government allowed the hospitals to keep the drug price margin as additional revenue. Thus the hospitals were heavily dependent on the revenue of the drug price margin to support the operation, purchase equipment and partially compensate medical professionals.

The practice of overly prescribing expensive drugs (due to high revenue gain) made health care unaffordable and led to negative social and economic consequences.

It is obvious that a comprehensive health care system reform must solve the above problems. In April, 2009, the Chinese government formally promulgated the “guidance” for the health care system reform. Four priority programs will be implemented and it aims at improvement of the medical security system, medicine supply system, health care services network and public health services by 2020.

The five major tasks are described with clearly detailed specifications for the next three years (2009–2011).

1. ACCELERATING THE ESTABLISHMENT OF THE BASIC MEDICAL SECURITY SYSTEM

The first task is to expand the coverage of the basic medical security, it means that all three existing programs (URBMI, URBMI, and NRCMS) will cover most of urban and rural residents for three years, each with coverage rates over 90%. The goal for URBMI and UEBMI together is to cover 440 million people in the urban areas and for NRCMS is to cover 830 million for the rural areas. In order to enhance the level of basic health care, the government has increased the subsidies for URBMI and NRCMS. It also encourages the individuals through participation in various forms of commercial supplement insurance to meet their needs beyond the basic care under the government programs.

This is a positive move, but there is a concern that the great risk of adverse selection is likely because the participation under NRCMS and URBMI is not yet mandatory; the permission of later entry can result in more unhealthy people in the pool.

The efficiency and effective management of all the programs remain in question. Currently there are around 2000 local government agencies that administrate UEBMI and URBMI, and a large number of local agencies that administrate NRCMS. Obviously these agencies are less efficient due to the lack of insurance and medical knowledge, and IT technology compared with the insurance companies. It is suggested to explore qualified commercial insurers to provide health care management.

2. ESTABLISHING THE NATIONAL ESSENTIAL MEDICINE SYSTEM

The second task is to establish the management mechanism for essential medicines. It published the national drug list and recommended the retail prices for over 300 different kinds of medicines in 2009. Essential medicines used in government-run health care institutions shall be purchased through unified market with equal participation and fair competition. Since 2009, the grass-root medical facilities can only purchase and use the essential medicines due to this change. The goal is to make the medical care more cost effective.

The resistance to enforcement of the above reform is strong, because the hospitals heavily prescribe the expensive medicine to maximize the revenue to maintain the operation. Suddenly, they have to use the cost effective medicine. The revenue drops dramatically due to small drug margin of essential medicine. The survival of the hospitals will depend on how much subsidy they can get from the government for the income lost.

3. PERFECTING THE THREE-TIER RURAL HEALTH CARE AND URBAN COMMUNITY NETWORK

The third task is to improve the three-tier rural health care service network, and give full play to county-level hospital's leading role. The central government will give full support to build

2,000 county-level hospitals, 2,400 urban community health centers and 11,000 community health stations for the purpose of strengthening health care institutions at a grassroots level in the next three years. Efforts will be made to train millions of general practitioners and to implement a staff recruitment system. There are needs to improve the counterpart support from urban to rural within the hospital system and establish the evaluation and incentive system with service quality and quantity as the core.

This will allow patients to get primary care instead of heading directly to the large hospitals. The challenge is how to keep the talented medical professionals in the network. How can the current recruitment system, training programs and compensation attract them to take the jobs at the grassroots facilities?

4. PROMOTING THE GRADUAL EQUALIZATION OF BASIC PUBLIC HEALTH SERVICES

The task here is to continue major public health programs such as prevention and control of major diseases; for instance hypertension, diabetes, mental disorder, HIV/AIDS and tuberculosis; national immunization program; health education; individual's health records and its management nationwide; regular health checks for senior citizens over 65 and for children under three; regular prenatal examinations and post-natal visits for pregnant women. Efforts will be made to enhance the capacity of forecasting and responding to major diseases as well as public health emergencies.

The adequacy of government investment to carry out all the tasks above for the projects needed is still in question.

5. PUSH FORWARD PILOT PROJECTS

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Health Care System Reform ... | from Page 15

FOR PUBLIC HOSPITAL REFORM

Lastly, government will push forward pilot projects for public hospital reform. At present, the public hospital is the main body of health care providers in China. The external economic changes improved the efficiency of inside operations, but the public hospitals are still partially in the shadow of the planned economy. There are many conflicts between the supervision of the government and management by hospitals in the current structure. We have not found the right model yet, but the pilot projects will allow us to explore the ideal model for public hospitals.

No matter how the pilot projects are carried out, all public hospitals shall stick to principles of maintaining the commonwealth nature, providing social benefits and adopting a patient-oriented approach.

COMMENTS

The total medical cost in recent five years has increased at a rate over 15 percent on average. The government has provided \$174.5 billion for this health care reform which is about 33 percent more than the initially planned \$130.7 billion. China, as a rapidly developing country, is facing significant social and economic needs. The government has experienced a substantial investment in 2009–2011, the ability to continue to maintain the investment in the health care system remains unclear. The reform will face enormous challenges in many aspects which may relate to the constraint of the financial budgets. □

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Occupational Pension Plans in Germany

Background to Pension Provision in Germany

By Norman Dreger

Germany's pension system is quite different as compared with the pension systems seen in much of the rest of the world. The expectation held by some outsiders that "all things will work basically the same way they do at home" will often cause people to reach false conclusions regarding the system. A basic understanding of some of the key similarities and differences between Germany's pension system and those seen in other countries is a must for those who are working in the German system for the first time. While Germany is facing the same challenges as the rest of the developed world with regards to providing pensions to an ageing population, it is interesting to observe how in some cases quite different approaches have been found with regards to pension provision.

Germany has a long and proud history of both occupational pension systems and social security programs. The concept of a broad-based state-provided retirement program was established by the first chancellor of unified Germany, Otto von Bismarck, in 1889. The retirement age established by Bismarck—age 65—became a standard retirement age all over the world for over a century.

In addition to the long history of pension provision, it is important to understand that Germany today still offers comprehensive social security pension benefits to virtually all residents. Benefits after a full career are typically on the order of 40 percent to 45 percent of final earnings up to a ceiling (€66,000 in 2011). Thus, while the average German will receive a substantial pension from social security, this will in all likelihood be insufficient for someone to be able to maintain his standard of living in retirement. As a result, both company pension

plans and personal savings play a key role in an individual's retirement planning.

Like many similar programs in the developed world, German social security is coming under increased pressure due to the ageing population. The government has introduced a number of measures to curb costs, including raising the retirement age, tighter restrictions for certain benefits, and the introduction of a demographic factor that serves to dampen pension increases as the ratio of pensioners to active workers increases. As such, the need for both occupational pension plans and personal savings is becoming increasingly important, as the German social security system comes under further pressure. The focus of this article is on occupational pension arrangements, in particular on the design and financing options typically found in Germany.

FINANCING VEHICLES FOR THE PROVISION OF OCCUPATIONAL PENSION BENEFITS

In Germany, there are five different vehicles that can be used to provide company pension benefits. These can be broadly divided up into one "internal" approach and four "external" approaches, under which payments are made to some type of external vehicle, such as an insurance company, in order to pre-fund the pension benefits.

Each of these five financing vehicles is subject to different regulations and tax treatments, and each one has different restrictions on pension plan design.

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The five German financing vehicles for the provision of occupational pension benefits are as follows:

Internal approach:

- *Direktzusage* (direct benefit promises).

External approaches:

- *Direktversicherung* (direct insurance)
- *Pensionskassen* (a type of external “pension fund” that is regulated like an insurance company)
- *Pensionsfonds* (an asset-backed financing vehicle, subject to regulation by the German financial services authority BaFin)
- *Unterstützungskasse* (Support Fund—a traditional external vehicle for providing pension benefits).

Internal financing using book reserves is by volume the most common approach for providing occupational pension benefits in Germany, as highlighted in the chart below:

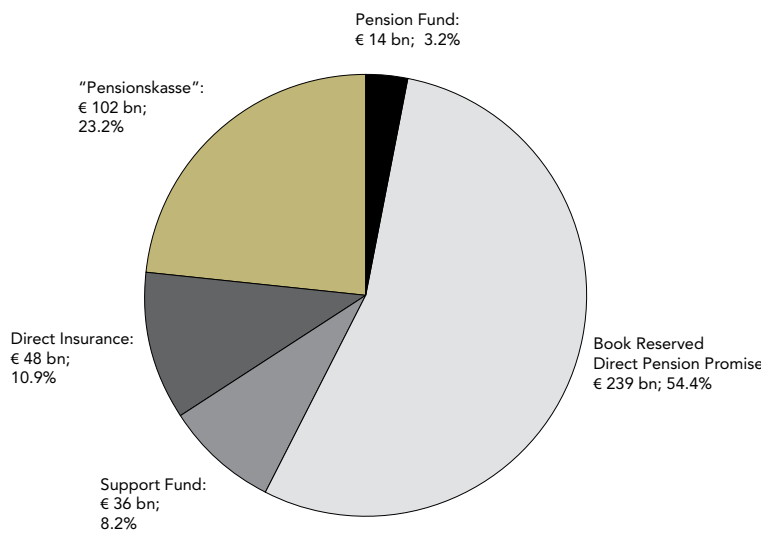
DEFINED BENEFIT (DB) VERSUS DEFINED CONTRIBUTION (DC)

The concept of DB versus DC pension plans is well-defined in the Anglo-Saxon world. DB pension plans have a benefit formula that defines what benefits are payable at retirement. DC plans, on the other hand, simply set out contributions that the company is required to make at regular intervals into a “pensions savings vehicle.” For DC plans, a company’s main responsibility is, broadly speaking, restricted to making the contributions as required by the terms of the plan documents. For DB plans, accrual accounting is used; for DC plans, contributions are expensed when paid, and no liabilities are recorded for these arrangements.

Unfortunately, the classification of a pension plan as being “DB” or “DC” is not straightforward in Germany.

Under German pension law, all pensions granted have to be expressed (at least implicitly) as a benefit, and all benefits are subject to minimum guarantees. Even when the risks associated with benefits granted have been transferred to an insurer, the sponsoring company still has the ultimate legal responsibility to ensure that benefits promised by the company are provided as a last resort should the provider fail to meet the obligation. The fact that these residual risks to the company will always be present means that from a theoretical standpoint, every pension plan in Germany is technically a DB plan.

Year 2007: € 439 Billion



Source: aba 2009

Germany's pension system is quite different as compared with the pension systems seen in much of the rest of the world.

This being said, there are certainly plan designs in Germany that could be considered DC plans from both an economic and an international accounting standards (IAS 19, U.S. GAAP) perspective. In particular, for pension promises that transfer all economic risks and opportunities to an external provider (e.g., an insurance company), DC accounting under IAS 19 and U.S. GAAP is usually appropriate. Risk-reduced "DC-oriented" plan designs are also increasingly popular in Germany. These plans have many characteristics of a DC plan, while still requiring DB treatment under IAS 19 and U.S. GAAP.

UNFUNDED PLANS AND BOOK RESERVE FINANCING

As highlighted earlier, the most common approach for providing occupational retirement benefits is internally by means of direct benefit promises. For pensions provided in this manner, a company establishes tax-deductible book reserves in its accounts for the benefits that have accrued to date. In the case of internal financing in Germany, there is no requirement to set aside assets to pre-fund benefits.

Direct benefit promises are protected against company insolvency through mandatory pension insolvency insurance, provided by an organization known as the PSVaG, up to a high annual benefit amount (around €90,000 per year). All companies in Germany and Luxembourg that offer occupational pension benefits in this manner are required to pay premiums to the PSVaG. The same premium rate is required of all companies that have granted pension benefits to their employees, and will depend on the actual number of insolvencies in

a given year and their severity (e.g., the level of pensions that have to be assumed by the PSVaG in a given year).

This system, consisting of unfunded pension plans combined with compulsory mandatory pension insolvency insurance to provide benefit security, is clearly a radically different approach to pension provision as compared with the pre-funding approach that is typically seen in the Anglo-Saxon world.

BENEFIT SECURITY FOR BOOK-RESERVED PENSION PLANS

Some people have difficulty understanding the concept of the book-reserved plan. People accustomed to determining the relative health of a pension plan by looking at the plan's funded ratio suffer a bit of a shock when they hear that many German pension plans are completely unfunded.

Although often unfunded, benefits for German plan members are arguably as secure as benefits provided under a pre-funding system using segregated plan assets. Rather than investing in the stocks and bonds of other companies in order to secure the pension entitlements granted to employees, companies can use the funds to invest in their own business, allowing them to grow. The PSVaG provides extensive benefit security to plan participants, likely to a higher degree than the security provided by segregated pension assets alone. As long as there is not a total collapse of the German economy, there will likely be sufficient companies around to cover the benefits provided by insolvent companies through the PSVaG. In a true economic collapse scenario, it is unlikely that a funded

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system would fare much better; the assets that the pension funds would be holding to secure benefits would after all be invested in financial instruments, which may well lose much or all of their value in such a crisis situation.

FUNDING OF BOOK-RESERVED PENSION OBLIGATIONS

While there is no requirement for companies in Germany to pre-fund pension obligations granted by means of a direct benefits promise, some companies in Germany choose to do so on a voluntary basis.

The arguments for and against funding of pension benefits are somewhat different in Germany than those seen in the rest of the world. In most cases, key drivers for funding pension obligations are:

1. Benefit security reasons
2. Tax reasons
3. Liquidity and cash flow reasons
4. Accounting reasons.

Some of these reasons for funding apply to Germany, while others do not:

- Given that German pension benefits are protected in the event of company insolvency up to very high limits by the PSVaG, providing benefit security is not a strong reason for funding for the vast majority of pension benefits granted in Germany. An exception to this is very high pension amounts, which are not covered by the PSVaG.
- In many countries, companies receive a tax deduction for contributions made into a pension plan. Generally there are no additional tax benefits when pension benefits of this nature are pre-funded in Germany.

- A company in Germany may consider external funding for cash flow reasons. Take for instance a company that currently has a high active payroll combined with a low pensioner population. As the workforce ages and the company matures, the ratio between active employees and retirees may change dramatically, and if money has not been put aside to pre-fund the pension benefits, the company may find itself in a position where it has to make monthly pension payments out of general funds that are higher than they feel they are able to afford.
- If a company has segregated plan assets backing its pension obligations, this would allow it to show a reduced pension liability in its company accounts, as a liability net of plan assets would be disclosed. As things currently stand, the pension expense will also typically be positively impacted through pension funding, as the expected return on assets assumption will reduce the pension expense.

Thus, of the four funding rationales discussed above, only the latter two, namely cash flow and accounting implications, will apply for most benefits in Germany.

Companies who are interested in pre-funding their direct benefit promises have a number of different options open to them, including the use of insurance or ring-fenced trust structures referred to as “Contractual Trust Agreements” or CTAs.

TRENDS IN GERMAN PLAN DESIGN

Historically, “traditional” DB plan designs were the most common in Germany. It was common to offer a percentage of salary or a fixed amount for each year of service. As in

much of the rest of the developed world, such plan designs have now fallen out of favor. Much more common now are plan designs that use a risk-reduced approach. The following are some of the approaches being considered by companies in Germany today:

1. Using an insured arrangement, where defined contributions are paid to an insurance company each year. DC plan accounting is often possible for such arrangements under international accounting standards and U.S. GAAP.
2. Establishing a book-reserved pension plan with a “cash balance” plan design. The company promises notional contribution amounts to its employees each year, which are then either converted into pension slices at retirement, based on an age-based conversion table, or are collected with interest until retirement, and then converted into a lump-sum or pension amount. While such an

arrangement would certainly be risk-reduced from an employer’s perspective when compared with a classic final average DB plan design, such an arrangement would still require defined benefit accounting be used under international accounting standards or U.S. GAAP.

3. Granting an asset-backed benefit promise, which provides benefits equal to the contributions made plus the actual return on contributions, subject to a minimum guarantee.

SUMMARY

Although the issues associated with occupational pension provision are the same in Germany as in other developed Western nations, the solutions and vehicles used to provide pension income in retirement are somewhat different. A basic understanding of the similarities and differences in the German approach allows people new to German pension issues to navigate the system more confidently. □

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A View from the Top: How I Became a Better Entrepreneur

By José L. Berrios

I always told myself that PATIENCE and PERSEVERANCE are essential attributes of an entrepreneur (on the job and in climbing a mountain). Doing business in an entrepreneurial environment without these attributes would lead to failure, especially in Latin America.

A BRIEF STORY

To put it into context, one Monday morning my phone rang: “Mr. Berrios, we have a small problem in country X with the insurance commissioner and we need you to travel ASAP and work with our local president (Mr. Y), to deal with the problem. I’m sending you some information...” My response was: “Certainly, I will review it, call Mr. Y, call your company’s attorney and keep you informed of the progress; I’ll take care of it.” I called their attorney first, and the picture was quite different. The attorney said, “We have a real problem! If we don’t fix this by THIS Thursday, then next Monday the local office will not be able to hold its board meeting, and we could face fines, audits ... and besides, there is a new president (Mr. Y) there who just arrived last week. The deadline for our response is THIS Wednesday and today is a holiday in X...” I replied, “I’ll call Mr. Y and we will fix it.” So immediately I sent Mr. Y an email outlining my proposed action plan (we had to act very quickly), called him and flew to X immediately. The following morning Mr. Y and I had breakfast. We worked on the response to address the issues, and in the afternoon we had a meeting with the insurance commissioner. As I expected, the meeting lasted several hours, and after we left the meeting Mr. Y said to me, “Thank you for coming,

and I commend you for your PATIENCE and PERSEVERANCE.”

How does a view from the top (climbing an ice mountain) relate to this story? Entrepreneurs generally start their business due to personal choice—the freedom to choose working hours, family time and the variety of projects or clients. To be a successful entrepreneur, one must learn to get ready for the next job and execute patiently; to deal with difficult situations and be perseverant to resolve significant issues that some of my clients face on a daily basis.

To put the ice climbing analogy into context, my brother (owner of a travel agency), my cousin (my lawyer) and I decided to climb the Huayna Potosi mountain (summits at 19,968 feet). It is near the city of La Paz, Bolivia. The geography in La Paz is an ideal location to enjoy a team-building experience. The city also has the highest 18-hole golf course in the world, which was featured on CNN as one of the best in South America. But that is a different story for another article.

Mission Statement: All companies have one. Mine is “To be the best I can be, with the resources I have available to work with, in order to meet my client’s needs and objectives.” Here is an example of how I apply this mission: I had no idea how difficult the meeting with the insurance commissioner would be, or how tough the ice climb would be. What I was sure about was that I would give 100 percent of myself to succeed, in both cases.

As a consultant, the effort I put into the meeting and the ice climb paid off thanks to all



View of Huayna Potosi from basecamp.

previous preparation. In business, one must be fit to execute at the maximum potential. Well-planned execution is what makes projects fun and rewarding. Patience and perseverance are essential to reach the summit (and culminate the client meeting) with a win/win outcome.

The Objectives: They hold the mission statement together (it is like the “glue” that is taught in business school). My objectives in general are: 1) to deliver quality results, on time; 2) to keep clients happy (means repeat business); and 3) to be well-compensated for my efforts that will save my clients money, time and effort. For my ice climb, my sole objective was to reach the summit (the main goal that was always above us on the climb). For my meeting, it was to have the opportunity to “neutralize” the insurance commissioner’s objections, in an amicable way, so each side felt it prevailed.

Proper Equipment: Proper equipment is essential in such adverse conditions (cold, wind and ice). The last thing I wanted to worry about was defective equipment. This meant any failure to reach the summit would be only because of my efforts rather than my equipment. Having the equipment is not enough; I also had to master its use. Likewise, for an entrepreneur,

patience and perseverance are essential equipment. Also, in today’s E-world, consultants must master the art of e-gadgetry; that is, being reachable at all times (even when I am reaching the summit!), and of course, to take a few nice pictures! Did you know that at high altitude cell phones and cameras tend to “ice up”? The trick is to keep them very close to your body so they stay warm, but without moisture. (They don’t teach you that at business schools! One has to learn it as it comes, like in a difficult meeting with the insurance authorities.)

The Training: My daily exercise is thanks to my two dogs. I take them for a 60-minute walk up a hill next to my house. I train to utilize less oxygen, but more importantly, to develop strong legs and resistance. During these walks, I also train mentally for projects. Formal education is essential, but on certain projects, that education is not enough. A project has all sorts of perspectives, and an entrepreneur must know how to manage each of them well.

The Guide: The guide provided a critical contribution to the success of the climb. The success factor I believe I provide in consulting as a guide typically is around 95 percent to 100 percent (especially for clients who need me right now). I enjoy being an entrepreneur because some projects are like the climb—I will work very hard to achieve a 100 percent success factor (e.g., find the ice-path that will take us to the summit and coach my clients to excel, despite the potential walls which are discussed later). Climbing upward and reaching higher to achieve success is a great feeling. In these tough projects, I learn to overcome adversity and reach for win/win outcomes.

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A View from the Top ... | from Page 23



The summit (19,968 feet)

The Team: The day before our summit expedition, my cousin, my brother and I went to test our equipment on a glacier. The next day, the team was: the guide up front, my brother, my cousin and I. We started a five-hour hike from 15,416 feet (base camp) to the “high camp” at 17,712 feet high. We set up camp, had a bowl of hot soup, and rested until 3:30 a.m. We prepared our ice-climbing equip-

ment and started climbing at 4:30 a.m. My cousin was doing fine for the first 90 minutes into the climb, and then I noticed he was reaching exhaustion. Before the hard part started, my cousin expressed he was not feeling very well. He decided not to burden the team and go back down. Basically he “hit the wall.” An important lesson is that, in Latin America, an entrepreneur must be surrounded by honest folks who know their limitations. Otherwise, the whole team will suffer and nobody will succeed. In mergers and acquisitions (M&A) work, I have seen this basic lesson being ignored by purchasers, and typically foreign companies find themselves in trouble during the post-acquisition time.

My brother and my cousin turned around to descend to the high-camp. The guide and I continued on alone; my adrenaline and mental drive at that moment switched to high gear in order to complete the objective of reaching the summit.

“Hitting the Wall”: This concept is well-known

to marathon runners. At about mile 16 to 21, some runners reach a point, due to mental and physical fatigue, where they just cannot continue unless they summon the extra mental and physical strength to push on and finish the race.

I believe it to be a three-dimensional phenomenon; the first and second dimensions are that, as altitude increases, so does the physical effort required (the body burns energy until it “runs out”). The third dimension is the emotional peaks and valleys that a person endures under extreme physical effort or stress. They are “walls” because they represent hurdles a person must overcome or otherwise that person will eventually quit. As for personality types, only a patient person can climb a mountain (impatience will destroy you very quickly in high altitude as well as in an important meeting with an insurance regulator). As I stated, patience and perseverance are essential attributes to have to succeed.

The Summit: I took very nice pictures during the climb. Finally, after five hours, we reached the summit. The view was awesome and breathtaking. My cell phone and camera worked fine (I made a few phone calls to family, friends and some clients). There was one item left to consider—getting back down. In ice climbing, the most important objective is getting back down safely, and suddenly that became the real objective. (It is interesting how goals change when presented from a different perspective!). Believe me, that was the hard part of the trip. But I finally made it. The return home was a real relief, similar to the relief I had when my meeting with the insurance commissioner ended. I told myself, “What a nice ending!” □



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An Actuarially Fair Law

By Rodrigo Silva

Our firm currently has the privilege of working for the Chancellery of my country—Colombia—reviewing the current compensation scheme for the diplomatic personnel, in order to improve it or to design a different one with more satisfactory results. We were allowed to have an independent perspective, using the actuarial point of view, i.e., a quantitative one.

In this article, I describe the main challenges and the proposed solutions. We are now in the process of implementing a new scheme, close to the proposed one, but we also are considering the different perspectives of all the involved parties and the available options. Whatever decision is made, it will be disclosed to be public—i.e., a decree will be enacted—after consensus is reached in the central government about the rationale and the risks of the agreed solution.

OVERVIEW

One of the main objectives of our diplomatic personnel is to represent our country in any part of the world where we have embassies or other kinds of diplomatic representation. For those who represent a country, a permanent assignment in a foreign country is not feasible, since they must stay in Colombia for a long period of time in order to get a personal view of the current situation and to realize the way we face things every day. This allows diplomatic personnel to go to other countries with fresh Colombian eyes. Anyplace they live, they cannot lose the Colombian perspective; they cannot feel too comfortable in any foreign country because, at any moment, it is time to come back. This is not an easy task: they must always travel with their spouse and children and although it seems to be something exciting—i.e., to live in any place in the world—it

actually means not being able to deepen roots in any place, except Colombia, a country where they cannot live because of the nature of their job.

Not all diplomatic personnel belong to the diplomatic career: some ambassadors come from politics; some have specific assignments depending on particular circumstances or are required by international negotiations. Anyhow, they must also represent us for short time periods—sometimes tied to the presidential term. Experience tells us that having career and political diplomats is a good mix; the idea is that the whole diplomatic body must be well-rounded and experienced enough in order to have a team suited to do the best possible job.

International agreements provide that the tax regime applied to these personnel is that of their home country, and, therefore, the analysis is simplified by the fact that there is a single tax regime to consider. The social security they are entitled to is also that of the home country, therefore, the “only” challenge the Chancellery has—from the compensation point of view—is to pay a “fair” amount to every diplomatic functionary. This leaves us with a very simple but complex issue: What is a fair salary for these personnel? Can we calculate it? If the answer is yes, how can we do it?

UNDERSTANDING THE CURRENT SCHEME

We were allowed to analyze the situation with great latitude, having the chance to bring new and fresh ideas. They only gave us a general picture of the current situation and the legal regime (it is public, but not all its implications can be seen on a first analysis; some meetings

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were necessary in order to understand its implications). No boundaries were set as for proposing solutions, because they wanted a new and unbiased point of view.

The structure of the current compensation scheme can be described as $A + B - A$ where A (in fact, the first A according to the current regulation) is the “*basic salary*,” subject to taxes and contributions to the social security. B, a component that varies according to the country, is the core of our analysis due to the simple structure of the compensation scheme, which we believe is adequate.

The prior scheme calculated B according to groups and currencies, but it was not clear how countries were assigned to groups. The current scheme gives B for every position of the diplomatic career in Colombia and applies an index provided by the International Monetary Fund (IMF) for exchanging currency between countries on a “*fair*” basis; the index is called “*Purchasing Power Parity*” or PPP for short. After the salary is calculated in the local currency of each country, the decree converts it to U.S. dollars; therefore, the payroll is calculated in dollars, so the salary received by the personnel under this regime is subject to fluctuations.

The experience of this approach tells us that the compensation scheme in some countries is very attractive; in fact, the Chancellery is having an increase of transfer requests to some specific countries. Since the currency risk is faced by the personnel, the salary fluctuates month after month, with dramatic consequences for the lifestyle of the diplomatic personnel.

In the past, they also tried to pay salaries in “hard currencies”—e.g., U.S. dollars, Euros, yen, pounds and so on—hoping that the

“strength” of these currencies could absorb the currency risk. This scheme was abandoned because it did not result in an adequate outcome in some countries.

After several meetings we learned “*the good, the bad and the ugly*” about the schemes they had tried, and an emphasis was made on the current one. They wanted a uniform approach that mitigates the salary fluctuation for all countries; it was clear that the fluctuation risk must be borne by the Chancellery, not by the personnel.

PROPOSING A MATHEMATICAL SOLUTION

The Chancellery is not the only institution in the world that faces a problem as that described above, so several studies can be found in literature. The common elements used are the following:

- A benchmark. Any model that compares salaries between two or more countries uses a benchmark. The concept implied is that whatever you pay to an engineer, clerk or manager (people with the same profile, doing the same job, with the same experience) in country A and country B must be the “same,” i.e., you can have the same lifestyle in both countries with the salary paid in each country.
- There are periodic surveys about these matters all over the world; some are more accessible than others, and they use different methodologies with the obvious consequence of obtaining different, even contradictory or counterintuitive, results.

An exchange index. The market exchange rate fluctuates every day and, by definition it fol-

lows the market. This is not necessarily seen by individuals in the same magnitude or at the same pace.

The heart of the problem is a unit conversion: what is the equivalent of U.S. \$100 to pounds, Euros or any other currency, not in terms of currency conversion, but in terms of lifestyle?

The usual studies provide for a given set of countries and jobs—i.e., the same job, with the same task—the salary in local currency (sometimes per hour, as long as it is usual to work more in some countries), before and after taxes. They also provide a general index for each country: how many hours do you have to work in a country in order to buy a Big Mac, a pound of bread, wheat or rice, an iPod Nano?

These studies presume that there is a job market you can look to and, therefore, you can measure and/or survey job compensation. The uniform general measure is an average measure that would not be adequate for diplomatic personnel—i.e., personnel with higher-than-average salaries.

The closest available benchmark that we found is given by the United Nations (UN). Given their size, they have a permanent committee that evaluates compensation for several jobs in all countries where they have people—literally, all the world; the “corporate solution” would be to use the salaries they calculate. This was one of the first solutions we discussed, but the assignments they contemplate do not reflect exactly the diplomatic career. This is the benchmark we looked to. There are benchmarks for the industrial, services and financial sectors, but not for the diplomatic sector. It is a total mystery to know the salary that other countries pay to their diplomatic personnel all over the world.

The other main idea is to exchange currency on a fair basis. Indexes like the Big Mac or iPod Nano try to capture equivalencies among countries, because a Big Mac or an iPod Nano is the same in any place, but it is not quite so. In a very poor country, a Big Mac or an iPod Nano can be seen as something luxurious, while in a rich country, it is something consumed by common people. It also has the disadvantage that such an index can be seen as something not “*politically correct*”: How would a Colombian law, written in terms of an index of this kind, be seen? The PPP is published by the IMF, and although it is a work in progress—not free from criticism—it tends to be stable; it is uniform; and it uses a wealth of information not available to us.

With the two elements at hand, (UN salary benchmark) and an index to convert currency between countries (PPP), we stated an optimization problem that can be summarized as follows: given a certain number of groups, which is the optimal assignment of countries that minimizes the error between the salary benchmark and the predicted (or calculated) salary using PPP? And for each group, what country should be the “leader”—i.e., the country that will be used to predict salaries for all other countries in that group?

The optimal solutions are sometimes not intuitive. After five or six groups, there is no difference between optimal solutions and more restricted ones (for example, a solution requiring Colombia to be the leader of its group). If we ask “too much” of the optimization problem, unfeasible solutions are found—for example, a very little error with very few groups.

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REACHING AN AGREEMENT

The proposed solution can be seen as a middle point between the current scheme (salary conversion using Colombia as the base and no other country) and the previous scheme of ad hoc country group. The criterion for assigning a country to a group is not its geographical position or its currency, but a mathematical one. The “final” solution can be obtained as a “relaxed” solution from the optimization problem.

We did not attempt to give the ad hoc salary tables for the “leaders.” At the end of the day, we are not saying what is a “fair” salary. We are just saying which one is the optimal group distribution that minimizes the error by choosing some ad hoc salary tables for a few countries.

As we are writing this article, we are in the process of explaining the ideas and rationale behind the mathematical solution. We are now in the work of “selling” the solution. Many

tasks are still pending at the time of writing this article:

- To simulate how the payroll behaves for some possibilities and evaluate the results, as seen by different parties.
- Although the model predicts salaries in local currencies (which is something desirable), not all of them are available at the Central Bank of Colombia. Therefore, some currency risk will still persist; we did not measure the risk, but we hope it to be a small one.

We are glad we were assigned to review the salary regime and not the recruiting problem for the diplomatic personnel. In the latter case, I would propose a very simple and unorthodox approach: to spend a couple of minutes with my dog—who usually does a very good job. But once again, we would be faced with the same question: what is “fair” compensation for such a task? □

SOCIETY OF ACTUARIES

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Comparison of Mortality Experience for Some Asian Countries

By Lina Xu

To ensure confidence in the pricing and valuation of products, a mortality study is one of the tasks that must be performed by any actuary. Quite often an insurance company's mortality experience is measured by comparing it to its industry's mortality experience. Comparing mortality experience between countries is especially important for managing an international insurance business.

This article compares the insurance industry's mortality experience for Japan, Korea, China, and Taiwan. The industry's mortality experience that has been analyzed includes the variables of age, policy year and gender.

Mortality trends for Japan, Korea, Taiwan, China and/or the United States are studied, and the results are summarized and compared in this article. The trend analysis is focused on the mortality improvement/deterioration. It is important to look at the industry (short-term) mortality trend, as well as the population (long-term) mortality trend for the mortality improvement analysis.

The population data can sufficiently provide length and volume of data to permit such a study. The short-term industry trend analysis, the mortality improvement/deterioration by gender, cause of deaths, and type of medical underwriting are studied for Japan and Korea. The long-term population trend analysis, Lee-Carter model, has been used to model and analyze the mortality trends for Japan, Taiwan, and Korea.

This article will summarize the leading causes of death and mortality experience by cause of death for Japan, Korea, and China. It will summarize the results of the population mortality

improvement by age for Japan, Korea, Taiwan and the United States.

1. DATA SUMMARY

Data information for the four countries includes the observation year(s), unit of investigation, the expected mortality, exposure, and number of deaths for each country. The data information will be summarized by attained age (age), policy year, type of underwriting and, if applicable, both genders.

This study is based on the latest insurance industry data information available from the four countries.

Table 1.1 displays the observation years, unit of investigation, the expected mortality and exposure for each country under the investigation in this report.

Please note that China and Korea observation years (Table 1.1) are the same observation period as the period used in developing the industry's table CL00-03 and the 5th EMT, respectively. The expected mortality used for analysis in this report is tables CL00-03, SMT 07, the 6th EMT and 02TSO for China, Japan, Korea and Taiwan, respectively, unless otherwise indicated.

Table 1.1 Data Information by Country

Type of Information	China	Japan	Korea	Taiwan
Observation Year	2000-03	2001-05	2000-02	2007
Expected Mortality	CL00-03	SMT 07	6 th EMT	02TSO
Unit of Investigation	Count			
Exposure	79,960,360	285,205,040	73,080,921	26,680,124
Number of Deaths	47,007	898,484	119,135	42,445
CONTINUED ON PAGE 30				

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For all four countries, the exposure and the number of deaths were classified by five-year attained age group (except that China gave the issue age information), gender and policy year.

The length of the policy year information given for each country is different. China gave the policy years 1 through 4, and 5+; Korea gave the policy years 1 through 5, and 6+; Taiwan only gave the first policy year; and Japan gave policy years 1 through 10, and 11+.

China has only eight policy years contributed in this study, and about 62 percent of the exposure is concentrated in the first two policy years. The exposure for the fifth and subsequent policy years is only about 11 percent.

Table 2.1 Actual (A) and Expected (E) Mortality Rates and Experience by Gender

	Japan	Korea	China	Taiwan
Sex	Actual Mortality			
Male	3.962	1.630	0.721	2.134
Female	1.922	0.802	0.425	1.068
	Expected Mortality			
Male	5.935	1.926	0.983	2.013
Female	2.861	0.863	0.602	1.110
	Experience A/E			
Male	67%	85%	73%	106%
Female	67%	93%	71%	96%

Japanese data also provides information on the cause of death: the mortality and the percentage of the number of deaths by cause (to the total number of deaths) were provided by age, gender and type of underwriting for each year. Korean data also provides information on the cause of death: the percentage of the number of deaths by cause (to the total number of deaths) was provided by gender and by leading cause of death.

2. MORTALITY RATE AND EXPERIENCE

This section will summarize and compare the mortality rate for attained age, policy year, and the combination of the age and policy year for both male and female. The comparison in this article is the ratio of actual mortality to Japanese actual mortality, unless otherwise indicated.

Table 2.1 shows that the Japanese mortality is apparently the highest among these countries for both the actual and expected mortality. Comparing Korea, China and Taiwan overall mortality to Japanese (the ratio of the country's mortality to the Japanese mortality), it is about 41 percent, 20 percent and 55 percent, respectively. When comparing the expected mortality, it is about 32 percent, 19 percent and 36 percent, respectively.

The high Japanese actual and expected mortality is due to high exposure distribution at the higher policy years and at the older attained ages, both of which will cause mortality rates to rise. In contrast, China has about 89 percent of its exposure distributed through policy years 1 through 4, and a larger percentage of exposure is concentrated at the younger ages. Therefore, comparison of the mortality for different countries should analyze the mortality and the experience by age and policy year, as well as by type of underwriter if the underwriting data information is available.

Mortality Experience by Age

The actual and expected mortality experience by attained age and gender are summarized in this subsection.

Table 2.2 shows that Taiwan had the highest mortality rates for all ages for both genders except for females younger than 20, where Korea was higher than Taiwan. Japan gener-

ally had the lowest mortality except for ages younger than 30, where China is the lowest.

The younger age mortality is noteworthy for China and Korea. The mortality for China and Korea is about 17 percent and 54 percent higher, respectively, than the Japanese mortality for males, while for females it is about 71 percent and 102 percent higher, respectively, than the Japanese mortality. The older age (age older than 64) mortality is significant for Japan. The mortality for age 65 and older for Japan is the lowest among the four countries for both genders except for the Chinese male, where it is 24 percent higher than Japanese male mortality at ages older than 64.

See also Figure 2.1 for graphic illustration. Figure 2.1 displays the mortality by attained age for male only; the female pattern would be similar.

Table 2.3 summarizes the expected mortality by age and gender for each country. The expected mortality is based on each country's latest industry table as summarized in Table 1.1.

Table 2.3 shows that Taiwan has the highest expected mortality across all ages and for both genders, while Korea generally has lower expected mortality for all ages and for both genders except under age 20.

Figure 2.2 on the next page shows that Taiwan males have the highest expected mortality across all ages, while Korean males generally have lower expected mortality for all ages except under age 20, where China is the lowest. Female mortality displays a similar pattern.

Mortality Experience for Policy Year

Japanese policy year actual mortality and the ratio of the actual mortality to the expected

Table 2.2 Mortality (Per 1,000) by Attained Age

AttAge	Male				Female			
	Japan	Korea	China	Taiwan	Japan	Korea	China	Taiwan
0-19	0.25	0.38	0.29	0.40	0.12	0.24	0.20	0.17
20-29	0.52	0.64	0.50	1.08	0.23	0.29	0.22	0.40
30-34	0.58	0.67	0.72	1.98	0.32	0.36	0.31	0.74
35-39	0.79	0.97	0.99	3.06	0.47	0.47	0.44	1.09
40-44	1.22	1.58	1.51	4.30	0.68	0.67	0.68	1.64
50-54	3.24	4.15	3.09	8.86	1.68	1.47	1.63	4.16
55-64	6.30	7.63	5.85	13.70	2.70	2.60	3.80	7.57
65+	19.53	21.29	14.75	23.58	8.18	10.46	9.59	14.10

Figure 2.1 Male Actual Mortality

Male Mortality By Attained Age

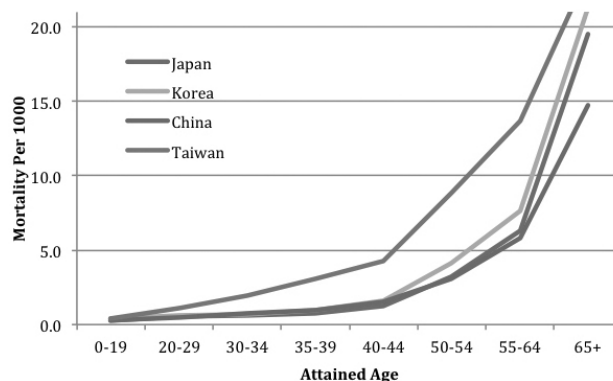


Table 2.3 Expected Mortality Per 1,000

AttAge	Male				Female			
	Japan	Korea	China	Taiwan	Japan	Korea	China	Taiwan
0-19	0.35	0.43	0.40	0.72	0.18	0.32	0.28	0.42
20-29	0.82	0.60	0.75	1.31	0.38	0.34	0.34	0.52
30-34	0.93	0.68	0.99	1.53	0.57	0.39	0.47	0.69
35-39	1.21	0.96	1.37	2.20	0.81	0.54	0.65	1.00
40-44	1.78	1.55	1.98	3.22	1.12	0.76	0.97	1.45
50-54	4.40	4.16	4.13	7.11	2.50	1.50	2.30	3.57
55-64	8.09	7.31	8.01	12.78	3.81	2.71	5.04	6.50
65+	23.66	20.69	19.89	34.86	10.87	9.67	12.76	18.93

CONTINUED ON PAGE 32

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Figure 2.2 Expected Mortality (Per 1,000)

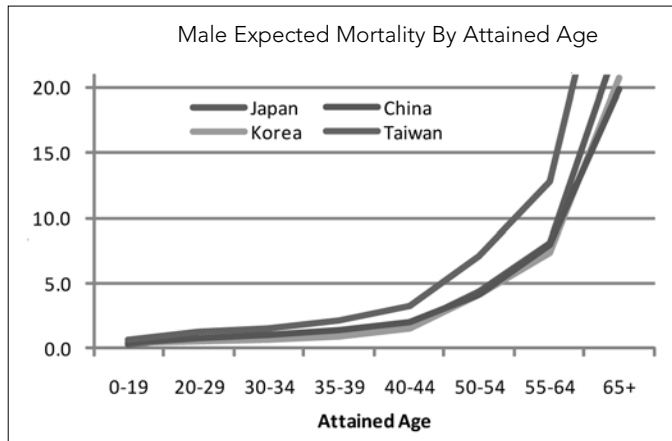
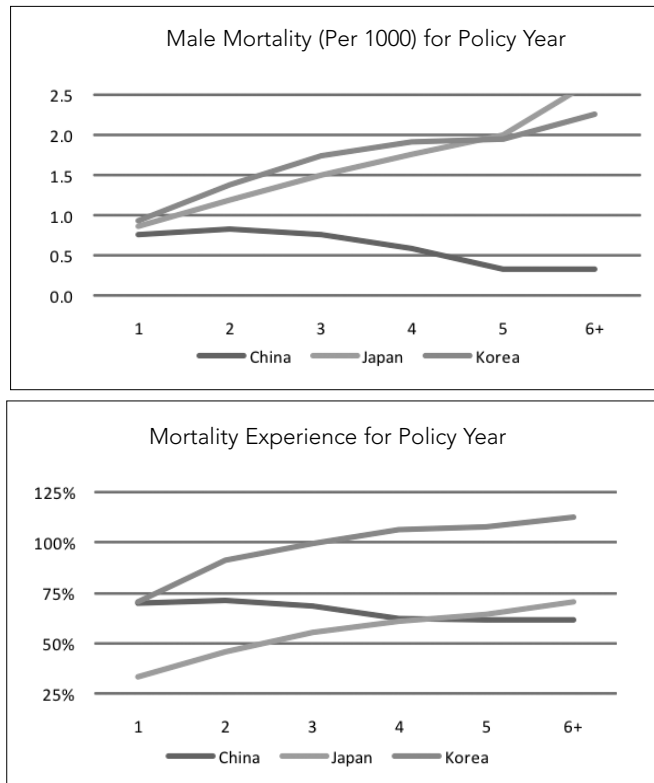


Figure 2.3 China, Japan, and Korea Mortality by Policy Year



mortality (Experience A/E) were available by medical examination and policy years through 11+. However, data from other countries was only available by gender and policy years through 5+ or 6+. For comparison purposes, we used Japanese policy years 6–10 instead of policy years 6+ in Table 2.4.

Table 2.4 shows that Chinese mortality is the lowest by policy year and for both genders. Chinese mortality decreases by policy year from the second policy year for both male and female; the later policy years' mortality, especially 5+, will be solely based on data from issue years prior to 2000. When looking at data more closely, it seemed that this country had not fully collected data for issue years prior to 2000.

Korea experienced a higher-than-expected mortality for policy years 4 and above. This pattern is expected since the underlying data (period 2000–2002) in this study is the base data for developing the 5th EMT. With mortality improvement, the current Korean expected mortality table, the 6th EMT, should have mortality rates generally lower than the prior mortality by attained age. (The 6th EMT is developed based on 2003–2005 data.)

Mortality Experience for Age and Policy Year

Table 2.5 and Figure 2.4 summarize and display the first policy year mortality for the four countries.

Table 2.5 and Figure 2.4 show that the first year mortalities of Korea, China and Taiwan are all higher than the Japanese first year mortalities for all ages. For ages older than 19, Japanese first policy year mortality is the lowest among all four countries.

Since we do not have Taiwan policy years 2 and older data information, we will not analyze and

compare Taiwan's mortality for policy years 2 and older in the rest of this subsection.

Table 2.6 and Figure 2.5 summarize and display the policy years 1–4 mortality for Japan, Korea and China.

Table 2.6 shows that Korean and Chinese policy years 1–4 mortality rates are both higher than Japanese mortality rates for all ages.

Table 2.7 summarizes the mortality rates by policy year for ages 0–19, 30–39 and 50+.

Figure 2.6 graphically displays the mortality by policy year for ages 0–19, 30–39 and 50+ for the three countries. The graphs seem to imply anti-selection mortality for both Korea and China for ages 0–19.

Korean mortality is increased by policy year for ages 30–39; this pattern is different from the pattern in ages 0–19, where the mortality decreases by age.

Table 2.7 shows that the mortality ratios (to the Japanese mortality) are extremely low at policy years 6+, especially for the Chinese comparison; this implies that Japanese mortality rates are high at older ages and older policy years.

3. MORTALITY TREND

Mortality improvement in the short term, using the industry data, and in the long term, using the population data, will be investigated in this section. The mortality improvement/deterioration that uses the industry data will investigate the mortality trend by cause of death. The Lee-Carter method is used to model the long-run age-specific mortality improvement for Japan, Taiwan, the United States and Korea.

Short-Term Mortality Trend

When looking at the mortality trend, it is important to identify the improvement or dete-

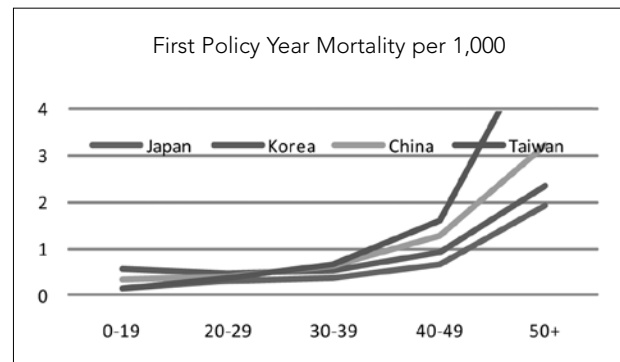
Table 2.4 Actual Mortality and Experience A/E

PolYr	Actual Mortality Per 1,000						Experience A/E		
	China		Japan*		Korea		China	Japan*	Korea
	Male	Female	Male	Female	Male	Female			
1	0.766	0.424	0.861	0.377	0.943	0.502	70%	34%	70%
2	0.830	0.494	1.186	0.622	1.382	0.650	71%	46%	91%
3	0.765	0.481	1.503	0.849	1.741	0.839	69%	56%	99%
4	0.597	0.353	1.758	1.039	1.910	0.972	63%	61%	107%
5	0.340	0.240	2.004	1.222	1.948	1.021	62%	64%	108%
6+	0.340	0.240	2.682	1.558	2.255	1.073	62%	71%	113%

*For Japan, the actual mortality and the experience A/E uses policy years 6–10 rather than the policy year 6+.

Table 2.5 and Figure 2.4 First Policy Year Mortality by Age for Male and Female Combined

AttAge	Male and Female Combined			
	Japan	Korea	China	Taiwan
0-19	0.159	0.576	0.338	0.161
20-29	0.292	0.467	0.396	0.386
30-39	0.363	0.531	0.647	0.669
40-49	0.664	0.922	1.286	1.592
50+	1.918	2.339	3.211	5.794
Total	0.653	0.721	0.615	1.591



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Table 2.6 and Figure 2.5 Mortality Rates by Age for Policy Years 1-4

AttAge	Male and Female Combined		
	Japan	Korea	China
0-19	0.171	0.354	0.279
20-29	0.345	0.450	0.363
30-39	0.465	0.582	0.623
40-49	0.966	1.216	1.321
50+	3.086	4.033	3.617

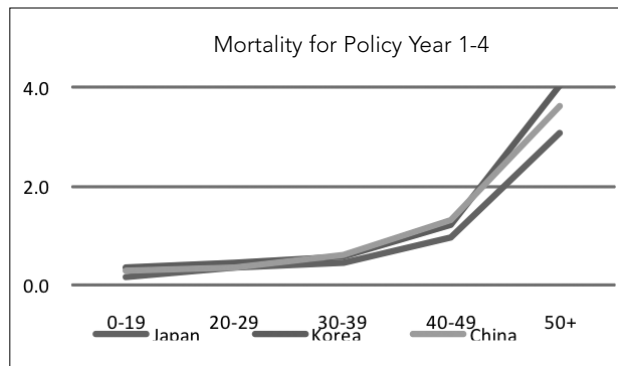
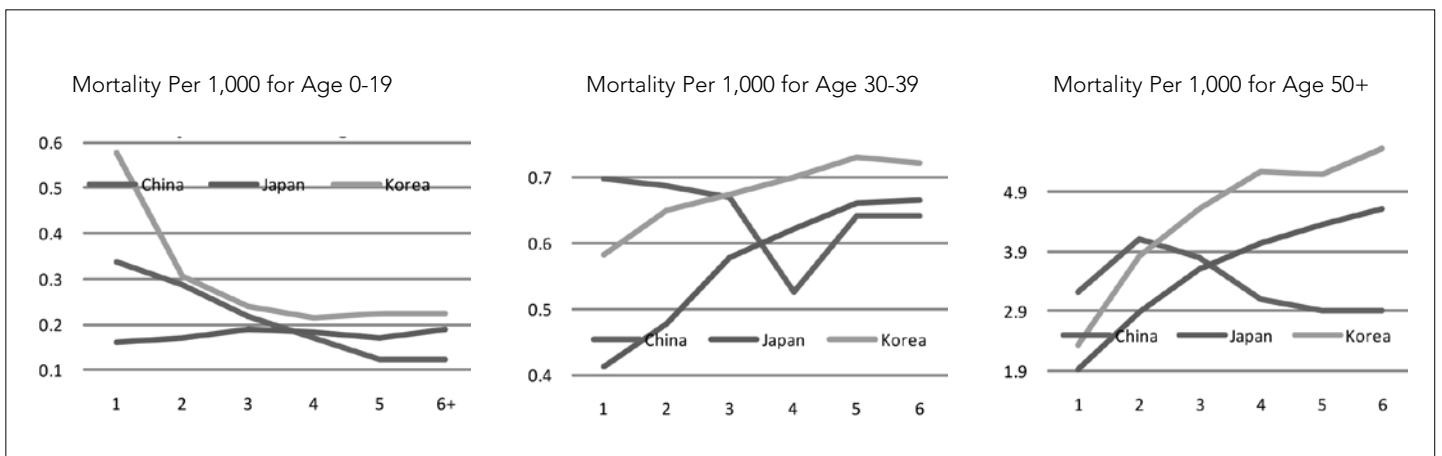


Table 2.7 Mortality by Policy Year for Ages 0-19, 30-39 and 50+

PoYr	Age 0-19			Age 30-39			Age 50+		
	China	Japan	Korea	China	Japan	Korea	China	Japan	Korea
1	0.338	0.159	0.576	0.647	0.363	0.531	3.211	1.918	2.339
2	0.287	0.170	0.306	0.636	0.428	0.600	4.110	2.896	3.828
3	0.219	0.189	0.241	0.619	0.527	0.623	3.798	3.601	4.610
4	0.170	0.183	0.213	0.476	0.571	0.651	3.094	4.027	5.251
5	0.124	0.171	0.223	0.592	0.611	0.681	2.897	4.345	5.189
6+	0.124	0.190	0.223	0.592	0.615	0.671	2.897	4.607	5.633

Figure 2.6 Mortality by Policy Year for Ages 0-19, 30-39 and 50+



rioration by cause of death. For the short-term mortality trend analysis, we first list the leading cause of death for each country for our study period. Then we briefly summarize the trends of the leading causes of death. Thirdly, we study the mortality trend by each cause of death. Finally the mortality improvement/deterioration is studied for each country if data permits.

Leading causes of death and the trends of the causes for each country are summarized in this section for Japan, Korea and China.

The leading cause of death in Table 3.1 is the largest percentage of death due to the cause for each country during the period.

The percentage of the number of deaths for malignant neoplasms and suicide generally increased from the period of 1997 to 1998 to the period of 2001 to 2005. However, the percentage of the number of deaths for heart disease, cerebrovascular and accident generally decreased.

While further investigating the mortality improvement or deterioration for Japan and Korea, the mortality by age and by cause were analyzed for Japan since this country provided this information for the study.

The Japanese mortality deteriorated for deaths due to malignant neoplasm and suicide. However, the mortality improved for deaths due to heart attack, cerebrovascular and accident for both genders from the period of 1997 to 1998 to the period of 2001 to 2005. Table 3.3 summarizes the mortality improvement (or deterioration if negative) by cause of death, type of underwriting and gender. Table 3.4 summarizes the mortality improvement from period to period by gender for Korean insurance industry data.

Table 3.3 shows that while the overall mortality improved by 0.06 percent and 0.94 percent for male and female, respectively, the neoplasm rate deteriorated for both males and females, which is caused by the medical examination policies. Moreover, while all causes other than neoplasm improved for both genders, the medical examination policies either deteriorated (for example, heart disease and suicide) or showed a much lower improvement (than the non-medical examination policies, see cerebrovascular and accident).

Table 3.1 Leading Cause of Death and Data Included in the Analysis

Region	Leading Cause of death		
	Cause	Percent	Period
Japan	Neoplasm	43.00	2001-05
Korea	Neoplasm	32.40	2000-02
China	Accident	35.18	2000-03
Taiwan	Neoplasm	26.55	1995-99

Table 3.2 Japanese and Korean Leading Cause Trend from 1947 to 2005

Japan		Korea	
Period	Cause of Death	Period	Cause of Death
1947-50	Tuberculosis	2000-02	Malignant neoplasms
1951-80	Cerebrovascular	1996-98	Accident
1981-05	Malignant neoplasms		

Tables 3.3 and 3.4 indicate that the male mortality improvement for period 1996 (1997 for Japan) to 2005 is about 0.06 percent and 1.19 percent for Japan and Korea, respectively, while the female improvement over the same period is about 0.94 percent and 2.43 percent, respectively.

Long-Term Mortality Trend

For studying the mortality trend, it is useful to study the population trend since we have the data information for a longer time period, and

CONTINUED ON PAGE 36

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Table 3.3 Percentage of Improvement (or Deterioration if Negative) by Cause of Death, UW and Gender for Period from 1997 to 2005

1997-05 Cause	Male		Female		Combined	
	Med	NonMed	Med	NonMed	Male	Female
M.N.	(1.91)	5.79	(1.85)	2.80	(0.06)	(0.04)
H.D.	(1.61)	6.91	(0.75)	5.92	0.48	1.67
C.D.	0.32	8.07	1.26	5.67	2.22	3.18
S.C.	(0.07)	(0.28)	(0.34)	2.90	0.42	1.03
A.D.	2.44	4.78	1.53	5.34	3.18	3.26
Total	(1.63)	5.10	0.94	2.33	0.06	0.94

Table 3.4 Korean EMTs Mortality and Mortality Improvement

Period		Factor Percent		Korea EMT Mortality Per 1,000			
From	To	Male	Female	EMT	Period	Male	Female
3rd EMT	4th EMT	4.88	6.36	3rd	1988-1992	2.972	1.624
4th EMT	5th EMT	1.14	1.08	4th	1996-1998	2.093	1.025
5th EMT	6th EMT	1.25	4.21	5th	2000-2002	2.000	0.982
4th EMT	6th EMT	1.19	2.43	6th	2003-2005	1.926	0.863

The results from the LC modeling:

Table 3.5 Population Data Use by Country

Region	Source	CalYr	# of CalYr	ProjPeriod	# of ProjYr
Japan	HMD	1947-08	62	1979-08	30
Taiwan	HMD	1970-08	39	1970-08	39
USA	HMD	1933-06	74	1977-08	30
Korea	Korean Population Statistics	1983-03	21	1983-03	21

we also have older age data information. The population data can be used for annuity and pension mortality trend studies.

The Lee-Carter (LC) model will be briefly described. The results will be summarized and compared for Japan, the United States, Korea and Taiwan.

The LC model is based on the equation

$$\ln(m_{x,t}) = a_x + b_x \cdot k_t + \varepsilon_{x,t} \quad (3.1)$$

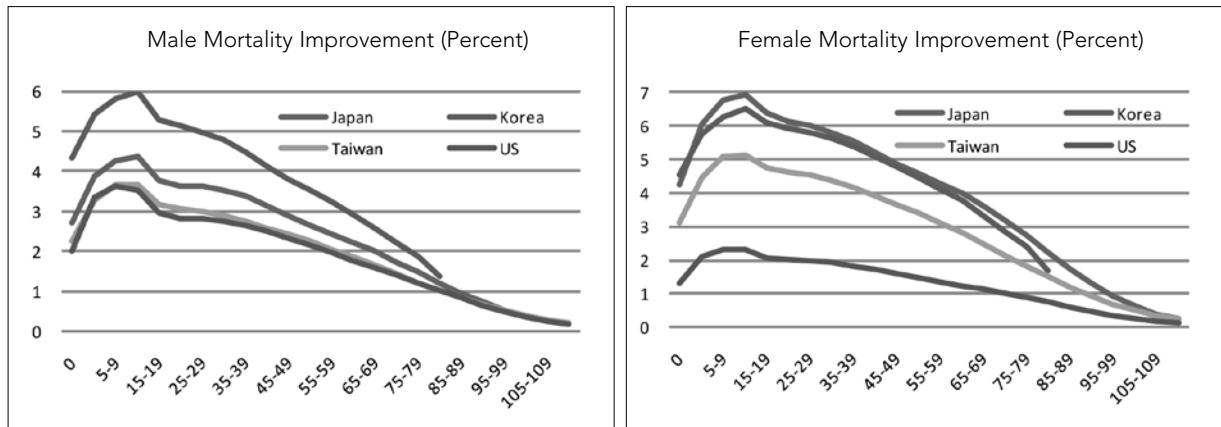
The LC model models the age-specific rate and has modeled the covariances across ages by using the same time-varying parameter k . The rates in the LC model are always constrained to a life table system that fits the historical data. The rates obtained from the LC model are cohesive because of the forecasting of the single parameter k , which itself is a kind of compromise among the trends in all the individual age-specific rates.

Table 3.6 Mortality Improvement by Selected Age Bands and Gender

Age	Male				Female			
	Japan	Korea	Taiwan	US	Japan	Korea	Taiwan	US
5-9	4.28	5.79	3.67	3.64	6.75	6.25	5.08	2.32
20-24	3.63	5.15	3.08	2.82	6.14	5.91	4.61	2.04
30-34	3.54	4.79	2.90	2.76	5.81	5.64	4.37	1.92
40-44	3.14	4.13	2.58	2.50	5.23	5.10	3.93	1.71
50-54	2.66	3.53	2.24	2.15	4.58	4.46	3.40	1.47
70-74	1.74	2.23	1.43	1.40	3.20	2.86	2.15	1.00
80-84	1.20	1.38	1.02	1.02	2.23	1.68	1.50	0.74

Table 3.6 displays that the improvement scale varies by age and gender. U.S. mortality improves the least for all ages and for both genders. For males, the Korean improvement scale is the largest for each age among all countries, while for females the Japanese improvement scale is the largest. See also Figure 3.1. □

Figure 3.1 Mortality Improvement by Age for Male and Female





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 on-line registration are available through the PBSS website at www.actuaries.org/PBSS/Colloquia/Edinburgh/index.cfm (or 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).

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).



2011 Caribbean Actuarial Association Conference

Attend the CAA 2011 conference in Trinidad and be a part of the dialogue on actuarial issues facing the Caribbean region!

The next Caribbean Actuarial Association conference will be held at the Hyatt Regency Hotel in Port of Spain, Trinidad on December 1-2, 2011. This will be the 21st anniversary of the CAA. Further details will be posted on the CAA's website at www.caa.com.bb.

The Society of Actuaries will conduct two sets of professionalism courses alongside the 2011 conference. The first course will be the Associateship Professionalism Course or APC on November 30, 2011. The APC is a course required of all SOA candidates working towards the ASA or CERA credentials.

The second course will be for continuing professional development purposes with a target audience of all practicing actuaries (fellows and associates) on December 3, 2011. The course material and length of this second program will be sufficient to



meet the needs of the SOA's continuing professional development requirement.

Course registration details will be issued later in the year.

Trinidad and Tobago are the most southern islands in the West Indies. Trinidad is considered the economic powerhouse of the Caribbean with vast oil and gas reserves, while Tobago is an unspoiled island paradise of clear blue waters and white sand beaches. The islands have a cultural diversity far greater than any other island in the southern Caribbean offering a rich cultural and culinary experience, vibrant people, and abundance of natural beauty including flora, birds and beaches.

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