



Japan's Insurance Market 2013



The Toa Reinsurance Company, Limited

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To Our Clients

It gives me great pleasure to have the opportunity to welcome you to our brochure, *Japan's Insurance Market 2013*. It is encouraging to know that over the years our brochures have been well received even beyond our own industry's boundaries as a source of useful, up-to-date information about Japan's insurance market, as well as contributing to a wider interest in and understanding of our domestic market.

During fiscal 2012, the year ended March 31, 2013, conditions remained challenging for the Japanese economy due to the slowdown in the global economy as it was affected by factors such as the European sovereign debt crisis. However, the Japanese economy showed signs of recovery from the second half of the fiscal year, backed by the improvement of the export environment and the positive impact of the Abe administration's economic policies.

In the non-life insurance industry in Japan, companies earned increased premiums from automotive insurance as a result of the revision of insurance premium rates, and from fire insurance reflecting a rise in the number of housing starts and an increase in the number of earthquake insurance policyholders in the household sector. On the other hand, the overall combined ratio remained high, putting pressure on non-life insurance companies, due to the persistently poor performance of the mainstay automobile insurance business. Since opportunities for growth are limited in the Japanese market due to its maturity, non-life insurance companies are strengthening overseas business development and streamlining operations through consolidation, including mergers.

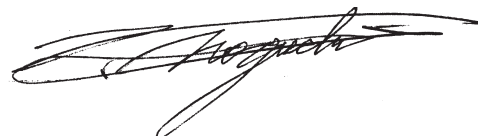
In the life insurance industry in Japan, as a result of stagnation in the financial market, most direct life insurance companies curbed sales of single premium whole life insurance products, whose sales had been brisk. Meanwhile, a stream of products such as nursing care insurance and simplified issue policies, newly developed to accommodate the aging society, sold well. Competition among direct life insurance companies further intensified from the second half of the fiscal year, in the run-up to the reduction of the standard premium rate in April 2013.

In the reinsurance market, despite the impact of Superstorm Sandy in the United States, many reinsurers recorded a profit, recovering from generally poor performance in recent years. Meanwhile, a large amount of capital flowed into the reinsurance market, resulting in excess reinsurance capacity. Although the effect on the market rate level was slight, competition among reinsurers intensified.

Fiscal 2012 was the first year of Toa Re's new medium-term management plan, Forward 2014, launched in April 2012. Based on our corporate vision articulated in Forward 2014 to utilize sophisticated expertise and intelligence (E&I), the Toa Re Group strives to provide high-quality solutions and services and is taking steps to realize the vision of becoming a global reinsurance group that is trusted by our stakeholders and continues to grow.

By endeavoring to act as an exemplary reinsurance company, we are resolved to fulfill our mission: "Providing Peace of Mind."

In conclusion, I hope that our brochure will provide a greater insight into the Japanese insurance market and I would like to express my gratitude to all who kindly contributed so much time and effort towards its making.



Tomoatsu Noguchi

President and Chief Executive
The Toa Reinsurance Company, Limited

1.

The Japanese Non-Life Insurance Market

Yasuyoshi Karasawa

President, Chief Executive Officer, Mitsui Sumitomo Insurance Company, Limited

1. Efforts to Improve Automobile Insurance Profitability

(1) Profitability in the Japanese Non-Life Insurance Market

The results of Japan's non-life insurance companies over the past several years underscore their challenging business environment. Key issues have included constant automobile insurance losses, frequent natural disasters, and an unfavorable investment environment. (Chart 1)

Chart 1. Profit and Loss of Non-life Insurance Companies

	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011
Underwriting profit	(64.0)	15.9	(104.7)	(63.9)	16.2	54.3	(183.2)	(339.1)
Combined ratio	96.2%	92.7%	94.2%	96.0%	101.7%	103.1%	102.1%	117.2%
Net income	258.6	306.3	251.0	236.8	(81.0)	206.8	127.5	(262.1)

Premium income increased for the fiscal year ended March 31, 2013 as the Japanese economy began to recover. However, underwriting profit remains under pressure due to the high loss ratio level of automobile insurance and natural disasters both in the domestic and overseas markets.

This uncertain, harsh environment is likely to continue due to natural disasters, proliferation of risks resulting from environmental changes such as the aging population, lower birthrate, population decline, and decrease in the number of vehicles.

(2) Automobile Insurance Profitability

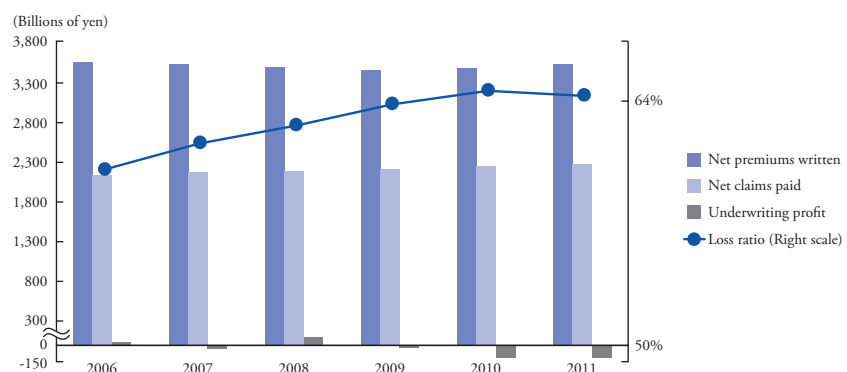
Among non-life insurance products, the underwriting profit of automobile insurance has been deteriorating for some time. The non-life insurance industry has been losing money on automobile insurance for years with a combined ratio exceeding 100%. (Charts 2 and 3)

Charts 2 and 3. Net Premiums Written and Net Claims Paid

(Billions of yen)

Fiscal year	Net premiums written	Net claims paid	Expense	Underwriting profit	Loss ratio	Expense ratio	Combined ratio
2006	3,555	2,135	1,325	33.8	60.06%	37.28%	97.34%
2007	3,535	2,177	1,371	(27.7)	61.57%	38.79%	100.36%
2008	3,493	2,186	1,406	95.7	62.59%	40.26%	102.85%
2009	3,462	2,209	1,388	(14.5)	63.81%	40.10%	103.91%
2010	3,486	2,251	1,386	(147.9)	64.59%	39.76%	104.35%
2011	3,532	2,271	1,395	(143.9)	64.30%	39.50%	103.80%

Source: *Insurance*, Statistics Issue



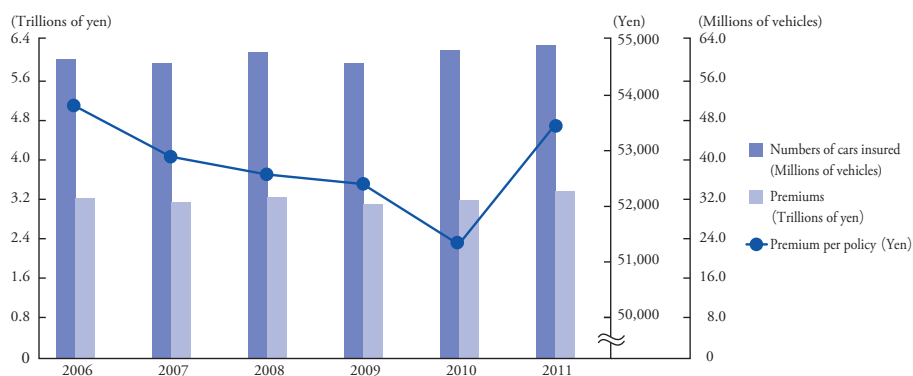
* For fiscal 2011, net premiums written increased because of rate rises



Automobile insurance underwriting has not been profitable primarily because the number of insured automobiles has increased while insurance premiums have been flat. This represents a de facto decrease in premium rates while claim payments have increased. (Charts 4 and 5)

Charts 4 and 5. Number of Cars Insured, Number of Claims Paid

Fiscal year	Number of cars insured	Premiums (Millions of yen)	Premium per policy (Yen)	Number of claims paid	Claims paid (Millions of yen)	Amount paid per claim (Yen)
2006	60,276,188	3,245,109	53,837	6,881,298	1,877,793	272,884
2007	59,548,558	3,151,548	52,924	6,910,534	1,896,821	274,483
2008	61,784,542	3,250,145	52,604	6,884,813	1,890,315	274,563
2009	59,509,783	3,120,190	52,432	6,898,584	1,884,284	273,141
2010	62,247,272	3,196,113	51,345	7,217,495	1,935,224	268,130
2011	63,287,311	3,385,195	53,489	7,145,980	1,942,206	271,790



Source: General situation of automobile insurance (General Insurance Rating Organization of Japan)

- * Number of cars insured includes new contracts
- * Premium reflects change of condition and cancellation for the year
- * For fiscal 2011, net premiums written increased because of rate rises

The following issues are the main causes.

- (a) The number of older drivers paying low insurance premiums increased in line with the aging population. In other words, the number of younger drivers paying high insurance premiums decreased. (Chart 6)

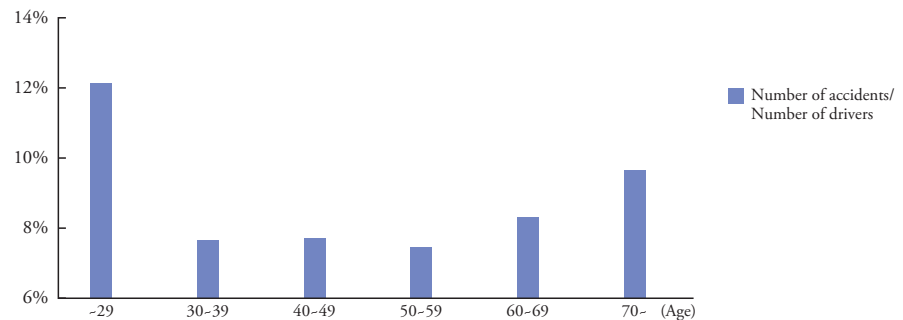
Chart 6. Number of Drivers According to Age

	~29	30~39	40~49	50~59	60~69	70~
2006	18.6%	22.7%	18.2%	20.1%	13.2%	7.2%
2007	17.9%	22.3%	18.6%	19.3%	14.1%	7.7%
2008	17.2%	22.0%	18.8%	18.6%	15.2%	8.1%
2009	16.6%	21.6%	19.1%	17.9%	16.2%	8.5%
2010	16.1%	21.2%	19.5%	17.5%	16.8%	8.9%
2011	15.6%	20.6%	20.0%	17.2%	17.1%	9.5%
2006-2011	-5.1%			-1.1%		+6.2%

Source: Police white paper

(b) The probability of accidents involving older drivers is high. (Chart 7)

Chart 7. Number of Accidents/Number of Drivers



(c) The number of compact cars (light vehicles) for which insurance premiums are low is increasing. In other words, a shift from ordinary and small vehicles to light vehicles is occurring. (Chart 8)

Chart 8. Number of Cars by Type

	Number of cars						Ratio of light vehicles
	Private use ordinary vehicles	Private use small vehicles	Light vehicles	Freight vehicles	Others	Total	
2006	16,671,316	25,284,353	15,280,951	16,490,944	5,508,531	79,236,095	19.3%
2007	16,714,242	24,481,218	16,082,259	16,264,921	5,538,122	79,080,762	20.3%
2008	16,613,720	23,914,198	16,883,230	15,858,749	5,530,645	78,800,542	21.4%
2009	16,652,554	23,500,935	17,483,915	15,533,270	5,522,821	78,693,495	22.2%
2010	16,790,700	23,094,498	18,004,339	15,137,641	5,633,595	78,660,773	22.9%
2011	17,048,886	22,849,912	18,585,902	15,008,821	5,619,063	79,112,584	23.5%

Source: General situation of automobile insurance (General Insurance Rating Organization of Japan)

(d) Other reasons include an increase in accidents resulting from rising traffic as expressway tolls have been eliminated, and an increase in claim payments as a result of efforts by insurance companies to improve business quality.

Automobile insurance accounts for around half of the portfolio of Japanese non-life insurance companies, which makes improved earnings in this business an urgent issue.

(3) Efforts by the Japanese Non-Life Insurance Industry

Under these circumstances, the Japanese non-life insurance industry is taking the following steps.

(a) Revision of the reference loss cost rates of automobile insurance by the General Insurance Rating Organization of Japan (GIROJ)

The GIROJ has recently revised the reference loss cost rates of automobile insurance two times.

The GIROJ was established by the Act on the Body Calculating Premium Rate of Damage Insurance. It calculates reference loss cost rates for automobile insurance in

view of the special characteristics of non-life insurance rating, e.g. forecasting is difficult, costs only become clear after incidents and individual companies have a limited ability to accumulate large volumes of data.

Each insurance company refers to the reference loss cost rates calculated by the GIROJ and determines automobile insurance premium rates after taking additional costs into consideration. Of note, the use of the reference loss cost rates is not compulsory.

In June 2009, the GIROJ revised the reference loss cost rates, which are the basis for calculating automobile insurance premium rates.

The revised rates vary according to coverage, use, type of car, and whether the vehicle is fleet or non-fleet. The overall rate increase for automobile insurance was 5.7 %.

The reference loss cost rate was revised after a six-year interval and corresponds to that of six years ago. The previous revision was on June 25, 2003. The GIROJ also revised the rating system according to driver age and introduced a rating system for signature drivers according to their age. In September 2011, the GIROJ revised the class-rating system for non-fleet automobile insurance.

The GIROJ revised the premium table applied to drivers who had accidents to further ensure fair treatment of policyholders, because actual risk differs within the same class between drivers who have had accidents and those who have not. Additionally, actual risk is different between drivers who have had deferred accidents and those who have not. The GIROJ did not raise the average premium level.

(b) Efforts by the Non-Life Insurance Industry and the General Insurance Association of Japan (GIAJ)

Under these circumstances, non-life insurance companies have raised their automobile insurance premiums in stages. (Chart 9)

Chart 9. Revision of Premium Rating by Major Non-Life Insurance Companies

	Mitsui Sumitomo	Tokio Marine Nichido	Sompo Japan	Aioi Nissay Dowa	Nipponkoa
2010	October +1%	July +1.0%	April +0.8%	October +1.6%	December +1.4%
2011	October +1.9%	January +1.7%	April +1.7%	October +1.0%	January +1.8%
2012	October +0.8%	October ±0.0%	October +0.0%	October +1.0%	October ±0.0%
2013	Scheduled in October	(undecided)	April +2.0%	Scheduled in October	April +2.0%

Source: Press reporting

The GIAJ is both raising automobile insurance premiums and implementing the following initiatives:

- Education to limit traffic accidents
(Map of locations where accidents occur frequently, suggestions, etc.)
- Insurance fraud response (Establishment of a dedicated team)
- Automobile theft prevention
- Use of recycled parts (Recycled parts make up around 6% of total parts sales)
- Measures on harmonization and standardization

The GIAJ is also complementing the efforts by each non-life insurance company to investigate possible dishonest insurance claims with initiatives to prevent abuse of the insurance system, such as insurance fraud and dishonest insurance claims.

The GIAJ surveyed the level of the general public's ethics and morals regarding insurance and collected data to capture the actual situation of insurance fraud. In January 2013, the GIAJ also established a special organization called the "Insurance Fraud Prevention Office" to respond to insurance fraud.

This special organization takes a command role within the GIAJ to respond to insurance fraud. Insurance fraud is reported to this office through the "Insurance Fraud Hot-line." The team also collects and analyzes data regarding insurance fraud and investigates methods for responding appropriately.

The basic role of non-life insurance is to distribute insurance premiums to customers impartially and fairly. Moving forward one step at a time to minimize social losses by preventing accidents, disasters, and crimes, the GIAJ is working hard to create a robust, sound, and reliable non-life insurance system in Japan.

2. MS&AD Insurance Group Strategies

(1) MS&AD New Frontier 2013 – The Medium-Term Management Plan

The medium-term management plan MS&AD New Frontier 2013 is the basis for the MS&AD Insurance Group's initiatives to raise quality, earn customer trust and generate growth in its domestic non-life insurance business, domestic life insurance business and overseas business.

Moreover, MS&AD aims to strengthen the Group's governance systems (mainly in the holding company area), take a more sophisticated approach to risk management, and ensure a sound financial status while at the same time harnessing the capabilities of the entire Group to maximize synergy and increase profitability.

Through these efforts, the MS&AD Insurance Group will create a world-class insurance and financial services group that operates on a global basis, and achieves sustained growth and corporate value enhancement. (Charts 10, 11 and 12)

Chart 10. Four Basic Strategies

We aim to achieve sustainable growth and enhance enterprise value.

1. Win customers' trust and realize growth through quality improvement.
2. Integrate the total capabilities of the group and pursue group synergies to enhance profitability even further.
3. Allocate resources strategically to selected and focused areas, and ensure sound business operations.
4. Foster a corporate culture of professional endeavor and grow with employees and agencies.



Chart 11. Improving Enterprise Value

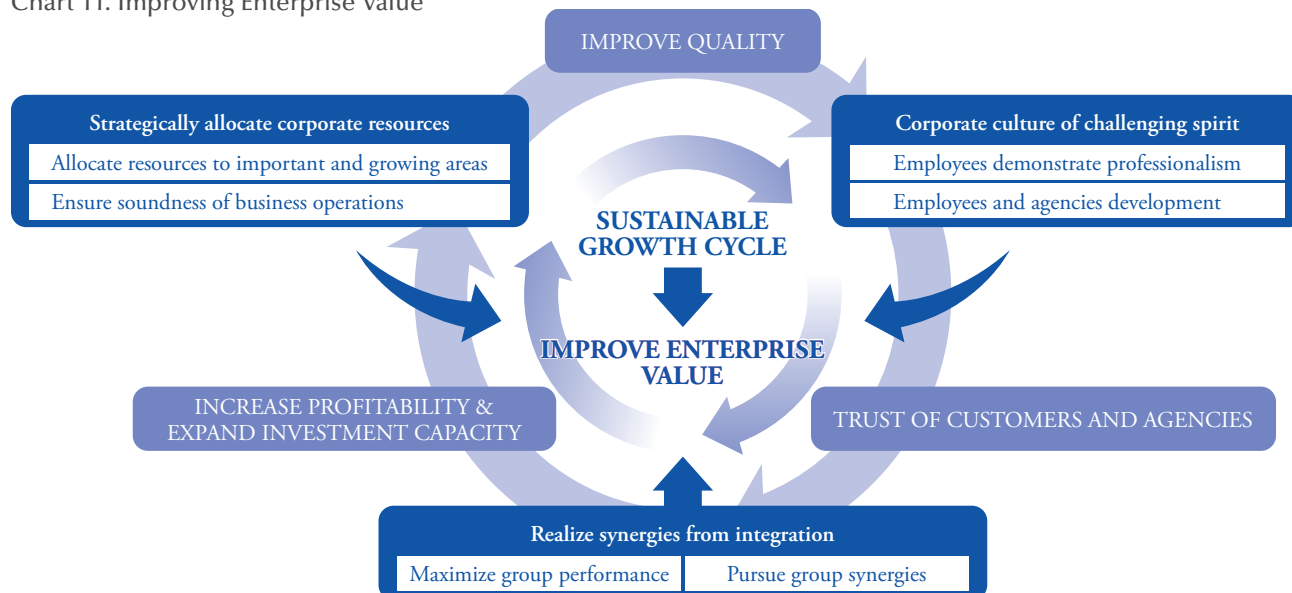


Chart 12. Business Domains and Individual Strategies

<p>Domestic non-life insurance business</p> <ul style="list-style-type: none"> • Mitsui Sumitomo Insurance Co., Ltd. • Aioi Nissay Dowa Insurance Co., Ltd. • Mitsui Direct General Insurance Co., Ltd. 	<p>By combining the respective know-how and infrastructures of MSI and ADI, we aim to improve the quality of our business processes and develop attractive products and services to meet the needs of our diverse customer base. We will reduce or operating expenses as far as possible and improve the efficiency of our operations by integration of business processes and systems, as well as sales and claims handling offices. Meanwhile, at Mitsui Direct, we will ensure profitability while expanding business in the high-growth direct sales market.</p>
<p>Domestic life insurance business</p> <ul style="list-style-type: none"> • Mitsui Sumitomo Aioi Life Insurance Co., Ltd. • Mitsui Sumitomo Primary Life Insurance Co., Ltd. 	<p>At MSI Aioi Life, we leverage our expanded sales base to accelerate growth by providing customers with attractive products and services mainly through cross-selling as well as through other sales channels such as financial institutions and life insurance agencies, and through direct sales channels.</p> <p>MSI Primary Life is offering products tailored to customers' needs and strengthening its sales capabilities in the individual annuities sector, as it establishes itself as a leading company in the field.</p>
<p>Overseas business</p>	<p>In Asia, we utilize our class-leading business base and competitive edge to develop our business. In Europe, we are focusing on geographic expansion and developing a fully fledged service structure in pursuit of greater profits. In the Americas, we will focus on securing a solid profit base.</p> <p>Finally, we will expand our overseas reinsurance business.</p>
<p>Financial services business</p>	<p>We will enhance our capabilities in product development and marketing to expand our asset management business and aggressively promote our 401k business and business related to personal finance. We will also expand our various financial solution services such as the ART, financial guarantees and venture capital businesses.</p>
<p>Risk-related services business</p>	<p>We offer a range of risk solution services outside of insurance, serving customers through our risk management, nursing care, asset appraisal and assistance businesses.</p> <p>We will also examine trends in environmental changes to discover new businesses.</p>

(2) Functional Reorganization Summary

After the inauguration of the MS&AD Group in April 2010, we took the first step toward a business merger. We advanced the mergers of Aioi Insurance Co., Ltd. with Nissay Dowa Insurance Co., Ltd., and of Mitsui Sumitomo Kirameki Life, Ltd. with Aioi Life Insurance Company, Ltd. in order to improve the business management efficiency of the Group.

For the second step of the merger, we continuously considered the reorganization of the insurance companies under the umbrella of a holding company (Mitsui Sumitomo Insurance and Aioi Nissay Dowa Insurance; “the Two Core Non-life Insurance Companies”), and consequently decided to reorganize the Group according to functions.

(a) Clarifying the business concept and how to utilize the synergy of the Two Core Non-life Insurance Companies

The functional reorganization will clarify the business concept of the Two Core Non-life Insurance Companies, strengthen their respective business foundations to their highest level, and utilize efficient management to increase their earning power.

Mitsui Sumitomo Insurance will utilize this comprehensive strength to provide superior products and services and will evolve into a global insurance and financial services organization, both in domestic and foreign markets.

Regarding hull, cargo, and aviation insurance, the contracts that Aioi Nissay Dowa Insurance undertakes are to be transferred to Mitsui Sumitomo Insurance.

Of these contracts, with regard to cargo insurance, product supply functionality will be unified within Mitsui Sumitomo Insurance, while Aioi Nissay Dowa Insurance will receive product supplied from Mitsui Sumitomo Insurance and sell by re-commission.

Aioi Nissay Dowa Insurance will strengthen its relationship with its unique partner the Toyota Group/Nippon Life Group and capitalize on these merits to deliver superior products and services and develop into a region-based business. Furthermore, their development into foreign markets will focus on the continued retail business at Toyota dealers.

Of the motor channel agencies (see note below) from which both Mitsui Sumitomo Insurance and Aioi Nissay Dowa Insurance generate business results, the insurance contracts for those agencies with whom Aioi Nissay Dowa Insurance mainly does business and Mitsui Sumitomo Insurance receives benefit will be transferred to Aioi Nissay Dowa Insurance.

Note: Sideline agencies whose main businesses include repair shops, used car sales, auto related businesses, and motorcycle sales other than automobile dealers.

(b) Reorganization of local sales networks and bases, joint use of bases

In regards to agencies that are found in areas where Mitsui Sumitomo Insurance has a base but Aioi Nissay Dowa Insurance does not, or conversely where Aioi Nissay Dowa Insurance has a base but Mitsui Sumitomo Insurance does not, business will be transferred to the insurance company that has the base.

When Mitsui Sumitomo Insurance and Aioi Nissay Dowa Insurance have bases in neighboring buildings, we will implement joint use of the same building.



(c) Transfer of long-term contracts in the third sector insurance market to MSI Aioi Life

To reduce product development and management costs, third sector long-term contracts that Mitsui Sumitomo Insurance or Aioi Nissay Dowa Insurance sell will be transferred to Mitsui Sumitomo Aioi Life Insurance Co., Ltd. (herein MSI Aioi Life).

(d) Reorganization of overseas business

By integrating business management of foreign subsidiaries in each country, we aim to reduce management costs, improve effectiveness of the reinsurance arrangement and increase the overall profitability of the Group.

Mitsui Sumitomo Insurance and Aioi Nissay Dowa Insurance will play the following roles in carrying out overseas business.

Mitsui Sumitomo Insurance will conduct general overseas business including new project investment and M&A.

Aioi Nissay Dowa Insurance will focus on overseas business related to Toyota dealerships.

Also, in order to enhance our governance, we will establish new organizations within the Holding Company that will manage and control the integrated risk management of overseas businesses and the maintenance of business management preparedness of overseas subsidiaries.

(e) Enhancing governance of the Holding Company and the reorganization of this company's functionality

By integrating some parts of the Two Core Non-life Insurance Companies' functions, we will enhance the governance system of the Holding Company.

In addition to the overseas business referred to above, we will strengthen the overall risk management for the Group as a whole in ways such as applying a sophisticated level of risk management, establishing a risk appetite policy, enhancing capital efficiency and verifying capital adequacy, and thereby building a strong system of group governance. (Charts 13 and 14)

Chart 13. Key Restructuring Plans (Examples)

(1) Roles and responsibilities, etc.

- Mitsui Sumitomo Insurance (MSI) will operate as a full line, global risk carrier pursuing opportunities both domestic and abroad. In line with this, for instance, all marine hull, cargo, aviation and space insurance business hereon will be written and managed by MSI. General overseas operations (including any overseas M&A transactions) will also be overseen and managed by MSI.
- Aioi Nissay Dowa Insurance (ADI) will operate as a regional risk carrier leveraging in particular its strong ties with the Toyota Group and Nippon Life Group respectively. In line with this, for instance, ADI will take over much of the business produced via motor channel agencies.

(2) Integrating offices, etc.

- Existing offices and bases will be streamlined and integrated where possible based on cost and operational efficiency.

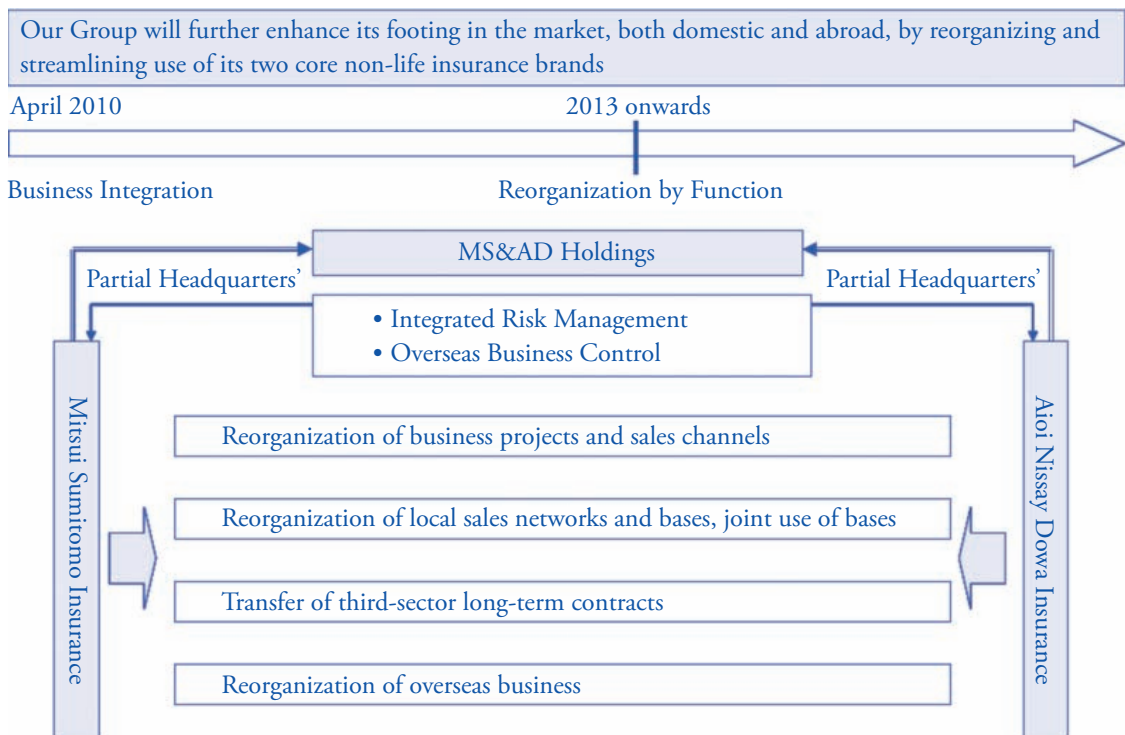
(3) Increased role of the Group Holding Company

- Corporate risk management and oversight functions of MSI and ADI will be integrated and transferred to the Group Holding Company.

Expected timeline

- 2013 onwards: Preparation to be progressed
- November 2013: Final agreement
- April 2014: Implementation (subject to necessary regulatory approval)

Chart 14.





3. The Impact of Functional Reorganization

(1) Increased Group Enterprise Value

(a) Acceleration of growth with a sense of speed

Functional reorganization will further enhance strength in Mitsui Sumitomo Insurance's hull insurance, cargo insurance, and aviation and space insurance, as well as in Aioi Nissay Dowa Insurance's motor channels.

Functional reorganization will also restrain the temporary costs and time load of reorganization. We will accelerate growth with a sense of speed by assigning these to business operations.

(b) Greater efficiency through functional reorganization

By reorganizing business and sales channels, the Two Core Non-life Insurance Companies will share supervision of overlapping distributors and clients, thereby eliminating existing inefficiencies.

Furthermore, consolidation and shared use of company bases will reduce real estate rental costs.

Additionally, by transferring part of the two core companies' headquarters functions to the Holding Company, necessary personnel of each company's headquarters can be made more efficient, allowing for streamlining of the organization.

(2) Support for Diversified Customer Needs

(a) Providing opportunities for different options

Mitsui Sumitomo Insurance and Aioi Nissay Dowa Insurance will share product platforms within the new integrated system. Quality maintenance and improvement will be achieved efficiently while developing a diverse product/service lineup to provide customers with a variety of options to meet their needs.

(b) Enhancing customer support expertise

In third-sector insurance, particularly long-term contracts, a different insurance contract management perspective is required for non-life insurance contracts.

Therefore, transferring these functions to MSI Aioi Life, which mainly handles contracts specializing in the risk of disease and death, will enhance customer-support expertise.

Also, consolidating overseas subsidiary operations will improve risk management services for companies advancing into foreign markets.

We will promptly start with possible functional reorganization such as that of the Head Office. We intend to begin re-commission sales from April 1, 2014, assuming approval from the relevant authorities.

Furthermore, we will develop business based on the concept of the Two Core Non-life Insurance Companies while further enhancing synergy between them.

2.

Practical Risk Appetite

David Simmons

Managing Director, Analytics, Willis Re
Head of Strategic Capital and Result Management

1. Introduction

“A well articulated and effective risk appetite statement is at the heart of effective Enterprise Risk Management.”

The opening statement of the UK Institute and Faculty of Actuaries (IFoA) Risk Appetite Working Party GIRO report (August 2011) quoted above makes the centrality of risk appetite to the management of an insurance company admirably clear. Ian Laughlin of the Australian Prudential Regulation Authority (APRA) echoed these sentiments in 2012; saying that “Risk appetite... is a foundation stone for sound risk management and capital management. APRA sees robust risk appetite management as critical for its regulated entities.”

In Europe, the Solvency II project has become embroiled in political as well as technical argument. It is now far from clear when, if ever, the new risk based capital regime will ever be fully implemented. But from the wreckage, the European Insurance and Occupational Pensions Authority (EIOPA), and national regulators are proceeding with core elements of the Own Risk and Solvency Assessment, the ORSA. For many, the ORSA is the heart of Solvency II, where a company demonstrates that it understands its business and has an effective, appropriate, practical risk management policy. At the heart of the ORSA is the risk appetite statement.

Whilst Solvency II's problems make it an increasingly unattractive template for other regulatory regimes, the International Association of Insurance Supervisors (IAIS) guidance to national regulators also demands a risk appetite statement, as outlined in its Insurance Core Principles (ICP) guidance Note 7: “The supervisor requires the insurer's

Board to set and oversee the implementation of the insurer's business objectives and strategies for achieving those objectives, including its risk strategy and risk appetite, in line with the insurer's long-term interests and viability.”

Rating agencies also expect a company to be able to clearly articulate its aims and objectives, its risk appetite, and to demonstrate that its strategy and day-to-day decisions are driven by that appetite – we will return to that important second point later. In short, regulators and rating agencies are, or very shortly will be, demanding that companies have a risk appetite statement. But the value of a clearly articulated risk appetite is, or should be, self-evident. It is difficult to see how different strategies can be objectively compared without a clear articulation of the minimum return a company needs to make, and the maximum risk it can accept.

There are many academic papers on risk appetite and the related topics of risk tolerance, risk capacity, risk targets and risk limits, each with subtly differing definitions of each term. But we focus here on practicality – how can a risk appetite statement be created, what does a good one look like and, most crucially, how can an insurer practically use the risk appetite statement to manage its business.

Figure 1: Risk Appetite: the foundation stone for sound risk and capital management (source Ian Laughlin/APRA)



2. Creating a Risk Appetite Statement

Even if a company does not have a written risk appetite statement it does have an appetite for risk, which will be reflected in the decisions it makes. The empirical or implied risk appetite can be codified to form the basis of a formal risk appetite statement. Even more importantly, this process can enable the insurer to review and challenge its existing risk appetite. Furthermore, the process could allow the insurer to embed firmly risk appetite into a pivotal driver behind the decision-making framework, which would enable better management of the business going forward.

Every company has rules – written and informal – about how things are done. Even if a company has not formally articulated an Enterprise Risk Management (ERM) process, an “unconscious” ERM process is already in place. The first step in elucidating an empirical risk appetite is to identify the levels of authority and approval the company applies. For example they may fall into a hierarchy illustrated below.

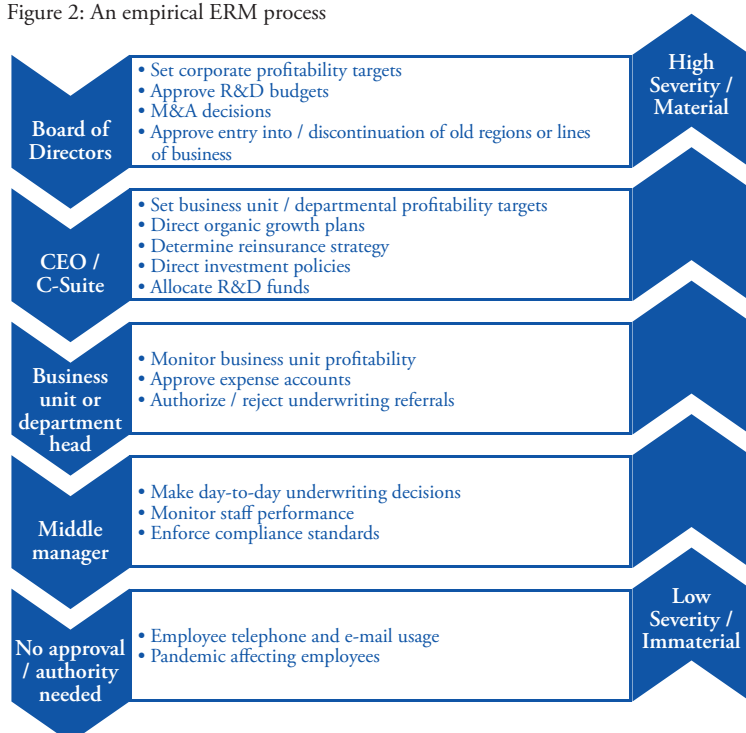
It is likely that any unusual severity or volatility caused by a financial, operational or reputational risk would elevate it to a higher level in the hierarchy. Conversely a risk placed at a senior manager level due to unfamiliarity may be delegated to a lower organisational level as the company gains experience with it.

A close examination of the risks in the top two levels will reveal the empirical risk tolerance under which the company already operates, perhaps evidenced by the expressed risk aversion of the board.

Examples could include:

- The level of net underwriting risk retained after reinsurance should be less than 10% of policyholders’ surplus
- No more than 15% of assets to be invested in stocks
- No single line of business to comprise more than 25% of gross written premium.
- No single event loss should wipe out a full year’s projected earnings.

Figure 2: An empirical ERM process



Stress scenarios undertaken will also reveal hidden concerns, for example “what if a takeover target’s reserves turn out to be 15% inadequate?”; “What would be the potential cost to the company against the likely average upside?”

Moreover, the reinsurance purchased can be highly revealing of a company’s implied risk appetite, providing an insight into considerations such as “How much catastrophe excess of loss cover is bought compared to the modelled return period?”; “How much do they retain compared to premium and/or expected profit?”; “How does their reinsurance purchase compare to peers?”

Any of these could form the basis for a more formally expressed risk appetite statement. When the key decision criteria are identified, then the focus can turn to which of these drive the decision; for example, considerations such as the following;

- Are key decisions driven by earnings or capital considerations, or some balance of the two?
- What has been judged an acceptable level of loss, be it loss of earnings or loss of capital?
- If this magnitude varies with the type of risk, what upper bound can be discerned in recent decisions?
- What is the definition of acceptable; breached 1 in every 5 years, 1 in every 10 years?

Once the process to determine empirical corporate risk appetite is complete, it is important to also review the lower level risks and processes, especially at the bottom level. It can be easy to forget about risks that fall here because, by definition, no one approves or monitors them. It is worth spending time to make sure no important risks have been forgotten.

3. What a Good Risk Appetite Statement Looks Like

Confucius said *“Life is really simple, but we insist on making it complicated.”* The best risk appetite statements are ones which focus on key threats and necessary controls. Ideally it should fit on one side of an A4-size piece of paper, with an easily-readable font.

An example structure is shown below. It is based on a real example from a UK insurer; we refer to it as Company A.

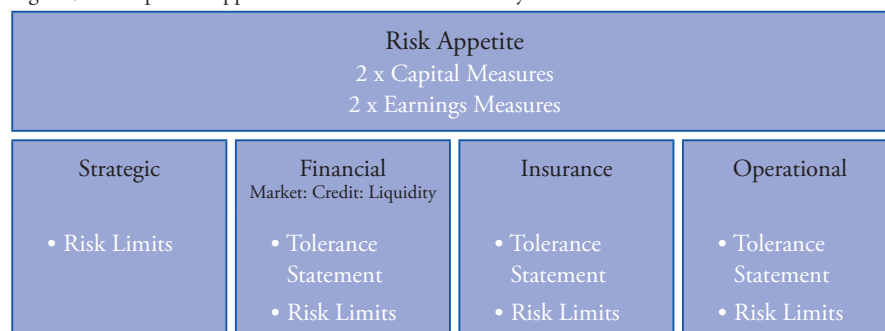
The structure is simple – at the top, the overarching risk appetite of the group is stated. Like most companies, Company A has two major objectives:

- Protection of capital
- Volatility of earnings

Somewhat unusually, and perhaps an over-complication, Company A has two risk measures for both capital and earnings; one with a higher return period, one with a lower.

Below the whole company appetites, risks are broken into four classes: Strategic, Financial, Insurance and Operational with Financial further split into three sub-classes; Market, Credit and Liquidity.

Figure 3: Example risk appetite statement structure and layout





For each risk class and sub-class a number of limits are given that aim to ensure that the operation as a whole meets its overall targets. For risks within Company A's internal capital model, a tolerance statement is given; a range within which capital allocated to these risks should be maintained.

(1) Risk Appetite

(a) Capital Risk Appetite

Company A's two capital appetites are (a) a 5% chance of eroding their buffer over regulatory capital requirement beyond a given minimum level; (b) a 20% chance of losing 10% of capital in the year. Both are common capital measures, but also ones that are realistic. The return periods are pitched within the career-spans of executives, 1 in 5 and 1 in 20, where model estimates are also more reliable.

We also see capital measures linked to far higher levels than the regulatory minimum, to give more confidence of the ability of the company to trade through a regulatory capital 1 in 200 year event. Examples observed include holding capital to the 1 in 2000 and 1 in 1428 level, both impressive but arguably meaningless given the impossibility of estimating losses to such a return period.

Others may include capital measure to preserve rating agency capital, for example "We have 1 in 20 appetite for failing to maintain a 25% buffer over the capital required for an A rating in Standard and Poor's Capital Adequacy Ratings model."

(b) Earnings Risk Appetite

Again, Company A has a shorter-term and a longer-term appetite; (a) a 20% chance of the combined ratio exceeding a given value; (b) a 10% chance of the combined ratio exceeding budget by 10%.

Interestingly, both relate purely to net underwriting result, expressed as a combined ratio. Other forms may look at total earnings with forms such as: "GAAP earnings will be within X% of target Y% of the time" or "GAAP earnings volatility not to exceed X over Y-year time horizon with Z probability." The latter statement also implies the existence of a multi-year economic capital model. While multi-year models are excellent in theory, they are very difficult to apply in practice given their need to mimic market and management action post-loss if they are to have any credibility.

Very often earnings statements are expressed in terms of standard deviation of earnings, however, this is not generally recommended as it is downside rather than upside volatility that we are seeking to control.

(2) Risk Tolerance

A "tolerance statement" is given for each of Insurance, Operational and the three financial risk classes. Each is expressed in terms of "The overall capital required to manage (insurance) risk in isolation should be maintained within the following range X_m to Y_m ." This may be extended to include a traffic light system: green for good, yellow for warning, red for fail. The traffic light system may also be extended into the quantifiable risk limits as described below.

(3) Risk Limits

These fall into two categories, quantities and qualitative, the former may perhaps be expressed as limits, the latter targets. Examples of limits for each risk class include:

- Strategic Risks:
 - Reputational risk (e.g. “Reputation amongst core shareholders must not be significantly impaired”)
 - Rating agency (e.g. “Rating not to fall below A grade”)
 - Diversification/market share (e.g. “No more than 20% of GWP from any niche market”)
 - Organisational (e.g. “Do not undertake any activity which would prevent the group from maintaining its independence”)
 - Regulatory/capital structure (“At least 90% of total capital to be Tier 1 capital”)
- Market Risk:
 - No more than X% chance of a –Y% total investment return
- Credit Risk:
 - X% of total group investment in stocks rated below BBB
 - X% of reinsurance ceded with any one reinsurance group
- Liquidity Risk:
 - % of assets to be held as cash and short-term deposits
 - Average duration of assets to be matched to liabilities
- Insurance Risk examples:
 - Net retention to not exceed X% of capital for any one risk
 - Net cost from any single catastrophe event to not exceed Xm or Y% of capital, whichever is lower
 - No more than a X% chance that general claims reserves prove inadequate for each class of business
- Operational Risk examples:
 - Low likelihood of any business critical system being unavailable for more than one day in any given year
 - Low likelihood of a financial exposure from any non-insurance business contract exceeding 2% of capital
 - Customer satisfaction >85%

As noted above, these limits may alternatively be expressed as a traffic light system. In the example below, warnings light up if sales growth significantly exceeds as well as underperforms target.

Figure 4: An example traffic light risk limit/ risk tolerance

Risk/Tolerance	Red	Amber	Green
Sales levels as a percentage of planned sales	<50% or >150%	50% to 75% or 125% to 150%	75% to 125%

Source: Society of Actuaries in Ireland



(4) Tests of a Risk Appetite Statement

The UK Institute and Faculty of Actuaries (IFoA) Risk Appetite' Working Party GIRO report in 2010 gave a useful set of checklists for a risk appetite statement: it needs to pass ten simple tests; six for Articulation, four for Effectiveness.

Figure 5

Articulation	
Vertical coherence	Risk appetite statements should be coherent up and down the organisation structure
Horizontal coherence	Risk appetite statements should be coherent across sister companies and departments
Stakeholder coherence	Reconcile different objectives/appetites of different stakeholders
Analytical balance	Balance of quantitative and qualitative
Decision support	Risk appetite should support risk-related decision making
Governance	The risk appetite statement should offer complete and appropriate support for the processes and responsibilities surrounding the monitoring and review of an organisation's risk appetite

Source: IFoA Risk Appetite Working Party GIRO

The penultimate point under articulation is really the equivalent of the “Use Test” in any internal model approval process (IMAP). A risk appetite statement is of no use at all (other than a cynical compliance exercise) if it cannot and is not used in the business to judge the value of different strategies and options.

Rating agencies agree. For example, in 2011 Standard & Poor's required:

- Buy-in and use of the risk appetite framework by the board of directors, subsidiaries, and business units
- Regular reporting of risk profile and risk appetite, both internally and externally
- Qualitative risk preferences showing a prejudice for and against specific risks linked to an insurer's competencies
- Risk tolerances that constrain risk exposure across multiple risk measures
- Articulation of risk limits that serve to constrain risk-taking activities at an operational level

Similarly A.M. Best Company, Inc. has asked for three years a number of questions about risk tolerance on their annual Supplemental Rating Questionnaire. These questions have remained constant through that period:

55d: How often does the Board review whether its risk tolerances are acceptable?

56c: At what level does the rating unit define its risk tolerance?

56d: What is management's overall appetite/tolerance for risk?

56e: Who is most responsible for monitoring whether risk tolerances of the material risks are exceeded?

56f: How often are the material risks measured to see if their respective risk tolerances are exceeded?

56g: Who receives exception reports when risk tolerances are exceeded?

56h: Does management have detailed procedures in place in the event risk tolerances for the material risks are exceeded?

The points raised under Effectiveness (below) expand earlier “Use Test” points; to be properly used the risk appetite statement must be communicated and understood.

Figure 6

Effectiveness	
Awareness	People using the statements need to be aware of the guidance and understand them
Usability	The risk appetite statement should be usable
Influence	The risk appetite statement should influence key decision makers in the organisation
Credibility	The risk appetite statement should be credible compared to actual and expected performance

Source: IFoA Risk Appetite Working Party GIRO

All these “Use Test” points are self-evident, but the final one, Credibility, is worthy of further discussion. At a recent seminar on risk appetite one delegate took a very cynical view of why regulators ask for risk appetite statements. “Risk appetite is just a trap set by regulators to trick insurers into things that they would rather sweep under the rug. When a company doesn’t meet it, it’s a strong hint that the management doesn’t understand the business (so they set the appetite too low) or they are unable to control and manage their risks (so they get higher losses).”

This is clearly overstating the case but does contain an element of truth and a warning. Insurers should not be tempted into issuing a risk appetite statement that they are likely to achieve. Interestingly the cynical delegate did suggest a partial solution that we whole-heartedly endorse: “Stress and scenario tests are good ways to avoid the regulator’s trap. They allow insurers to check the robustness of their risk appetite statements and impress regulators.”

4. Implementing a Risk Appetite Statement

(1) The Importance of Management and Board Involvement

Senior management involvement, from the board of directors down, is the key to the successful design and implementation of a Risk Appetite Statement. Without involvement, and buy-in, from all levels of the organization the process will fail (even if regulators may be fooled for a while). Risk Management must break from its ghetto and be embraced by the business. A degree of separation of function is required, for example, Solvency II talks of “3 lines of defence” for Risk Management – business, risk department, internal audit. More importantly, however, per the IFoA Risk Appetite paper, the prevailing corporate attitude should be “We are all risk managers here” NOT “We need to ensure that our departmental silo meets its business and performance targets.”

(2) Buy-in to Risk Appetite

The IFoA paper debates whether defining a risk appetite should be a top-down or a bottom-up process. It has to be a dual approach, with priority to top down: the board needs to set the Group Risk appetite, while 2nd and 3rd tier management apply



this to business units; classes of business; subsidiary appetites; and tolerances/limits. As far as possible, these should be deemed to be reasonable and appropriate rather than an imposition by those expected to operate within them. As discussed, a very normal first cut is to take existing limits/targets and compare those to the board level targets, with subsequent adjustments and improvements made; this is a wholly appropriate approach.

(3) Risk Appetite and the Risk Control Cycle

“Within a typical ERM control cycle, risks are identified, risks are evaluated, risk appetites are chosen, risk limits are set, risks are accepted or avoided, risk mitigation activities are performed, and actions are taken when risk limits are breached. Risks are monitored and reported as they are taken and as long as they remain an exposure to the organization.” U.S. Actuarial Standards Board: Actuarial Standard of Practice 47.

A company's risk appetite is not static. Economic conditions, trading results, competitor actions, a change of ownership and/or a change of management can lead to a reassessment of the company's attitude to risk. But if we do assume that a company's over-arching risk appetite is fixed, it should have the flexibility to amend and adapt risk, or class of business tolerances and limits as the year unwinds; however, this must happen in a centralized and controlled way.

Consider the case below, the insurance book has not grown as fast as expected and so the proportion of assets held as equities has been allowed to grow exceeding the pre-agreed limit to maximize income whilst keeping overall risk within plan.

Figure 7: Example risk tolerance rebalancing

Risk Appetite: Gradually get to full utilization of capital through sales growth and acquisitions to improve returns

Risk Tolerance: 99% likelihood of loss less than 20% of surplus

Current Surplus: 4,252,180

Company	Last Year	Plan	Actual	Limit	Variance	Response
Bonds	11,448	13,165	13,823	15,000	(1,177)	
Equity	267,846	280,000	285,600	280,000	5,600	Decided to take additional equity risk because of sales shortfall
Reins Credit	35,482	31,934	34,169	35,000	(831)	
Reserves	79,785	83,774	81,780	85,000	(3,220)	
Underwriting	295,610	325,171	315,416	350,000	(34,584)	Revisions to product offering to meet next year's sales goals
Nat Cat	75,000	80,000	77,250	80,000	(2,750)	
Total Risk	765,171	814,044	808,038	845,000	(36,962)	

Values show 99% loss amount

5. Developing a Decision Making Framework

We must bear in mind that an optimal reinsurance solution for an earnings risk measure will rarely be optimal for a capital risk measure. Increasingly, decision making will need to be nuanced to allow for multi-dimensional risk appetites. The challenge will be to design products to meet multiple objectives. A trawl of the actuarial literature will find discussions of many ways to achieve this. Some are mathematically and logically very smart, but the core value of any ranking methodology must be transparency and ease of understanding. Most people using the information will not be actuaries, nevertheless they need to buy into the process and into the decision which the process informs. A simple method where the flaws are clear and known is infinitely preferable to a complex one where flaws are buried deep in the method. As always, models inform, they do not decide. Increasing opaqueness as an attempt to minimize flaws is a poor trade.

We therefore present a simple ranking method based upon a real example, with some suggestions about how that ranking method may be improved without impairing transparency. In this real example there are not just two risk measures but four, marked with a ★.

Figure 8: Example risk appetite structure with four risk measures

Valuation of Property Reinsurance Options			
(Millions of yen)	Gross (ie. no property cover placed)	Current	
Gross Premium	45,067	45,067	Change in underwriting result: 943 million yen
Reinsurance Premium	0	3,460	
Net Premium	45,067	41,607	
Net Retained Losses	32,524	30,007	
Expenses	10,365	10,365	
Underwriting Result (Property)	2,177	1,234	Profit from other classes added plus investment and other income
Operating Result (Other Classes)	324	324	
Installment and Other Income	750	750	
Investment Income	1,313	1,313	
Operating Profit	4,564	3,621	Estimated capital impact after all risks, a 30% margin over economic capital is assumed
Capital at Risk			
Property VaR (1 in 200 years)	(13,781)	(6,040)	
Diversified Premium/Cat Risk Change	13,962	7,606	
Other Class Diversified Change (Est.)	14,250	14,250	
Implied Capital Requirement (EC + 30%)	36,675	28,413	8.2 billion yen capital saving driven by lower 1 in 200
★ Capital Saving		(8,262)	
★ Return on Capital	12.4%	12.7%	Return on Capital enhanced by 0.3%
Standard Deviation of Overall Result	4,685	3,192	Result volatility reduces by nearly a third
★ Reduction in Standard Deviation		31.9%	
1 in 10 result	(3,398)	(2,482)	Lower 1 in 10 improve buffer safety
★ Safety of Capital Buffer	31.3%	49.9%	

We can consider multiple options against these four risk measures. Below we compare the current reinsurance programme to four new reinsurance options, calculating their impact on the chosen four risk measures. The options are viewed on a spider chart. Each of the four risk measures is a line, each of the five options (including the current option) is a compass point. Each option for each risk measure is compared to the “no reinsurance” option. The closer the point to the outside of the chart, the better it is against its peers for that option.

Option 4 is by far the best option for return on capital whilst option 1 is optimal on the other three risk measures. But which option is optimal overall, especially if return on capital is the risk appetite measure under the most pressure?

One option to determine the optimal strategy is to use a simple ranking method, e.g. for each of the five reinsurance options give 5 for best, 1 for worst for each risk measure. Then apply a weight for each risk measure depending upon which risk measure is most important. In the example below, Return on Capital is the most important measure with a 60% weighting.

(1) Efficiency of Property Options Compared to No Property Reinsurance

Figure 9: Spider chart to show relative value against no reinsurance of 5 reinsurance options against 4 risk measures

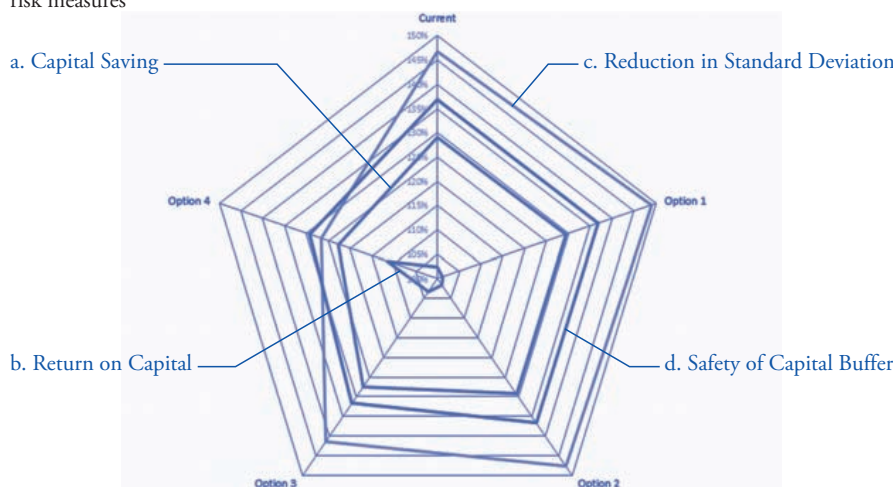


Figure 10: Weighting to determine optimal reinsurance solution

Key Performance Indicators		Current	Option 1	Option 2	Option 3	Option 4
Capital Saving (Millions of yen)		8,262	8,333	8,314	7,921	6,765
Return on Capital		12.7%	12.6%	12.6%	12.8%	13.9%
Reduction in Standard Deviation		31.9%	32.9%	32.3%	29.3%	21.1%
Safety of Capital Buffer		49.9%	49.8%	49.7%	47.9%	46.8%
Simple Rank (5 High, 1 Low)	Weight					
Capital Saving	10.00%	3	5	4	2	1
Return on Capital	60.00%	3	1	2	4	5
Reduction in Standard Deviation	10.00%	3	5	4	2	1
Safety of Capital Buffer	20.00%	5	4	3	2	1
Weighted Score		3.40	2.40	2.60	3.20	3.40
Adjusted Rank (5 High, 1 Low)	Weight					
Capital Saving	10.00%	4.8	5.0	5.0	3.9	1.0
Return on Capital	60.00%	1.5	1.0	1.2	1.8	5.0
Reduction in Standard Deviation	10.00%	4.6	5.0	4.8	3.8	1.0
Safety of Capital Buffer	20.00%	5.0	4.9	4.8	2.3	1.0
Weighted Score		2.84	2.59	2.66	2.32	3.40

In this example Option 4 gives by far and away the best capital saving, but it is the worst based on the other three risk measures. By contrast the current option is always good -to-average across all four options.

On a simple weighted basis, Option 4 is tied with the mediocre Current option, despite return on capital being the most heavily weighted risk measure and Option 4 being far and away the best for this measurement.

However, if we adjust the scores to reflect how much better/worse the options are from observed to for each then Option 4 becomes the clear winner. Intuitively this is a more sensible result.

A more sophisticated method could be to have a “pass mark” for each risk measure, e.g. a minimum return on capital. Failure to meet the requirement would be heavily penalized whereas exceeding significantly the pass mark will give a smaller additional credit. This methodology would penalize failure to achieve the “must haves” more than rewarding the “nice to haves.”

6. Conclusion

A risk appetite statement will be, if not already, the cornerstone of decision making and strategy setting for every insurer. It is required not only by regulators and rating agencies, but also as clear good practice. In the modern world it is important to not only to do the right thing but to be seen to do the right thing. All companies already have a risk appetite, but it may not yet be fully articulated. The process of codifying the risk appetite opens it up to scrutiny and challenge. In fact, widely held common truths may ultimately be found to be questionable. As is often the case, for example including the creation of an internal capital model, arguably the process is even more valuable than the result, opening up a valuable debate within the firm about what it is trying to achieve and how it aims to achieve it.

However, to get true value from a risk appetite statement, and to get full recognition from regulators and rating agencies, it must be applied. A core issue will be how different risk appetites are balanced i.e. “Is the priority to protect the return or minimize economic capital?” As discussed earlier, the optimal strategy for one will not be optimal for the other. A transparent ranking methodology is recommended.

A risk appetite statement is the foundation of any insurers’ ERM programme. A risk appetite statement should drive internal decision making and should be closely linked to both the corporate business plan and internal capital model. The risk appetite statement must be owned and driven by the board, and also accepted and recognized by those that drive the business at all levels.

If your company doesn’t yet have one, start now by looking first at your implied empirical appetite for risk. Keep it short, concise and integrated with the business to get the maximum business benefit and also maximum credit from regulators, rating agencies and other stakeholders.

3.

Japanese Insurance Company Management and the Introduction of Enterprise Risk Management Systems

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1. The Weaker Yen and Higher Stock Prices Are Improving Insurance Company Business Strength

A succession of natural disasters and financial market downturns have adversely affected Japan's insurance industry. However, the benefits of the weaker yen and higher stock prices after a new administration took office have quickly improved insurance company business strength. Looking at the fiscal 2012 results of insurance companies announced in late May 2013, all of the non-life insurance mega groups – Tokio Marine Holdings Inc., MS&AD Insurance Group Holdings, Inc., and NKSJ Holdings, Inc. – reported net income, while the major life insurance companies strengthened their finances.

However, results remain under pressure at non-life insurance companies. The Great East Japan Earthquake of fiscal 2010 and the flooding in Thailand in fiscal 2011 incurred substantial payment of claims. Natural disasters also resulted in significant payment of claims in fiscal 2012, though not as substantial as in 2010 and 2011. Nor were results from automobile insurance, the non-life industry's number one product, particularly stable despite the effect of rate increases. However, higher stock prices in the second half of the fiscal year benefited balance sheets by increasing the value of investment securities, resulting in a substantial increase in net assets. The solvency margin ratio, which is the government-stipulated indicator of financial soundness, generally increased for insurance companies. The weaker yen also helped improve profitability. The three non-life insurance mega groups have rapidly expanded in the overseas insurance business through strategies including mergers and acquisitions, so the weaker yen enhanced earnings from overseas operations.

The fiscal 2012 results of major life insurance companies also benefited from the weaker yen and higher stock prices. Life insurance companies provide long-term protection such as whole life insurance, so low long-term interest rates have put pressure on their operations. However, the weaker yen and higher stock prices have offset declining interest rates, allowing life insurance companies to accumulate internal reserves. For example, declining interest rates reduced embedded value (EV; a corporate value benchmark for insurance companies) for The Dai-ichi Life Insurance Company, Limited, but its EV expanded by more than 20 percent compared to the previous fiscal year-end because the weaker yen, higher stock prices and the insurance results compensated for the negative impact of interest rates.

2. Are the Weaker Yen and Higher Stock Prices Cause for Elation?

As of May 2013, the business strength of insurance companies is improving further with the continuing trend of a weaker yen and higher stock prices supported by quantitative and qualitative easing by the Bank of Japan in April 2013. Frankly, however, I wonder if this is something to be pleased about.

The so-called "significant improvement" of business strength from the weaker yen and higher stock prices is another way of saying that insurance companies in Japan are exposed to significant foreign exchange and stock price volatility risk.

Reviewing the risk exposure of Japan's insurance companies, the impact of stock price volatility is equal to or greater than losses from natural disasters such as earthquakes and typhoons for major non-life insurance companies. The risk exposure of major life insurance companies is similar in that the impact of financial market

volatility including changes in stock prices, interest rates and foreign exchange rates exceeds the impact of insurance risks such as changes in mortality rates. Therefore, a reversal in the stock market will directly and adversely impact the business strength of insurance companies.

After the quantitative and qualitative easing by the Bank of Japan, the thesis that life insurance companies would sell their long-term Japanese government bonds and increase investments in equities and foreign securities appeared to hold true. However, life insurance companies did not hold long-term Japanese government bonds as a government bond risk asset, but as a means of ensuring they could pay claims in the future. Thus life insurance companies invested in long-term Japanese government bonds to reduce risk. The shift from long-term Japanese government bonds to equities and foreign securities therefore increases intrinsic life insurance company susceptibility to the impact of stock price, interest rate and foreign exchange rate volatility, compounding risk resulting from sales of long-term Japanese government bonds with the additional risk from volatile stocks and foreign bonds. Is this rational management behavior?

3. The Growing Prevalence of Risk-Based Management

The current circumstances suggest that simply chasing the gyrations of superficial performance numbers will not provide accurate insights into insurance company management. The same holds true for the senior management of insurance companies.

Over the past several years, insurance companies in Japan and elsewhere have been focusing on enterprise risk management (ERM). This is risk-based management that considers the relationship between risk and soundness as well as between risk and profitability in focusing on risk. The increasingly prevalent attitude is that introducing ERM to achieve strategic objectives will reform previously introspective insurance company management while maintaining management strength.

Since the mid-1990s, Japanese insurance companies have been emphasizing defensive, introspective management. Many natural disasters occurred during this protracted period of falling asset values in the wake of the bubble economy and continuing historically low interest rates. This challenging external environment led companies to focus on adding to internal reserves from income every fiscal year to ensure business strength. In addition, in 2005 life and non-life insurance companies alike were busy responding to problems involving nonpayment of claims that came to light at a succession of life insurance companies.

However, insurance companies are moving away from this kind of introspective management as they explore next steps. In this context, efforts among insurance companies to improve management by readying themselves for ERM have been conspicuous over the past several years.

Risk management has a strongly defensive image. Certainly, conventional risk management had the primary purpose of avoiding and minimizing losses, and it was the responsibility of specialized organizations such as risk management divisions rather than a part of overall management. By the same token, many insurance company employees, and even senior managers, seemed to feel that risk management was the responsibility of the risk management division and had no connection with them.



On the other hand, the purpose of ERM is not limited to avoiding and minimizing losses and ensuring soundness. It clearly differs from conventional risk management in that companies also employ ERM to secure equity capital and achieve their strategic objectives with the goal of continuously increasing corporate value.

ERM involves increasing corporate value by determining overall company risk exposure, including potential risks, and then monitoring and controlling risk based on the definition of risks the company should take and acceptable losses. Achieving ERM requires the leadership and strong commitment of senior management.

For example, the Tokio Marine Group publicly announced it would adopt risk-based management (ERM) under its previous medium-term management plan that started in fiscal 2009, and continues to promote it as part of the medium-term management plan that began in fiscal 2012. The Tokio Marine Group is working to allocate additional capital to more profitable businesses to improve Group profitability and raise its capital efficiency while securing the financial base to withstand risk on a scale that only occurs once every 2,000 years.

The MS&AD Insurance Group, which encompasses Mitsui Sumitomo Insurance Co., Ltd. and Aioi Nissay Dowa Insurance Co., Ltd. has announced that “the Company has established a transparent management framework that incorporates internal checking functions, and its objectives are to sustain consistent growth over the long term by using corporate resources efficiently and managing risks properly and ultimately, to further increase corporate value.”

Similar moves are evident among life insurance companies. Major insurer Dai-ichi Life Insurance includes ERM as one of the four basic strategies of the medium-term management plan it launched in fiscal 2013. Dai-ichi has announced its strategy of using “ERM for attaining a capital level on par with leading global life insurers, and an increase in capital efficiency and corporate value.” In addition to increasing soundness, Dai-ichi will promote strategic risk controls based on risk-taking policies that will be the framework for achieving returns commensurate with characteristics of divisions and their businesses and the nature of the risks.

4. Japanese Regulatory Agencies Are Also Interested in ERM

Over the past several years, insurance regulators in Japan have responded to the changes among major industry players by clearly emphasizing comprehensive risk management systems for insurance companies. This “comprehensive risk management” is basically synonymous with ERM.

The Financial Services Agency (FSA) included “comprehensive risk management system” as an inspection item in the 2011 edition of the Insurance Inspection Manual, and clarified that inspectors should confirm the ERM systems of insurance companies. The manual describes the comprehensive risk management system the FSA desires: “The insurance company’s effectively functioning comprehensive risk management system is important for achieving the strategic goals of the insurance company which creates earnings targets and risk taking strategy for these targets.” This is not the risk management system of the past.

In addition, in February 2012 the Insurance Business Division, which is

responsible for day-to-day oversight of insurance companies, established the Insurance Financial Standards and Risk Analysis Office to support sophisticated risk management and strengthened the organization for discussing issues including sophisticated risk management methods and consistent regulations and oversight. The Insurance Business Division has been conducting ERM hearings since fiscal 2011, and has announced the results to provide reference for efforts to create ERM systems.

Two trends back the FSA's interest in insurance company ERM.

The first is the trend in international insurance regulations. The International Association of Insurance Supervisors (IAIS) incorporated Own Risk and Solvency Assessment (ORSA) in the Insurance Core Principles (ICP) adopted in October 2011. This requires insurance companies and groups to provide reports to the IAIS for inspection of their assessment of items including present and future management risks and equity capital they conduct on their own while implementing ERM. The introduction of ORSA in the United States and then in Japan is probably just a matter of time.

The second trend is visible in the FSA's own efforts based on historical experience. The discussion of changes to solvency regulations tends to focus on revision of the solvency margin ratio, which is an indicator of soundness, but that is not the only issue. The FSA study group released a report in April 2007 titled "Regarding Solvency Margin Ratio Calculation Standards," which said, "in addition to the perspectives of fundamental regulatory stability and comparability....solvency regulations must be structured to provide incentives for insurance companies to implement measures to make their risk measurement and management techniques more advanced." This indicates that the FSA does not think creating a soundness indicator similar to the solvency margin ratio is sufficient to ensure the financial soundness of insurance companies into the future, but that insurance companies must exercise self discipline in creating comprehensive risk management systems under their own initiative.

The communication between government regulators and insurance companies through channels such as inspections and supervision tempers concerns that insurance companies may introduce ERM as a mere formality in response to the FSA. Moreover, more sophisticated ERM is likely to significantly benefit the insurance industry as a whole.

4.

Enhancement of Enterprise Risk Management and Emerging Risk for Insurers

Koichi Dezuka Executive Director, Ernst & Young ShinNihon LLC

1. Current Developments in Global Insurance Regulation and ERM Approach of Insurers

(1) Progress on ERM framework

The Insurance Core Principles (ICPs) adopted at the annual meeting held in Seoul in October 2011 are the basic principles set out by the International Association of Insurance Supervisors (IAIS) as the framework for insurance supervision, required to ensure soundness of the insurance sector and provide an adequate level of policyholder protection. They include the basic principles in management of insurers (Core Principles), Standards, Guidance and Assessment Methodology, presenting 26 principles in total (refer to Table 1 below).

In addition, ICPs are referred to by the World Bank and the Financial Sector Assessment Program (FSAP) of the International Monetary Fund as benchmarking criteria when evaluating whether the insurance supervisory systems of the selected countries meet the globally accepted standards.

Table 1: IAIS, Insurance Core Principles, Standards, and Assessment Methodology, Oct. 2011: Introduction, Assessment Methodology

ICP	Assessment Methodology	ICP	Assessment Methodology
1	Objectives, Powers and Responsibilities of the Supervisor	14	Valuation
2	Supervisor	15	Investment
3	Information Exchange and Confidentiality Requirements	16	Enterprise Risk Management for Solvency Purposes
4	Licensing	17	Capital Adequacy
5	Suitability of Persons	18	Intermediaries
6	Changes in Control and Portfolio Transfers	19	Conduct of Business
7	Corporate Governance	20	Public Disclosure
8	Risk Management and Internal Controls	21	Countering Fraud in Insurance
9	Supervisory Review and Reporting	22	Anti-Money Laundering and Combating the Financing Terrorism(AML/CFT)
10	Preventive and Corrective Measures	23	Group-wide Supervision
11	Enforcement	24	Macroprudential Surveillance and Insurance Supervision
12	Winding-up and Exit from the Market	25	Supervisory Cooperation and Coordination
13	Reinsurance and Other Forms of Risk Transfer	26	Cross-border Cooperation and Coordination on Crisis Management

* Enterprise Risk Management for Solvency Purposes” has been described under ICP 16.

In addition, “Governance and a Enterprise Risk Management Framework” has been presented in the “Guidance Paper on Standard on Enterprise Risk Management for Capital Adequacy and Solvency Purposes” issued by IAIS in October 2008. This clearly shows that the ERM framework is defined as an essential element supporting corporate management of insurers in the “Standard on Enterprise Risk Management for Capital Adequacy and Solvency Purposes”.

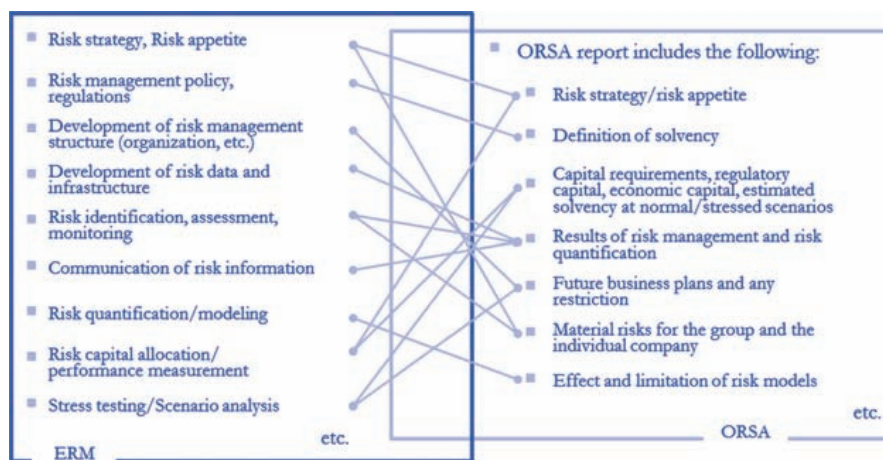
(2) Own Risk and Solvency Assessment (ORSA) approach

According to the “Standard on Enterprise Risk Management for Capital Adequacy and Solvency Purposes” issued by IAIS, “ORSA” (Own Risk and Solvency Assessment) is presented as the 5th guidance.

Since 2011, significant progress has been made to develop ORSA framework globally, as is shown in “Pillar 2 under EU Solvency 2” and “ORSA Guidance Manual” issued by EIOPA (insurance regulator in Europe), as well as “ORSA Principles” issued by NAIC (US insurance regulator). ORSA guidelines have been also released by the regulators both in Canada and Singapore at the end of 2012 and the beginning of 2013. Accordingly we consider that ORSA will play a very critical role in developing ERM framework, and the regulators support and encourage insurers to establish the program and practices supporting ERM/ORSA framework.

The matrix in Table 2 shows the interconnection of ERM requirements and ORSA requirements defined in the guidelines issued by the global insurance regulators. Based on this matrix, we may assume that the ERM requirements and ORSA requirements have a high level of similarity (see Table 2).

Table 2: Interconnection between ERM and ORSA (Example)



2. Research and Study on Emerging Risks by International Organizations

Meanwhile, we find that the business environments around insurers, and the risks affecting the insurers’ business and financial strength, have become increasingly diverse and intense, including, among other things, natural catastrophes such as the H1N1 flu pandemic in 2009, the Great East Japan Earthquake and the radioactive contamination caused by the destruction of the nuclear power plant in March 2011, flooding in Thailand in July 2011, and the tornadoes that occurred in the US in May 2013.

To address these emerging risks, some leading insurers have made efforts to predict catastrophic risks that may significantly affect the company’s financial strength and business, and the management of certain insurers themselves take the initiative in managing emerging risks proactively. In other words, the immediate need to incorporate emerging risk management into the core process of the ERM (Enterprise Risk Management) framework for insurers has been well-recognized and shared among leading insurers.

The following is a summary of the researches and studies on emerging risks made by international organizations to date.



(1) World Economic Forum (WEF)

The World Economic Forum (WEF), organized in Geneva in Switzerland issues an annual report on emerging risks. It issued its 8th report “Global Risk 2013: Eight Edition” in January 2013.

WEF identifies and defines 50 global risks, and classifies them into five risk categories including “Economic Risks” “Environmental Risks” “Societal Risks” “Geopolitical Risks” and “Technological Risks”. It then identifies a centre of gravity (i.e. the single most important risk from a systemic perspective) for each category. The interaction among these centres of gravity, and paired connections of these risks (centres of gravity) in the network diagram are analyzed in the report. In the 2013 Report these are summarised as follows (see Table 3 below).

Table 3: Evolution of top 5 global risks in Global Risk Report by WEF

Top 5 global risks in terms of likelihood	Year 2008	Year 2013
1	Asset price collapse	Severe income disparity
2	Middle East instability	Chronic fiscal imbalances
3	Failed and failing states	Rising greenhouse gas emissions
4	Oil and gas price spike	Water supply crises
5	Chronic disease, developed world	Mismanagement of population ageing

Top 5 global risks in terms of impact	Year 2008	Year 2013
1	Asset price collapse	Major systemic financial failure
2	Retrenchment from globalization (developed)	Water supply crises
3	Slowing Chinese economy (<6%)	Chronic fiscal imbalances
4	Oil and gas price spike	Diffusion of weapons of mass destruction
5	Pandemics	Failure to adapt to climate change

(2) Financial Services Authority (FSA, UK)

While the FSA (Financial Services Authority of UK) has been reorganized into the PRA (Prudential Regulation Authority, under the Bank of England) and the FCA (Financial Conduct Authority) since April 1, 2013, the former FSA has issued the report named “Retail Conduct Risk Outlook 2012 (RCRO 2012)” in March 2013, following the report released in February 2011.

To analyze retail conduct risks, FSA has taken several approaches including: “identification of specific risks (taking into account the change in macroeconomic and environmental factors and other market developments)”, “classification” (classifying into the top 15 risk categories and classification under three classifications including Current Issues, Emerging Risks or Potential Concerns)”, “risk prioritization” and “suggested approach (take action to address highest priority retail conduct risks)”.

The high priority risks classified into “Emerging Risk” through this analysis are shown as below (Table 4).

Table 4: High priority risks classified as Emerging Risk in RCRO 2012

	Top15 Retail Conduct Risk Categories	Emerging Risk (Excerpt)
1	Aligning business models to fair treatment of consumers	Incentives
2	Complexity in retail investment products and services	Exchange Traded Products (ETPs)
3	Firm's responses to regulatory and/or legislative change	Responses to the banking conduct regime
4	General insurance	Consumers' focus on initial premium
5	Governance of funds in life offices	Communication and management of the risk profile of Life Assurance funds
6	Host authorized corporate directors	—
7	Inadequate complaints handling	—
8	Investment propositions	Use of platforms
9	Investment risk profiling	—
10	Investor compensation protection	—
11	Mortgages	Misuse of buy-to-let mortgages
12	Pension and retirement planning	Self-invested personal pensions (SIPPs)
13	Product bundling	—
14	Projections	—
15	Systems and controls weaknesses in the network model	Systems and controls weaknesses in the network model

(3) International Finance Corporation (IFC)

World Resources Institute, supported by International Finance Corporation (IFC) which is a member of World Bank Group and significantly sponsored by the Government of Japan has issued the report named “Impacts of Key Environmental Trends in Emerging Asia” in April 2009, covering the emerging risks in the Asian region.

The impact of natural environment on the emerging markets in Asia has been analyzed from the risk perspective of investors. This report covers 6 economies including India, Indonesia, Malaysia, Philippines, Thailand and Vietnam.

In addition, IFC has made analysis from the two viewpoints, including “Trends” and “Risks” in their analytical procedures, and the details of the viewpoints are shown as below (Table 5).

Table 5: Viewpoints in the IFC’s report

Viewpoints	Details
Trends	Deforestation, Water Scarcity, Climate Change, Food Security, Energy Security, Air Pollution, Urbanization, Population Growth
Risks	Operational or physical, Regulatory and legal, Reputational, Market and product, Financing

3. To Establish Strategic Risk Management Framework and Practices to Address Emerging Risks

The leading insurers have already initiated establishment of risk management framework and practices to address emerging risks through a strategic approach, in line with the development and enhancement of ERM. As you are aware, the main business of insurers is to provide services to clients, transforming “risks” into “financial instruments (i.e. insurance)”. In this regard, it is crucial for insurers to address any existing risks and expected risks (emerging risks) through the forward-looking strategic approach.



To this end, a paradigm shift is required, to go beyond conventional risk management practices into proactive approaches with a great focus on upside risks, including identification of business opportunities arising from these, as well as downside risks.

(1) Dynamic Risk Management Approach to Address Emerging Risks

It is another challenge for the management of insurers to design risk management practices supportive for management, as they need to consider how to incorporate the emerging risk management (process) in the company's ERM framework, and how to design a framework which is convincing and satisfactory for various stakeholders. On the other hand, a key focus on upside (opportunity) risk may likely stimulate the management's expectation and emphasis to emerging risk management. That requires the management to identify 4 "STEP" factors in risk profiling of emerging risks.

This is the approach to identify emerging risks and classify them into 4 categories through in-depth analysis, including S (Society), T (Technology), E (Economy), and P (Politics). In such cases, greater involvement by business line managers (i.e. 1st Line of business) is essential to perform risk profiling as a company-wide effort. It is also important to perform such profiling of emerging risks periodically on an ongoing basis embedded across the organization.

(2) Strategic Decision-Making

Management of insurers is encouraged to further incorporate the results of emerging risks profiling into its strategic decision-making process. For example, assume that "SWOT Analysis" and "Emerging Risk Management" process are combined for mapping of the identified emerging risks in the 4 quadrants including "Internal environment (Strength/Weakness)" and "External environment (Opportunities/Threats)". (Table 6)

The management should put its focus for strategic decision-making on "Best Zone" where the "Strengths" is matched to "Opportunities" (i.e. the area where the company has competitive advantage and expects to obtain new opportunities and higher reputation).

Table 6: SWOT Matrix

		Internal Environment	
		Strengths (S)	Weaknesses (W)
External Environment	Opportunities (O)	Best Zone	Better Zone
	Threats (T)	Better Zone	Worst Zone

Conclusively we would consider it the immediate challenge for global insurers to enhance risk management practices tailor-made to their business profile taking into account the following perspectives including:

- how effectively the global insurers should incorporate the emerging risk management (practice) into the ERM framework and practices and;
- how actively and effectively the global insurers should manage emerging risks underpinning the management's strategic decision-making process, while putting a key focus on upside risks.

5.

Trends in Japan's Non-Life Insurance Industry

Underwriting & Planning Department

The Toa Reinsurance Company, Limited

1. *Developments in the Non-Life Insurance Industry*

The Japanese non-life insurance industry faces challenges such as a decreasing population resulting from a falling birth rate, an aging population and a maturing domestic market, while in recent years it has suffered from a continuing decline in the profitability of its major product—automobile insurance. This is forcing the industry to take urgent and immediate action to improve profitability. In an environment where non-life insurance companies have failed to ensure they earn adequate profits from domestic non-life insurance business, they are striving to diversify earnings sources by expanding overseas operations and life insurance business.

(1) Efforts to Improve Profitability of Automobile Insurance

For automobile insurance, the core product accounting for about half the premium income of non-life insurance companies, companies have recorded net losses in recent years because of a decline in premium income resulting from fewer young people buying cars, as well as an increase in loss payments owing to a higher number of accidents and a rise in repair expense unit costs.

In this environment, two of the three major groups increased their automobile insurance premiums in April 2013. The remaining group is also expected to increase its premiums in October.

In addition, following the Non-Fleet Grade Rating System for reference loss cost rates revised by the “Non-Life Insurance Rating Organization of Japan,” the premium rate calculation organization in which non-life insurance companies participate, the discount system was also reviewed for policy holders who cause accidents. This involved a revision of the premium rate system so that it more accurately reflects actual risk conditions (see below for details).

* Revision of the Non-Fleet Grade Rating System

To reflect risk in insurance premiums according to accident history, the Non-Fleet Grade Rating System will classify policy holders into 20 grades and apply a markup/discount percentage to each grade. This revision is designed to ensure fairness among insured parties in insurance premiums paid by reflecting more accurately actual risk conditions in insurance premiums based on the occurrence of accidents. The following table shows the main items revised.

Main items revised	Description
Division into markup/discount percentages	Regardless of the occurrence of accidents during the period of the previous insurance contract, the same discount percentage had been applied to the same grade. Given actual risk conditions, the discount percentage has been divided into markup/discount percentages for “accident-history” policy holders and “accident-free” policy holders. The revision resulted in the former experiencing a rise in insurance premiums and the latter on average enjoying a reduction in insurance premiums.
Revision of markup/discount percentages	For all grades, the applicable markup/discount percentages have been revised given the latest actual risk conditions.
Abolition of unchanged grades for the following year	As a result of this revision, grades have been reduced by one tier for incidents such as vehicle theft where the grade had been left unchanged for the following year.



(2) Industry Reorganization

The Japanese non-life insurance industry is now dominated by the three mega groups: Tokio Marine Holdings Inc., MS&AD Insurance Group Holdings, Inc. and NKSJ Holdings, Inc.

Among these groups, NKSJ HD plans to merge with Sompo Japan Insurance Inc. and Nipponkoa Insurance Co., Ltd., the main non-life insurance companies under its umbrella, in September 2014. The group said that it would attempt to maximize operational efficiency and profitability in the industry through the merger, while aiming to become a leading company in the domestic market in terms of both scale and quality, enabling it to become a “globally competitive company.”

MS&AD Insurance Group HD also said that it would clarify the business strategy of its subsidiaries Mitsui Sumitomo Insurance Co., Ltd. and Aioi Nissay Dowa Insurance Co., Ltd, and would strengthen their business foundations by reorganizing the divisions of both companies by function, while aiming to create synergies through the optimization of group functions.

Even outside the three mega groups, AIG is striving to strengthen intra-group cooperation by undertaking a reorganization whereby Fuji Fire and Marine Insurance Co., Ltd. and AIU Insurance Company, insurance companies within the group, are brought under the control of insurance holding company AIG Japan Holdings KK.

As described above, non-life insurance companies are aiming to increase the efficiency of their non-life insurance business, while attempting to increase profitability by growing their life insurance business and overseas operations through cost reductions achieved as a result of increased efficiency. (All of the abovementioned mergers and reorganizations are subject to approval by the relevant authorities.)

(3) Business Expansion into Overseas Markets

During a period of weak domestic operations, combined with an expansion of life insurance business, non-life insurance companies are accelerating the development of their overseas operations in all parts of the world, particularly in Asian emerging markets showing significant growth, to ensure they find new earnings sources.

In the fiscal year ended March 2013, Tokio Marine & Nichido Fire Insurance Co., Ltd., which has expanded its overseas operations in recent years through large acquisitions in Western countries, made far higher profits in its overseas operations than it did from its domestic non-life insurance business. Overseas operations are becoming increasingly important for non-life insurance companies.

Major overseas initiatives since 2012 are summarized as follows;

Date	Name of company	Details of overseas initiative
May 2012	Tokio Marine HD	Completed procedure for acquisition of U.S. life and non-life insurance group Delphi Financial Group, Inc.
June 2012	NKSJ HD	Opened a representative office in Cambodia
July 2012	Tokio Marine HD	Commenced operations in the Beijing branch of Chinese subsidiary
December 2012	Tokio Marine HD	Invested in PICC HD (China)
January 2013	NKSJ HD	Converted Brazil-based Maritima Seguros S.A. into a subsidiary
April 2013	Tokio Marine HD	Converted its investee Nile General Takaful Company S.A.E. into a subsidiary (Egypt)

2. Developments in Business Results

The twenty-six non-life insurers comprising the members of the General Insurance Association of Japan recorded the fiscal 2012 business results described below.

Net premium income in all lines of business increased to 7,371.8 billion yen, up 255.7 billion yen from the previous fiscal year, as changes in premium rates increased premium income from compulsory automobile liability insurance and automobile insurance.

Net claims paid declined to 4,774.9 billion yen, down 730.9 billion yen from the previous fiscal year, due to no payments being made for earthquake insurance for dwelling risks in relation to the Great East Japan Earthquake. The loss ratio fell by 13.0% to 70.4%.

Operating and general administrative expenses related to insurance underwriting declined to 1,146.6 billion yen, down 16.1 billion yen from the previous fiscal year, due to reductions in both non-personnel expenses and personnel expenses. As a result, the net expense ratio decreased by 0.8% to 33.0%.

The net underwriting result was 54.9 billion yen in the red, better than fiscal 2011 when record level losses were posted due mainly to the effects of the Thailand floods and other natural disasters. Although the net underwriting result improved from the previous year, it continued to be negative, because measures to improve the profitability of automobile insurance were still taking effect, and because of claim payments for several natural disasters including weather events that occurred during 2012.

Ordinary profit including asset investment returns was 377.8 billion yen, up 297.6 billion yen from the previous year, and net income was 167.1 billion yen.

3. Recent Major Market Issues (Product/ Regulatory Developments)

(1) Maximum Damage Estimates for a Major Nankai Trough Earthquake

The two damage estimates for a major Nankai Trough earthquake, which the Cabinet Office published in August 2012 and March 2013, indicate that such an earthquake would cause 320,000 deaths and economic losses of more than 220 trillion yen in the worst case scenario.

Given the lessons learned from the Great East Japan Earthquake, the damage estimates are based on the occurrence of the largest possible earthquake/tsunami and exclude unexpected factors. They suggest that it is important for the government, corporations and individuals, respectively, to keep in mind the roles they are expected to perform and consistently implement measures designed to prevent and mitigate the effects of disasters.

The earthquake assumed in the damage estimates is the largest possible earthquake/tsunami based on the latest scientific knowledge. Such earthquakes occur once in a thousand years or less frequently.

At a time when many companies are showing greater interest in measures to counter a major Nankai Trough earthquake, partially due to the effect of the damage estimates, non-life insurance companies are strengthening their insurance products



and support services with a focus on the business continuity of companies after an earthquake.

Furthermore, Japan's earthquake insurance system for the household sector, which promptly paid a large number (780,000) of insurance claims totaling more than 1.2 trillion yen for the Great East Japan Earthquake, has earned a certain level of appreciation. On the other hand, it must increase the resilience of the earthquake insurance system given the likelihood of major earthquakes occurring in the future, particularly the type of Nankai Trough earthquake described above. The earthquake insurance system is now under review.

(2) ERM

Concurrent with the discussion of economic value-based capital regulations (Solvency II) and International Financial Reporting Standards (IFRS) in Europe, improving and increasing the sophistication of enterprise risk management (ERM) practices, under which insurance companies comprehensively manage all risks through their own management strategies, is becoming increasingly important.

The Insurance Core Principles prepared by the International Association of Insurance Supervisors (IAIS) in October 2011 also require insurance companies to periodically evaluate ERM and solvency, in addition to the preservation of regulatory capital and appropriate disclosure of fiscal positions, which had already been requested.

Given this situation, the Financial Services Agency also insists, in its guidelines for the supervision of insurance companies and others, on the "promotion of sophistication of risk management." As part of this program, the Japanese supervisor is holding meetings with major insurance companies/groups to encourage them to improve/enhance their ERM practices.

(3) Revision of Premium Rates for the Household Sector Earthquake Insurance System

Following the revision of standard premium rates by the Non-Life Insurance Rating Organization of Japan, premium rates for earthquake insurance for the household sector* are scheduled for revision after July 2014.

The revisions, which will increase premium rates by a national average of 15.5%, reflect a rise in the risk of damage resulting from future earthquakes and discount rates, reviewed in light of the results of reevaluating the earthquake performance of buildings. However, they take insufficient account of the damage estimates for a major Nankai Trough earthquake as described above. This is the first round of premium rate revisions since the Great East Japan Earthquake.

* In Japan, earthquake insurance policies for the household sector are entered into in conjunction with fire insurance, and insurance payments are made for damage caused by an earthquake/eruption or a related tsunami. Earthquake insurance covers damage up to a maximum of 30-50% of the value of fire insurance, with loss payments being limited to 50,000,000 yen for buildings and 10,000,000 yen for household goods.

There is a reinsurance scheme jointly operated by private insurance companies and the government, with liability of up to 6.2 trillion yen being borne by both parties. This reinsurance scheme was revised in May 2013, leaving the total amount of liability unchanged, but reducing the maximum amount for which private insurance companies are liable to half that before the revision (from 488 billion yen to 240.5 billion yen) to enable it to handle the possibility of a series of major earthquakes.

Reinsurance Scheme for Earthquake Insurance for the Household Sector

6,200 billion yen				
348.8 billion yen				
Japan Earthquake Reinsurance Co., Ltd 85 billion yen	Government: 131.9 billion yen		Government: 5,827.6 billion yen	
	Earthquake insurance reinsurance treaty B: 29.6 billion yen	Japan Earthquake Reinsurance Co., Ltd.: 102.3 billion yen		
			Earthquake insurance reinsurance treaty B: 4.8 billion yen	Japan Earthquake Reinsurance Co., Ltd.: 18.8 billion yen
144.2 billion yen			About 1,538.9 billion yen	

(4) Increase in Compulsory Automobile Liability Insurance Premiums

Compulsory automobile liability insurance is insurance that all owners and drivers of cars and motorized bicycles are legally obliged to have for the purpose of protecting victims of accidents. Premiums for such insurance increased in April 2013 for the second time following the rise in 2011. Premium rates for this type of insurance are calculated by the Non-Life Insurance Rating Organization of Japan, and are applied in the same way among non-life insurance companies. Based on the “No loss/no profit principle,” premium rates are calculated to match profit and loss. The recent increase is attributable to deteriorating profitability due to past reductions in premium rates and an increase in accidents.

6.

Trends in Japan's Life Insurance Industry

Life Underwriting & Planning Department

The Toa Reinsurance Company, Limited

1. *Developments in the Life Insurance Industry*

(1) Overseas Expansion of Major Life Insurance Companies

We have seen the continued overseas expansion of major life insurance companies with the aim of growing in the medium to long term and of diversifying their portfolios.

The overseas expansion of Japanese life insurance companies is driven by the withdrawal of North American and European insurance companies from Asian markets. They had previously operated businesses in Asia but, damaged by the Lehman shock, they are now concentrating their capital on their core business, under tighter global regulation for financial institutions.

A typical example is the sale by ING (based in the Netherlands) of its business units in the Asia Pacific region, including Japan and South Korea. These are expected finally to be sold to a Hong Kong-based company, although the Dai-ichi Life Insurance Company, Limited was seen to participate actively as a bidder in the sale of the Japan business unit. In addition, HSBC (based in the UK) sold stock in its Vietnam-based life insurance company to Sumitomo Life Insurance Co. HSBC also sold stock in its China-based life insurance company.

Henceforward, we expect overseas expansion of Japanese life insurance companies to increase further, taking over the positions of North American or European life insurance companies. We are also seeing the flexible restructuring of their overseas expansion plans. In particular, Dai-ichi Life has continuously promoted flexible and efficient overseas expansion. It canceled its agreement to establish a joint life insurance company in China following the sale of stock in its Taiwan-based financial holding company.

We also saw overseas expansion in the field of asset management. Nippon Life Insurance Company set up a hub investment company for Asia in Singapore to strengthen its global asset management business, and took a stake of a US-based asset management company. Dai-ichi Life also agreed to make an investment in and conclude a business alliance with a U.S. asset management company to develop its asset management business into a core business, as well as its life insurance business.

(2) Strategies Differentiated by Reaction to Revision of the Standard Prospective Yield

In April 2013, the standard prospective yield for life insurance, an interest rate used for calculating the standard policy reserve, was reduced in the Japan market, for the first time in 12 years. Each company took different action in relation to the assumed interest rate, an interest rate used for calculating premiums.

The latest reduction in the standard prospective yield by the Financial Services Agency was caused by the lowering of long-term market interest rates over the last several years. This resulted in the standard prospective yield being cut from 1.5% to 1.0%. Following the reduction, most life insurance companies increased their insurance premiums for savings-type insurance products taken out on or after April 1, 2013. Savings-type products are seriously affected by the assumed interest rate, whereas each company took different action in relation to core protection-type insurance products. Some have kept insurance premiums unchanged, whereas others have lowered them.

Among major life insurance companies, Dai-ichi Life and Sumitomo Life, in particular, acted aggressively by cutting insurance premiums for core products, mainly targeting young people. It can be said that their actions focus on ensuring they keep young people as their potential customers. The industry leader, Nippon Life, has kept insurance premiums unchanged for almost all products, including core products, to maintain price competitiveness. While Meiji Yasuda Life has generally increased insurance premiums, it has minimized the effect of this rise, limiting increases in insurance premiums for core products.

Elsewhere, Japan Post Insurance Co., Ltd. has adopted the strategy of boosting its price competitiveness by maintaining insurance premiums for savings-type products, a category that other companies increased. In third sector (medical) insurance, AFLAC (American Family Life Assurance Company of Columbus) has kept insurance premiums unchanged for medical and cancer insurance cover to maintain competitiveness against products offered by subsidiaries of non-life insurance companies.

It can be said that these company actions were determined from a strategic perspective, based on each firm's strength.

Despite these actions, major life insurance companies are not competitive enough on price against pure internet life insurance companies and life insurance companies that are already introducing preferred premium rates for healthier individuals. Therefore, as in the past, major life insurance companies will be required to offer added value to their customers for factors other than price.

2. Overview of Business Results for Fiscal 2012

The fiscal 2012 business results for 43 life insurance companies in Japan were as follows:

(1) Total Amount of New Business

The total insured amount of new business for individual life and health increased to 71.3 trillion yen, up 8.8% from the previous fiscal year due to solid sales of new products by major life insurance companies. Regarding individual annuity, the total insured amount of new business increased to 8.6 trillion yen, up 8.4% from the previous fiscal year, a rise attributable to a growth in policies in major life insurance companies, due to increased interest in individual annuity driven by the aging society with a declining birthrate and the nation's financial problems.



(2) Total Amount of In-force Contracts

The total insured amount of in-force business for individual life and health declined to 861.7 trillion yen, down 0.4% from the previous fiscal year, a fall attributable to weak growth in major life insurance companies in spite of a continued trend of solid growth in subsidiaries of non-life insurance companies. On the other hand, the total insured amount of in-force business for individual annuity increased for the tenth consecutive year to 103.5 trillion yen, up 4.7% from the previous fiscal year, mainly due to steady growth in major life insurance companies.

(3) Annualized Premiums

The total of annualized premiums from new business increased to 2.9 trillion yen, up 2.5% from the previous fiscal year, as a result of the increase in individual life and health despite the decline in individual annuity. As for in-force business, annualized premiums totaled 23.9 trillion yen, up 4.7% from the previous fiscal year, due to the increase in individual life and health as well as individual annuity.

(4) Premium Revenues / Total Assets

Total premium revenues increased to 38.1 trillion yen, up 2.8% from the previous fiscal year, due to the growth of premium revenues in foreign life insurance companies and subsidiaries of non-life insurance companies. Total assets rose to 345 trillion yen, up 5.5% from the previous fiscal year, as a rise in unrealized capital gains increased the value of investment assets.

3. Developments in Products and Regulation

(1) Trend in Nursing Care Insurance

Japanese life insurance companies have strengthened their action for distribution of nursing care insurance, while private nursing care insurance is expected to play a more significant role in the aging society.

Costs for the public nursing care insurance program, which started operating in April 2000, are rising rapidly on the back of an increasingly aging society. The number of people issued a certification of need for nursing care now exceeds 5 million, and total costs, including those borne by scheme users, are on track to approach 9 trillion yen for fiscal 2012. Taking account of demographics, it is clear that nursing care costs will continue increasing. It will be difficult to cover such costs through the public program if the trend continues at the current level.

In this situation, it is expected that private nursing care insurance, which supplements the public program, will play a more important role. The current role of private nursing care insurance is to make provision for a 10% of out-of-pocket expenditure by people insured under public nursing care insurance and services originally outside the scope of those guaranteed by the public nursing care insurance program. The role of private nursing care insurance might further expand, as the government is encouraging people to use this form of insurance. Specifically, a

deduction in taxable income of individuals for nursing care insurance premiums was introduced in January 2012.

Following these circumstances, life insurance companies have started launching new nursing care insurance products and strengthening their sales activities. We have recently seen a tendency for many products to be offered as a stand-alone product with simple nursing care benefits, or as a product in which the level of benefits is linked to the public nursing care insurance program. Lump sum payment-type nursing care insurance has also been launched. The number of options available to consumers is rapidly expanding.

In addition to this shift, insurance companies are promoting the establishment/development of business related to nursing care via their group subsidiaries. Specifically, their group companies are operating paid retirement homes that provide nursing care and offer in-home nursing care services, while engaging in research, study and training activities related to nursing care.

In the Japanese life insurance market, widely regarded as saturated, nursing care insurance is one of the few sectors with growth prospects. For insurance companies, the key strategy is that they incorporate this sector into their growth plans.

(2) Developments in Lifting the Ban on Providing In-kind Benefits instead of Insurance Proceeds/Benefits Payment

In January 2013, the Financial Services Agency made the policy announcement that it would lift the ban on providing in-kind benefits in lieu of insurance proceeds/benefits.

In-kind benefits are goods and services provided instead of insurance proceeds/benefits, which have traditionally been limited to cash benefits. In principle, life insurance companies are prohibited from providing in-kind benefits. The recent policy change made by the Financial Services Agency suggests that regulations will be relaxed after being discussed in 2013. The regulations are scheduled to be lifted in or after 2014.

By way of background to this deregulation, the aging of society has resulted in the emergence of consumer needs in which, rather than receiving an insurance payout, insureds prefer to receive benefits in the form of goods/services, including nursing and funeral services, from credible business operators. Affiliated markets are also expected to be activated.

Specific examples of in-kind benefits are expected to be as follows:



Death protection insurance: Arranging funerals for insureds, provision of preferential rights to orphans to join child care centers;

Nursing care insurance: Right to live in paid retirement home, home-visit care service;

Medical insurance: Right to enter hospital for a complete physical examination, support for return to work after leaving hospital;

However, the ban on in-kind benefits is likely to be lifted to a limited extent only. The following two points should be noted.

First, life insurance companies themselves are prohibited from offering in-kind benefits and must offer services via their subsidiaries or business partners. Responses to such deregulation have started to emerge from some of the major life insurance companies. Some companies have acquired paid retirement homes and turned them into subsidiaries. Furthermore, in order to offer stable in-kind benefit services, they need to enter into the funeral service and nursing care industries and to establish business alliances with quality business operators. Therefore, it is expected that the major issue will be whether companies develop schemes offering the same quality services when providing benefits under insurance policies.

The second point to note is that beneficiaries can select either cash benefits or in-kind benefits when receiving insurance proceeds/benefits. This allows policyholders to receive the goods and services initially expected when they select in-kind benefits. On the other hand, because insurance companies assume the risk of price fluctuations in goods and services provided, the issue is how they will deal with a decline in profitability under an inflationary environment.

Such deregulation has given life insurance companies new business opportunities. However, the key is likely to be whether they allow group companies and business partners offering relevant goods and services to design attractive products, and how they manage newly assumed risk.

4. *Other Issues*

(1) Estimation of Maximum Damage Arising from a Nankai Trough Earthquake

The Great East Japan Earthquake, in which the number of dead and missing people reached 18,559 (as of May 10, 2013), has also had a significant effect on damage estimates for potential major earthquakes.

Among others, the estimate for damage arising from a Nankai Trough (which runs in the Pacific Ocean offshore from Tokai region to Kyushu) earthquake has attracted the greatest level of public attention. This is because the damage estimate published by the Cabinet Office in August 2012 suggests that the maximum number

of fatalities would exceed 320,000, about ten times higher than the number forecast in the previously published estimate.

In such a worst-case scenario, the life insurance industry estimates that the total life insurance claims would reach around 4 trillion yen. As for the Great East Japan Earthquake, the number of insurance claims and the total amount paid out stood at 21,027 and 159.9 billion yen across the whole industry, respectively, as of March 31, 2013, and final insurance claim payments are estimated to total only 163.0 billion yen. In this light, the estimate of insurance claims payable under a Nankai Trough earthquake is unprecedented in scale.

On the other hand, life insurance industry professionals say that, given the current solvency margins of life insurance companies, the estimate of insurance claims payable is within a range companies can feasibly meet. In this sense, to gain the trust of society, it may be more important for the life insurance industry to take industry-wide action, including the immediate payment of insurance claims, a course of action the industry followed at the time of the Great East Japan Earthquake.

(2) Effect of Abenomics on the Life Insurance Industry

The economic policies collectively referred to as Abenomics have had an obvious effect on asset management policies among insurance companies.

The second Abe administration, which was formed after the Cabinet change in December 2012, determined to pursue the Abenomics agenda. These economic policies involve shooting “three arrows” in sequence — public works, bold monetary easing and growth strategy — in order to pull the Japanese economy out of deflation and put it on a growth path.

Due to the Lehman shock in 2008 and the effect of the subsequent Great East Japan Earthquake in 2011, the trends of an historically strong yen and low share prices had continued to characterize Japanese markets. However, the situation has recently improved. From November 2012, when the former Democratic Party Cabinet announced that the House of Representatives would be dissolved and a general election held, and formation of the Abe administration finally became more likely, market expectations of an Abe administration gained strong momentum and are now reflected in a rapidly weakening yen and higher share prices.

The upturn in sentiment is now also reflected in an upward trend in interest rates. Some estimated that the bold monetary easing strategy followed by the BOJ soon after the Cabinet change would help long-term interest rates to remain low. However, the faster than anticipated recovery in sentiment caused long-term interest rates to rise.



Some doubt that the effects of Abenomics are sustainable, and it is uncertain how long this trend will continue.

In the life insurance industry, we saw a clear trend whereby investments in foreign bonds with higher yields than Japanese government bonds temporarily increased, partly due to bold monetary easing by the BOJ. Japanese government bond yields are currently in an upward phase, and movements in shifting invested assets to Japanese government bonds, and among those less inclined to such shifts, are mixed. Future developments in long-term interest rates require careful scrutiny.

In contrast, the life insurance industry has not benefited sufficiently from higher share prices. Since an increase of stocks in its invested assets had led directly to a decline in solvency margin ratios, the life insurance industry has generally reduced stocks in its investment portfolio over the past several years, and is being forced to maintain or reduce stocks to keep solvency margin ratios at appropriate levels.

Supplemental Data: Results of Japanese major non-life insurance groups (company) for fiscal 2012, ended March 31, 2013 (Non-Consolidated Basis)

(Unit: Millions of yen, %)

	MS & AD Holdings			Tokio Marine Holdings		NKSJ Holdings		Fuji	Toa Re
	Mitsui Sumitomo	Aioi Nissay Dowa	Tokio Marine & Nichido	Nisshin	SOMPO JAPAN	NIPPONKOA			
Net Premiums Written	FY 2012	1,313,831	1,103,234	1,869,681	138,766	1,327,361	638,863	272,537	131,203
	FY 2011	1,265,997	1,074,631	1,783,009	136,602	1,281,155	630,605	264,870	134,079
Net Claims Paid	FY 2012	887,436	726,151	1,185,621	85,227	843,762	436,647	158,618	141,644
	FY 2011	1,000,737	805,026	1,370,750	95,260	939,541	493,011	199,109	130,682
Underwriting Profit (Loss)	FY 2012	(9,710)	6,692	7,390	(1,145)	(25,704)	8,786	(12,321)	(2,935)
	FY 2011	(170,026)	(20,008)	(1,153)	(3,048)	(24,994)	(41,188)	(9,317)	(38,076)
Ordinary Profit (Loss)	FY 2012	65,366	25,859	156,125	4,596	65,058	64,580	(4,651)	8,369
	FY 2011	(130,177)	9,233	212,120	4,211	3,964	(7,737)	3,384	(7,060)
Net Profit (Loss) for the year	FY 2012	42,657	18,862	58,650	2,639	29,137	33,332	(11,067)	4,489
	FY 2011	(130,607)	(43,549)	23,206	(4,759)	(37,518)	(22,584)	(15,741)	(15,522)
Total Assets	FY 2012	5,901,413	3,236,851	8,292,198	410,930	4,745,077	2,293,170	880,805	474,907
	FY 2011	5,646,816	3,141,142	8,368,009	408,959	4,600,592	2,337,631	858,001	497,910
Ratio 1 Loss Ratio (%)	FY 2012	73.4	70.4	68.7	68.0	70.6	74.8	63.3	108.0
	FY 2011	85.1	79.7	81.6	76.4	80.6	84.7	79.6	97.5
Ratio 2 Expense Ratio (%)	FY 2012	32.4	34.1	31.0	33.6	32.8	34.8	34.6	28.9
	FY 2011	33.4	35.1	32.0	34.9	33.0	35.0	34.4	29.4
Ratio 3 Yield on Investments (Income) (%)	FY 2012	2.31	2.36	2.19	1.30	2.28	2.15	1.33	2.11
	FY 2011	2.22	2.16	2.21	1.32	2.13	2.12	1.56	3.35
Ratio 4 Yield on Investments (Realised Gains / Losses) (%)	FY 2012	3.04	1.81	3.84	2.52	3.93	4.15	2.10	3.86
	FY 2011	1.99	1.85	4.39	2.49	1.86	2.59	2.55	9.50
Ratio 5 Solvency Margin Ratio (%)	FY 2012	581.3	649.1	665.3	636.6	645.6	534.0	562.6	767.2
	FY 2011	486.8	442.6	629.7	570.4	502.5	470.8	535.4	638.3

Note: Solvency Margin Ratio both in fiscal 2011 and fiscal 2012 calculated under the revised standard applied from March 31, 2013

Sources: Each company's Financial Statements of fiscal 2012

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