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Current state of Japanese life insurance sector (3)

Risk-based approach to life insurance business in Japan

Part 3: Life insurers' adaption to changes (risks) and pursuit of returns

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Summary

- Japan's life insurance sector is adapting to risks exposed by structural changes in the domestic market.
- Japan's shrinking population and changing population mix are changing life insurance needs. A rise in new entrants, diversification of sales channels, and global regulatory changes are altering the competitive environment.
- The emerging risks insurers need to respond to include fewer opportunities to assume insurance underwriting risk, diversification of insurance underwriting risk, changes in the value chain and supply chain, and changes in methods for controlling investment risk.
- These conditions call for insurers to put increased focus on liability risks, clearly communicate such risks to stakeholders, and seek opportunities that help build corporate value.
- In short, life insurers need to identify which risks offer the opportunity to build corporate value or are necessary to carry out operations.
- In Part 3, we grouped life insurers into five categories based on their characteristics. We then examine the position of each based on earnings and financial standing (the results of efforts to build corporate value). From that, we identify the risks in Japan's life insurance sector that help build value.

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III. Life insurers' adaption to changes (risks) and pursuit of returns

1. Life insurers' policy trends, by product

We examined life insurance companies' competitive positions based on the number and face value of individual insurance policies (excl. individual annuities), including new policies¹ and policies in force. We placed each company in one of five categories depending on the nature of their operations: (1) traditional life insurers, (2) insurers, either foreign-owned or entrants from other sectors, with strength in the third sector (hereafter, life insurers active in third-sector insurance), (3) direct life insurers, (4) Japan Post Insurance, and (5) other life insurers².

(1) New policies

Traditional life insurers' share of the number of new policies written dropped below 50% to 47.2% in FY08, after the Lehman Brothers collapse, and dropped further to 45.4% in FY11 (Chart 33). Traditional life insurers mainly lost market share because of the entry of Japan Post Insurance into the private insurance market in FY07³. Life insurers active in third-sector insurance and other life insurers also lost some market share, but fared better than traditional life insurers. In FY12, traditional life insurers recovered to secure over 50% of the market (52.5%), buoyed by increases in the number of whole-life policies, term policies, and other policies (Chart 34). Direct life insurers grew markedly, but still hold only a small share of total policies written.

Traditional life insurers' share of the face value of new policies written remains lackluster (Chart 35). Aggressive competition eroded their share from over 70% in FY03 to roughly 40% in FY12. Over the same period, life insurers active in third-sector insurance increased their market share from 12.3% to 26.5%, almost 30%. Other life insurers increased their share from just over 10% to just over 20%. Japan Post Insurance has maintained market share of around 10% since FY08.

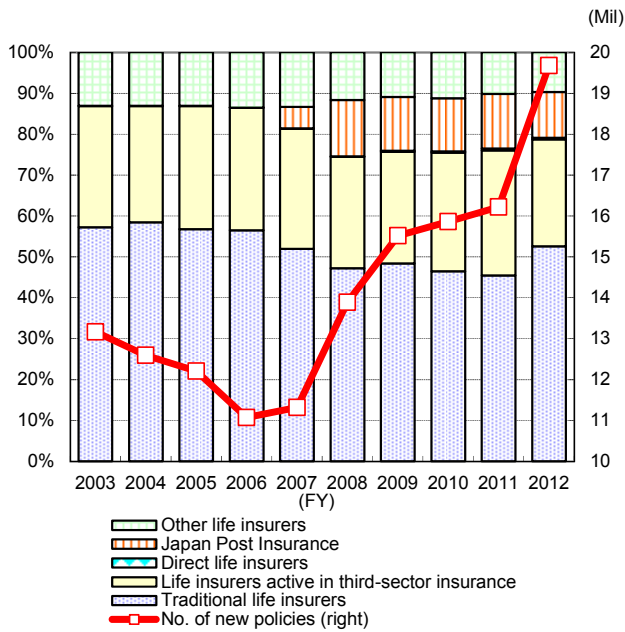
In the decade spanning FY03–12, whole life and term insurance grew markedly. Life insurers active in third-sector insurance and other life insurers significantly increased the face value of both types of new business. Traditional life insurers suffered significant declines in the face value of new policies, except for whole life and term insurance (Chart 36).

¹ For new policies, the number of policies includes converted policies and the face value includes the net increase from conversions.

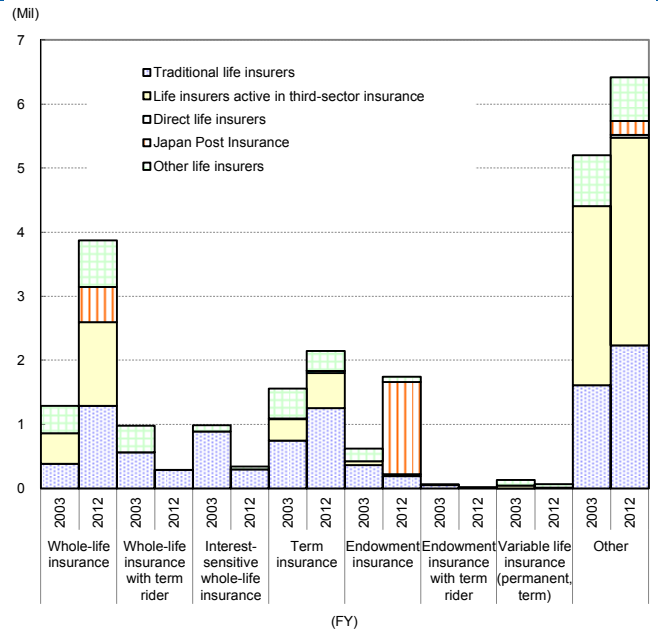
² The five categories include the following companies: (1) 9 traditional life insurers (Asahi, Sumitomo, Dai-ichi, Daido, Taiyo, Nippon, Fukoku, Mitsui Life, Meiji Yasuda), (2) 10 life insurers active in third-sector insurance (Axa, Aflac, NKSJ Himawari, Orix Life, Zurich, Tokio Marine & Nichido Fire, AIG Fuji, Mitsui Sumitomo Aioi, MetLife Alico, Medicare Life), (3) 3 direct-sales life insurers (Axa Direct, Sompo Japan DIY, Lifenet), (4) Japan Post Insurance, (5) 20 other life insurers (ING, Allianz, Cardif, Credit Agricole, Gibraltar, Sony Life, Aegon Sony Life, Dai-ichi Frontier, T&D Financial Life, Tokio Marine & Nichido Financial, Hartford, PCA, Fukokushinrai, Prudential, Prudential Gibraltar Financial, MassMutual, Manulife, Mitsui Sumitomo Primary, Midori, Rakuten Life). Company names are abbreviated, as of January 2014. For convenience, figures for merged companies calculated retrospectively. (Reference: *Weekly Toyo Keizai* 2013 ranking of life and non-life insurers.)

³ Japan Post Insurance was founded in September 2006 as Kampo in preparation for the spin-off of the former Japan Post's life insurance unit. It adopted the current name in October 2007. Japan Post Insurance is included in life insurance statistics for FY07 onward.

Share of No. of New Policies, by Insurer Category
Chart 33

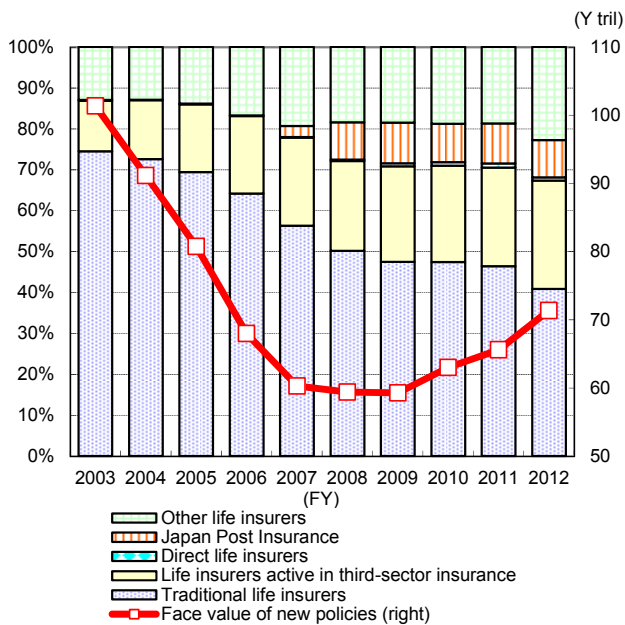


No. of New Policies, by Policy Type and Insurer Category
Chart 34

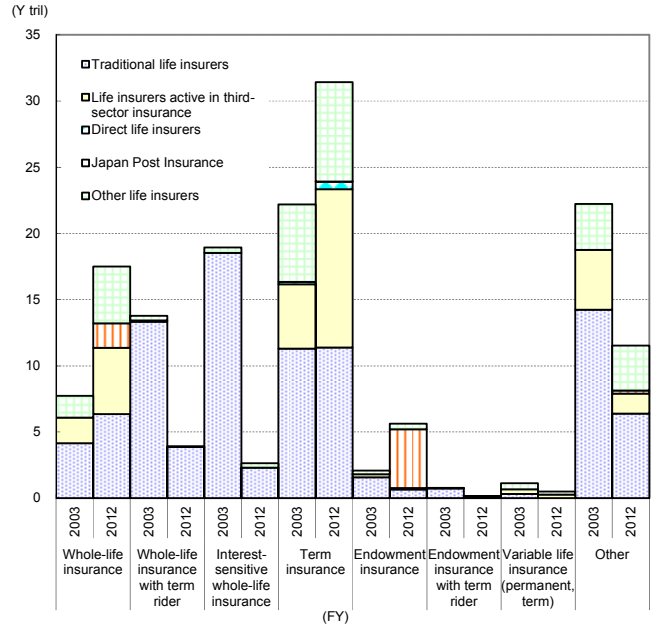


Source: The Life Insurance Association of Japan, *Summary of Life Insurance Business*; compiled by DIR.

Share of Face Value of New Policies, by Insurer Category
Chart 35



Face Value of New Policies, by Policy Type and Insurer Category
Chart 36

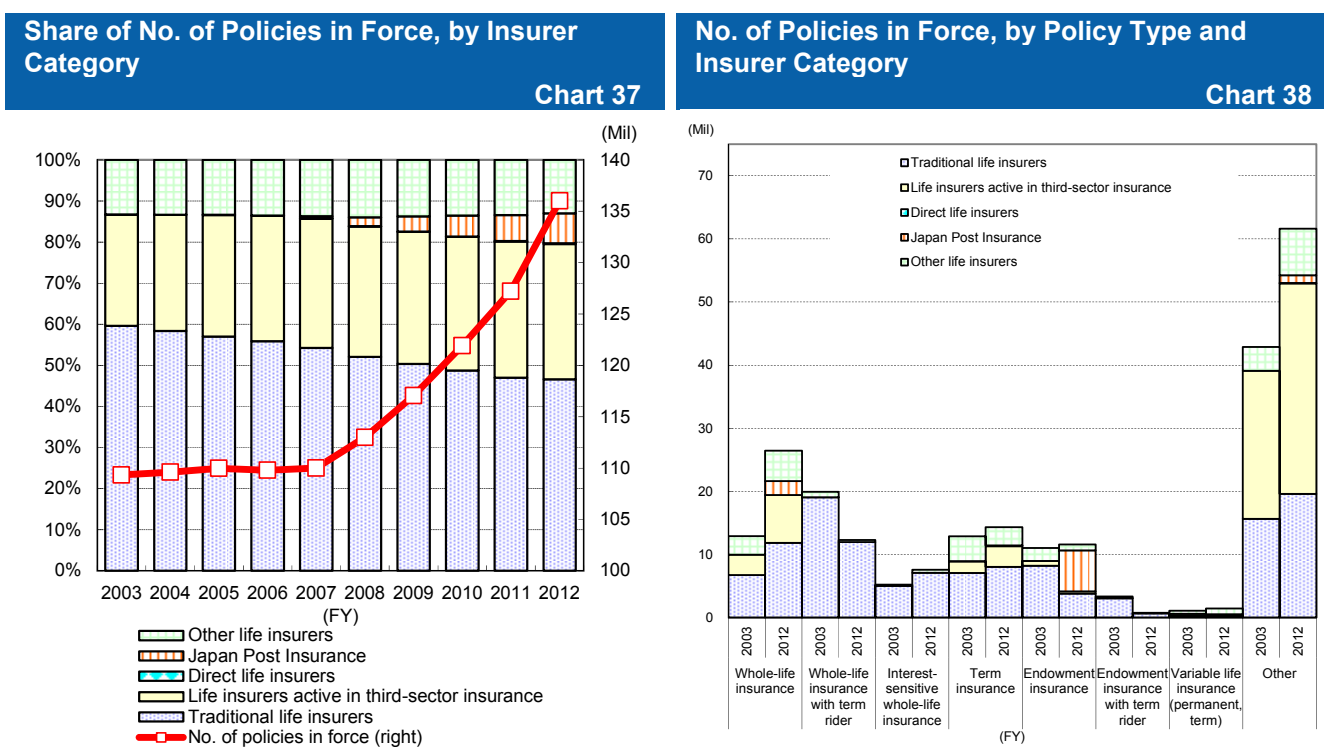


Source: The Life Insurance Association of Japan, *Summary of Life Insurance Business*; compiled by DIR.

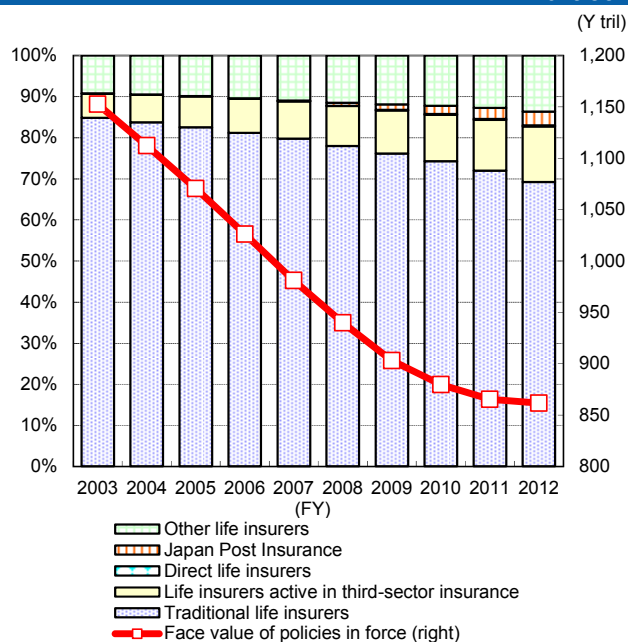
(2) Policies in force

Traditional life insurers saw their share of the number of policies in force slide from nearly 60% in FY03 to below 50% in FY10 (charts 37, 38). Life insurers active in third-sector insurance and Japan Post Insurance gained ground to just over 30% and just below 10%, respectively, in FY12. Other life insurers maintained steady market share of just over 10%.

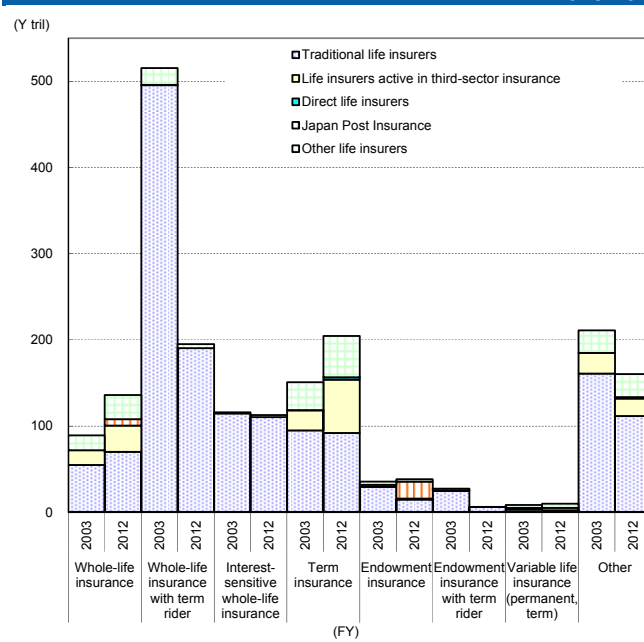
The face value of whole-life insurance policies with term riders, the previously main life insurance product, has stagnated (charts 39, 40). The face value of separate term and whole-life policies has increased, but not enough to offset the decline in whole-life insurance policies with term riders. Traditional life insurers, which are active in whole-life insurance policies with term riders, have seen the decline in those policies drag down the face value of policies in force. Insurers in other categories have seen the face value of policies in force broadly increase. Traditional life insurers have struggled to compensate for the sharp decline in whole-life insurance policies with a term rider, with slight growth in whole-life policies countered by declines in other products. The falling face value of new policies written eroded traditional life insurers' share of the face value of policies in force from nearly 90% in FY03 to less than 70% (69.2%) in FY12. Traditional life insurers were relatively slow to react to changes in demand due to factors such as the non-payment issue that emerged around 2005. They also suffered from intensified competition after liberalization created more opportunities for new entrants.



Share of Face Value of Policies in Force, by Insurer Category
Chart 39



Face Value of Policies in Force, by Policy Type and Insurer Category
Chart 40



Source: The Life Insurance Association of Japan, *Summary of Life Insurance Business*; compiled by DIR.

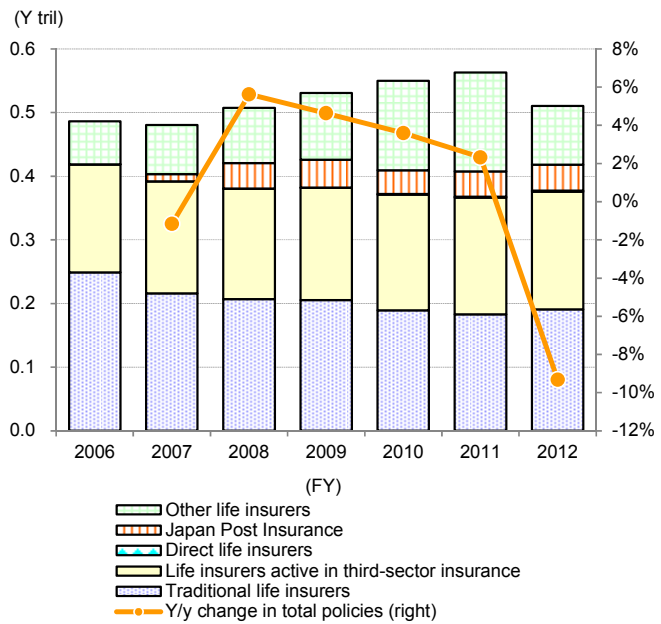
(3) Annualized premiums

As we noted in Part 2, figures for the face value of new and in-force policies incorporate almost no third-sector business. We therefore referred to annualized premiums (individual risk insurance/annuities) to identify trends in third-sector insurance.

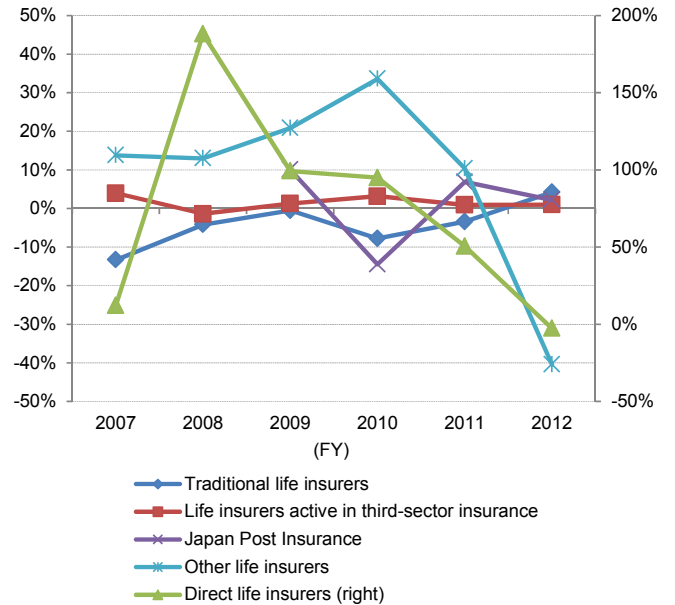
Annualized premiums for new third-sector insurance (annualized new premium [ANP] for third-sector insurance) began rising in FY08, when Japan Post Insurance was added to the statistics. Growth later slowed. In FY12, ANP for third-sector insurance fell sharply. These developments suggest growth was buoyed by the changing mix in demand, but then suffered from an overall slowdown in the market (Chart 41).

Within the broad trend of sluggish growth in ANP for third-sector insurance, traditional life insurers suffered a decline, life insurers active in third-sector insurance held steady, and direct and other life insurers saw growth (Chart 42). In FY12, ANP for third-sector insurance turned up at traditional life insurers, but turned down at direct life insurers and other life insurers. The gap that existed between traditional life insurers and life insurers active in third-sector insurance in FY06 largely disappeared during the three years spanning FY10–12.

ANP for Third-sector Policies Chart 41



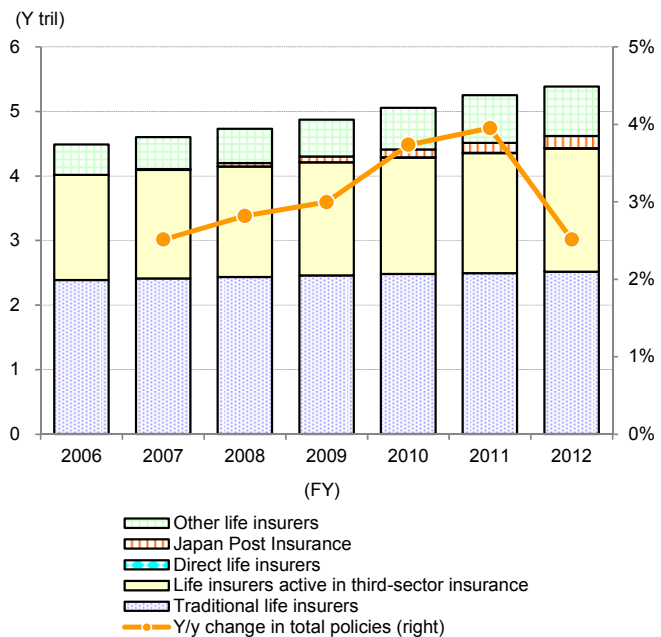
Y/y Growth in ANP for Third-sector Policies, by Insurer Category Chart 42



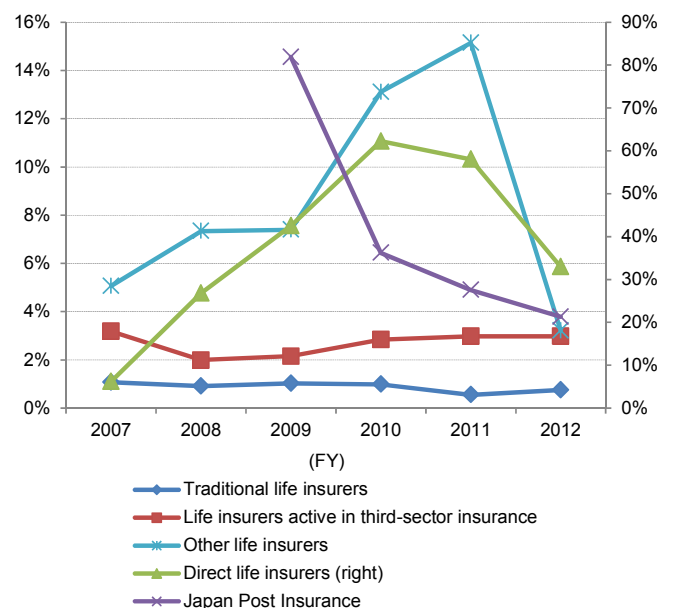
Source: The Life Insurance Association of Japan, *Summary of Life Insurance Business*; compiled by DIR.

All categories of insurers are experiencing growth in annualized premiums for in-force third-sector insurance, but at differing speeds (charts 43, 44). Growth is slow but steady at traditional life insurers (roughly 1%) and life insurers active in third-sector insurance (2–3%); still strong, but slowing at Japan Post Insurance; strong but slowing after initial acceleration at direct life insurers; and sharply slower in FY12 after previous acceleration at other life insurers.

Annualized Premiums for In-force Third-sector Insurance, by Insurer Category Chart 43



Y/y Growth in Annualized Premiums for In-force Third-sector Insurance, by Insurer Category Chart 44

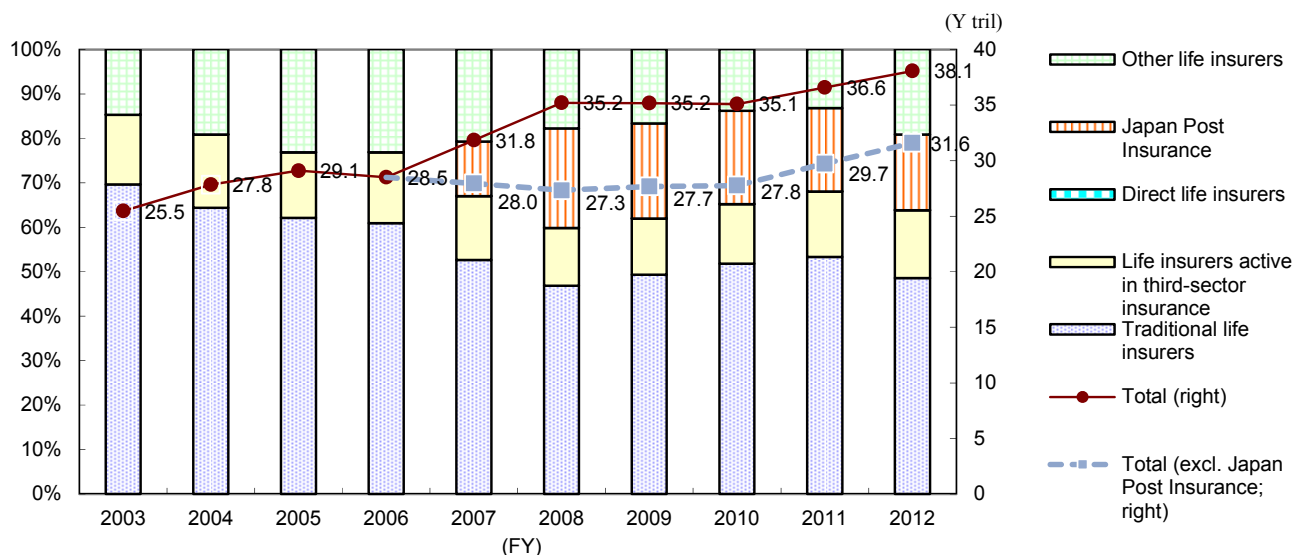


Source: The Life Insurance Association of Japan, *Summary of Life Insurance Business*; compiled by DIR.

(4) Premium income

Premium income⁴, which equates to sales for life insurers, rose from FY03 through FY05, dipped in FY06 after revelations of the non-payment of claims, and was driven upward from FY07 by the entry of Japan Post Insurance into the private insurance market (Chart 45). Excluding Japan Post Insurance, a decline in premium income during FY06–08 suggests the non-payment revelations hit premium income particularly hard during that period.

Premium Income (all life insurers) **Chart 45**



Source: The Life Insurance Association of Japan, *Summary of Life Insurance Business*; compiled by DIR.

Traditional life insurers' share of total premium income fell from roughly 70% in FY03 to 50% in FY08. Their share later recovered somewhat, but dropped back below 50% in FY12. Japan Post Insurance has seen its market share gradually eroded from just over 20% in FY08 to below 20% currently. Life insurers active in third-sector insurance have maintained relatively stable market share in the 12–16% range.

Traditional life insurers and Japan Post Insurance appear to retain a significant edge, but seem to be facing intensified competition as life insurers in other categories close the gap.

2. Life insurers' strategy changes in pursuit of returns

The impact on policy trends of past changes in the business environment indicates how insurers can change their strategies to maximize returns (earnings). Below, we consider the main changes in strategy.

(1) New product and marketing strategies

Insurers are responding to changed conditions by offering and marketing simple products and policies with low premiums. Proactive life insurers are switching from large whole-life policies with term riders to simple products that can be matched to consumers' diversified needs—i.e., from a product-oriented to sales/market-oriented approach. Insurers previously focused on launching packaged products, but they have recently had agents meet customers' needs by selecting appropriate policies. Insurers use feedback gleaned from sales data to fine-tune products as consumer needs change. Insurers are also likely developing products specifically for women and single people in response to

⁴ Premium income is insurance premiums paid by policyholders (incl. reinsurance premiums).

broadening needs. Some life insurers have simplified the marketing process by using standard packages for each ten-year age group (people in their 20s, 30s, etc.) and specific family composition as a base from which to propose coverage. This approach avoids the difficulty of fully customizing offers starting with a single product. Their TV commercials and other advertising and promotion likely tie in with these strategies.

In our view, life insurers have exhibited a shift in their value chain. While they were previously like manufacturers simply making products in a factory, they are now focusing on making changes to products when marketing in order to meet customer specifications. This approach increases the importance of marketing in value creation.

(2) Greater sales of profitable products (securing mortality & morbidity savings)

We believe whole-life policies are generally the most profitable products, with third-sector policies also highly profitable. Third-sector policies can be broadly categorized as daily hospital cash benefit or lump-sum benefit policies. In general, daily hospital cash benefit policies generate low profits, while lump-sum benefit policies generate high profits. Life insurers are focusing on different products. Data on the number of new policies reveals a strong focus on whole-life policies and third-sector policies. Growing bancassurance sales apparently offer poor returns as three parties share an interest in them: the insurer, bank, and customer.

(3) Changes in marketing strategy driven by online insurers

Life insurers have adapted their marketing strategies because of the move away from in-house agents, previously the main sales channel. The change was driven by the abolition of a ban on bancassurance and its subsequent spread, penetration of the Internet, and the rapid spread of smartphones and other portable devices. Previously, life insurers leveraged the strength of their sales channels, for example, mutual aid societies effecting sales only through fliers. Another example is Japan Post Insurance pursuing sales through Japan's roughly 25,000 post offices. As the Internet has emerged as a superior sales channel, new players (online life insurers) have entered the life insurance business, building their business on direct sales through the Internet. Online life insurers could be expected to have the advantage of much lower expenses than traditional life insurers as they mostly sell policies without using agents. However, online insurers do not have a low expense ratio. We think online insurers have been unable to achieve economies of scale because of the recent y/y downtrend in new policies. Policies in force have risen quite rapidly because the rapid penetration of the Internet provided efficient access to many potential customers, but have not yet reached a sufficient scale to contribute to profit.

(4) Improved consultation services from agents

Life insurers, other than online insurers, are both diversifying their sales channels to include the Internet and improving their customer service. For better or worse, the non-payment problem acted as a catalyst for improved customer service. Insurers have gone a step further, stepping up consulting services to better respond to customer needs. These moves have likely improved the quality of in-house agents. The major traditional life insurers, in particular, benefit from economies of scale, but seem to be focused on customer care strategies rather than just resting on their laurels.

(5) Combination of online sales and sales through agents

Life insurers, other than online insurers, are not ignoring the diversification of sales channels. They are using a combination of the Internet and in-house agents, adopting the Internet as a tool for reaching potential customers and using agents to facilitate the writing of policies. Insurers changed strategy when they found the Internet alone did not lead to the writing of business. They switched to a strategy of using the Internet as an entry point increasing access to their products. Insurers are placing

newspaper and magazine advertisements to raise familiarity with their online channel as part of a strategy to give agents effective access to consumers contacted through that channel.

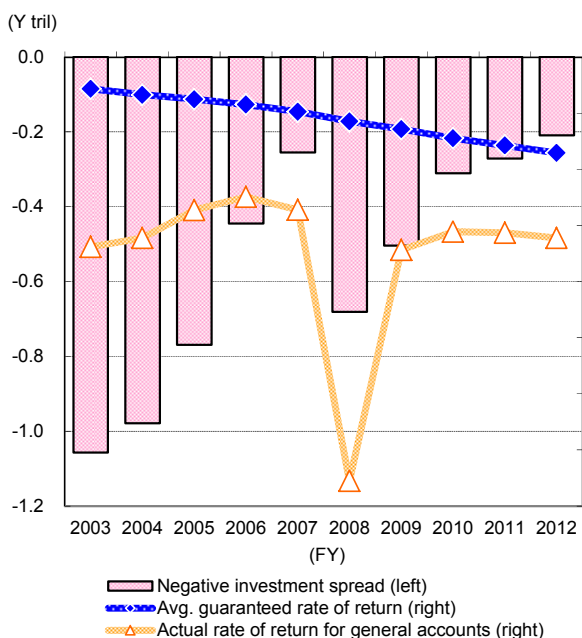
(6) Reduced costs through IT systems for policy proposals, customization, writing

The growing trend toward simple products and emerging customization of such policies to match customer needs promoted agents’ role as consultants and thereby increased the quality of marketing. Tools became necessary to facilitate customization. Leading life insurers have spent several hundred billion yen on introducing IT for marketing, most of which has been for mobile devices. Such devices have improved agents’ consulting services and sped up the process of writing policies. Faster policy writing was the main reason insurers introduced the devices. Shortening the time needed to write policies from that needed for the paper-based process reduced costs. Improving agents’ marketing quality and productivity enables insurers to reduce the number of agents, which offsets the cost of converting to digital systems.

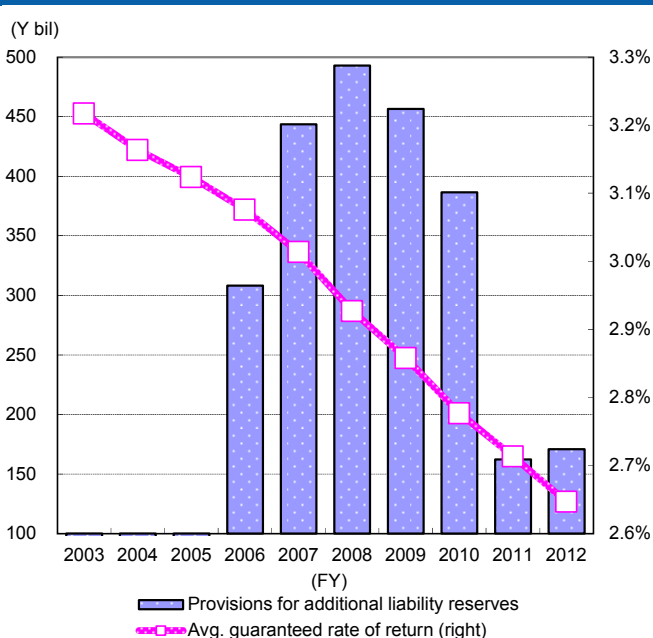
3. Investment strategies (returns)

The protracted problem of negative investment spreads affecting traditional life insurers’ investments gradually eased overall between FY03 and FY12, despite intensifying for a period during the financial crisis (charts 46, 47). The negative investment spread disappeared in the Apr–Sep 2013 period as the nine traditional life insurers reported a positive combined investment spread. However, the situation remains dire. Insurance policies with high guaranteed rates of return (those written up to FY95) still accounted for roughly 45% of all policies as of end-FY12, while interest rates remain low (Chart 48).

Negative Investment Spreads (traditional life insurers)
Chart 46

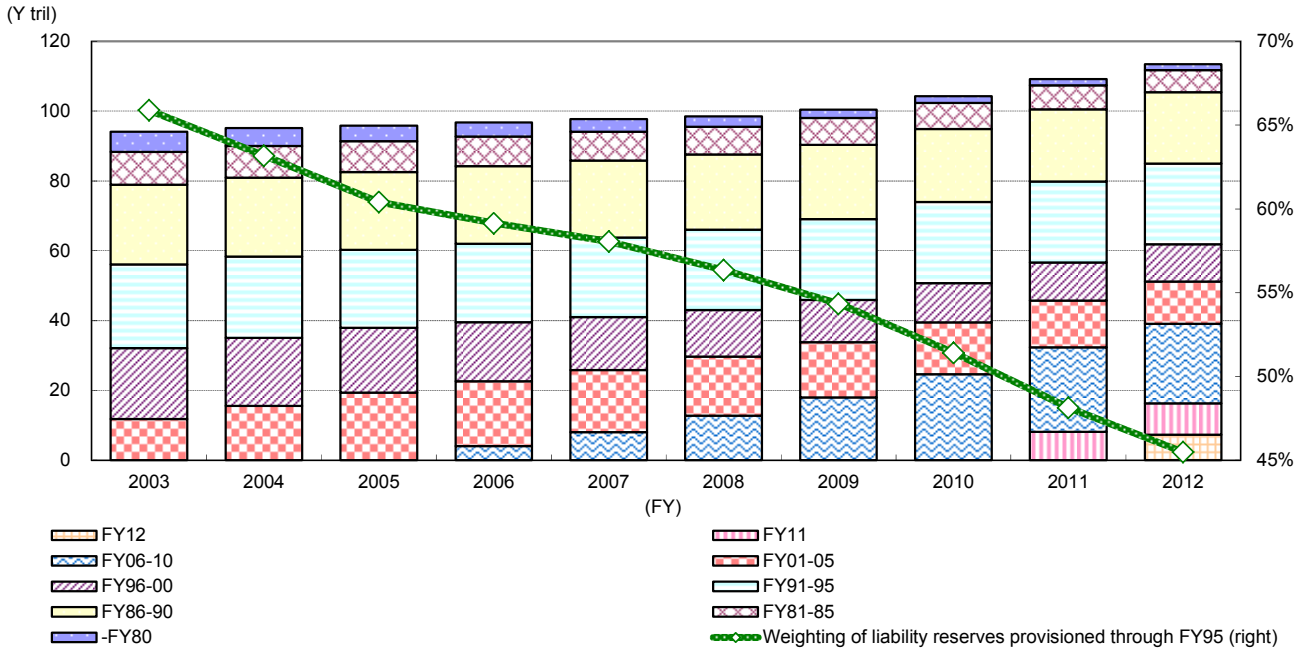


Provisions for Additional Liability Reserves and Average Guaranteed Rate of Return (traditional life insurers)
Chart 47



Source: Company materials; compiled by DIR.

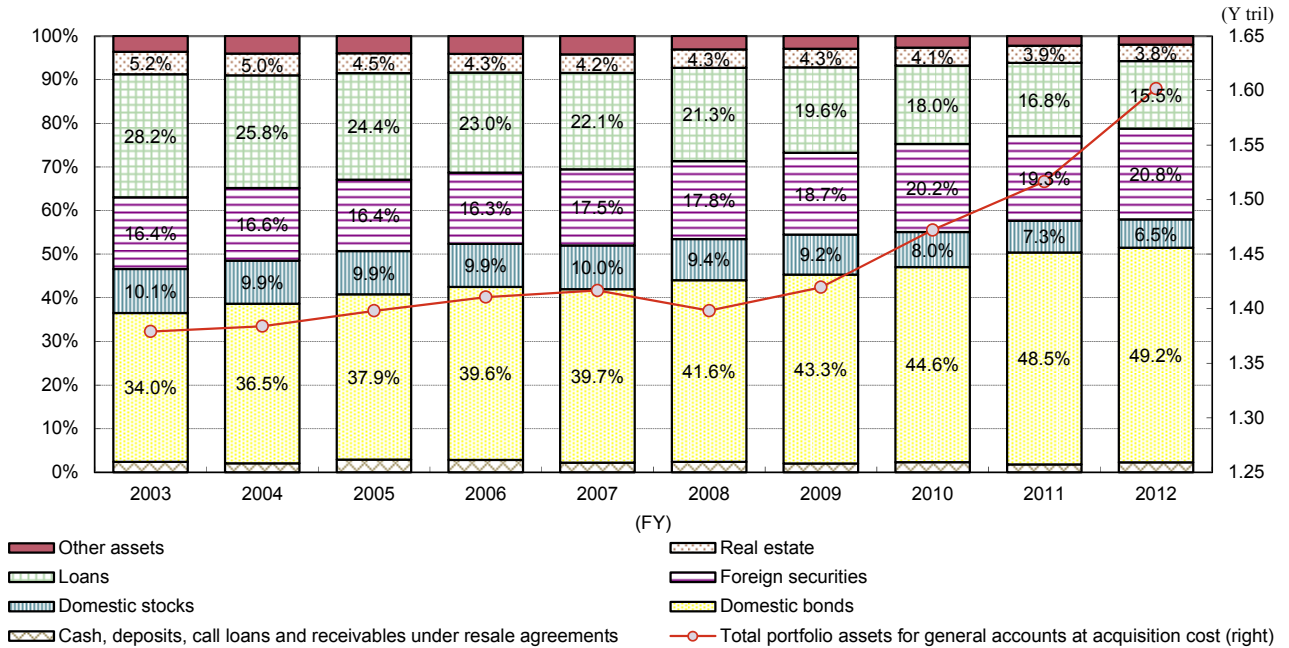
Liability Reserves, by Policy Date (traditional life insurers) Chart 48



Source: Company materials; compiled by DIR.

Traditional life insurers changed the mix of their investment portfolios (acquisition cost basis). Overall, they (1) decreased the weightings of stocks and loans as the sluggish economy eroded share prices and corporate demand for capital stagnated and (2) increased the weightings of bonds, which are expected to deliver stable returns, and foreign securities, which are likely to generate high rates of return (Chart 49).

Investment Portfolio Trends (traditional life insurers) Chart 49

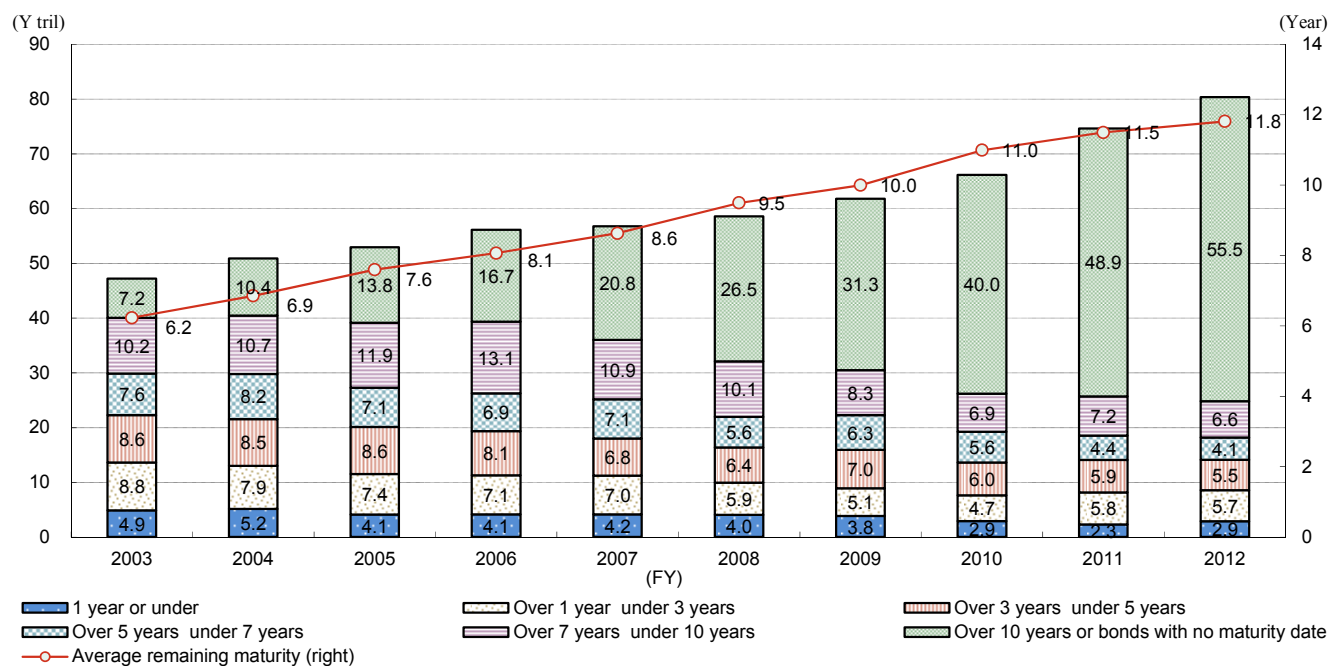


Source: Company materials; compiled by DIR.

Interest and dividend income reflected the changes in the portfolio mix. Interest income from bonds increased as insurers built up holdings of long-term and ultra long-term bonds (mainly JGBs) and increased the average duration of their portfolios (charts 50, 51). Interest and dividend income from

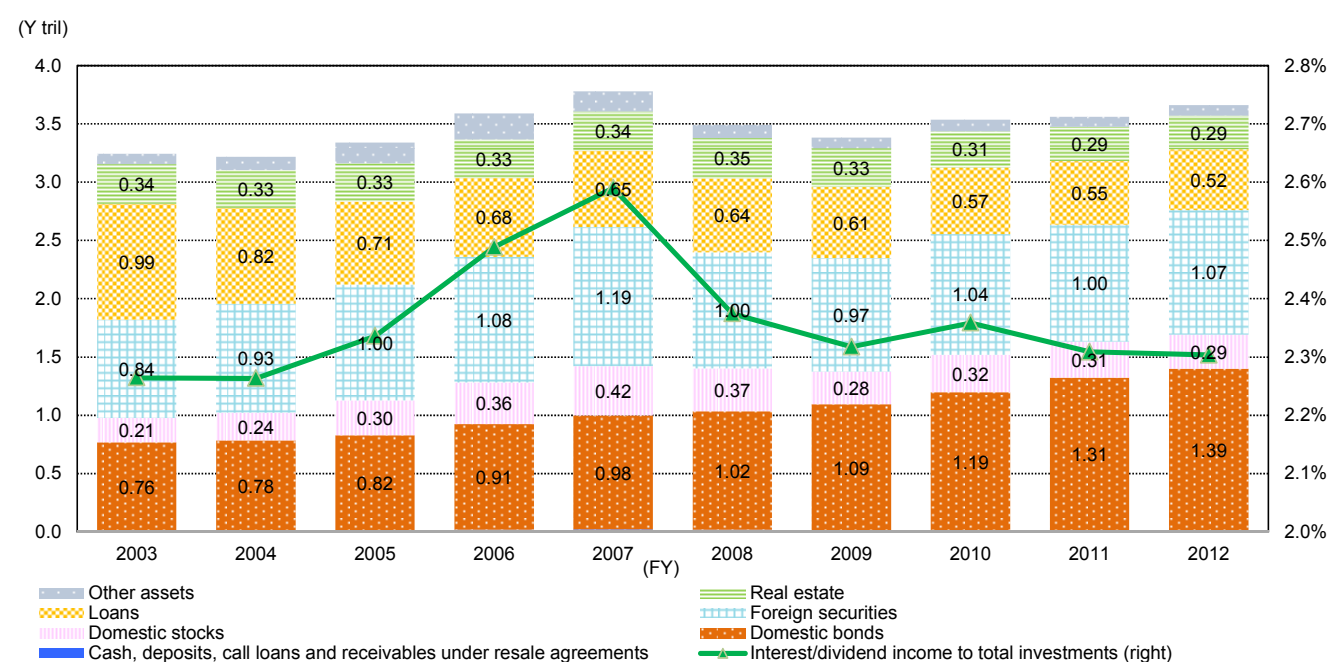
foreign securities was on an uptrend from FY03 but fell in FY08 because of the financial crisis. It has been roughly flat since then.

Bond Holdings, by Average Duration (traditional life insurers) Chart 50



Source: Company materials; compiled by DIR.

Interest and Dividend Income (traditional life insurers) Chart 51



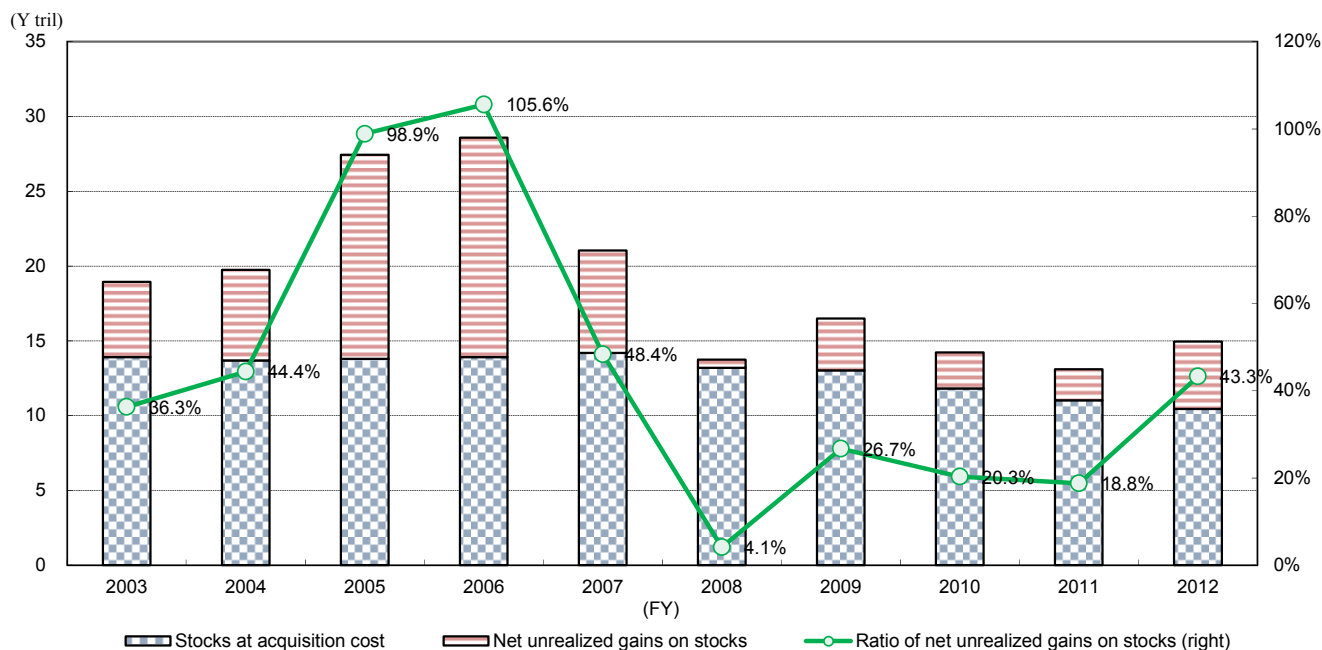
Note: Ratio of interest/dividend income to total investments is interest/dividend income divided by average balance of investments in general accounts, excl. money trusts.

Source: Company materials; compiled by DIR.

Life insurers are lengthening their asset duration to eliminate the duration gap between assets and liabilities and are reducing holdings of risk assets such as stocks in preparation for the proposed introduction of capital and solvency regulations and accounting standards based on economic value (more or less market value; Chart 52).

Stock Exposure (traditional life insurers)

Chart 52



Note: Ratio of net unrealized gains on stocks is ratio of net unrealized gains to acquisition costs.

Source: Company materials; compiled by DIR.

We think insurers are likely to continue focusing on bonds, particularly ultra-long JGBs. Insurers have benefitted from the recent Abenomics-driven rally in share prices, but have not increased their stock holdings in response. Nor do they seem likely to significantly increase foreign securities holdings because such holdings create exposure to the risk of reduced interest and dividend income and currency risks due to overseas catalysts, as evident during the financial crisis.

However, the elimination of negative investment spreads and rising expectations that Abenomics will lead to the end of deflation and rising interest rates could place pressure on life insurers to raise the guaranteed rate of return on policies, which has been reduced amid a low market interest rate since Japan's economic bubble burst. The question in that case would be what risks insurers should take to support the higher guaranteed rate of return. Insurers will possibly also need to reconsider, with due regard to maintaining their financial standing, the weighting of stocks if a continued rise in share prices demonstrates a clear change in the investment environment.

Maintaining a positive investment spread is difficult because investment conditions fluctuate markedly. In our view, maximizing mortality & morbidity savings, which we consider reflect the performance of core operations, will be central to securing stable earnings.

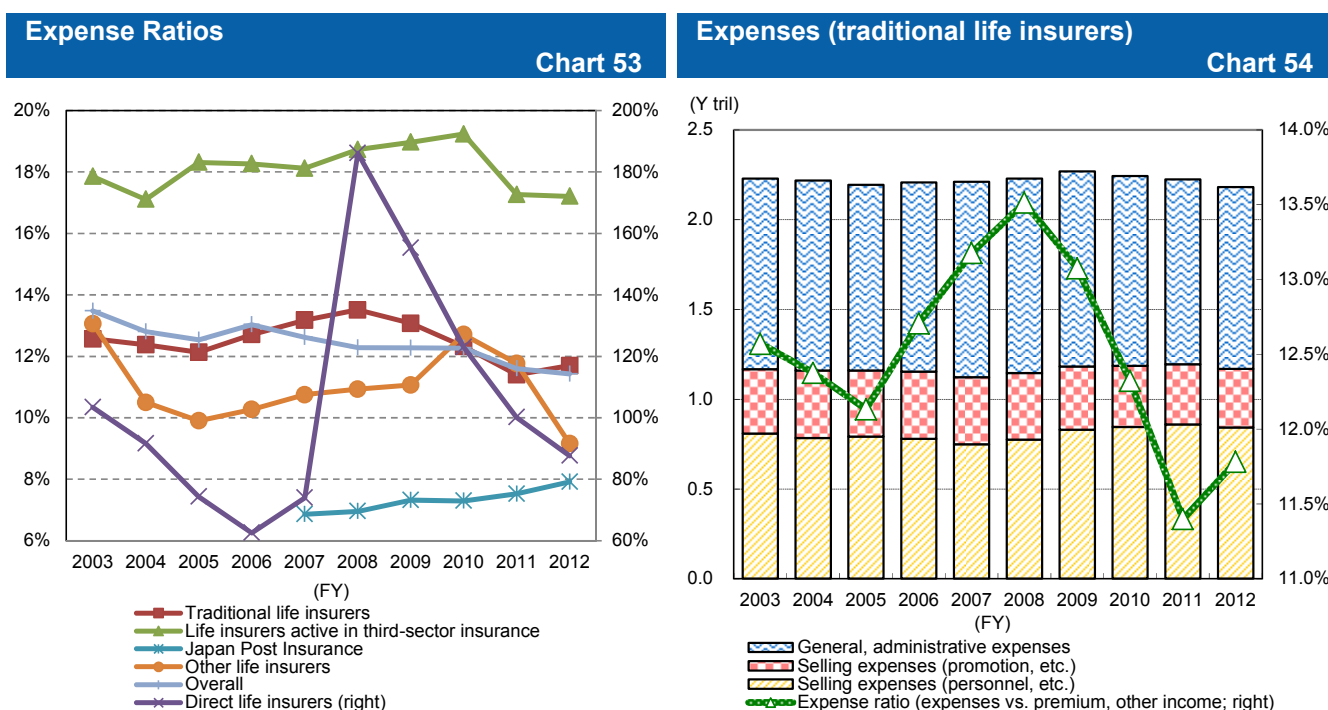
4. Expense trends

Life insurers build an expected expense ratio into premiums to cover the expenses (labor, overheads) expected to be incurred in running insurance operations. Reducing expenses boosts expense savings and gives the companies more room to respond to pressure for lower premiums.

Cutting expenses has become increasingly important to shoring up expense savings, which are falling. Notably, a decline in in-force business (partly through surrender) should reduce premium income from the loading, and the loading built into the premiums of new products has recently dropped.

Insurers in all categories except Japan Post Insurance have reduced the expense ratio in recent years (Chart 53). Japan Post Insurance's expense ratio, though lower than that of insurers in other categories, seems to be gradually climbing. Traditional life insurers' expense ratios are flat, or slightly down, likely because a rise in training expenses aimed at improving the quality of agents has been offset by (1) falling commissions as the volume of business introduced by agents has declined and (2) reductions in the number of agents (Chart 54).

Direct life insurers were unable to cover expenses through premium income during FY08–11. These insurers (particularly those that saw growth in policies with level premiums⁵) were unable to secure sufficient business (premium income) to cover initial post-establishment costs such as IT systems and marketing (particularly advertising) in the short time since their establishment. Direct life insurers take advantage of relatively low-cost sales channels such as the Internet and telephone rather than agents. They need to further grow in scale by accumulating more business. Direct life insurers increased the face value of new business by a high average annual rate of 15.3% over the nine years spanning FY03–11. A decline of 8.4% y/y in FY12 raises concerns about a slowdown in growth.

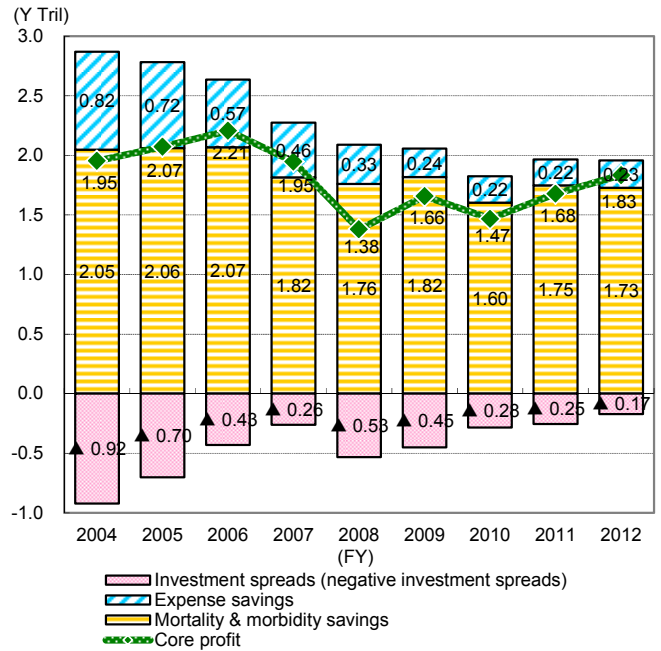


5. Core profit

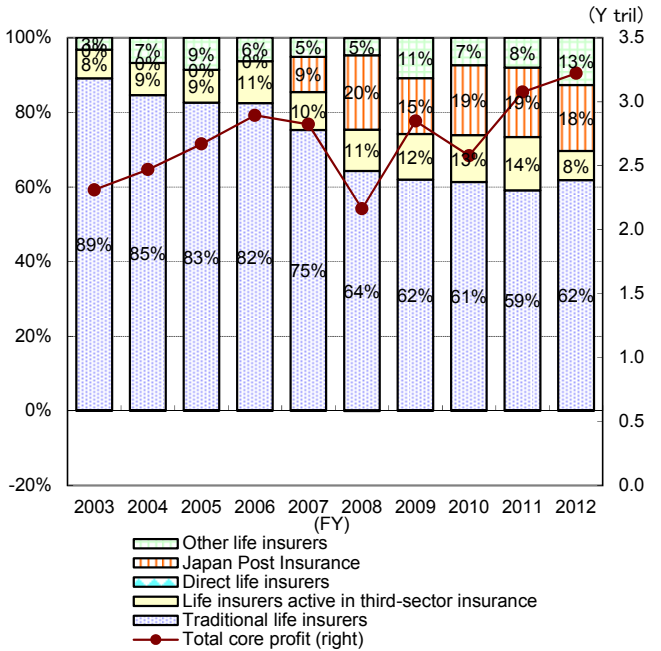
As noted in Part 1, life insurers' core profit is close to the sum of mortality & morbidity savings, expense savings, and investment spreads. Figures for seven of the nine traditional life insurers (excl. Daido, Taiyo) show core profit rose in FY04–06, fell in FY07–08, and generally rose thereafter (Chart 55). Mortality & morbidity savings, which represent the profit of mainstay insurance operations and are the largest component of core profit, exceeded Y2 trillion until FY06, but have been below that mark since FY07. Expense savings continuously declined until FY11. Negative investment spreads contracted until FY07, sharply deepened in FY08, but then resumed contracting, contributing positively to changes in core profit.

⁵ For insurance policies with level premiums, Japanese accounting standards require income (premiums) to be distributed over the life of the policy and expenses (advertising, underwriting, sending documents) to be booked in the FY in which policies are written.

Core Profit and Mortality & Morbidity Savings, Expense Savings, Investment Spreads (seven traditional life insurers)
Chart 55



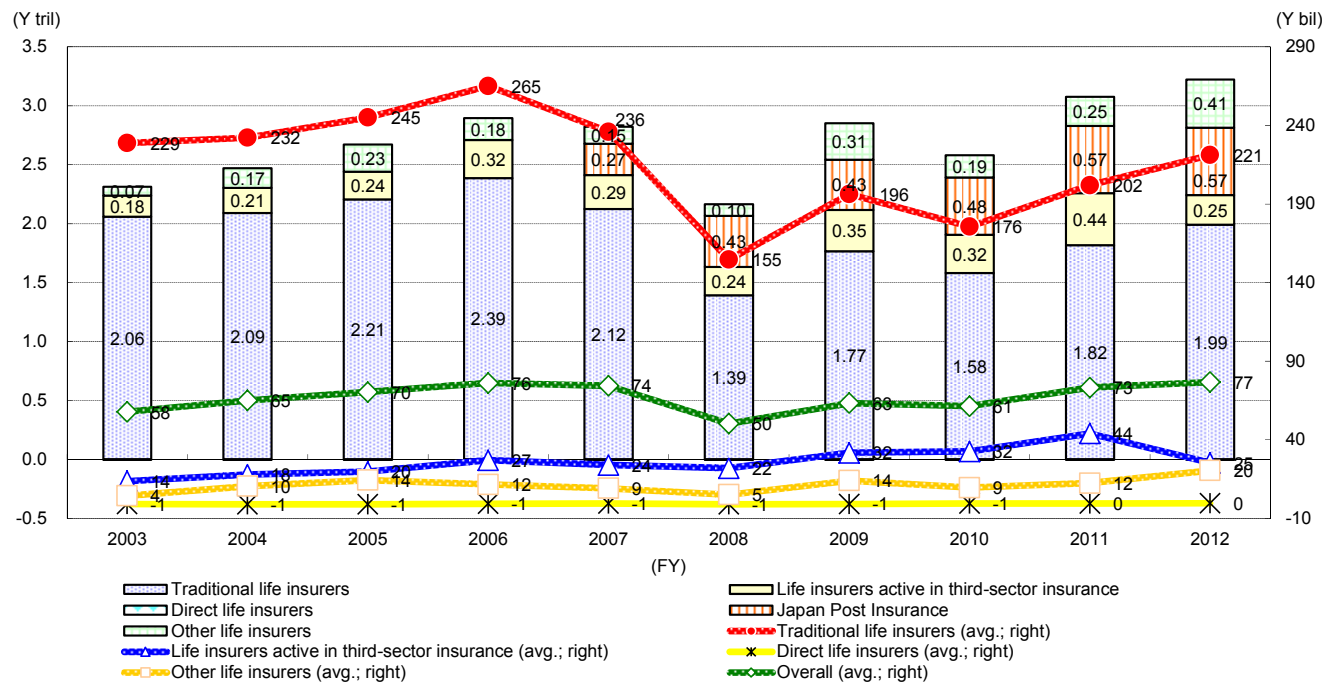
Core Profit, by Insurer Category
Chart 56



Source: Company materials; compiled by DIR.

Traditional life insurers generate an overwhelming proportion of the total core profit of all life insurers, excluding Japan Post Insurance (Chart 56). However, their share has dropped from nearly 90% a decade ago to around 60%, mainly because Japan Post Insurance gained a roughly 20% share after entering the private insurance market in FY07. Other life insurers maintained a roughly 10% share, albeit with some fluctuations, while life insurers active in third-sector insurance maintained a stable 10% share. Direct life insurers remain in the red.

Core Profit (all life insurers)
Chart 57



Source: Hoken Kenkyujo (Insurance Research Institute), *Statistics of Life Insurance Business in Japan*, company materials; compiled by DIR.

The life insurance business is characterized by stable earnings from core operations. Essentially, the larger the face value of policies in force, the larger the core profit. Life insurers, except for direct life insurers, have maintained relatively stable core profit. The buffer provided by mortality & morbidity savings has ensured stability even when financial and other crises substantially worsened negative investment spreads (Chart 57).

Maintaining stable mortality & morbidity savings, the key element of core profit, is therefore essential to increasing corporate value. Growth in third-sector insurance is currently offsetting a decline in mortality & morbidity savings caused by a drop in life insurance policies in force. However, mortality & morbidity savings seem set to decline as new policy trends suggest in-force business will continue falling. New policy trends also indicate third-sector policies might not grow rapidly. Mortality & morbidity savings therefore seem increasingly likely to be a drag on profit. Cuts to expenses will need to be stepped up to compensate for the forecast slump in mortality & morbidity savings, in our view. Whether insurers respond to the changing investment environment by taking greater investment risks and raising their guaranteed rate of return will likely affect their corporate value. We think life insurers will need to become more proactive in developing strategies, including revamping their business models, looking beyond the insurance sector for opportunities for consolidation, and expanding overseas.

6. Financial health

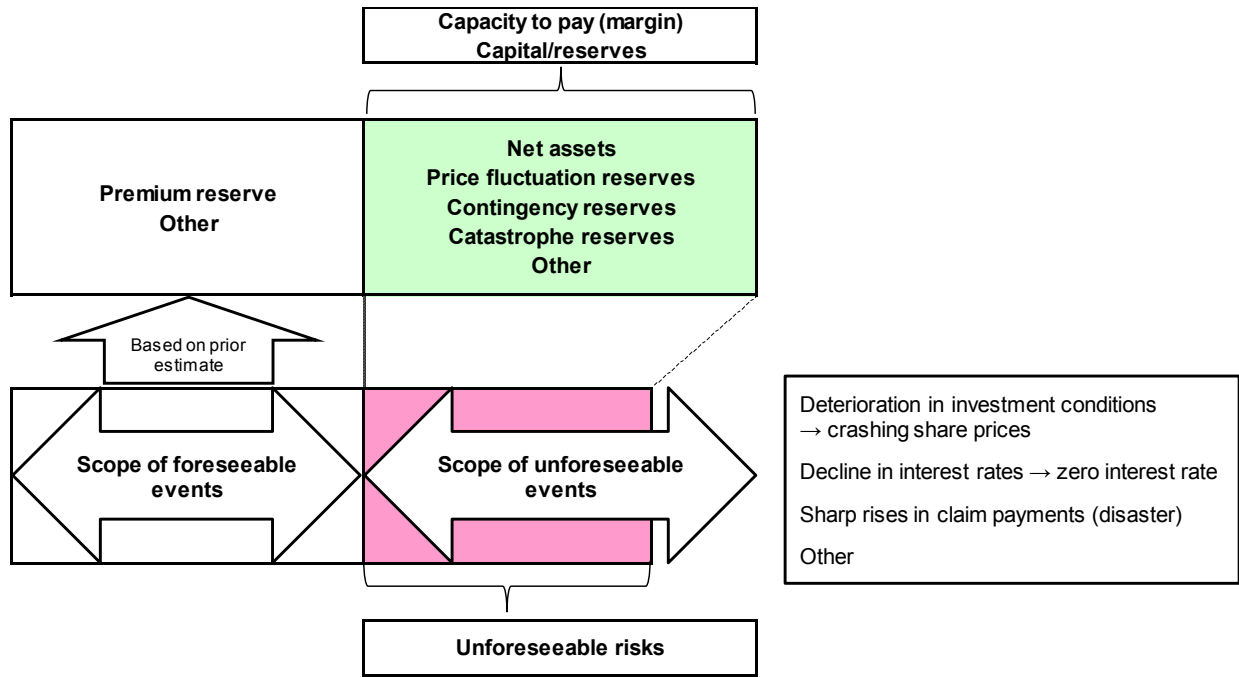
Solvency margin ratios provide a quantitative measure of insurers' capacity to pay benefits and claims associated with the risks they assume. The ratio is calculated by dividing the solvency margin by half of total risk (insurance, guaranteed rate of return, investment, operation). A ratio of 200% or higher is considered sound.

Total risk is the sum of the risks associated with insurance, the guaranteed rate of return, and investment—the sources of the three elements of profit we previously noted. As such, total risk represents the results of risk undertaken in operating the business (incl. unforeseeable risks).

The solvency margin represents the insurers' ability to pay the amount associated with the above risks (e.g., claims, benefits). It is calculated as the sum of capital, price fluctuation reserves, contingency reserves, general loan-loss reserves, net unrealized gains on available-for-sale securities, net unrealized gains on land, foundation funds, and hybrid capital instruments.

As noted earlier, insurers estimate foreseeable risks such as revenue declines or expense increases and maintain liability reserves to pay for future claims and benefits. Insurers are required to maintain an additional buffer for unforeseeable risks such as crashing share prices, sharp drops in revenue due to disasters, or sharp rises in payments. The solvency margin constitutes this buffer (Chart 58).

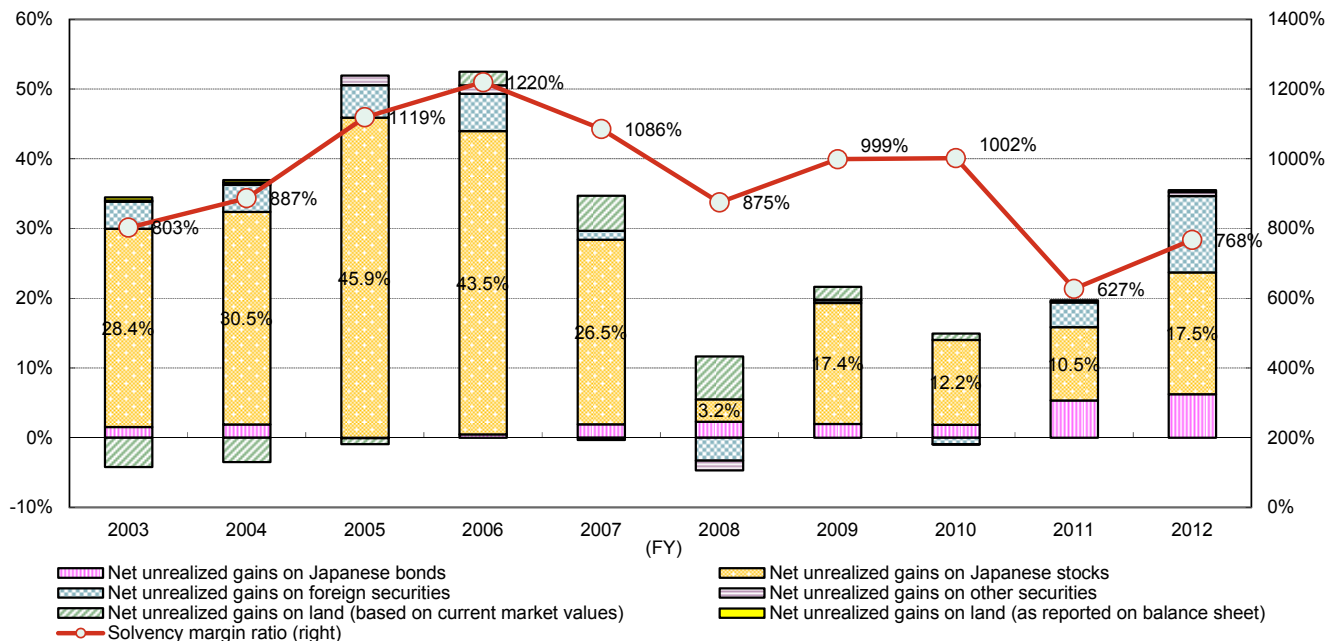
Unforeseeable Risks and Capacity to Pay Chart 58



Source: Financial Services Agency; compiled by DIR.

Net unrealized gains on shares and other assets have a significant impact on the solvency margin ratio. Chart 59 shows the impact of fluctuations in net unrealized gains on traditional life insurers' solvency margin ratios.

Solvency Margin Ratios and Net Unrealized Gains (traditional life insurers) Chart 59

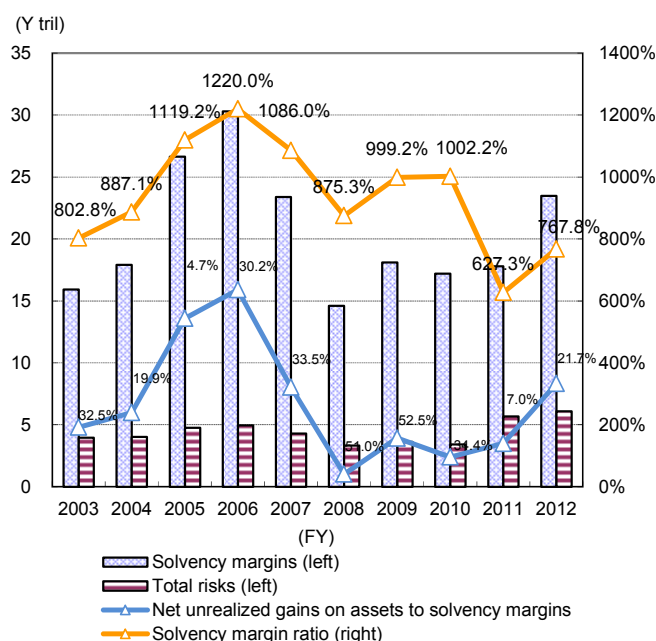


Source: Company materials; compiled by DIR.

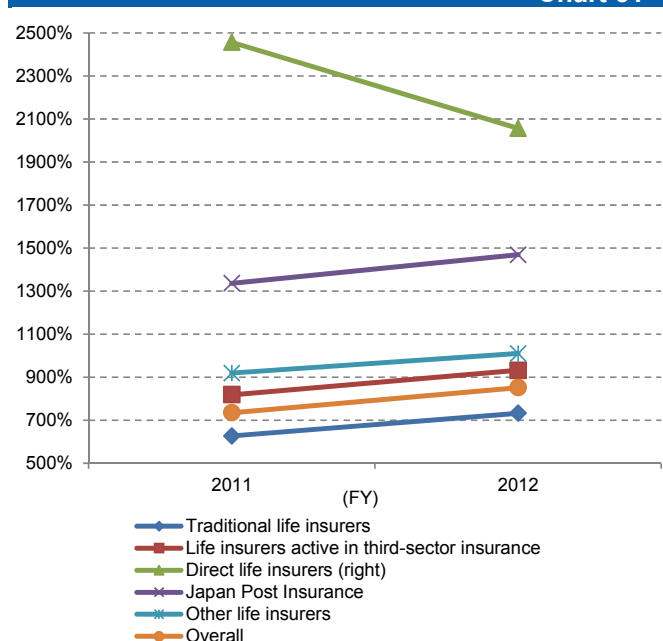
Life insurers have seen their solvency margins eroded by declining unrealized gains on shares or increased unrealized losses on shares, particularly since the Lehman crisis. In an effort to reduce risk, particularly investment risk, and maintain their solvency margin ratios, the companies have reduced their exposure to stocks (Chart 52). In this way, traditional life insurers maintained their solvency

margin ratios at 3–6 times the 200% requirement until FY10 (charts 60, 61). A sharp decline in solvency margin ratios in FY11 stemmed from tightening solvency regulations.

Solvency Margin Ratio (traditional life insurers)
Chart 60



FY11–FY12 Change in Solvency Margin Ratios (all life insurers)
Chart 61



Notes: 1) Solvency margin ratio = solvency margin / (total risk × 0.5)

2) Solvency margin ratios for FY11 onward use current stricter risk measures.

Source: Company materials, The Life Insurance Association of Japan, *Summary of Life Insurance Business*; compiled by DIR.

We think life insurers will struggle to feel comfortable in shouldering investment risks even under the current regulations. Planned regulatory changes will require life insurers to enhance management of internal and external risks based on economic value even further. These regulatory changes include the tightening of Japanese solvency margin regulations, the global introduction of Solvency II capital requirements, and the introduction of market-value based valuation of insurance liabilities under International Financial Reporting Standards (IFRS).

Solvency margin requirements have undergone several reforms. However, the reforms have been short-term changes tied into the prevailing regulatory framework. Under the current framework, solvency margin ratios do not adequately reflect economic values, life insurers’ risk management, or the characteristics of their products. Nor is there any incentive for life insurers to improve their risk management. Under the current system, the solvency margin ratio is calculated based on statutory accounting principles. While assets are valued based on market value, insurance liabilities are fixed for the life of a policy based on the basic rate of premium (guaranteed rate of return, expected mortality rate, etc.) at the time a policy is written (locked-in method). In calculating the solvency margin ratio, risks are calculated based on factor tables for each category of risk (risk factor method).

The Financial Services Agency is considering switching to solvency indicators based on economic value⁶, in the medium term. The agency has not yet decided a specific timeline or framework. Chart 62 summarizes the possible differences between the current system and the yet-to-be-determined economic value-based regulatory framework.

⁶ Economic value is synonymous with market-consistent value (market value).

Comparison of Solvency Regulatory Frameworks

Chart 62

	Current solvency regulations	Economic-value based solvency regulations
Insurance liability valuation	Locked-in method	No lock-in
	<ul style="list-style-type: none"> Insurance liabilities fixed for life of policy based on basic rate of premium (guaranteed rate of return, expected mortality rate, etc.) at time policy written 	<ul style="list-style-type: none"> Insurance liabilities revalued to factor in basic rate of premium on revaluation date
Risk valuation	Risk factor method	Based on standard or internal model
	<ul style="list-style-type: none"> Risks calculated based on factor tables for each category of risk 	<ul style="list-style-type: none"> Change in difference between economic value of assets and liabilities (net assets) recognized as value of risk. Based on economic value of liabilities, risks calculated to incorporate impact of interest rate/price fluctuations on liabilities and assets.

Note: Based on *Regarding Solvency Margin Ratio Calculation Standards*, released by the Financial Services Agency's study team on standards for calculating solvency margin ratio on 3 Apr 2007.

Source: Financial Services Agency, *Regarding Solvency Margin Ratio Calculation Standards* (3 Apr 2007); compiled by DIR.

Capital and solvency requirements based on economic value remain under discussion internationally. The International Association of Insurance Supervisors (IAIS) is preparing global capital requirements and the European Union is preparing Solvency II regulations. Capital requirements for insurers have so far been limited to particular countries and regions. Standardized international regulations such as the Basel rules regulating banking have not existed. Much of the discussion on valuing assets and liabilities based on economic value overlaps current discussions on insurance accounting under IFRS. Future discussions will likely concern how to implement risk management and business strategies based on economic value (market value) in terms of both internal controls and associated disclosure. These developments are likely to increase the importance of enterprise risk management (ERM)⁷.

Life insurers have already started preparing for the introduction of regulations and accounting standards requiring economic-value based valuation. Part of their response has been to step up ERM. Their moves to decrease stock holdings and to increase asset duration to eliminate the asset-liability duration gap appear to be part of these preparations. However, insurers will need to pay attention to reforms in Japan and abroad and peers' moves as they proceed because the regulations and accounting standards have not yet been finalized.

⁷ The Financial Services Agency defines ERM, in relation to insurance companies, as insurance companies' self-management of risks they face by comprehensively evaluating risks, including potentially serious risks, and comparing and contrasting those risks with their capital and other characteristics, and additionally controlling overall operating risks such as those involved in underwriting insurance and setting premium rates. Financial Services Agency, *Inspection Manual for Insurance Companies* (Aug 2013).

IV. Conclusion

The IAIS' 18 July 2013 report, *Global Systemically Important Insurers: Initial Assessment Methodology* noted the following about insurers' business models and risk exposure.

Business model: "The risk profile of an insurer becomes less risky the more risks are assumed, i.e. the larger it is and the more diversified its business is (the more lines of business it writes)."

Risk: "In general, insurance underwriting risks are not correlated with the economic business cycle and financial market risks and the magnitude of insurance events is not affected by financial market losses. The nature of insurance liabilities, and the fact that payments to policyholders generally require the occurrence of an insured event, makes it less likely for insurers engaged in traditional activities to suffer sudden cash runs that would drain liquidity. Insurers are, however, also exposed to risks faced by other financial institutions, including credit risk, operational risk, and market risk as well as interest rate and exchange rate risks."

In conclusion, the lack of a relationship between insurance underwriting risk and investment risk means corporate value should rise if insurers adopt a rational approach to generating core profit; that is, if they keep investment risk to an appropriate level and control expenses, while generating sufficient mortality & morbidity savings. Increases in life insurers' corporate value will likely hinge on whether they adapt to the changing investment environment by taking greater investment risks and increasing guaranteed rates of return.