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Current state of Japanese life insurance sector (1)

Risk-based approach to life insurance business in Japan

Part 1: Changing operating environment (surfacing risks)

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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 1 of this report, we look at changes in the operating environment for life insurers caused by the shrinking Japanese life insurance market and diversifying demand. We also outline the nature of diversification of life insurers' business models and changes affecting their investment activity.

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Introduction

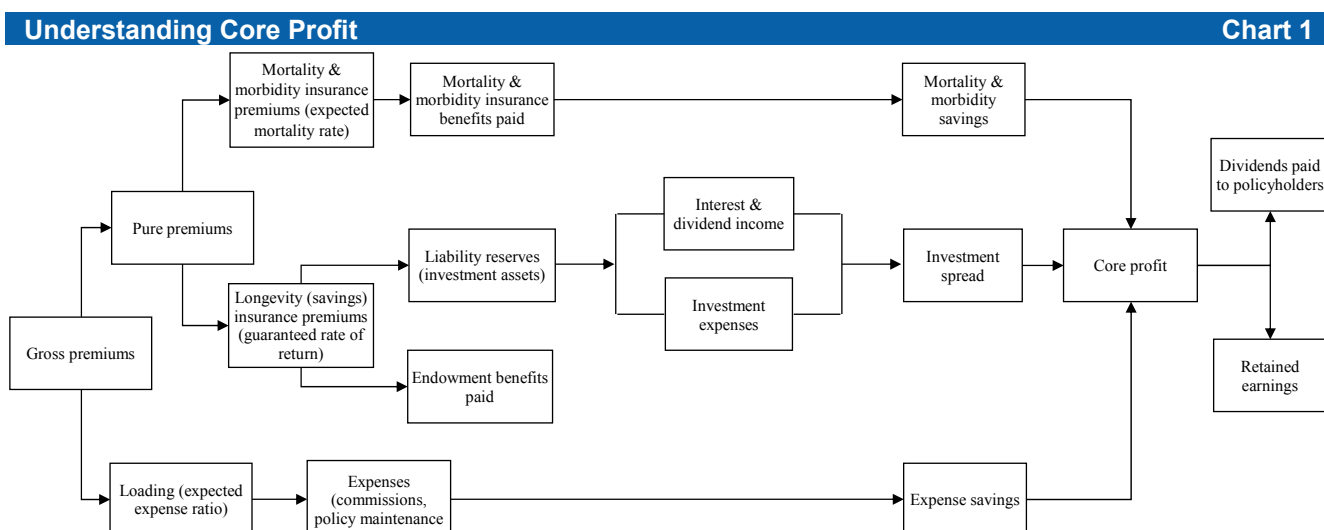
The regulatory authorities have long demanded life insurers communicate more transparently with stakeholders and enhance risk-based approaches regarding their business. The question is what do better risk-based approaches entail for life insurers? In light of recently imposed regulations, we think important risk-based approaches for life insurers are to strengthen risk management, maintain a sound financial basis, determine the risks that should be taken, and, by generating commensurate returns, increase profitability and raise corporate value.

Such efforts are difficult to discern from the outside as they are not revealed in disclosure materials. The difficulty stems largely from life insurers' business model, much of which cannot be fully grasped from disclosure materials alone. For life insurers, life insurance premiums equate to revenue. However, an "actual profit" figure is elusive as costs are not known until insurance benefits have been paid at the end of the life of a policy. Ordinary companies' costs are determined before their sales. However, life insurance companies with policies spanning decades need to wait a long time to determine profit based on income and expenses.

Many aspects of setting life insurance premium rates are also unclear. Insurers set aside liability reserves based on multiple estimates to account for the high level of uncertainty. The estimates, which essentially constitute a risk and can create deviations in actual profit, cannot be fully understood from disclosure materials provided to third parties such as policyholders and consumers.

However, disclosure materials do report claims and benefits paid, general expenses, and investment expenses. Subtracting these three items from premium income provides an estimate of core profit, which in turn provides a reasonable approximation of actual profit.

A life insurance premium comprises a pure premium and a loading (Chart 1).



Source: Kazuo Ueda, *A Change Toward Sustainable Insurance Companies*, Dobunkan Shuppan (Aug 2012); compiled by DIR.

Pure premiums cover insurance and other benefits payable in the event of death or illness covered by the policy. They are calculated based on projected mortality (morbidity) rates and a guaranteed rate of return on investments during the life of the policy. Loadings cover expenses. The timing of premium payments affects expenses, with single-premium payments (full amount paid upon policy purchase, not returned upon surrender) generating lower expenses than periodic payments (monthly, annual, etc.). This also affects the risk borne by insurance companies.

As shown in Chart 1, core profit is the total of the differences between expected mortality based on mortality rates and actual mortality (mortality & morbidity savings), the expected and actual rate of return (investment spread), and expected and actual expenses (expense savings). Core profit can therefore be characterized as the collective result of risks insurers take in the policies themselves, their business models, and their investment operations. As such, core profit is a useful indicator of life insurers' return on risk.

To maximize profitability, insurers need to take as rational an approach as possible in every process involved in managing operations, from setting premium rates to generating core profit, while also maintaining an appropriate buffer for the risks inherent in their estimates.

However, insurers are facing changes in the business environment as Japan's shrinking population and changing population mix are altering life insurance needs and driving structural changes in the life insurance market. A rise in new entrants, diversification of sales channels, and changes in the global regulatory environment are also affecting competition.

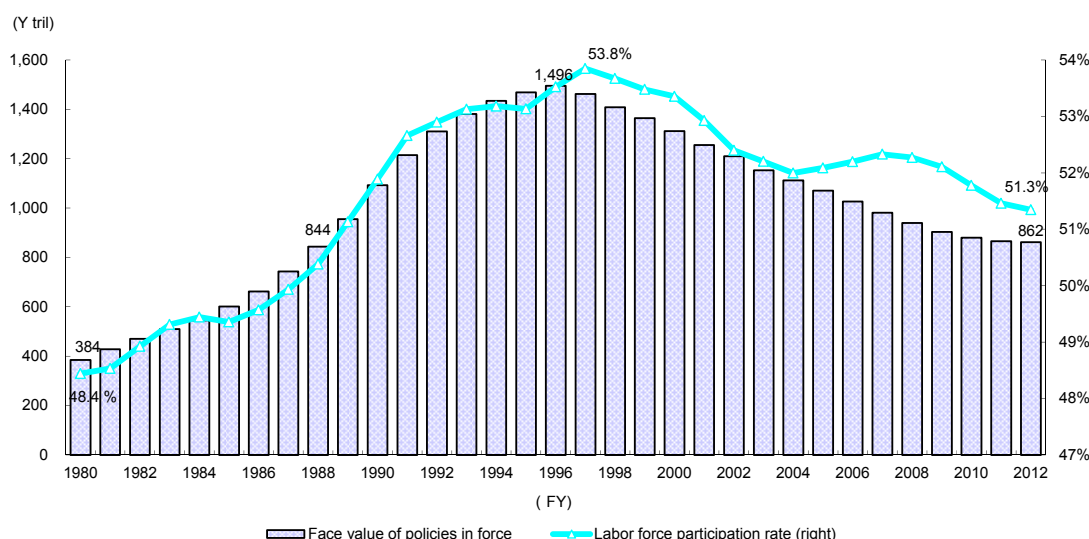
I. Changing operating environment (surfacing risks)

1. Changes in demand and insurance underwriting risk

(1) Contraction of market (based on policies in force) due to falling labor force participation rate

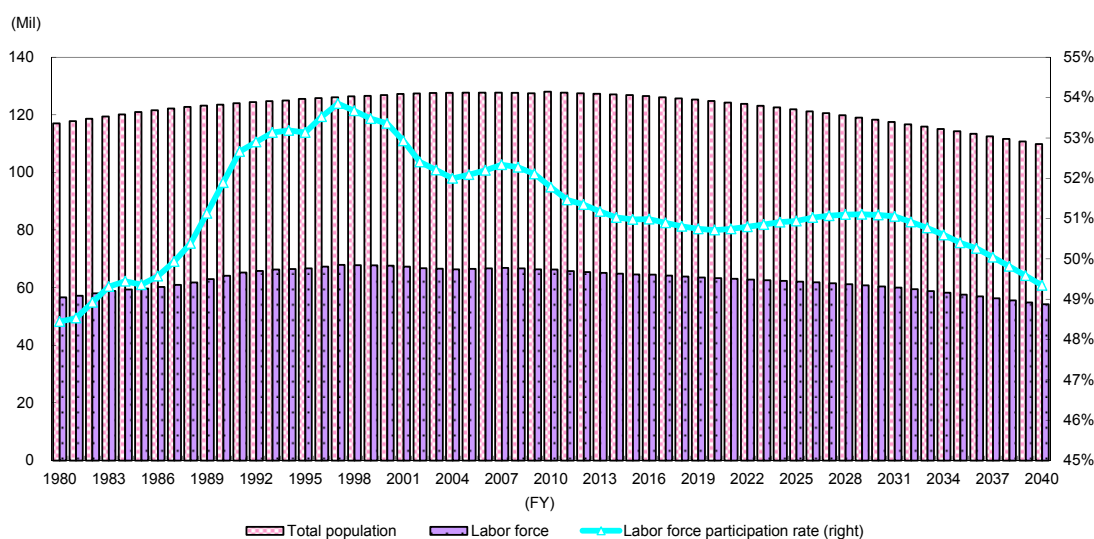
Over the long term, population changes are likely to reduce opportunities to assume insurance underwriting risk. The face value of life insurance policies in force is closely correlated with the labor force participation rate (to total population). Individual life insurance policies in force started declining after peaking out at Y1,496 trillion in 1996, mirroring the decline in the labor force participation rate, which peaked in 1997 (Chart 2). Hereon, the face value of policies in force is unlikely to significantly decline until around 2030 as the labor force participation rate is likely to remain stable at the current level until then (Chart 3). Thereafter, in-force business is likely to decline as the labor force participation rate resumes falling and heads below 50%.

Policies in Force and Labor Force Participation Rate Chart 2



Source: National Institute of Population and Social Security Research, Statistics Bureau (Japan), The Life Insurance Association of Japan; compiled by DIR.

Total Population and Labor Force: Past and Projected Chart 3



Note: Total population estimated from 2011 data. Labor force estimated from 2013 data.

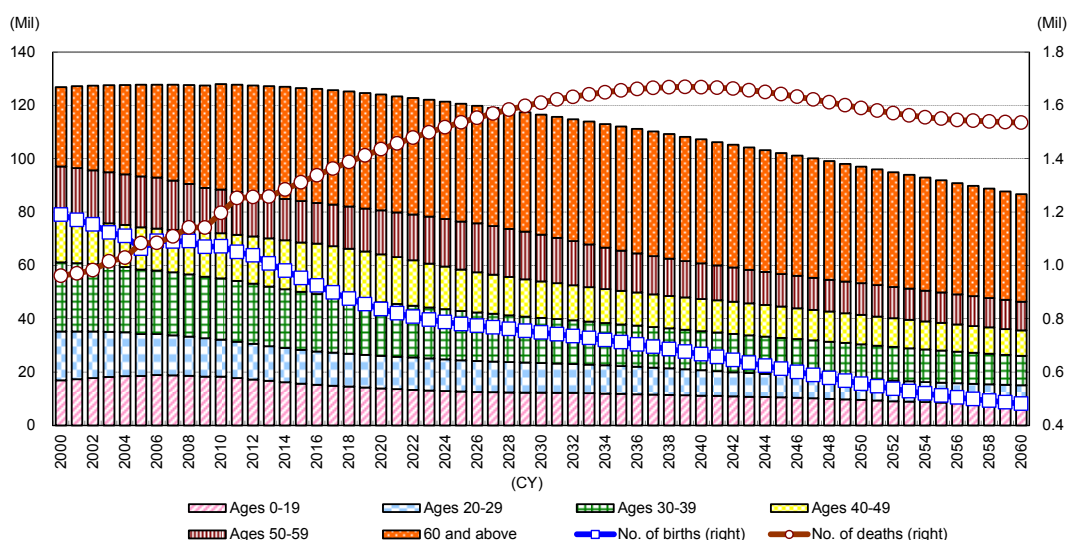
Source: Institute of Population and Social Security Research, Statistics Bureau (Japan); compiled by DIR.

(2) Diversifying individual life insurance needs (adapting to new insurance underwriting risk)

In our recent discussions with major life insurance companies, officials noted that while in-force business is declining, the market is not contracting because demand is diversifying. Diversification of demand would normally be understood to refer to that caused by consumers who have an understanding of mortality, longevity, and other risks covered by life insurance actively selecting life insurance products matching their own risks. However, officials noted that the number of consumers actively selecting their own insurance products has not risen significantly.

So how is diversification increasing the size of the market? First, while the total population has contracted, the proportion of people 60 years or older has increased. The population started contracting in 2005, when the number of deaths overtook the number of births. Since then, the proportion of people aged 60 or over has climbed (Chart 4). This age group is also possibly more mindful of longevity risk than mortality risk. These trends could lead to an increase in the number of life insurance products aimed at the elderly. Additionally, the relatively high premium rates of single-premium whole-life insurance and other products aimed at the elderly could boost premium income.

Population Mix, No. of Births, No. of Deaths: Past and Projected **Chart 4**



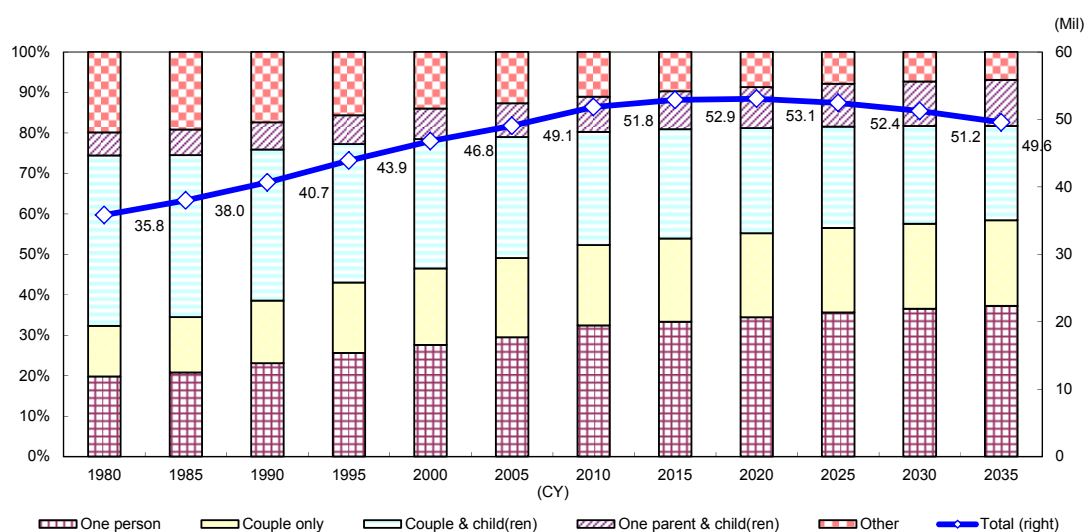
Source: Statistics Bureau (Japan), *Population Estimates*, Ministry of Health, Labour and Welfare, *Vital Statistics (Final)*, National Institute of Population and Social Security Research, *Population Projections for Japan (Jan 2012)*; compiled by DIR.

Second, the number of households has increased even while the population has declined. The rise has been driven mainly by growth in the number of single-occupant and nuclear family households (Chart 5). However, the number of households is likely to peak at 53.1 million in 2020 and then enter a downtrend. Growth in the number of households is therefore not likely to contribute to growth in the insurance market for long.

Third, the number of female policyholders has increased. The number of new female policyholders overtook the number of new male policyholders in 2010 (Chart 6), likely because of diversification of households and changes in society, including a rise in the number of single-mother households, a tendency for later marriage, and a rise in the number of working women (changes also associated with the rise in the number of households).

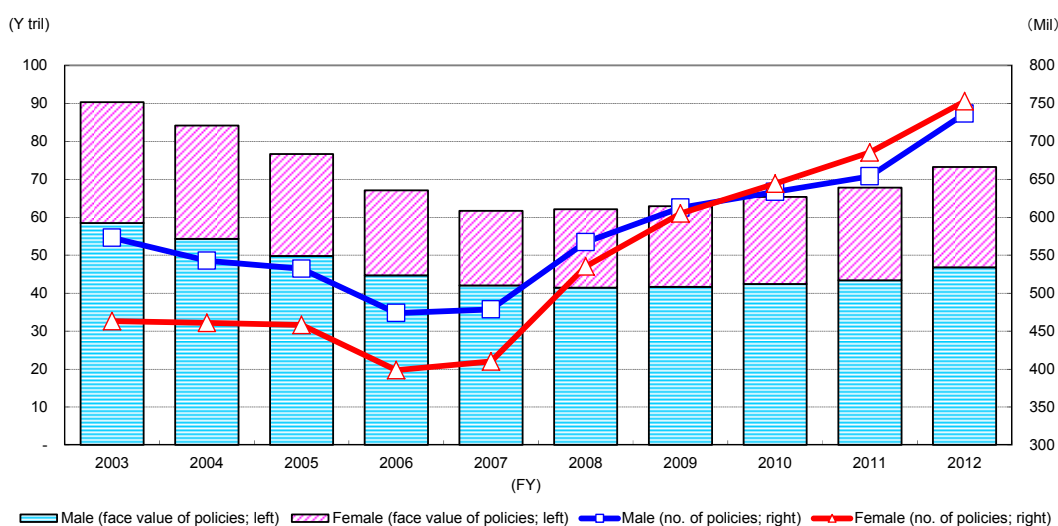
Thus, diversifying demand seems to equate to (1) a broadening in the scope of potential demand driven by changes in the population mix and society and (2) an uncovering of latent demand through a rise in the number of households.

Breakdown of Private Households: Past and Projected **Chart 5**



Source: National Institute of Population and Social Security Research, *Household Projections for Japan (Jan 2013)*; compiled by DIR.

New Policies, by Sex **Chart 6**

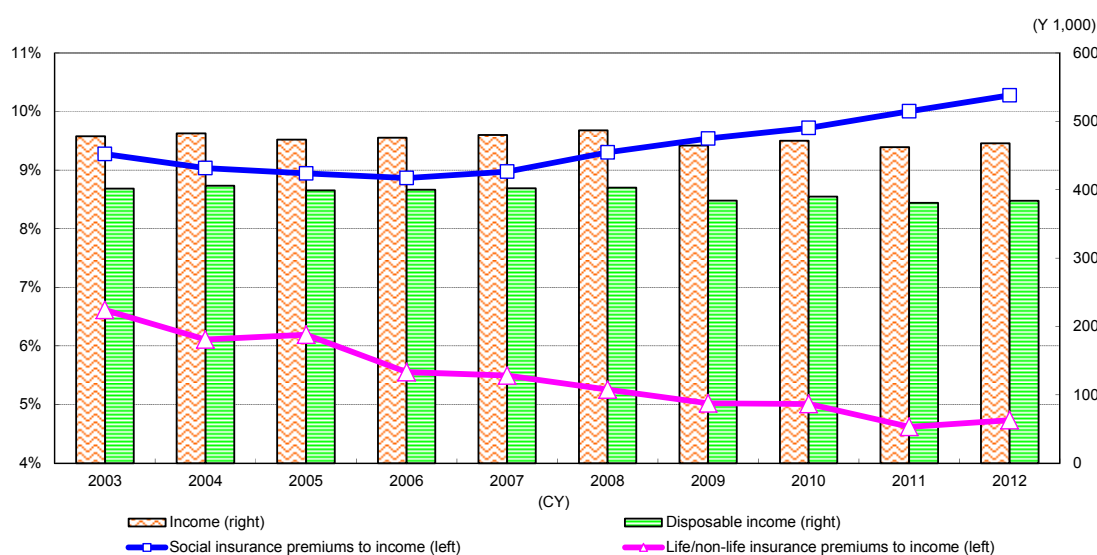


Source: The Life Insurance Association of Japan, *Summary of Life Insurance Business*; compiled by DIR.

(3) Decline in premium payments due to falling incomes

In addition to the relationship between the number of households and life insurance policies written, we look at the impact of household incomes on prices, that is the premiums policyholders pay to insurers. As shown in Chart 7, consumers are spending an increasingly smaller proportion of their income on insurance premiums (incl. non-life insurance), according to the Ministry of Internal Affairs and Communications' *Family Income and Expenditure Survey*. The rate fell relatively sharply in 2006, likely mainly because of 2005 revelations of insurers' non-payment or late payment of insurance claims. The global financial crisis triggered by the Lehman Brothers collapse in 2008 further contributed to the downtrend. Consumers are also spending a rising proportion of their income on social insurance premiums. If the aging of society due to a decline in the birth rate were to continue, structural problems would likely significantly drive up the burden of social insurance premiums. We think this would have a major impact on insurance premiums, adding ongoing pricing pressure to the volume pressures on life insurance policies described earlier.

Social Insurance Premiums and Life/Non-life Insurance Premiums as Proportion of Average Monthly Income per Household Chart 7



Notes: 1) Based on households with workers.

2) Income is total of cash income of all members of all households. Disposable income is income less non-consumption spending such as tax, social insurance premiums. Insurance premiums include individual and corporate pension premiums.

Source: Ministry of Internal Affairs and Communications' *Family Income and Expenditure Survey*; compiled by DIR.

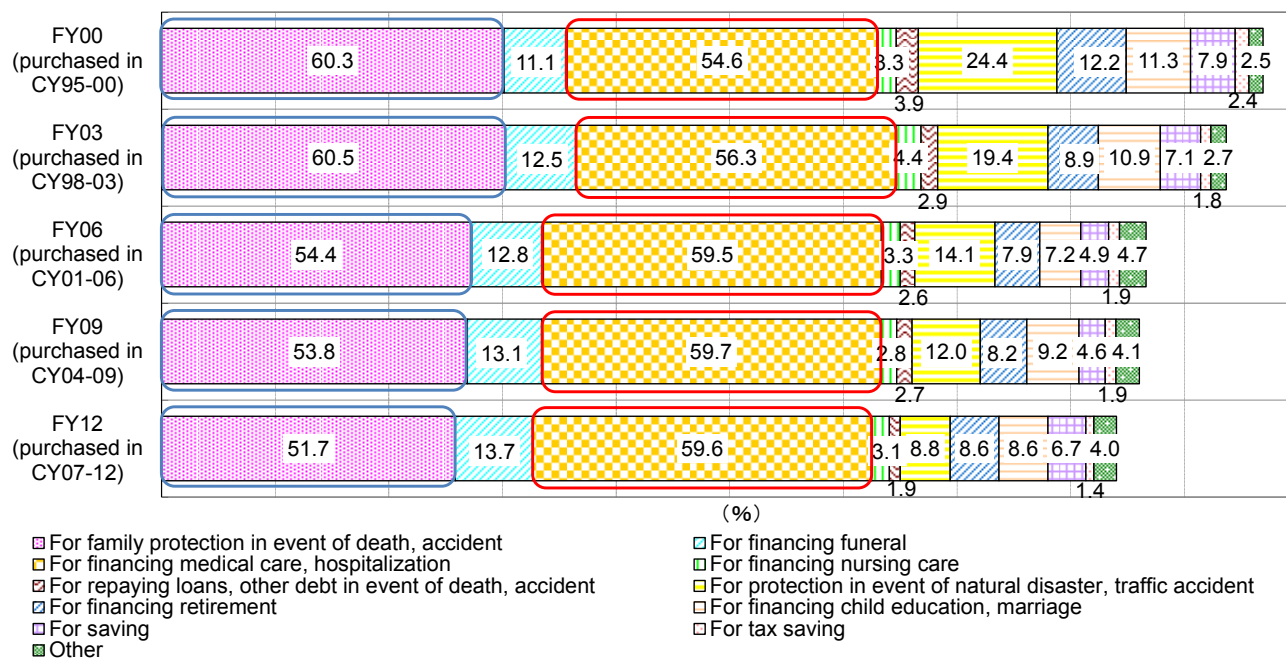
(4) Growing opportunities in longevity risk, particularly medical insurance (change in insurance underwriting risk)

The rising proportion of people aged 60 or over is likely driving a shift in demand from death benefits to living benefits. Reforms instituted to counter rising public health costs increased the burden imposed on patients.

The Japan Institute of Life Insurance's *National Survey on Life Insurance*, conducted roughly every three years, includes questions as to the reason for taking out life insurance (Chart 8). In the FY00 survey, over 60% of policyholders identified death benefits—insurance to provide for the family in the event of death—as the purpose. In the FY06 survey, the percentage of policyholders answering coverage of medical/hospital fees outpaced that of those who said death benefits. The gap widened in subsequent surveys. This trend was driven by an increase in the share of medical expenses imposed on patients amid worsening medical insurance finances. In 2002, amendments to the Health Insurance Act and other reforms raised the copayment for patients with employee insurance to 30% and revised the fixed copayment system for the elderly.

In FY12, the proportion of policy purchases for saving purposes (6.7%) and that for supporting the beneficiary in old age (8.6%) were down slightly from a decade earlier, but still not negligible. However, lower guaranteed rates of return and higher insurance premiums have likely reduced the incentive for consumers to buy insurance products for saving or investment purposes. Hereon, expectations of rising interest rates will further heighten the need for insurers to develop strategies to retain policyholders seeking to save. For example, several life insurers have developed products that will offer increased benefits if market interest rates have risen when guaranteed rates of return are reviewed after 10–20 years. Sales of such policies could gain traction. Many factors are uncertain regarding demand for policies for savings purposes. Consumers' options are growing as other financial institutions have also started selling products responsive to rising interest rates.

Survey of Reasons for Policy Purchase Chart 8



Note: Private households with at least two occupants. Total not equal to 100% as respondents able to select multiple responses.
 Source: Japan Institute of Life Insurance, *National Survey on Life Insurance*; compiled by DIR.

2. Broader range of accessible sales channels

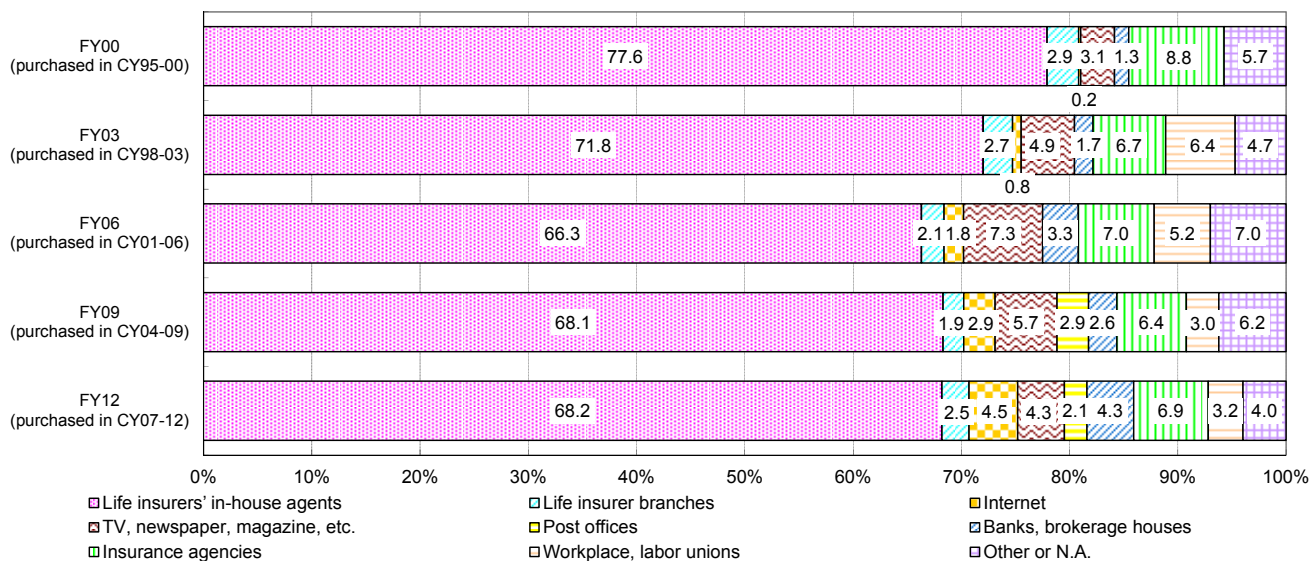
The *National Survey on Life Insurance* also covered sales channels (Chart 9). Between the mid-1990s and 2000, consumers purchased nearly 80% of life insurance products from life insurers’ in-house agents. Surveys undertaken from FY06 onward revealed sales channels had diversified, with fewer than 70% of policies sold by in-house agents. Some sales channels grew sharply along with growth in specific products and then declined. One example is TV, newspapers, and magazines. The complete deregulation of private medical insurance in 2001 sparked a sharp rise in sales through TV, newspapers, and magazines, from 3.1% in FY00 to 7.3% in FY06. In the latest survey (FY12), this channel accounted for only 4.3% of sales, below the FY03 level.

Some sales channels are steadily growing. The proportion of policies sold through banks and brokerage houses (fully deregulated in Dec 2007) rose from 1.3% in FY00 to 4.3% in FY12. The proportion of online sales soared from 0.2% in FY00 to 4.5% in FY12, buoyed by rising overall Internet use as PCs and smartphones permeated, even among older age groups. The emergence in recent years of a new business model of online-only insurers is likely based on expectations of growth in online sales.

The proportion of policies bought from insurance agencies, though down from 8.8% in FY00 to 6.9% in the latest survey, is holding steady at 6–7%. Sales at insurers’ branches are also steady at around 2.5%.

Despite the diversification, almost 70% of sales are still through in-house agents. The nature of life insurance makes agents a highly appropriate sales channel.

Insurance Policy Sales Channels **Chart 9**



Source: Japan Institute of Life Insurance, *National Survey on Life Insurance*; compiled by DIR.

3. Changes in investment environment (risk management)

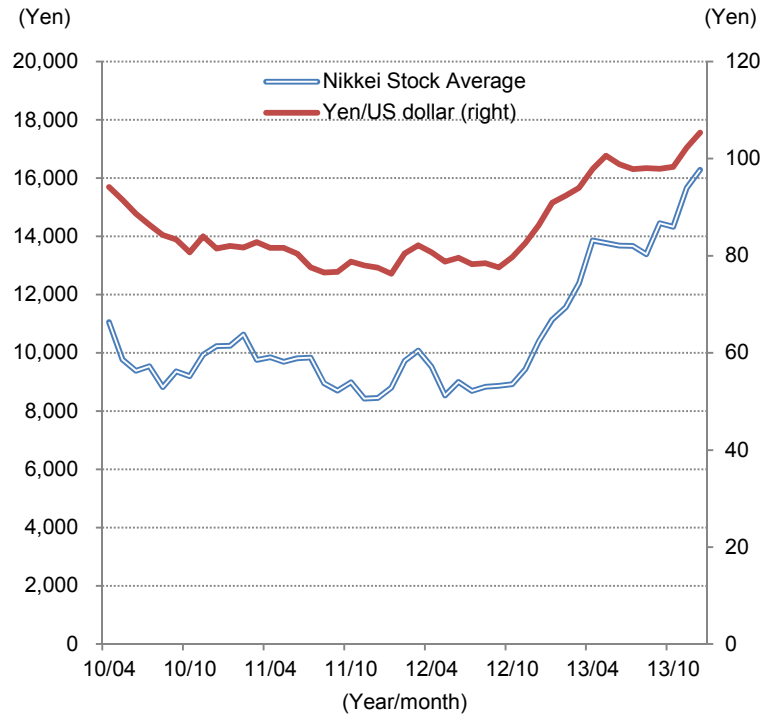
Signs of changes in investment conditions have also emerged. The full implementation of the Abe government’s three-pronged economic strategy of monetary easing, stimulus spending, and growth policies (Abenomics) has started impacting the investment environment.

The Bank of Japan’s unprecedented monetary easing boosted share prices by causing depreciation of the yen (Chart 10). The government provided a fiscal stimulus and, as part of growth strategy, the cabinet formulated a revitalization strategy for Japan in June 2013. Abenomics has raised expectations of an end to deflation and rising interest rates (Chart 11).

Major life insurance companies have scaled down their exposure to risk assets such as stocks as the financial crisis has increased their risk aversion and regulators have tightened solvency requirements. Life insurers are lengthening their assets portfolio duration to eliminate the asset-liability duration gap in preparation for the proposed introduction of capital and solvency regulations and accounting standards based on economic value (market value). Risk management, which life insurers have pursued even under conditions to date, will likely become critical as Japan’s expected emergence from long-term deflation alters the investment environment.

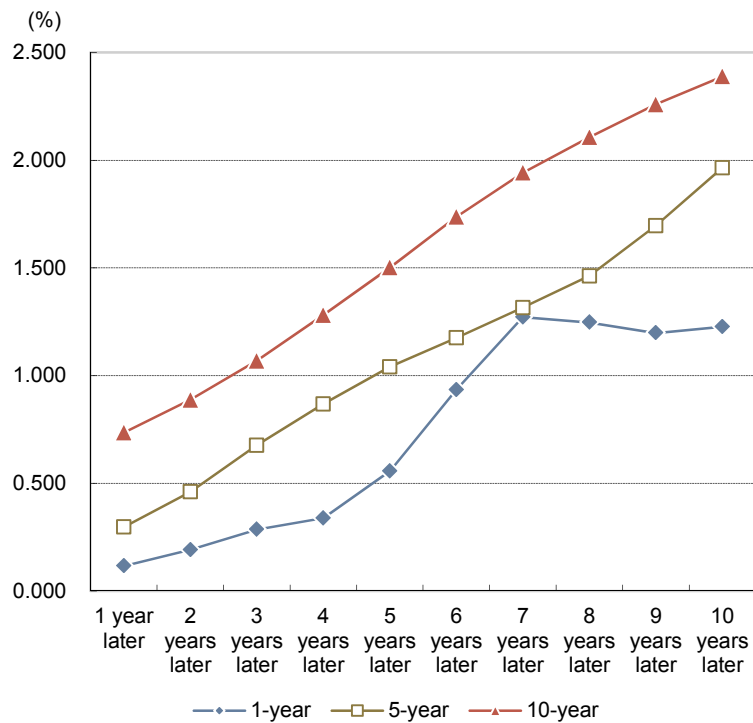
Life insurers are very likely to face the challenge of choosing optimum investment risks and setting appealing guaranteed rates of return in response to the changing investment environment, while taking into account liabilities (insurance policies). Life insurers’ investment activities are discussed in more detail in *Part 3.III.3. Investment strategies (returns)*.

Share Prices and Exchange Rates **Chart 10**



Source: Nikkei, Bank of Japan; compiled by DIR.

Forecast Interest Rates Based on Forward Rates (as of Oct 2013) **Chart 11**



Source: Bloomberg, compiled by DIR.