May 20, 2013

NKSJ Himawari Life Insurance, Inc.

Disclosure of Market Consistent Embedded Value as at March 31, 2013

NKSJ Himawari Life Insurance, Inc. ("NKSJ Himawari Life", President: Atsushi Kumanomido) herein reports its market consistent embedded value ("MCEV") with respect to its life insurance business, prepared and disclosed in compliance with the European Insurance CFO Forum Market Consistent Embedded Value Principles©[1] ("MCEV Principles") as at March 31, 2013.

Highlights

1. Change of reference rates for risk free rates

Reference rates for risk free rates have been changed from swap rates to Japanese Government Bond (JGB) yields beginning with the disclosure as at March 31, 2013. This change increased MCEV as at March 31, 2012 by 4.0 billion Yen.

(in Billions of Yen)

	JGB yields	Swap rates	Change
MCEV	619.4	615.3	4.0
Adjusted net worth	137.1	137.1	-
Value of in-force	482.3	478.2	4.0
New business value	53.1	52.8	0.3

2. MCEV as at March 31, 2013

The MCEV of NKSJ Himawari Life as at March 31, 2013 is 674.8 billion Yen, up by 55.4 billion Yen compared with its level at March 31, 2012.

(in Billions of Yen)

	As at March 31, 2013	As at March 31, 2012	Change
MCEV	674.8	619.4	55.4
Adjusted net worth	208.6	137.1	71.4
Value of in-force	466.3	482.3	(16.0)
New business value	47.1	53.1	(6.0)

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1. Introduction

1.1. About MCEV

Embedded values have been widely used in Europe and Canada as a measure of the value and performance of life insurance companies. Embedded values serve to supplement the financial information available from statutory accounting statements; they are particularly useful due to the nature of the life insurance business, where there is generally a time lag from the acquisition of new policies to the realization of profits arising from those policies.

MCEV represents a present value of current and future distributable earnings to shareholders generated from assets allocated to the covered business after allowance for the aggregate risks in the covered business. MCEV can be expressed as the EV evaluated using methods consistent with the market valuation of financial products traded in the financial markets and consists of the "corporate net asset value" and the "present value of future profits from existing business".

Insurance companies have widely disclosed EV in compliance with the EEV Principles since the CFO Forum formed by the Chief Financial Officers (CFO) of major insurance companies in Europe issued the EEV Principles in May 2004. The CFO Forum released the MCEV Principles in June 2008, defining market consistent valuation methods to further enhance the consistency of valuation standards. MCEV Principles have been positioned by the CFO Forum as one of the important standards and forms to be based in reporting embedded values.

NKSJ Himawari Life has been disclosing its EV in compliance with the MCEV Principles beginning at the end of March 2010 in order to facilitate understanding of the status of NKSJ Himawari Life, as EV disclosure in compliance with the EEV Principles or the MCEV Principles has been promoted in Japan.

1.2. Covered business

The business covered in this report is the life insurance business written by NKSJ Himawari Life. Any calculation results in this report do not reflect life insurance business or non-life insurance business written by other life and non-life insurance companies in the NKSJ Group.

1.3. Statement of directors

The Board of Directors of NKSJ Himawari Life states that the MCEV results presented here were prepared in compliance with the MCEV Principles except for points of special notice. Please refer to "1.5. Compliance with MCEV Principles" for areas of non-compliance with the individual Principles and Guidelines defined in the MCEV Principles.

1.4. Opinion of outside specialist

NKSJ Himawari Life requested Milliman, Inc., an external actuarial consulting firm with expert knowledge in the area of MCEV valuations, to review the methodology, assumptions and calculations and obtained an opinion from Milliman, Inc. Please refer to “5. Opinion of Outside Specialist” for details.

1.5. Compliance with MCEV Principles

We have calculated our MCEV in accordance with the calculation methodologies and assumptions prescribed in the MCEV Principles. Areas of non-compliance with individual Principles and Guidance in the MCEV Principles are as follows:

- MCEV results were derived by using Japanese Government Bond (JGB) yields as reference rates for risk free rates rather than swap rates as stipulated in the MCEV Principles.
- MCEV results in this report are solely for the life insurance business written by NKSJ Himawari Life, and they are not the consolidated results of the NKSJ Group. The MCEV results do not reflect the life or casualty insurance business written by any other life or casualty insurance companies within the NKSJ Group.
- Group MCEV, as prescribed in the MCEV Principles, is not considered in this report, as the report is for NKSJ Himawari Life on a standalone basis.
- Adjusted net worth is based on Japanese GAAP, not on International Financial Reporting Standards (IFRS).

1.6. Use of JGB yields as reference rates for risk free rates

MCEV Principles stipulate that swap rates should be reference rates as a proxy for risk free rates, but a more appropriate alternative such as government bond yields can be used if swap rates availability is limited.
We considered preferred attributes of reference rates discussed for European Solvency II (no credit risk, reliability, liquidity, and others) and concluded that it is more appropriate to use JGB yields.

2. MCEV Results

2.1. MCEV results

The MCEV of NKSJ Himawari Life as at March 31, 2013, is 674.8 billion Yen, up by 55.4 billion Yen compared with its level at March 31, 2012.

(in Billions of Yen)

	As at March 31, 2013	As at March 31, 2012	Change
MCEV	674.8	619.4	55.4
Adjusted net worth	208.6	137.1	71.4
Value of in-force	466.3	482.3	(16.0)
New business value	47.1	53.1	(6.0)

2.2. Adjusted net worth

The adjusted net worth is defined as the market value of assets allocated to the covered business in excess of statutory policy reserves and other liabilities as at the valuation date. More specifically, the adjusted net worth is the net assets on the statutory balance sheet plus the price fluctuation reserve, contingency reserves, general provision for loan losses, unallocated amount within policyholder dividend reserves, unrealized gains or losses on held-to-maturity bonds and unrealized gains or losses on derivatives minus intangible fixed assets and tax adjustments on these seven items. Its breakdown is shown below.

The required capital is set to the amount to maintain a statutory solvency margin ratio of 600%, which exceeds the minimum statutory requirement of 200%. Please refer to section 4.4 for the method of calculation of required capital.

(in Billions of Yen)

	March 31, 2013	March 31, 2012	Change
Adjusted net worth	208.6	137.1	71.4
Total net assets	94.9	75.8	19.1
Reserve for price fluctuations	2.2	1.9	0.3
Contingency reserves	24.4	22.7	1.7
General allowance for possible credit losses	0.0	0.0	0.0
Unallocated amount within policyholder dividend reserves	0.3	0.2	0.1
Unrealized gains or losses on held-to-maturity securities	139.3	67.0	72.3
Unrealized gains or losses on derivatives	-	-	-
Intangible fixed assets	(2.1)	(3.1)	1.0
Tax effect related to above seven items	(50.6)	(27.3)	(23.3)

(in Billions of Yen)

	March 31, 2013	March 31, 2012	Change
Adjusted net worth	208.6	137.1	71.4
Free surplus	163.5	95.9	67.6
Required capital	45.0	41.3	3.8

2.3. Value of in-force

The value of in-force reflects the value of distributable earnings to shareholders generated in the future from the existing business, expressed as a present value as at the valuation date (March 31, 2013), which is the certainty equivalent present value of future profits net of the time value of options and guarantees, the frictional costs and the cost of non-hedgeable risks, broken down as below. Please refer to “4. Calculation method of MCEV” for details of each component.

(in Billions of Yen)

	March 31, 2013	March 31, 2012	Change
Value of in-force	466.3	482.3	(16.0)
Certainty equivalent present value of future profits	664.2	621.7	42.4
Time value of options and guarantees	(10.9)	(11.2)	0.3
Frictional costs	(4.7)	(4.5)	(0.2)
Cost of non-hedgeable risks	(182.3)	(123.7)	(58.6)

2.4. New business value

New business value shows the value of policies acquired during the Japanese fiscal year starting April 1, 2012 and ending March 31, 2013 (referred to as "the fiscal year" hereinafter), which is consistent with the financial information we have disclosed. Policies expected to be acquired in the future are not included in the calculation of new business value. The new business value is evaluated as at the valuation date (March 31, 2013) and is calculated under the same assumptions used for the value of in-force. Actual investment income during the fiscal year is reflected, as the value of new business includes profits and losses from issue to the end of March 2013. A breakdown of the new business value is shown below.

(in Billions of Yen)

	March 31, 2013	March 31, 2012[2]	Change
Value of new business	47.1	53.1	(6.0)
Certainty equivalent present value of future profits	76.3	73.2	3.1
Time value of options and guarantees	(0.4)	(1.1)	0.7
Frictional costs	(0.4)	(0.3)	(0.1)
Cost of non-hedgeable risks	(28.4)	(18.7)	(9.7)

2.5. New business margin

The new business margin presented below is the ratio of the new business value to the present value of new business premium income[3].

[2] It includes the new business acquired by Nippon Koa Life during the fiscal year 2011 before the merger.
[3] The present value of new business premium income is calculated applying the same assumptions as are used for the calculation of

(in Billions of Yen)

	March 31, 2013	March 31, 2012	Change
Value of new business	47.1	53.1	(6.0)
Present value of new business premiums collected	501.7	453.6	48.0
Value of new business / Present value of new business premiums collected	9.4%	11.7%	(2.3%)

The major source of the decrease in new business margin is the interest rate level at March 2013, which declined significantly from the level at March 2012, and the impact of changing the calculation methodology of the cost of non-hedgeable risks as explained in 4.10.

Relationships between the total annualized amount of regular premiums and the present value of new business premiums collected for the fiscal year are as follows:

(in Billions of Yen)

	March 31, 2013	March 31, 2012	Change
Single premiums from new business	5.3	14.3	(9.0)
Total annualized amount of regular premiums[4]	45.9	45.8	0.2
Average annual premium multiplier[5]	10.8	9.6	1.2

new business value, and is based on the premiums before the deduction of reinsurance premiums.

[4] The total annualized amount of regular premiums is calculated as the number of premium payments made in a year multiplied by the premium amount per payment. It should be noted that the definition of annualized premiums here is different from that used in disclosures such as the financial results and annual reports.

[5] The average annual premium multiplier is calculated as (Present value of new business premium income – Single premiums from new business) / Annualized level premiums from new business.

2.6. Reconciliation analysis of MCEV from the end of March 2012 to the end of March 2013

The table below shows the reconciliation analysis of the MCEV as at March 31, 2013, with the MCEV as at March 31, 2012, in the format prescribed by the MCEV Principles.

(in Billions of Yen)

	Free surplus	Required capital	Value of in-force	MCEV
Opening MCEV (MCEV as at March 31, 2012)	95.9	41.3	478.2	615.3
Change of reference rates	-	-	4.0	4.0
Opening MCEV based on JGB yields	95.9	41.3	482.3	619.4

(in Billions of Yen)

	Free surplus	Required capital	Value of in-force	MCEV
Opening MCEV based on JGB yields (MCEV as at March 31, 2012)	95.9	41.3	482.3	619.4
Opening adjustments	-	-	-	-
Adjusted opening MCEV	95.9	41.3	482.3	619.4
New business value	(3.6)	3.6	47.1	47.1
Expected existing business contribution (risk free rate)	0.1	0.0	13.3	13.4
Expected existing business contribution (in excess of risk free rate)	1.6	0.7	18.2	20.4
Transfers from value of in-force and required capital to free surplus	5.0	(1.7)	(3.3)	-
On in-force at the beginning of the year	32.7	(1.7)	(31.0)	-
On new business	(27.8)	-	27.8	-
Experience variances	(0.7)	0.9	(5.2)	(5.0)
Assumption changes	(0.3)	0.3	31.9	31.9
Other operating variance	(0.0)	0.0	(19.8)	(19.8)
Operating MCEV earnings	2.1	3.8	82.2	88.1
Economic variances	65.5	(0.0)	(93.5)	(28.0)
Other non operating variance	-	-	(4.7)	(4.7)
Total MCEV earnings	67.6	3.8	(16.0)	55.4
Closing MCEV (MCEV as at March 31, 2013)	163.5	45.0	466.3	674.8

(1) Change of reference rates

This represents the impact of changing reference rates for risk free rates from swap rates to JGB yields.

(2) Opening adjustments

This reflects such items as capital and dividend flows and foreign exchange variances of acquired/divested business.

(3) New business value

This reflects the value of new business acquired during the fiscal year as at the valuation date (March 31, 2013). With regards to the calculation method of new business value, please refer to section 2.4.

(4) Expected existing business contribution (risk free rate)

This includes the amount of release of the time value of options and guarantees and allowance for non-hedgeable risks, in addition to the impact of the unwinding of the discount effect in accordance with the elapse of time, as the expected future distributable earnings to shareholders are discounted at the risk free rate.

(5) Expected existing business contribution (in excess of risk free rate)

Future asset investment income is calculated using a risk free rate, as the value of in-force is calculated based on a market consistent valuation method. This item reflects the profits expected in excess of the risk free rate generated by holding ultra-long term government bonds and risky assets such as corporate bonds and foreign securities. The expected yield used to calculate the expected profit in excess of the risk free rate for the fiscal year was 1.74%, which was calculated by reflecting primarily expected interest income based on our annual asset investment plans for the fiscal year where the majority of general account assets are fixed income instruments.

(6) Transfers from value of in-force and required capital to free surplus

This reflects changes in the free surplus arising from the transfer of the profits expected in the fiscal year from the existing business value to the free surplus and from changes in the required capital under the adjusted net worth. The transfer of profits, the first item, includes the transfer of expected profits assumed to be realized during the fiscal year under the MCEV calculation as at March 31, 2012, and the transfer of profits for the fiscal year calculated under the new business value for the fiscal year. The value of MCEV itself does not change as a result of this transfer as the transfer merely constitutes a shift among MCEV components.

(7) Experience variances

These variances reflect the impact on MCEV of the differences between actual and expected profits transferred to the adjusted net worth during the fiscal year, and of the differences between the actual policies in force and the policies expected to be in force as at March 31, 2013 which are projected from the policies in force as at March 31, 2012 and the new business acquired during the fiscal year.

(8) Assumption changes

This shows the impact of changes in the non-financial assumptions, mainly mortality and morbidity rates, surrender and lapse rates and operating expense rates. The positive impact on MCEV is explained mainly by changes in surrender & lapse rates and operating expense rates assumptions.

(9) Other operating variance

This reflects the impact of model improvements and updates in calculating MCEV. The major source of decrease in MCEV is the impact of changing the calculation methodology of the cost of non-hedgeable risks as explained in 4.10.

(10) Operating MCEV earnings

This reflects the aggregate amount of items (3) through to (9).

(11) Economic variances

This reflects the impact of changes in economic assumptions, such as risk free rates and implied volatilities, to those as at the end of March 2013 and the impact of the difference between actual and expected investment income for the fiscal year including that in excess of the risk free rate.

Most of the decrease in value of in-force (91.8 billion yen out of 93.5 billion yen) was due to declining JGB yields. Most of the increase in free surplus (64.8 billion yen out of 65.5 billion yen) was due to an increase in unrealized gains primarily on JPY denominated bonds which was also a result of the JGB yields decline.

(12) Other non operating variance

It shows the difference due to consumption tax rate increase described in 3.2.(6).

2.7. Sensitivity analysis

The impacts of changing various assumptions underlying the MCEV calculation are as follows.

Sensitivity analysis

(in Billions of Yen)

Assumption	Change in Assumption	MCEV	Change in Amount	Rate of Change
Base case	No change	674.8	-	-
Reference rates change	Swap rate	722.7	47.9	7%
Interest rates level	100bp decrease	607.6	(67.2)	(10%)
	100bp increase	676.2	1.4	0%
Stock / Real estate market values	10% decrease	674.5	(0.3)	(0%)
Stock / Real estate implied volatility	25% increase	674.8	-	-
Interest swaption implied volatility	25% increase	672.1	(2.7)	(0%)
Maintenance expenses	10% decrease	693.3	18.5	3%
Surrender and lapse rates	x 0.9	703.9	29.1	4%
Mortality rates	Death protection products x 0.95	687.7	12.9	2%
	Third-segment (A&H) products and annuity products x 0.95	674.1	(0.8)	(0%)
Morbidity rates	x 0.95	690.0	15.2	2%
Required capital	Target statutory solvency margin ratio of 200%	678.2	3.4	0%

The change in adjusted net worth under the sensitivities to interest rates level and market values of stock and real estate are shown in the table below. For the other sensitivities only the value of in-force has changed.

(in Billions of Yen)

Interest rates level	100bp decrease	174.4
	100bp increase	(166.2)
Stock / Real estate market value	10% decrease	(0.3)

Sensitivity analysis of new business value

(in Billions of Yen)

Assumption	Change in Assumption	New Business Value	Change in Amount	Rate of Change
Base case	No change	47.1	-	-
Reference rates change	Swap rate	53.7	6.6	14%
Interest rates level	100bp decrease	22.3	(24.8)	(53%)
	100bp increase	58.1	11.1	23%
Stock / Real estate market values	10% decrease	47.1	-	-
Stock / Real estate implied volatility	25% increase	47.1	-	-
Interest swaption implied volatility	25% increase	47.0	(0.1)	(0%)
Maintenance expenses	10% decrease	49.8	2.7	6%
Surrender and lapse rates	x 0.9	51.7	4.6	10%
Mortality rates	Death protection products x 0.95	48.7	1.6	3%
	Third segment (A&H) products and annuity products x 0.95	47.1	(0.0)	(0%)
Morbidity rates	x 0.95	48.9	1.8	4%
Required capital	Target statutory solvency margin ratio of 200%	47.3	0.3	1%

(1) Reference rates change

This analysis shows the impact of changing reference rates for risk free rates as at March 31, 2013 from JGB yields to swap rates. The value of in-force changes as the discount rate and the future asset investment yields change. This sensitivity results include the impact on the frictional cost and the cost of non-hedgeable risks. In generating stochastic economic scenarios the volatility parameters of the interest rate model are the same as for the base case parameters. Only the term structure parameters are changed.

(2) Interest rates level

This analysis shows the impact of an immediate parallel shift up or down in all durations by 100bp of reference rates for risk free rates (JGB yields) as at March 31, 2013 as well as the impact if the swap rates were used instead of JGB yields. The adjusted net worth changes due to the change in market values of bonds and other

assets. The value of in-force also changes as the discount rate and the future asset investment yields change. In generating stochastic economic scenarios the volatility parameters of the interest rate model are the same as for the base case parameters. Only the term structure parameters are changed. Interest rates are floored at 0%.

(3) Stock and real estate market value

This analysis shows the impact of an immediate 10% drop in market values of stock and real estate as at March 31, 2013. The adjusted net worth decreases as the market values of stock and real estate decrease.

(4) Implied volatility of stock and real estate

This analysis shows the impact of changes in the implied volatilities of stock and real estate used in calculating the time value of options and guarantees. The impact is set to zero because there are no assets, such as derivatives, which would be sensitive to the implied volatilities of stock and real estate.

(5) Interest swaption implied volatility

This analysis shows the impact of an increase in the implied volatility of interest swaptions used in calculating the time value of options and guarantees. We have only calculated the impact on the time value of options and guarantees, as there are no assets sensitive to the implied volatilities of interest swaptions.

(6) Maintenance expenses

This analysis shows the amount of increase in the value of in-force due to a 10% decrease in maintenance expenses. It should be noted that maintenance expenses subject to this sensitivity do not include agents' commissions payable to the in-force policies in future periods.

(7) Surrender and lapse rates

This analysis shows the amount of change in the value of in-force due to a 10% decrease in surrender and lapse rates. The existing business value increases as future profits would increase through an increase in the persistency rate of the existing policies.

(8) Mortality rates

This analysis shows the amount of change in the value of in-force due to a 5% decrease in mortality rates. We have shown the impact on death protection products and the impact on A&H insurance and annuity products separately, as they behave differently under this sensitivity. We have covered base policies and riders of which the primary benefits are accidental death, sickness and various medical risks such as cancer, and individual annuities with respect to the A&H insurance and annuity product segment. Regarding group life policies, it is assumed that changes in death benefits are entirely reflected in changes in policyholder dividends. Other management actions were not reflected in the calculations.

(9) Morbidity rates

This analysis shows the amount of change in the value of in-force due to a 5% decrease in the morbidity rates of A&H products. No management actions were reflected in the calculations.

(10) Statutory minimum required capital

This analysis shows the amount of change in the value of in-force (frictional cost) if the required capital were minimum statutory level which is to keep a solvency margin ratio of 200%.

(11) Other

Other items to note are as follows:

- The frictional costs and the cost of non-hedgeable risks remain unchanged under the sensitivity analyses except for the reference rates and required capital sensitivity analyses.
- We have not changed market value of stocks & real estate and implied volatilities of stocks & real estate, as the amount of those impacts on variable life is very small[6].
- Each of the sensitivity analyses above show only the impact of changing one assumption. The impact of changing multiple assumptions at a time would not be equal to the sum of the impacts for each assumption.

[6] The composition of variable life in terms of policy reserves as at the end of March 2013 is 1%.

3. Assumptions

3.1. Economic assumptions

(1) Risk free rates

The reference rates for risk free rates, used for the investment yields and discount rates for the calculation of the certainty equivalent present value of future profits are set to JGB yields as at the end of March, 2013. As there are no data available for interest rates beyond 40 years, it is assumed that forward rates in the 41st year and thereafter are equal to the 1-year forward rate in the 40th year. The JGB yields data were obtained from information vendors quotes. The spot yields of JGB yields for major terms are shown below.

Term (in years)	As at the end of March, 2013	As at the end of March, 2012
1	0.07%	0.11%
5	0.14%	0.32%
10	0.55%	0.99%
20	1.41%	1.76%
30	1.55%	1.95%
40	1.64%	2.11%

The reference rates sensitivity results described in 2.7 (1) used swap rates. The spot yields of swap rates for major terms are shown below. As there are no data available for interest rates beyond 50 years, it is assumed that forward rates in the 51st year and thereafter are equal to the 1-year forward rate in the 50th year.

Term (in years)	As at the end of March, 2013
1	0.24%
5	0.30%
10	0.69%
20	1.47%
30	1.71%
40	1.84%
50	1.98%

We have decided not to include a liquidity premium assumption given that definitions in the MCEV Principles regarding methods for its derivation and the insurance liabilities to consider are not completely clear and generally accepted actuarial practice has not yet been established.

(2) Future asset allocation

Segment accounting is carried out for the general account assets with the following segment classifications: non-participating product segment, participating individual insurance product segment, participating individual annuity segment and total company segment. Future asset allocations for the general account assets for the calculation of the time value of options and guarantees were determined based on the actual asset allocation in each segment as at March 31, 2013, which is assumed to continue thereafter. Furthermore, for the segment of participating individual insurance and the segment of participating individual annuity, it is assumed that assets are all invested in Japanese bonds, as these segments do not contain equities and foreign assets.

The asset allocation of separate account assets of variable life insurance is set in accordance with the asset mix as at the end of March 2013, which is maintained thereafter.

(3) Interest-rate model

We have used the Heath-Jarrow-Morton interest rate model and calibrated this to the market at the end of each year ending March 31. Parameters are estimated from the swap curve and the implied volatilities of interest swaptions with different terms, where the interest rate is floored at 0%. We have used 1,000 scenarios generated by Milliman, Inc. using this interest rate model in calculating the time value of options and guarantees.

The implied volatilities of the interest swaptions used in our estimation of parameters are the average of implied volatilities quoted by multiple brokers and other bodies shown below.

As at the end of March, 2013

Term of swap (in years)	Term of option (in years)	JPY	USD	EUR	UKL
1	1	93.85%	64.55%	95.87%	67.53%
5	1	71.83%	46.39%	50.42%	48.22%
5	5	45.02%	30.58%	31.06%	27.33%
5	7	35.94%	26.17%	26.09%	21.92%
5	10	27.03%	22.75%	22.80%	18.54%
5	15	26.00%	21.16%	23.25%	16.76%
5	20	27.70%	19.28%	24.17%	16.10%
10	1	47.17%	34.20%	36.09%	33.43%
10	5	30.92%	25.86%	27.62%	22.94%
10	7	27.33%	24.59%	25.24%	19.98%
10	10	23.58%	22.26%	23.58%	17.48%
10	15	25.70%	21.07%	23.86%	15.51%
10	20	27.40%	19.74%	23.66%	14.76%
15	1	34.80%	36.33%	30.72%	26.71%
15	5	27.60%	23.99%	26.45%	20.90%

15	7	25.80%	22.54%	24.63%	18.71%
15	10	24.80%	21.42%	23.09%	16.87%
15	15	25.90%	19.36%	22.73%	14.93%
15	20	27.20%	18.72%	21.46%	14.90%
20	1	31.60%	26.66%	29.66%	24.14%
20	5	27.50%	23.09%	26.18%	19.89%
20	7	26.40%	22.78%	24.27%	17.99%
20	10	25.00%	21.41%	22.59%	16.37%
20	15	26.00%	19.38%	21.57%	15.10%
20	20	26.00%	18.99%	19.85%	13.35%

<Reference> As at the end of March, 2012

Term of swap (in years)	Term of option (in years)	JPY	USD	EUR	UKL
1	1	40.80%	66.39%	57.61%	55.64%
5	1	48.70%	45.61%	38.49%	40.12%
5	5	34.80%	29.93%	27.25%	25.06%
5	7	30.10%	26.93%	24.27%	20.08%
5	10	26.80%	24.49%	22.48%	17.38%
5	15	25.95%	23.96%	24.82%	16.05%
5	20	28.98%	22.72%	28.90%	16.50%
10	1	37.30%	37.23%	32.22%	31.08%
10	5	29.40%	27.79%	25.59%	21.33%
10	7	27.10%	26.13%	24.44%	18.98%
10	10	26.20%	24.55%	24.21%	17.07%
10	15	26.91%	23.77%	27.17%	15.76%
10	20	29.57%	22.06%	29.68%	14.98%
15	1	29.90%	32.61%	29.54%	26.94%
15	5	27.50%	26.19%	25.09%	20.36%
15	7	27.20%	24.30%	24.28%	18.23%
15	10	27.71%	22.95%	24.38%	16.47%
15	15	28.13%	22.26%	26.24%	14.93%
15	20	29.48%	20.96%	26.76%	15.00%
20	1	27.44%	31.53%	29.72%	25.26%
20	5	27.50%	25.88%	26.00%	19.69%
20	7	27.60%	24.13%	25.10%	17.68%
20	10	28.30%	22.66%	24.83%	15.97%
20	15	30.16%	21.61%	25.34%	15.20%
20	20	29.09%	20.71%	24.50%	13.70%

(4) Implied volatilities of foreign exchange and stocks

Spot implied volatilities (at the money) calculated from options with different terms are used. The data source is the implied volatilities quoted by multiple banks and securities firms.

As options with terms greater than 10 years are illiquid for both foreign exchange rates and equity indices, we set the forward implied volatilities for terms greater than 10 equal that where the term equals 10.

The following table shows the implied volatilities used in estimating the parameters which are the average of implied volatilities quoted by multiple banks, securities firms, and other bodies.

As at the end of March, 2013

	Foreign exchange			Equity				
Term (in years)	USD/ JPY	EUR/ JPY	UKL/ JPY	Japan TOPIX	US S&P	Euro SX5E	UK FTSE	Japan Nikkei average
1	11.46%	13.66%	11.63%	18.51%	17.97%	22.67%	17.27%	20.36%
5	12.95%	14.60%	13.12%	18.70%	22.35%	23.30%	21.33%	20.57%
7	13.94%	15.74%	14.69%	19.60%	22.95%	23.58%	NA	21.56%
10	15.95%	17.52%	16.26%	20.98%	25.56%	23.96%	NA	23.08%

<Reference> As at the end of March, 2012

	Foreign exchange			Equity				
Term (in years)	USD/ JPY	EUR/ JPY	UKL/ JPY	Japan TOPIX	US S&P	Euro SX5E	UK FTSE	Japan Nikkei average
1	11.81%	14.01%	12.77%	17.99%	18.64%	23.38%	18.92%	19.79%
5	15.13%	18.02%	16.55%	20.49%	23.41%	24.58%	23.32%	22.54%
7	16.70%	19.25%	18.30%	21.31%	26.26%	26.64%	21.50%	23.44%
10	18.63%	22.07%	20.70%	23.23%	27.99%	26.72%	21.02%	25.55%

(5) Correlation factor

As there is no market consistent data for correlation factors, we have calculated correlation factors from the monthly return of each index during the past 5 years between April 2008 and the end of March 2013.

As at the end of March, 2013

	JPY 1-year interest	USD 1-year interest	EUR 1-year interest	UKL 1-year interest	USD /JPY	EUR /JPY	UKL/ JPY	TOPIX	S&P	SX5E	FTSE
JPY 1-year	1.00	0.31	0.20	0.51	0.32	0.09	0.41	0.18	0.12	0.07	(0.01)
USD 1-year rate	0.31	1.00	0.47	0.63	0.58	0.37	0.56	0.56	0.36	0.36	0.36
EUR 1-year interest	0.20	0.47	1.00	0.60	0.30	0.56	0.54	0.51	0.54	0.53	0.51
UKL 1-year interest	0.51	0.63	0.60	1.00	0.37	0.27	0.56	0.36	0.32	0.23	0.21
USD /JPY	0.32	0.58	0.30	0.37	1.00	0.62	0.73	0.56	0.18	0.18	0.15
EUR /JPY	0.09	0.37	0.56	0.27	0.62	1.00	0.78	0.70	0.61	0.55	0.54
UKL/ JPY	0.41	0.56	0.54	0.56	0.73	0.78	1.00	0.69	0.48	0.46	0.34
TOPIX	0.18	0.56	0.51	0.36	0.56	0.70	0.69	1.00	0.72	0.69	0.69
S&P	0.12	0.36	0.54	0.32	0.18	0.61	0.48	0.72	1.00	0.88	0.90
SX5E	0.07	0.36	0.53	0.23	0.18	0.55	0.46	0.69	0.88	1.00	0.88
FTSE	(0.01)	0.36	0.51	0.21	0.15	0.54	0.34	0.69	0.90	0.88	1.00

<Reference> As at the end of March, 2012

	JPY 1-year interest	USD 1-year interest	EUR 1-year interest	UKL 1-year interest	USD /JPY	EUR /JPY	UKL/ JPY	TOPIX	S&P	SX5E	FTSE
JPY 1-year	1.00	0.50	0.46	0.46	0.23	0.16	0.31	0.22	0.10	0.10	0.02
USD 1-year rate	0.50	1.00	0.62	0.64	0.55	0.14	0.45	0.32	0.21	0.23	0.16
EUR 1-year interest	0.46	0.62	1.00	0.83	0.33	0.38	0.50	0.32	0.41	0.39	0.29
UKL 1-year interest	0.46	0.64	0.83	1.00	0.43	0.32	0.58	0.34	0.29	0.20	0.14
USD /JPY	0.23	0.55	0.33	0.43	1.00	0.55	0.73	0.52	0.20	0.20	0.18
EUR /JPY	0.16	0.14	0.38	0.32	0.55	1.00	0.76	0.64	0.62	0.52	0.52
UKL/ JPY	0.31	0.45	0.50	0.58	0.73	0.76	1.00	0.67	0.49	0.44	0.34
TOPIX	0.22	0.32	0.32	0.34	0.52	0.64	0.67	1.00	0.73	0.71	0.71
S&P	0.10	0.21	0.41	0.29	0.20	0.62	0.49	0.73	1.00	0.89	0.89
SX5E	0.10	0.23	0.39	0.20	0.20	0.52	0.44	0.71	0.89	1.00	0.90
FTSE	0.02	0.16	0.29	0.14	0.18	0.52	0.34	0.71	0.89	0.90	1.00

(6) Foreign exchange

Assets denominated in foreign currencies are converted to Japanese yen using the TTM (telegraphic transfer middle exchange rate) as at the end of March, 2013. Exchange rates of major currencies are shown below.

Currency	Exchange rate (JPY)
US dollar	94.05
Euro	120.73
Australian dollar	97.93

3.2. Other assumptions

Assumptions including mortality and morbidity rates, surrender and lapse rates and operating expense rates were developed based on best estimates as at March 31, 2013. Best-estimate assumptions are developed to reflect past and current experience as well as expected experience in the future.

(1) Mortality and morbidity rates

Developed based on experience over the most recent three to six years.

(2) Surrender and lapse rates

Surrender and lapse rates were developed based on experience over the most recent three years.

We have also developed dynamic surrender and lapse rates in accordance with the level of interest rates for the saving products such as whole life insurance and individual annuity.

(3) Flexible premium policies

No assumptions were developed as NKSJ Himawari Life does not have flexible premium policies.

(4) Renewal rates

Renewal rates were developed based on the experience of the most recent three years.

(5) Operating expense rates

We have developed unit costs for the maintenance and administration of policies and for payment of claims based on the actual operating expenses in the most recent year.

It is assumed that NKSJ Himawari Life's holding company incurs no expenses in respect of the business defined in "1.2 Covered business".

In addition, unit costs for policy maintenance expenses were developed based on the actual operating expenses of a standalone NKSJ Himawari Life, since all the operating expenses of the covered business are recorded as operating expenses of NKSJ Himawari Life. The look-through effect has not been considered with regards to other companies in the NKSJ Group.

There are no one-time expenses that we should deduct in developing the unit-costs.

(6) Tax rate

Based on "Act to revise part of the income tax law and others aiming to structure tax system coping with structural transformation of economic society (law #114, 2011)" and "Act on special measures regarding security of finance necessary to implement programs for recovery from the Great East Japan Earthquake (law #117, 2011)", we set the rate 33.3% for FY2012 through FY2014 and 30.8% for FY2015 and thereafter.

In order to reflect the consumption tax system revision, consumption tax rates in future years are set to 5% until March 2014, 8% from April 2014 to September 2015, and 10% thereafter.

(7) Inflation

Inflation is set to 0.41% which is based on the break-even inflation rate derived from the 10-year Consumer Price Index (CPI) and indexed Japanese government bonds, and adjusted to take into account the effect of consumption tax system revision which is separately modeled.

(8) Policyholder dividends

We have assumed the average yield to maturity of bonds held under each account at each future timing less the assumed interest rate to be the interest gain dividend rate of each future year for each of the following segments: participating individual life insurance and participating individual annuity. With respect to group life policies, it is assumed that the most recent level of dividend payouts will continue in the future.

(9) Reinsurance

As the mortality risk of part of the death protection insurance is ceded, the projection includes reinsurance premiums as expenses and reinsurance claims as income. We have developed the level of reinsurance premiums and reinsurance claims based on the experience of the most recent three years.

4. Calculation method of MCEV

4.1. Covered business

The business covered on this report is life insurance business operated by NKSJ Himawari Life. Any calculation results in this report do not reflect life insurance business or non-life insurance business operated by other life and non-life insurance companies in the NKSJ Group.

4.2. MCEV

MCEV represents the present value of current and future distributable earnings to shareholders generated from assets allocated to the covered business after allowance for the aggregate risks in the covered business. MCEV can be expressed as the EV evaluated in a method consistent with valuation of prices of financial products traded in the financial markets and consists of "corporate net asset value" and "present value of future profit from existing business".

4.3. Adjusted net worth

The adjusted net worth is defined as the market value of assets allocated to the covered business in excess of statutory policy reserves and other liabilities as at the valuation date. More specifically, the adjusted net worth is the net assets on the statutory balance sheet plus the price fluctuation reserve, contingency reserves, general provision for loan losses, unallocated amount within policyholder dividend reserves, unrealized gains or losses on held-to-maturity bonds and unrealized gains or losses on derivatives minus intangible fixed assets and tax adjustments on these seven items.
It is made up of the required capital and free surplus.

4.4. Required capital

The required capital is the portion of assets held in excess of statutory liabilities whose distribution to shareholders is restricted in order to meet insurance obligations. As the MCEV Principles state that the level of required capital should be the larger of the solvency capital to meet the statutory minimum required level and the capital required to meet internal objectives, we have set our required capital to the amount of capital required to maintain a solvency margin ratio of 600%, which exceeds the minimum statutory requirement of 200%.

4.5. Free surplus

The free surplus is calculated as the adjusted net worth minus the required capital.

4.6. Value of in-force

The value of in-force is the value of distributable earnings to shareholders generated in the future from the existing business as at the valuation date (March 31, 2013) converted to a present value as at the valuation date, which is the certainty equivalent present value of future profits reduced by the time value of options and guarantees, the frictional costs and the cost of non-hedgeable risks. The new business value is also calculated using the same method.

4.7. Certainty equivalent present value of future profits

The certainty equivalent present value of future profits is the present value of future profits under a single scenario, reflecting future cash flows arising from the covered business. Risk free rates are used for the investment yield assumptions and the discount rates. The intrinsic value of options and guarantees is included in the certainty equivalent present value of future profits.

4.8. Time value of options and guarantees

We have calculated the time value of options and guarantees using 1000 risk-neutral scenarios. The time value of options and guarantees is calculated as the difference between the average present value of future profits based on the future cash flows under each scenario and the certainty equivalent present value of future profits.

The time value of options and guarantees reflects the following components:

- 5-year interest dividends
  In the case where the investment return exceeds the credited interest rate, the outperforming portion is paid to policyholders as interest dividends, while interest losses would all be attributable to shareholders. This represents a policyholder option. We have valued such options by calculating the interest gain dividend rate under each of the multiple scenarios.

- Dynamic Surrenders
  We have reflected the cost of policyholders exercising the right to surrender in the event of increased interest rates for saving products such as whole life insurance and individual annuities, since policyholders of savings type insurance products are considered to be interest rate sensitive and surrender rates could change in line with movements in market interest rates. It is also generally considered that distributable earnings for shareholders may decrease compared with the assumption of no dynamic surrenders.

- Annuity selections
  For individual annuities, policyholders have an option to select either annuity payments or a lump-sum payment at the time of annuitization. As it is anticipated that rational policyholder behavior would reduce the distributable earnings for shareholders, the cost is reflected.

- Minimum guaranteed death benefits on Variable Life
  An excess of account value over the scheduled policy reserves would be attributable to policyholders. However, the cost of guaranteed minimum death benefits for variable life insurance incurred when the account value is less than the scheduled policy reserve is attributable to shareholders. This is similar to a policyholder option. We have calculated the time value of options and guarantees for the minimum guarantee cost of death benefit.

4.9. Frictional costs

We have assumed the frictional costs to be the present value of investment costs and taxes on assets backing the required capital.

4.10. Cost of non-hedgeable risks

In the cost of non-hedgeable risks we have reflected an allowance for the uncertainty of non-economic assumptions and the portion of economic assumptions considered to be non-hedgeable.

Specifically, we regarded Risk Margin defined as part of the Solvency II framework whose introduction is being discussed in Europe as the cost of non-hedgeable risks. The cost of non-hedgeable risks for MCEV as at March 2012 was calculated based on the method prescribed in the technical specification of the QIS5 (the fifth quantitative impact study) published in July 2010 (cost of capital approach). The cost of non-hedgeable risks for MCEV as at March 2013 was calculated based on the same approach but the parameters were updated to those prescribed in the technical specification of the LTGA (the long term guarantee assessment) published in January 2013. The primary difference is the increase of mass lapse factor from 30% to 40%.

The following points are major differences between the applied methods and the methods prescribed in LTGA:

- Counterparty default risk is not considered in the non-hedgeable risks as its impact is immaterial.
- We have calculated each of the risk amounts based on cash flows after policyholder dividends without adjustments, while LTGA requires adjustments to keep the risk mitigation effect, defined as the difference between assuming policyholder dividends and assuming no policyholder dividends, to be less than the present value of policyholder dividends.

The impact of the parameters change to be consistent with LTGA is included in “other operating variance” of 2.6 Reconciliation Analysis.

4.11. Cost of capital rate

In LTGA (part of the EU Solvency II development), the cost of capital rate is set at 6%, which is used for the risk margin calculation under the cost of capital method. On the other hand, the CRO (Chief Risk Officers’) Forum, in which CROs from major insurance companies in Europe participate, suggested that 2.5% to 4.5% is the appropriate level for the cost of capital rate. .

In this report, the rate is set at 6%, as it is employed in LTGA, since there is no standardized method for determining the cost of capital rate. We may revise the cost of capital rate in the future as required, considering trends in MCEV disclosures in Japan and abroad.

5. Opinion of Outside Specialist

We requested a review of the reasonableness of calculation methods, assumptions, and calculated results from a third-party with actuarial expertise, Milliman, Inc., and received the following opinion.

Milliman, Inc. ("Milliman") has been engaged to review the methodology, assumptions and calculations used by NKSJ Himawari Life Insurance, Inc. ("NKSJ Himawari Life") to determine the Market Consistent Embedded Value ("MCEV") as at March 31, 2013. Specifically, the scope of our review included the embedded value as at 31 March 2013, the sensitivities, the new business value and the movement analysis from the MCEV as at 31 March 2012.

The board of directors made a statement in its News Release Form dated May 20, 2013 that the methodology, assumptions and calculations have been made in accordance with the MCEV Principles©[7], with the following exceptions:

- MCEV results were derived by using Japanese Government Bond (JGB) yields as risk free rates rather than swap rates as stipulated in the MCEV Principles.
- MCEV results in this report are solely for the life insurance business written by NKSJ Himawari Life, and they are not the consolidated results of the NKSJ Group. The MCEV results do not reflect the life or casualty insurance business written by any other life or casualty insurance companies within the NKSJ Group.
- Group MCEV, as prescribed in the MCEV Principles, is not considered in this report, as the report is for NKSJ Himawari Life on a standalone basis.
- Adjusted net worth is based on Japanese GAAP, not on International Financial Reporting Standards (IFRS).

Milliman has concluded that the methodology and assumptions used comply with the MCEV Principles except for the points described in the above paragraph. In particular:

- The non economic assumptions have been set with regard to past, current and expected future experience;
- The economic assumptions used in the calculations are internally consistent and consistent with observable market data as per the valuation date;
- The methodology makes allowance for the aggregate risks in the covered business through NKSJ Himawari Life's market consistent embedded value methodology, which includes:
  - a stochastic allowance for the cost of financial options and guarantees
  - a deduction for the cost of non-hedgeable risks

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- a deduction for the frictional costs of the required capital

- for participating insurance contracts, the assumed policyholder dividend rates, allocation of dividends between policyholders and shareholders and other management actions are consistent with the assumptions and scenarios used in the projections and where applicable local market practice.

Milliman has reviewed the MCEV methodology, assumptions, calculations and analysis prepared by NKSJ Himawari Life, but this does not mean that Milliman has conducted a detailed review in all aspects. During its review Milliman identified and discussed various MCEV calculation and definition issues with NKSJ Himawari Life staff. Based upon those discussions and follow-up actions Milliman is not aware of any issues that would materially impact the disclosed market consistent embedded values, new business values, sensitivities or movement analysis from the prior period. In arriving at this conclusion, Milliman has relied on data and information provided by NKSJ Himawari Life.

The calculation of MCEV is based on numerous assumptions with respect to economic conditions, operating conditions, taxes and other matters, many of which are beyond the control of NKSJ Himawari Life. Although the methodology and assumptions used comply with the MCEV Principles, deviations between projection assumptions and actual experience in the future are to be expected. Such deviations may materially impact the value calculated.

This opinion is made solely to NKSJ Himawari Life in accordance with the engagement letter between NKSJ Himawari Life and Milliman. Milliman does not accept or assume any responsibility, duty of care or liability to anyone other than NKSJ Himawari Life for or in connection with its review work, the opinion Milliman has formed or for any statements set forth in this opinion, to the fullest extent permitted by applicable law.

6. Glossary

Term		Definition
B	Best estimate assumption	As defined by the CFO Forum, it is the "mean estimate (probability weighted average)" of a particular variable as at the valuation date. Actual experience, the current situation and future expectations are considered. Margins for adverse deviation are not considered in the assumption.
C	Calibration	In this report this means the process whereby economic scenarios used for stochastic valuations are made consistent with the actual financial markets' relevant parameters.
	Cost of capital approach	One of the approaches to assess the risk that the actual value will diverge from the best estimate value. The allowance for the risk is set as the present value of the cost of holding capital until the risk is released.
	Cost of non-hedgeable risks	Allowance for risks not reflected in the time value of options and guarantees or in the certainty equivalent present value of future profits. It reflects the risk that future experience will diverge from non-economic assumptions such as mortality and morbidity rates, or lapse and surrender rates, as well as economic assumptions which are unobservable in the capital markets such as extra-long term interest rates.
E	EU Solvency II	An integrated new solvency framework on an economic value basis among EU countries.
F	Free surplus	The portion of assets held in excess of statutory liabilities that it is not required to retain.
	Frictional costs	Allowance for investment costs and taxes due to investment in required capital, compared with direct investment in the capital markets.
I	Implied volatility	Theoretical volatility of option prices derived from the current market prices of the options, based on option pricing models.
L	Look through basis	A basis on which the impact of an action on an entire business group is considered, rather than only on a particular part of the group.
	LTGA	Assessment of the impact of EU Solvency II Long-Term Guarantees (LTG) package conducted from January to March 2013.
O	Options and guarantees	Policyholders are eligible for various options embedded in insurance policies, and the cost of providing such options is deducted from the MCEV. The intrinsic plus time value is the value of options and guarantees, and the value changes asymmetrically in response to changes in the observable capital markets.

Term		Definition
P	Present value of certainty equivalent future profits	The present value of profits under a single scenario, reflecting future cash flows arising from the covered business. Risk free rates are used for the investment yield assumptions and the discount rates. The intrinsic value of options and guarantees is included in the certainty equivalent present value of future profits.
Q	QIS	Quantitative Impact Study, conducted prior to implementation of EU Solvency II. In particular, the fifth study conducted from August to November 2010 is called QIS5.
R	Required capital	The portion of assets held in excess of statutory liabilities whose distribution to shareholders is restricted...
	Risk free rate	In this report, the risk free rate means the reference rate prescribed in the MCEV Principles. The reference rate differs depending on currency, term and liquidity. Unless future cash flow is reasonably predictable the interest swap rate should be used. Where swap curves do not provide a robust basis for producing reference rates, a more appropriate alternative, such as the government bond yield curve, may be used. If future cash flow is reasonably predictable a liquidity premium is added to the interest swap rate where appropriate.
	Risk margin	In the context of Solvency II, the risk margin is the cost of retaining capital for non-hedgeable risks reflected in the evaluation of insurance liabilities on an economic value basis.
	Risk neutral scenario	Risk neutrality means that market participants are indifferent to risk, being neither risk averse nor risk seeking. Risk neutral scenarios are those generated assuming risk neutrality.
T	Time value and intrinsic value	An option value can be thought of consisting of two parts, time value and intrinsic value. The intrinsic value of an option is the option pay-off that would be realized if the option was settled on the valuation date. The time value corresponds to the possibility of the option value increasing up to expiry.
Y	Yield to maturity	Yield to maturity of existing bonds means the yield that will be achieved when the bonds are held from the purchase to maturity.