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Review of 2015 Embedded Value and Value of New Business

May 2016

Disclaimer

Certain of the statements contained herein are statements of future expectations and other forward-looking statements. These expectations are based on Shin Kong Life's views and assumptions and involve known and unknown risks and uncertainties. Actual results, performance or events may differ materially from those in such statements due to, among other things, (i) general economic conditions, (ii) performance of financial markets, (iii) the frequency and severity of insured loss events, (iv) mortality and morbidity levels and trends, (v) persistency levels, (vi) interest rate levels, (vii) currency exchange rates, (viii) general competitive factors, (ix) changes in laws and regulations, (x) changes in the policies of the government and/or regulatory authorities. Shin Kong Life assumes no obligation to update any forward-looking information contained in this document.

Independent Review by Deloitte

Project description

- Shin Kong Life performs, on a yearly basis, an embedded value (EV), value of one year's new business (V1NB), and appraisal value (AV) calculation as an important effort to provide investors and analysts with information and insights on the company's operations.
- Deloitte Actuarial is retained to perform an independent review of the assumptions excluding the AV calculation, and to issue an opinion on the reasonableness of the assumptions used.

Scope of Deloitte's involvement

- Scope of project is to review the assumptions used in the valuation of the EV (as at 31/12/2015) and V1NB (value of all business written over the period 1/1/2015-31/12/2015).
- Provide a written opinion on the reasonableness of the assumptions, taking into consideration both Shin Kong Life's recent experience and Deloitte's knowledge of the Taiwanese life insurance market.
- The review covers portfolio and economic assumptions. It does not include the assumptions regarding future new business.

Key roles

- Valuation is performed by Shin Kong Life.
- Deloitte Actuarial provides an independent review of the assumptions used in the EV and V1NB.

Contents

Appraisal and Embedded Values

An embedded value (EV) is the sum of

- The net worth; and
- The value of in force business (VIF).

An appraisal value (AV) is the sum of

- The embedded value; and
- The value of future new business (VNB).

The VNB is normally the product of

- The value of one year's new business (V1NB) ; and
- A new business "multiplier".

- **Net worth**
  This is the value of shareholders' equity, or assets in excess of liabilities.
- **Value of in force (VIF)**
  This is the value of profits distributable to shareholders, allowing for the margin to comply with RBC requirements. This calculation requires (i) an actuarial projection model, (ii) valuation assumptions (e.g. future investment return), and (iii) data relating to the company's policies.
- **Value of one year's new business**
  The methodology is similar to that of VIF. The actual policies written in the past 12 months are commonly used.
- **New business multiplier**
  This subjective component requires a view to be taken on the company's future new business volumes and profitability.

Appraisal Value	Embedded Value	Net worth	→	Shareholders' Equity
		Value of in force business	→	Current Business
		Value of new business / goodwill	→	Future Business

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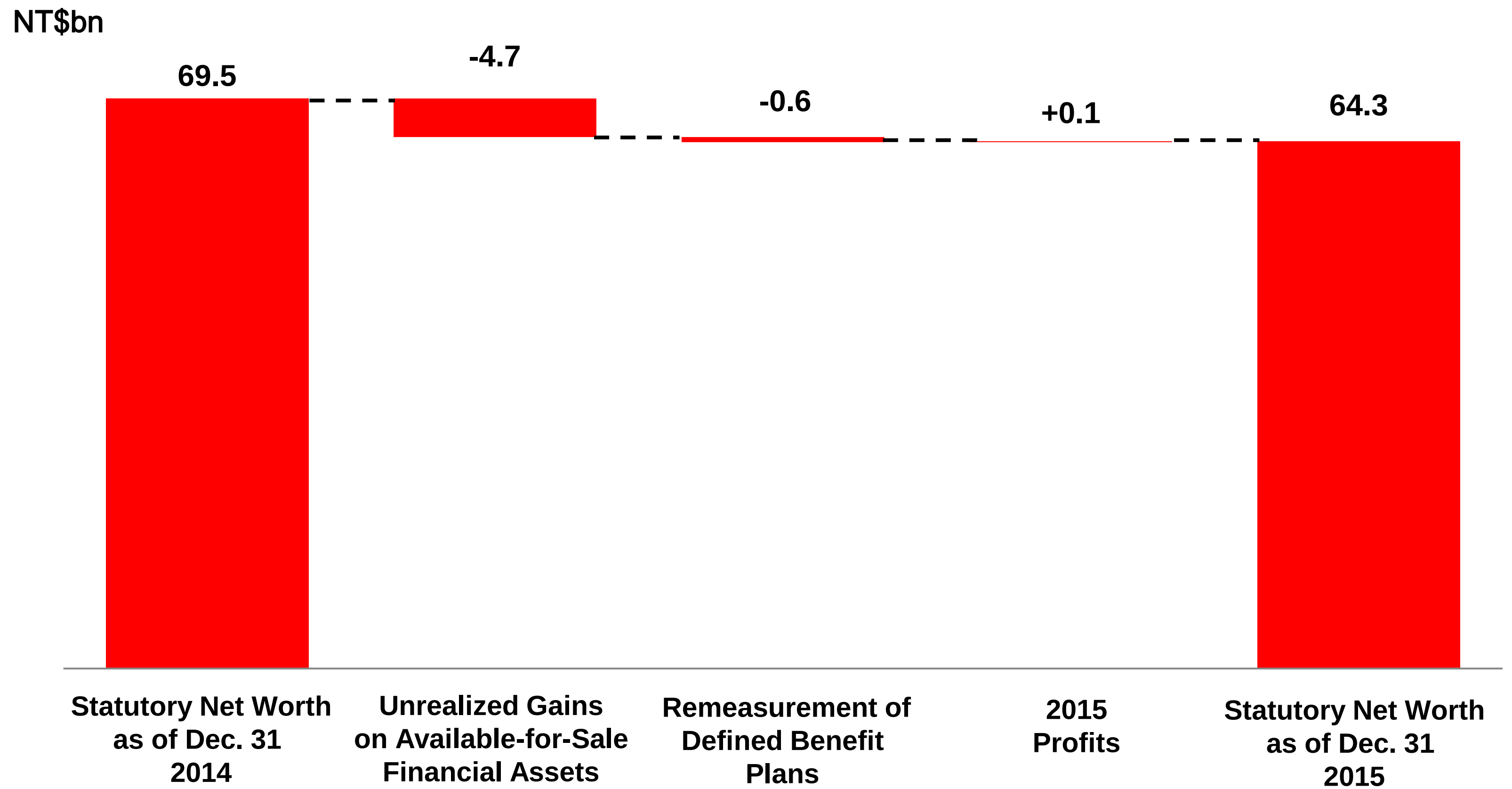
EV and AV Results

Unit： NT$bn	31 Dec. 2014	31 Dec. 2015
Adjusted NAV VIF COC	185.4 111.7 58.7	164.8 121.4 70.6
EV	238.4	215.7
V1NB	17.8	16.8
AV (5 years NB) AV (20 years NB)	297.1 383.1	273.8 349.8

Analysis of Change in Net Worth

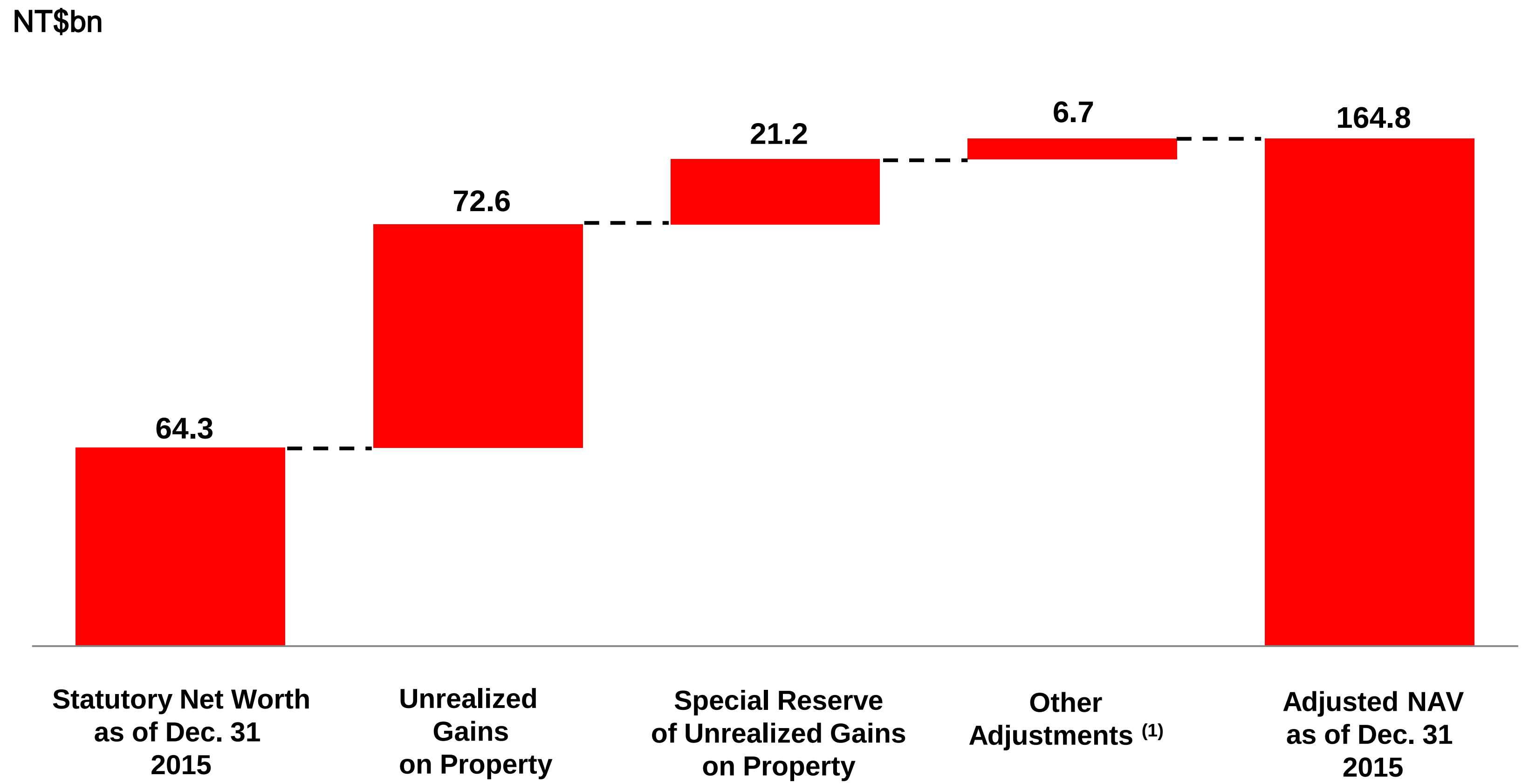
Changes between 31 Dec. 2014 and 31 Dec. 2015 breakdown by components



Note: Figures may not add up exactly due to rounding.

Adjusted NAV

Adjustments to Statutory Net Worth at 31 Dec. 2015



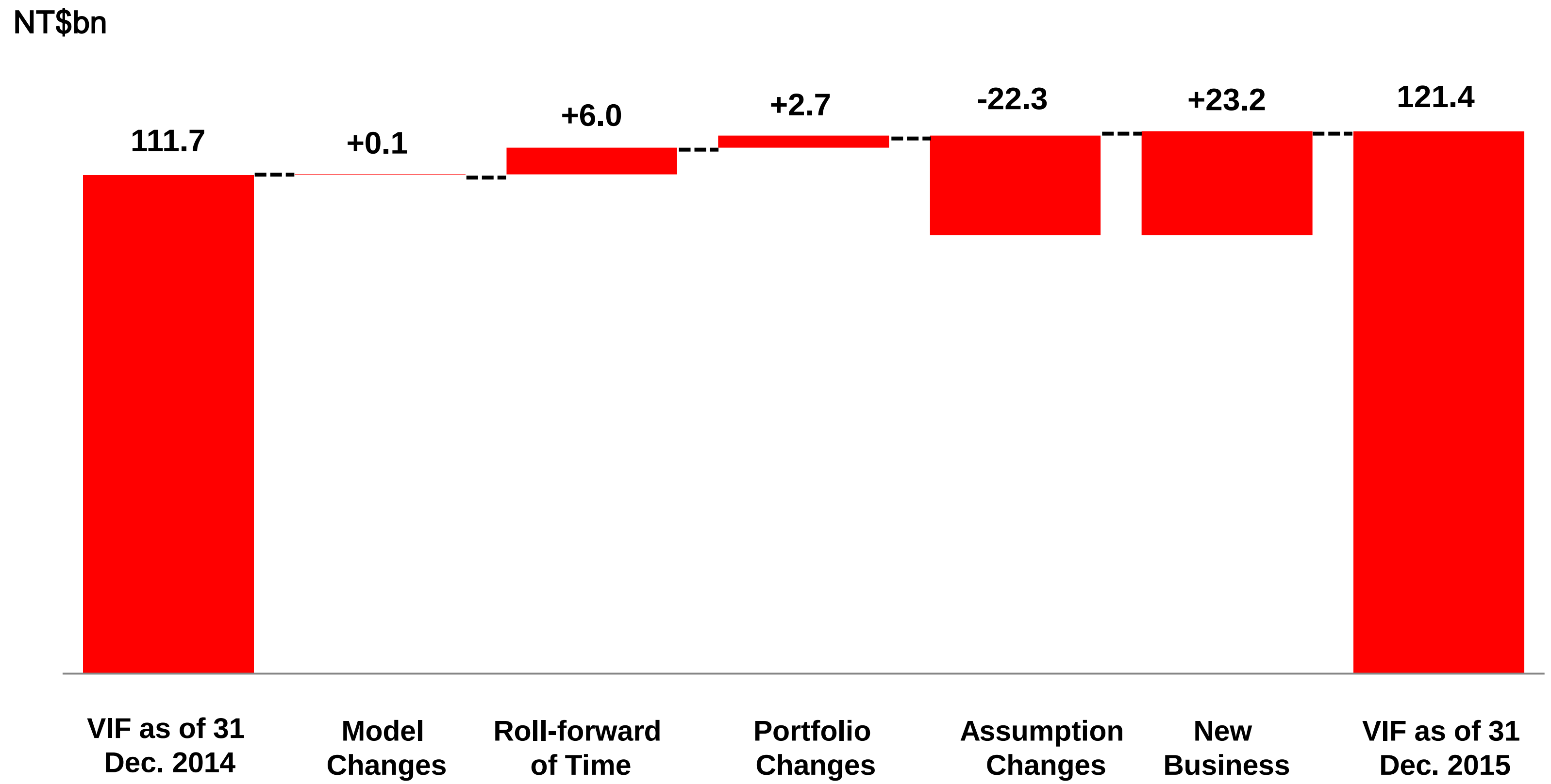
Note:

(1) Included foreign exchange volatility reserve, and other items.

(2) Figures may not add up exactly due to rounding.

Analysis of Change in VIF

Changes between 31 Dec. 2014 and 31 Dec. 2015 breakdown by components



Note: Figures may not add up exactly due to rounding.

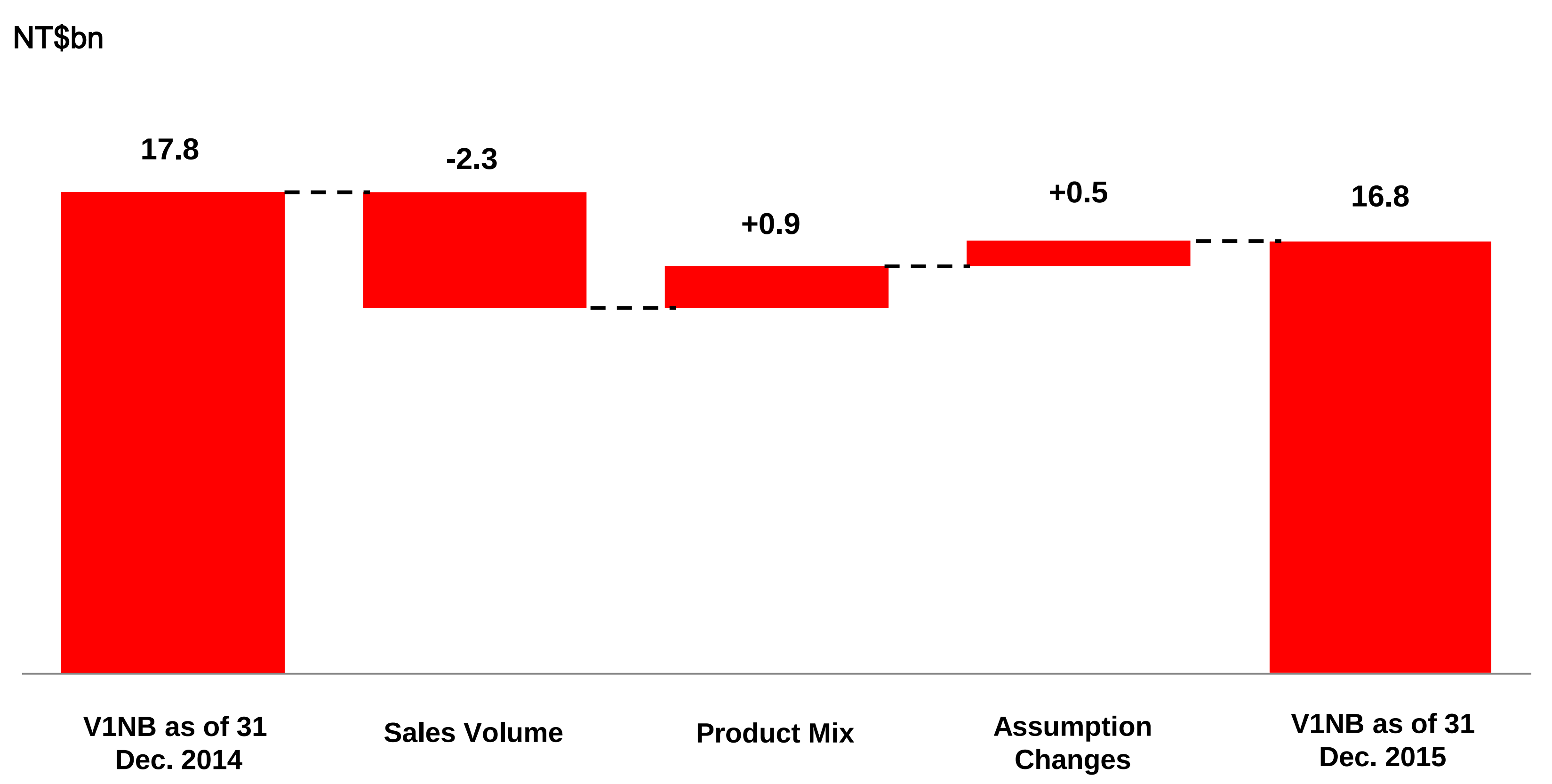
Analysis of Change in VIF

Unit: NT$bn	Description	VIF before CoC
As of 31 Dec. 2014		111.7
Model Changes	Refinements and/or corrections made to the cash flow projection model since last valuation date	+0.1
Roll-Forward of Time	Impact to EV as of 31 December 2015 due to elapse of time from December 2014 (portfolio is one year older)	+6.0
Portfolio Changes	Differences between the portfolio projected in force after one year as at 31 December 2014 and the actual policies in force as at valuation date	+2.7
Assumption Changes	Differences of assumptions used between two valuation dates	-22.3
New Business	Refers to the value added as at 31 December 2015 by policies issued from 1 January to 31 December 2015, which are part of in force block now	+23.2
As of 31 Dec. 2015		121.4

Note: Figures may not add up exactly due to rounding.

Analysis of Change in V1NB

Changes between 31 Dec. 2014 and 31 Dec. 2015 breakdown by components



Note: Figures may not add up exactly due to rounding.

Treatment of Cost of Capital (CoC)

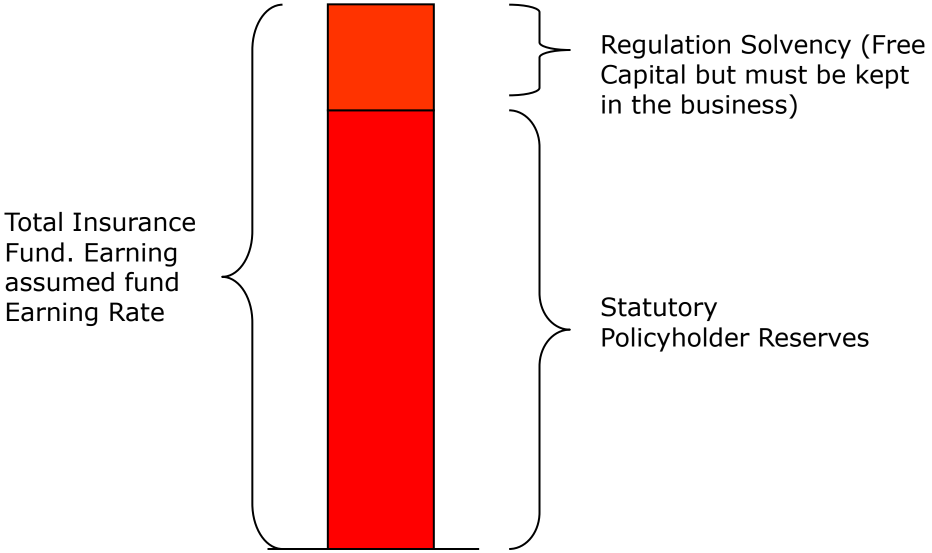
CoC refers to the opportunity cost of holding an additional solvency margin above the statutory reserves to meet local regulations.

This margin must be held while policies are in force, for both current and future projection.

The opportunity cost arises since this additional capital requirement is expected to earn the long term earning rate (ER) of total company instead of the return shareholders require (can be viewed as Risk Discount Rate (RDR) to justify holding of the assets in the business).

There exists a gap between the rate of return expected by the shareholders and the actual rate of return that can be achieved. This is deemed to be a “cost” of doing business in this market and should be reflected in the value of the business.

This standard calculation is in line with internationally accepted practice for EV reporting.



Solvency Margin for this Valuation is assumed to be 200% of the RBC

EV is reduced by the cost of holding this capital in the business. The cost is estimated as the difference between ER and RDR that the capital could earn if it were not held to meet minimum requirement.

This valuation is on the basis of holding the minimum RBC requirement and is not on the basis of “economic capital”.

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Estimate of Embedded / Appraisal Value

Unit: NT$bn Valn Date: 31 Dec. 2015 Solvency Basis: 200% RBC K=0.5	All else equal except		Base Case Scenario VIF 4.05%~5.10% (USD 4.32%~6.09%) V1NB 4.06%~5.10% (USD 4.25%~5.68%) RDR 10.5%	All else equal except	
	Inv Return -0.25%	Inv Return +0.25%		RDR -1.0%	RDR +1.0%
Adjusted NAV	164.8	164.8	164.8	164.8	164.8
VIF	78.3	161.4	121.4	139.9	106.8
Cost of Capital (COC)	72.8	68.2	70.6	66.0	74.2
EV after COC	170.3	258.0	215.7	238.7	197.4
V1NB after COC	15.5	18.1	16.8	19.4	14.6
AV (5 years NB)	223.8	320.6	273.8	307.5	246.6
AV (20 years NB)	293.8	402.8	349.8	405.6	305.9

Note: Figures may not add up exactly due to rounding.

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Cost of Capital Projection

Apply 2015 RBC formula announced by Insurance Bureau.

- Minimum Capital Requirement is 200% of the RBC.
- Risk-based capital calculation reflects company’s current and future operation status.
- The additional charge percentage of previous year’s C3 risk for traditional products is adjusted from 10% to 30%.
- The risk factor of domestic stock for C1 risk is adjusted from 0.2411 to 0.2274.

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Assumptions

Assumptions	Value	Changes from last valuation
Investment yield for VIF	TWD products : 4.05%~5.10% USD products : 4.32%~6.09%	(see last slide)
Investment yield for V1NB	TWD products : 4.06%~5.10% USD products : 4.25%~5.68%	(see last slide)
Risk free rate	Taiwan: from 1.11% in Year 0 to 3.73% in Year 10 US: from 2.33% in Year 0 to 4.60% in Year 10	Taiwan Year 0: decreased from 1.61% to 1.11% Taiwan Year 10: no change US Year 0: increased from 2.17% to 2.33% US Year 10: no change (based on Global Insight forecasts)
Risk discount rate	10.5%	No change
Compulsory Par reference interest rate	1.39% ~ 3.56%	Made a slight adjustment to reflect economic scenario
Crediting rate for interest sensitive products	80 bps spread	No change
Taxation	Current tax rates	No change
Inflation rate	1.71%	Increased from 1.68% to 1.71%

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Assumptions

Assumptions	Changes from last valuation
Mortality assumption	Slightly lower – to reflect emerging experience
Morbidity assumption	Slightly higher – to reflect emerging experience
Lapse assumption (Traditional products)	Generally lower – to reflect emerging experience
Lapse Assumption (Unit linked/Interest sensitive products)	Slightly lower for interest sensitive products – to reflect emerging experience
Expense and override assumption	Generally lower – a number of changes were made, and the overall assumptions are lower
Premium persistency (Unit Linked products)	Slightly higher – to reflect emerging experience

Risk Discount Rate

Risk Discount Rate (RDR) was derived by using CAPM and set to 10.5%

	31 Dec. 2015
Risk Free Rate	3.34%
Equity plus Country Risk Premium	6.00%
Beta	1.13
Risk Discount Rate used in the valuation	**10.5%**

- In setting Risk Free Rate, assumptions have been set to reflect the long term nature of the liabilities and the expected levels of Taiwan bond yields in the future.
- The risk discount rate used this year is the same as last year.
- Risk Free Rate (defined as the yield on Taiwan 10-year government bonds) and Equity plus Country Risk Premium were sourced from industry-wide information, and a survey of Global Insight for their long-term views.

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Earning Rate

Shin Kong Life's method for deriving the investment earning rate uses a market or book yield approach for each asset class depending on how they are reported in the balance sheet, applies a single expected future yield to the values of both the in force and new business portfolios, and is based on the view that current bond yields are unusually low. A "rising earning path" was determined by assuming a future risk free rate based on Global Insight forecasts for a 10-year time horizon.

Shin Kong Life uses an Asset Liability Model to estimate the future new cash flows in/out of the company and reinvestment of maturing assets for the next 30 years and applies the estimated future new money yield in the relevant year by holding the asset mix constant. Investment expenses and hedging costs are allowed for in the calculations. Margins to the risk free rates are determined for the various asset classes, based on current market levels.

The resulting earning rate goes from 4.05% to 5.10% for TWD VIF products and 4.06% to 5.10% for TWD V1NB products. And from 4.32% to 6.09% for USD VIF products and 4.25% to 5.68% for USD V1NB products.