

# Bangkok Life Assurance

*2009 Embedded Value & Value of New Business*

**March 2010**

# Embedded Value Methodology

**Embedded value (EV)** is the actuarially estimated economic value of a life insurance company. The methodology PwC have adopted for EV calculation is commonly known as the Traditional Embedded Value (TEV) method. Under TEV, risk discount rate and investment income are set based on real-world expectations and may not be market-consistent.

**There are two main components that make up EV:**

**The adjusted net worth (ANW);**

*Adjusted net worth* is defined as the reported value of free surplus and required capital. The value of free surplus is equal to the market value of the assets supporting this surplus.

**The value of in-force business (VIF);**

*Value of in-force covered business* is defined as the discounted value of projected future distributable earnings of the business in force on the valuation date.

*Future distributable earnings* are defined as the after-tax future regulatory book profits emerging from the business in force on the valuation date less the change in required capital plus the after-tax investment income on required capital.

*After-tax future regulatory book profit* consists of the following parts:

- + Premium income due;
- + Investment income;
- Benefit payments (claims, surrenders and maturities);
- Expenses (including commission);
- Increase in statutory reserves;
- Income Tax;
- Cost of holding required capital (CoC).

*Cost of holding required capital (CoC)* is the present value of the future releases in required capital and the present value of after-tax investment income on assets backing required capital less the required capital at the valuation date.

**EV = ANW + VIF**

## Embedded Value Results

Bangkok Life Assurance PLC Embedded Value as of 31 December 2009 (in million baht)	Risk Discount Rate		
	9%	10%	11%
<b>Adjusted Net Worth ("ANW")</b>	<b>8,870</b>	<b>8,870</b>	<b>8,870</b>
Present Value of Future Profit ("PVFP")	9,780	9,278	8,824
Corporate Tax ("Tax")	(2,735)	(2,588)	(2,455)
Cost of Target Required Capital ("CoC")	(1,387)	(1,540)	(1,671)
<b>Value of Inforce ("VIF")</b>	<b>5,658</b>	<b>5,150</b>	<b>4,698</b>
Tax rebate from equity dividend income	146	136	128
<b>Embedded Value</b>	<b>14,673</b>	<b>14,156</b>	<b>13,696</b>
Estimated correction on mortality model	306	292	280
<b>Adjusted Embedded Value</b>	<b>14,979</b>	<b>14,448</b>	<b>13,976</b>
<b>Number of shares</b>	1,200 million shares		
<b>Embedded Value per share (baht)</b>	<b>12.5</b>	<b>12.0</b>	<b>11.6</b>

*Return on Investment assumption = 5.25%*

## Value of New Business Results

Value of One year New Business Sold in 2009 (in million baht)	Risk Discount Rate		
	9%	10%	11%
Present Value of Future Profit ("PVFP")	2,631	2,499	2,378
Corporate Tax ("Tax")	(741)	(703)	(677)
Cost of Target Required Capital ("CoC")	(248)	(275)	(298)
Tax rebate from equity dividend income	26	24	23
<b>Value of One year New Business</b>	<b>1,667</b>	<b>1,545</b>	<b>1,435</b>
Number of shares	1,200 million shares		
<b>Value of one year New Business per share (baht)</b>	<b>1.4</b>	<b>1.3</b>	<b>1.2</b>

*Return on Investment assumption = 5.25%*

## Embedded Value Results & Value of New Business Results

(Million Baht)

	Risk Discount Rate		
	9%	10%	11%
<b>Embedded Value (EV)</b>			
ROI = 5.00%	13,459	13,019	12,627
ROI = 5.25%	14,979	14,448	13,976
ROI = 5.50%	15,887	15,294	14,764
<b>Value of New Business (VNB)</b>			
ROI = 5.00%	1,421	1,342	1,225
ROI = 5.25%	1,667	1,545	1,435
ROI = 5.50%	1,861	1,748	1,601