

Embedded Value of TPL

太平人壽之內涵價值

1. BACKGROUND

The Group consists of three major business segments: the life insurance business, property and casualty insurance business and reinsurance business. In particular, the life insurance segment operated by TPL, a 50.05%-owned subsidiary, has become an increasingly significant part of the Group in terms of gross premiums written, total assets and profitability. In order to provide investors with additional information to evaluate the profitability and valuation of TPL, the Group has decided to disclose the Embedded Value and New Business Value of TPL. The Embedded Value consists of the shareholders' adjusted net worth plus the present value of future expected cash flows to shareholders from the in-force business, less the cost of holding regulatory solvency capital to support the in-force business. The New Business Value represents an actuarially determined estimate of the economic value arising from the new life insurance business issued during the past one year.

2. BASIS OF PREPARATION

The Group has appointed PricewaterhouseCoopers ("PwC"), an international firm of consulting actuaries, to examine whether the methodology and assumptions used by TPL in the preparation of the embedded value and the new business value as at 31 December 2010 are consistent with standards generally adopted by insurance companies in the PRC.

1. 背景

本集團由三項主要業務分部組成：人壽保險業務、財產保險業務及再保險業務。具體而言，太平人壽(本公司持有50.05%股權之附屬公司)運作之人壽保險分部就其毛承保保費額、總資產及盈利能力而言已成為本集團日益重要之部份。為向投資者提供額外資料以評估太平人壽之盈利能力及估值，本集團已議決披露太平人壽之內涵價值及新業務價值。內涵價值包括經調整股東資產淨值及未來有效業務可為股東創造之預期現金流之現值，扣減為支持有效業務而按照監管要求持有償付資本之成本。新業務價值乃指以精算方法評估的在過去一年售出的人壽保險新業務所產生的經濟價值。

2. 編製基準

本集團已委聘國際諮詢精算師普華永道(「普華永道」)，審查太平人壽編製於二零一零年十二月三十一日內涵價值及新業務價值時所採用之方法及假設與中國的保險公司一般採納的準則是否一致。

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3. CAUTIONARY STATEMENT

The calculations of embedded value and the new business value of TPL are based on certain assumptions with respect to future experience. Thus, the actual results could differ significantly from what is envisioned when these calculations were made. From an investor's perspective, the valuation of CTIH is measured by the stock market price of the Company's shares on any particular day. In valuing CTIH's shares, investors should take into account not only the embedded value and the new business value, but also various other considerations. In addition, TPL is 50.05%-owned by the Company. The embedded value and the new business value as at 31 December 2010 as disclosed below should therefore not be applied 100% in valuing CTIH. Investors are advised to pay particular attention to this factor, as well as the other assumptions underlying the calculations of the embedded value and new business value of TPL, if they believe such calculations are important and material to the valuation of the Company.

4. EMBEDDED VALUE

At 31 December, HK\$ million

			2010 二零一零年	2009 二零零九年
Adjusted net worth	經調整資產淨值	a	6,008	5,408
Value of in-force business before cost of capital	有效業務扣除資本 成本前之價值	b	14,156	10,353
Cost of capital	資本成本	c	2,653	2,135
Value of in-force business after cost of capital	有效業務扣除資本 成本後之價值	d=b-c	11,503	8,218
Embedded Value	內涵價值	e=a+d	17,511	13,626

Adjusted net worth is the audited shareholders' net assets of TPL as measured on a PRC statutory basis, which is different from PRC accounting standards.

3. 提示聲明

計算內涵價值及新業務價值乃基於有關未來經驗之若干假設。故此實際結果可能與作出該等計算時之預測有重大差異。從投資者角度看，中國太平控股之估值乃按照本公司股份於某個別日子之股市價格計量。於評估中國太平控股股份時，投資者不僅要慮及內涵價值及新業務價值，而且亦應考慮到其他多項因素。此外，本公司擁有太平人壽之50.05%股權。因此，不應把下列所披露之於二零一零年十二月三十一日之內涵價值及新業務價值全數作為中國太平控股的估值。倘若彼等認為該等因素重要，及對本公司之估值關係重大。投資者務須特別留意該因素，及其他支持計算太平人壽內涵價值及新業務價值計算之因素。

4. 內涵價值

於十二月三十一日，百萬港元

經調整資產淨值是太平人壽按中國法定基準計量之審計後股東資產淨值，因此與中國會計準則不同。

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5. NEW BUSINESS VALUE

HK\$ million

			For the Past 12 Months as of 31 December 2010 於二零一零年 十二月 三十一日 過去十二個月	For the Past 12 Months as of 31 December 2009 於二零零九年 十二月 三十一日 過去十二個月
New business value before cost of capital	新業務扣除資本 成本前之價值	a	2,540	1,978
Cost of capital	資本成本	b	713	625
New business value after cost of capital	新業務扣除資本 成本後之價值	c=a-b	1,827	1,353

5. 新業務之價值

百萬港元

6. MOVEMENT ANALYSIS OF EMBEDDED VALUE

The following analysis shows the movement of the Embedded Value from 1 January 2010 to 31 December 2010.

6. 內涵價值之動態分析

以下分析反映自二零一零年一月一日至二零一零年十二月三十一日期間內涵價值之動態變化。

		Notes 附註	HK\$ million 百萬港元
Embedded Value as at 1 January 2010	於二零一零年一月一日 之內涵價值		13,626
New business value	新業務之價值	a	1,827
Expected return on Embedded Value	內涵價值預期回報	b	1,233
Assumption and modeling changes	假設及模型變化	c	(78)
Investment return variance	投資回報差異	d	495
Expense variance	費用差異	e	197
Income tax variance	稅項差異	f	330
Other experience variance	其他經驗差異	g	(596)
Exchange gain	匯率收益	h	477
Embedded Value as at 31 December 2010	於二零一零年十二月三十一日 之內涵價值		17,511

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6. MOVEMENT ANALYSIS OF EMBEDDED VALUE (Continued)

Notes:

- (a) New business contribution from sales of new business in 2010.
- (b) Return on value of in-force business plus expected interest on adjusted net assets.
- (c) Changes from model improvements and assumption changes having impact on the future distributable earnings of the in-force business.
- (d) Difference between the actual investment return and expected investment return in 2010.
- (e) Difference between the actual and expected expense in 2010.
- (f) Difference between the actual and expected income tax in 2010.
- (g) Difference between the actual experience and expected experience mainly includes dividend, mortality, morbidity, lapses and business taxes.
- (h) Exchange gain arising from the appreciation of the RMB.

7. KEY ASSUMPTIONS

TPL has adopted the best estimate approach in setting the assumptions used in the calculation of its embedded value and new business value. The assumptions have been based on the actual experience of TPL and certain benchmarks set by referencing general PRC economic conditions and the experience of other life insurance companies.

7.1 Risk discount rate

The risk discount rate represents the long-term, post-tax cost of capital of the investor for whom the valuation is made, together with an allowance for risk, taking into account factors such as the political and economic environment in the PRC.

As calculated, the discount rate is equal to the risk-free rate plus a risk premium. The risk free rate is based on the PRC ten-year government bond and the risk premium reflects the risk associated with future cash flows, including all of the risks which have not been considered in the valuation.

The risk discount rate currently applied by TPL is 11.5% for all in force and new business.

6. 內涵價值之動態分析 (續)

附註：

- (a) 二零一零年新業務銷售之貢獻。
- (b) 有效業務回報加調整後淨資產預期利益。
- (c) 此項包括模型改進及假設改變所引起的變化，對未來有效業務之可分配收入將有所影響。
- (d) 此乃二零一零年實際投資回報與預期投資回報之間的差額。
- (e) 此乃二零一零年實際費用與預期費用之間的差額。
- (f) 此乃二零一零年實際稅項與預期稅項之間的差額。
- (g) 此乃實際經驗與預期經驗之間的差額主要包括分紅、死亡率、發病率、退保及營業稅。
- (h) 人民幣升值所產生的匯率收益。

7. 主要假設

太平人壽在設定計算內涵價值及新業務價值之假設時乃採納最佳估計方法。有關假設乃基於太平人壽之實際經驗，及參照中國之整體經濟狀況及其他壽險公司之經驗而設定之若干基準。

7.1 風險貼現率

風險貼現率乃指接受估值之投資者之稅後長期資本成本，同時慮及中國有關政治經濟環境等因素對風險作出調整。

計算時，貼現率乃按無風險利率加風險溢價計算。無風險利率乃基於中國十年政府債券，而風險溢價反映與未來現金流有關之風險，包括所有在估值時未有慮及之風險。

太平人壽現時就其所有有效業務及新業務所採納之風險貼現率均為11.5%。

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7. KEY ASSUMPTIONS (Continued)

7.2 Investment return

Future investment returns have been calculated as the weighted average of the investment returns on existing assets and new assets assuming an investment return of 4.2% (2009: 4.2%) on new assets from fixed income securities. The investment returns on existing assets have been determined by the projected investment income in future years divided by the projected value of the assets. The calculation of projected investment income and the value of assets are based on yield to maturity, term to maturity and the book value of the assets.

The investment returns have been assumed to be 4.05% in 2011 (2009: assumed to be 4.0% in 2010), increasing to 4.5% in 2020 and thereafter (2009: 4.5% in 2020 and thereafter).

7.3 Expenses

Expenses have been projected based on benchmark assumptions.

7.4 Tax

The tax rate is assumed to be 25% according to tax regulations of the PRC.

7.5 Mortality

The experience mortality rates have been based on 70% of the China Life (2000-2003) table for non-annuities, with a three-year selection period. For annuitants, 80% and 70% of the China Life Annuity (2000-2003) table for males and females, respectively, have been assumed.

7.6 Morbidity

The experience morbidity assumptions have been based on the Group's own pricing tables. The loss ratios for short term accident and health insurance business have been assumed to be in the range of 40% to 57%.

7. 主要假設 (續)

7.2 投資回報

未來投資回報乃按現有資產及新貨幣之加權平均投資回報計算，假設新固定收入證券資產之投資回報為4.2% (二零零九年：4.2%)。現有資產之投資回報乃按未來年度之預期投資收益除以有關資產之預期價值計算。預期投資收益及資產價值乃基於滿期收益率、發行期限及資產之賬面值計算。

投資回報假設於二零一一年為4.05% (二零零九年：假設於二零一零年為4.0%)，於二零二零年及以後年度提高至4.5% (二零零九年：於二零二零年及以後年度為4.5%)。

7.3 費用

費用乃根據基準假設而預計。

7.4 稅項

根據中國訂定之稅務規例，稅率為25%。

7.5 死亡率

經驗死亡率乃按中國人壽非年金表 (2000—2003)，加三年選擇期之70%比率為基準計算。就一年年金產品而言，按中國人壽非年金表 (2000—2003) 的男性及女性的比率分別為80%及70%為基準計算。

7.6 發病率

發病率根據本集團本身的定價表假設計算。短期意外及健康險業務的賠付率乃假設以40%到57%之間的比率計算。

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7. KEY ASSUMPTIONS (Continued)

7.7 Lapses

The lapse assumptions have been based on TPL's actuarial pricing assumptions and adjusted to reflect the results of its recent experience studies.

7.8 Required capital

The required capital has been based on 120% of the minimum solvency margin (2009: 120%).

8. SENSITIVITY TESTING

Sensitivity testing in respect of the following key assumptions are summarized below:

At 31 December 2010, HK\$ million

Assumptions 假設

Assumptions 假設	
Base scenario	基本情景
Risk discount rate of 12.5%	風險貼現率為12.5%
Risk discount rate of 10.5%	風險貼現率為10.5%
Investment return increased by 25bp every year	投資回報每年提高25點子
Investment return decreased by 25bp every year	投資回報每年下跌25點子
10% increase in maintenance expenses	維持費用提高10%
10% decrease in maintenance expenses	維持費用下跌10%
10% increase in lapse rates	退保率提高10%
10% decrease in lapse rates	退保率下跌10%
10% increase in mortality and morbidity rates and claims ratio	死亡率及發病率及賠付率提高10%
10% decrease in mortality and morbidity rates and claims ratio	死亡率及發病率及賠付率下跌10%
Policyholder dividend increased from 70% to 80%	保單持有人股息由70%提高至80%
Lapse rates for Universal Life increased to 50% at the end of the 10th policy year	萬能壽險於第十個保單年度之退保率提高至50%
Required capital at 100% of solvency margin	資本要求按100%的償付能力
Required capital at 150% of solvency margin	資本要求按150%的償付能力

7. 主要假設 (續)

7.7 退保

退保假設乃基於太平人壽之精算定價假設，並作出調整，以反映其最近之經驗考察結果。

7.8 資本要求

資本要求是按最低償付能力的120%計算(二零零九年：120%)。

8. 敏感性測試

有關如下主要假設之敏感性測試概述如下：

於二零一零年十二月三十一日，百萬港元

	Value of in-force business after cost of capital 有效業務於扣除資本成本後之價值	New business value after cost of capital 新業務於扣除資本成本後之價值
	11,503	1,827
	10,666	1,606
	12,437	2,068
	12,039	1,981
	10,942	1,663
	11,143	1,729
	11,840	1,916
	11,479	1,791
	11,493	1,850
	11,339	1,791
	11,645	1,853
	10,473	1,485
	11,379	1,823
	11,992	1,960
	10,610	1,583