

Embedded Value

內含價值

1. BACKGROUND

The Group consists of three major business segments: the life insurance business, property and casualty insurance business and reinsurance business. The Group also has other companies and operations in the areas of investment holding, asset management, pensions and other businesses. The life insurance segment operated by TPL, a 75.1%-owned subsidiary, is a 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 discloses the Embedded Value and New Business Value of TPL in its Annual and Interim Results Announcements. 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 costs 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.

The Group's other business segments (including property and casualty insurance, reinsurance and pension and group life insurance) (collectively, "Other Core Operations") continue to develop well. To provide investors with further information on these operations, the Group also discloses the Group Embedded Value. The Group Embedded Value is defined as the Adjusted Net Worth of the Other Core Operations plus the Embedded Value of TPL. The Adjusted Net Worth of the Other Core Operations is determined by Hong Kong Financial Reporting Standards, with marked-to-market and goodwill adjustments. Please note that the Group Embedded Value calculation does not include any valuation for future new business.

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。本集團亦有其他公司經營投資控股、資產管理、養老保險及其他業務。太平人壽（本公司持有75.1%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是本集團重要之部份。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，本集團於年度及中期業績公告內披露太平人壽之內含價值及新業務價值。內含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。

本集團其他業務分部（包括財產保險、再保險及養老及團體人壽保險）（統稱「其他核心業務」）繼續發展良好。為向投資者提供更多有關以上營運的資料，本集團披露集團的總內含價值。總內含價值乃定義為其他核心業務的經調整資產淨值，加上太平人壽的內含價值。其他核心業務的經調整資產淨值按香港財務報告準則釐定，並對市價及商譽作出調整。請注意總內含價值的計算並不包括日後任何新業務的估值。

Embedded Value 內含價值

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 2016 are consistent with standards generally adopted by insurance companies in the PRC. PwC has also examined the methodologies used by the Group in preparing the Group Embedded Value.

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. In addition, the Group Embedded Value is also based on certain assumptions, and should not be viewed as the only benchmark for evaluating and valuing the businesses and operations of the Group. 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 of TPL and the Group Embedded Value, but also various other considerations. In addition, TPL is 75.1%-owned by the Company. The Embedded Value and the New Business Value of TPL as at 31 December 2016 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 and the Group Embedded Value, if they believe such calculations are important and material to the valuation of the Company.

2. 編製基準

本集團已委聘國際諮詢精算師羅兵咸永道有限公司（「羅兵咸永道」），審查太平人壽編製於二零一六年十二月三十一日內含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。羅兵咸永道亦有審查本集團於編製總內含價值時採用的方法。

3. 提示聲明

計算太平人壽的內含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。此外，總內含價值亦基於若干假設，因此不應視之為評價及評估本集團業務營運的唯一基準。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，投資者不僅要慮及太平人壽的內含價值及新業務價值和總內含價值，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75.1%股權。因此，不應把下列所披露之於二零一六年十二月三十一日之太平人壽內含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等因素，及其他支持計算太平人壽內含價值及新業務價值計算及總內含價值之因素。

Embedded Value

內含價值

GROUP EMBEDDED VALUE

At 31 December, HK\$ million

總內含價值

於十二月三十一日，百萬港元

		2016 二零一六年		2015 二零一五年	
		C-ROSS ¹ 償二代 ¹	Solvency I 償一代	C-ROSS 償二代	Solvency I 償一代
Adjusted net worth ²	經調整資產淨值 ²	80,928	66,180	81,062	77,037
Value of in-force business before cost of capital for TPL	太平人壽有效業務扣除資本成本前之價值	49,116	58,201	42,867	48,472
Cost of Capital for TPL	太平人壽資本成本	(1,197)	(11,138)	(956)	(7,961)
Group embedded value	總內含價值	128,847	113,243	122,973	117,548
Attributable to:	應佔：				
Owners of the Company	本公司股東權益	102,474	90,756	97,980	93,905
Non-controlling interests	非控股股東權益	26,373	22,487	24,993	23,643
Group embedded value	總內含價值	128,847	113,243	122,973	117,548

¹ Embedded value under C-ROSS is calculated in accordance with "Actuarial practice standard: Assessment standard for embedded value of life insurance" (《精算實踐標準：人身保險內含價值評估標準》) published by the China Association of Actuaries "Assessment Standard". Embedded value under Solvency I is calculated in accordance with "Guidance for compiling personal insurance embedded value report" (《人身保險內含價值報告編制指引》) published by the CIRC (abolished in 2016). Unless otherwise specified, the remaining results of this part were presented on the above basis.

² The adjusted net worth is based on CTIH's audited net asset value, after making the following major adjustments:

- i TPL's net asset is calculated on the PRC GAAP basis and adjusted the reserve to the commensurate liability required by Assessment Standard. The accumulated surplus/loss from par business is also taken into account;
- ii Goodwill and intangible assets produced during consolidation have been deducted;
- iii Fair value adjustments to HTM assets.

¹ 償二代口徑下的內含價值是根據中國精算師協會發佈之《精算實踐標準：人身保險內含價值評估標準》(「評估標準」)計算。償一代口徑下內含價值根據中國保險監督管理委員會發佈之《人身保險內含價值報告編制指引》(已於二零一六年廢止)計算。若無特別說明，本部分其餘之結果均照上述口徑列示。

² 經調整資產淨值是按中國太平控股經審計後資產淨值，及進行以下主要調整而計量：

- i 太平人壽資產淨值以中國會計準則淨資產為基礎計量，並調整準備金至評估標準所要求之相應負債，同時考慮分紅業務累計盈餘／虧損影響；
- ii 扣除合併賬產生的商譽及無形資產；
- iii 持有至到期資產的公允價值調整。

Embedded Value 內含價值

EMBEDDED VALUE OF TPL

1. EMBEDDED VALUE

At 31 December, HK\$ million

		2016 二零一六年		2015 二零一五年	
		C-ROSS 償二代	Solvency I 償一代	C-ROSS 償二代	Solvency I 償一代
Adjusted Net Worth	經調整資產淨值	44,130	29,381	45,511	41,351
Value of in-force business before cost of capital	有效業務扣除資本 成本前之價值	49,116	58,201	42,867	48,472
Cost of Capital	資本成本	(1,197)	(11,138)	(956)	(7,961)
Embedded Value	內含價值	92,049	76,444	87,422	81,862
Attributable to:	應佔：				
Owners of the Company	本公司股東權益	69,129	57,409	65,654	61,478
Non-controlling interests	非控股股東權益	22,920	19,035	21,768	20,384
Embedded Value	內含價值	92,049	76,444	87,422	81,862

If no assumption change, the embedded value of TPL for the year 2016 under C-ROSS was HK\$97.610 billion, embedded value under Solvency I was HK\$83.056 billion.

太平人壽之內含價值

1. 內含價值

於十二月三十一日，百萬港元

二零一六年太平人壽償二代下同假設口徑內含價值為976.10億港元，償一代下同假設口徑內含價值為830.56億港元。

Embedded Value 內含價值

EMBEDDED VALUE OF TPL (Continued)

2. NEW BUSINESS VALUE

HK\$ million

	For the Past 12 Months as of 31 December 2016 於二零一六年十二月三十一日 過去十二個月		For the Past 12 Months as of 31 December 2015 於二零一五年十二月三十一日 過去十二個月	
	C-ROSS 償二代	Solvency I 償一代	C-ROSS 償二代	Solvency I 償一代
New business value before cost of capital 新業務扣除資本成本前之價值	12,032	9,510	9,070	7,670
Cost of capital 資本成本	(2,917)	(2,384)	(1,995)	(1,653)
New business value after cost of capital 新業務扣除資本成本後之價值	9,115	7,126	7,075	6,017

If no assumption change, the new business value of TPL for the year 2016 under C-ROSS was HK\$10.607 billion, new business value under Solvency I was HK\$8.763 billion.

New business margin of TPL for the year 2016 under C-ROSS was 33.5% (2015 under C-ROSS: 32.9%), 39.0% if no assumption change; for the agency force business under C-ROSS was 42.8% (2015 under C-ROSS: 43.6%) 48.2% if no assumption change; for the bancassurance regular business under C-ROSS was 25.6% (2015 under C-ROSS: 31.2%), 30.8% if no assumption change.

New business margin of TPL for the year 2016 under Solvency I was 26.2% (2015 under Solvency I: 28.0%), 32.2% if no assumption change; for the agency force business under Solvency I was 32.7% (2015 under Solvency I: 36.2%) 38.8% if no assumption change; for the bancassurance regular business under Solvency I was 26.5% (2015 under Solvency I: 30.3%), 31.8% if no assumption change.

太平人壽之內含價值(續)

2. 新業務之價值

百萬港元

二零一六年太平人壽償二代下同假設口徑新業務價值為106.07億港元，償一代下同假設口徑新業務價值為87.63億港元。

二零一六年太平人壽償二代下整體新業務價值率為33.5%（二零一五年償二代下：32.9%），同假設口徑下為39.0%；其中個險償二代下新業務價值率為42.8%（二零一五年償二代下：43.6%），同假設口徑下為48.2%；銀保期繳償二代下新業務價值率為25.6%（二零一五年償二代下：31.2%），同假設口徑下為30.8%。

二零一六年太平人壽償一代下整體新業務價值率為26.2%（二零一五年償一代下：28.0%），同假設口徑下為32.2%；其中個險償一代下新業務價值率為32.7%（二零一五年償一代下：36.2%），同假設口徑下為38.8%；銀保期繳償一代下新業務價值率為26.5%（二零一五年償一代下：30.3%），同假設口徑下為31.8%。

Embedded Value 內含價值

EMBEDDED VALUE OF TPL (Continued)

太平人壽之內含價值(續)

2. NEW BUSINESS VALUE (Continued)

2. 新業務之價值(續)

New business value by line of business were as follows:

按業務劃分新業務之價值如下:

HK\$ million

百萬港元

		For the Past 12 Months as of 31 December 2016 於二零一六年 十二月三十一日 過去十二個月		For the Past 12 Months as of 31 December 2015 於二零一五年 十二月三十一日 過去十二個月	
		C-ROSS 償二代	Solvency I 償一代	C-ROSS 償二代	Solvency I 償一代
Individual Bancassurance – Regular premium products	個人代理 銀行保險 – 期繳保費產品	8,805	6,721	6,828	5,677
Others ¹	其他 ¹	1,042 (732)	1,078 (673)	978 (731)	950 (610)
		9,115	7,126	7,075	6,017

¹ Others mainly includes the single premium products under bancassurance, other channels (mainly consists of telemarketing) etc.

¹ 其他主要包括銀行保險躉繳保費產品、多元銷售(主要由電話營銷組成)等。

Embedded Value 內含價值

EMBEDDED VALUE OF TPL (Continued)

太平人壽之內含價值(續)

3. MOVEMENT ANALYSIS OF EMBEDDED VALUE

3. 內含價值之動態分析

The following analysis shows the movement of the Embedded Value to 31 December 2016.

以下分析反映內含價值如何變化至二零一六年十二月三十一日。

		<i>notes</i> 註	HK\$ million 百萬元
Embedded Value as at 31 December 2015	於二零一五年十二月三十一日 之內含價值		87,422
Expected return on Embedded Value	內含價值預期回報	<i>a</i>	6,672
New business value	新業務之價值	<i>b</i>	9,115
Minimum capital dispersion effect	最低資本分散效應	<i>c</i>	2,310
Assumption and model change	假設及模型變化	<i>d</i>	(4,261)
Other experience variance and exchange rate impact	其他經驗差異項及匯率影響	<i>e</i>	(7,015)
Capital Injection or dividend to shareholders	資本注入或股東紅利	<i>f</i>	(2,194)
Embedded Value as at 31 December 2016	於二零一六年十二月三十一日之 內含價值		92,049

notes:

- (a) *Return on value of in-force business plus expected interest on adjusted net assets.*
- (b) *New business contribution from sales of new business in the year of 2016.*
- (c) *Minimum capital dispersion effect refers to the difference caused by the different evaluation level of cost of capital under C-ROSS embedded value framework. Cost of capital of new business is evaluated on the policy level while cost of capital of in-force business is evaluated on the company level.*
- (d) *Assumption and model change.*
- (e) *Including differences between the actual experience and expected experience for investment return, dividend, mortality, morbidity, lapses, expenses and the effect from reinsurance contracts and assumption changes, as well as exchange rate impact arising from the exchange rate of the RMB.*
- (f) *Dividend to shareholders in 2016.*

註：

- (a) 有效業務回報加調整後淨資產預期利益。
- (b) 二零一六年新業務銷售之貢獻。
- (c) 最低資本分散效應，主要為償二代內含價值框架下，新業務價值資本成本在保單層面核算而有效業務價值資本成本在整體層面核算造成的差異。
- (d) 假設及模型變化的影響。
- (e) 包括投資收益率、分紅、死亡率、發病率、退保、費用等實際經驗與預期經驗之間的差額所產生的影響，以及人民幣兌換所產生的匯率影響。
- (f) 二零一六年股東分紅。

Embedded Value

內含價值

EMBEDDED VALUE OF TPL (Continued)

4. 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.

4.1 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 11.0% (2015:11.0%) for all in force and new business.

4.2 Investment return

The annual investment returns have been assumed to be 4.8% with an increase of 0.05% annually up to 5.0% and thereafter remain unchanged (2015: The annual investment return assumed to be 5.5%).

4.3 Expenses

Expenses have been projected based on benchmark assumptions.

4.4 Tax

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

太平人壽之內含價值(續)

4. 主要假設

太平人壽在設定計算內含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。

4.1 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11.0% (二零一五年：11.0%)。

4.2 投資回報

假設未來年度每年投資回報率為自4.8%起，以後每年增加0.05%，至5.0%並保持不變(二零一五年：假設未來年度每年投資回報率為5.5%)。

4.3 費用

費用乃根據基準假設而預計。

4.4 稅項

根據中國稅法規定，稅率為25%。

Embedded Value

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EMBEDDED VALUE OF TPL (Continued)

4. KEY ASSUMPTIONS (Continued)

4.5 Mortality

The experience mortality rates have been based on 70% of the China Life Insurance Mortality Table (2000-2003) for non-annuitants, with a three-year selection period. For annuity products, 80% and 70% of the China Life Insurance Mortality Table (2000-2003) for annuitants have been used for males and females, respectively.

4.6 Morbidity

The experience morbidity rates have been based on 70% of the filing rates with a three-year selection period.

4.7 Claim ratio

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 36% to 62% (2015: 39% to 53%).

4.8 Lapses

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

4.9 Required capital

The required capital has been based on 100% of the minimum solvency margin (2015: 100%).

太平人壽之內含價值(續)

4. 主要假設(續)

4.5 死亡率

經驗死亡率乃按中國人壽保險業經驗生命表(2000-2003)非養老金業務表,加三年選擇期之70%比率為基準計算,就年金產品而言,按中國人壽保險業經驗生命表(2000-2003)養老金業務表的男性及女性的比率分別為80%及70%為基準計算。

4.6 發病率

經驗發病率乃按報備發生率之70%比率加三年選擇期為基準計算。

4.7 賠付率

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36%到62%之間的比率計算(二零一五年:39%到53%)。

4.8 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。

4.9 資本要求

資本要求是按最低償付能力的100%計算(二零一五年:100%)。

Embedded Value 內含價值

EMBEDDED VALUE OF TPL (Continued)

太平人壽之內含價值(續)

5. SENSITIVITY TESTING

5. 敏感性測試

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

有關主要假設之敏感性測試概述如下：

At 31 December 2016, HK\$ million

於二零一六年十二月三十一日，百萬港元

Assumptions 假設		Value of in-force business after cost of capital 有效業務價值 扣除資本成本後	New business value after cost of capital 新業務價值 扣除資本成本後
Base scenario	基本情景	47,919	9,115
Risk discount rate of 11.5%	風險貼現率為11.5%	46,367	8,590
Risk discount rate of 10.5%	風險貼現率為10.5%	49,588	9,681
Investment return increased by 50bp every year	投資回報每年提高50點子	53,152	10,528
Investment return decreased by 50bp every year	投資回報每年下跌50點子	42,662	7,697
10% increase in mortality rates	死亡率提高10%	47,632	9,035
10% decrease in mortality rates	死亡率下跌10%	48,207	9,196
10% increase in morbidity rates	發病率提高10%	47,149	8,897
10% increase in lapse rates	退保率提高10%	47,910	8,917
10% decrease in lapse rates	退保率下跌10%	47,973	9,335
10% increase in expense ratio assumption	費用率假設提高10%	47,480	8,976
Results on the same assumption basis as 2015 (investment return at 5.5%)	二零一五年同假設口徑結果 (投資收益率5.5%)	53,480	10,607