(Translation)

Notification of the Insurance Commission
Re: Valuation of Assets and Liabilities of Life Insurance Companies, B.E. 2554 (2011)

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By virtue of section 38(2) and section 45 of the Life Insurance Act, B.E. 2535 (1992), as amended by the Life Insurance Act (No. 2), B.E. 2551 (2008), and the resolution of Insurance Commission Meeting No. 12/2010 on 17 November 2010, the Insurance Commission hereby issues the following notification.

Clause 1 This notification is called the "Notification of the Insurance Commission Re: Valuation of Assets and Liabilities of Life Insurance Companies, B.E. 2554 (2011)."

Clause 2 This notification shall come into force on and from 1 September 2011.

Clause 3 The following shall be repealed:

(1) The Notification of the Insurance Commission Re: Valuation of Assets and Liabilities of Life Insurance Companies, B.E. 2552 (2009), dated 11 January 2009.

(2) The Notification of the Insurance Commission Re: Valuation of Assets and Liabilities of Life Insurance Companies (No. 2), B.E. 2554 (2011), dated 10 June 2011.

Chapter 1
Definitions

Clause 4 In this notification,

"Commission" means the Insurance Commission.

"Office" means the Office of Insurance Commission.

"company" means a company that is licensed to undertake the life insurance business under the life insurance law, and shall include the branch of a foreign life insurance company that is licensed to undertake the life insurance business in the Kingdom under the life insurance law.

"financial institution" means a financial institution under the law governing financial institution businesses.

"debt instrument" means an instrument evidencing that the issuer is obligated, directly or indirectly, to pay cash or other asset to a holder of that instrument according to the amount and conditions explicitly or implicitly prescribed, such as bonds, treasury bills, debentures, convertible debentures, promissory notes, bills of exchange, debt instruments with embedded derivatives, or other kinds of debt instruments as prescribed by the registrar.

"equity instrument" means an instrument evidencing that the holder has ownership in residual interest in the invested business, such as ordinary shares, preference shares, share warrants, non-voting depository receipts (NVDRs), depository receipts (DRs), investment units, or other kinds of equity instruments as prescribed by the registrar.

"derivatives instrument" means a financial instrument of which the value and return are dependent upon the value of an underlying asset, and shall include derivatives under the law on derivatives.

"savings lottery" means a savings mobilizing lottery issued by a bank established under a specific law, with payment of benefit in the form of interest upon its maturity as well as the right to win prizes from time to time.

"BEX" means the bond exchange under the supervision of the Securities and Exchange of Thailand (the "SET").

"SET" means to include the Market for Alternative Investment (the "MAI").

"foreign exchange" means an overseas stock exchange under the supervision of a securities and exchange regulatory body that is an ordinary member of the International Organization of Securities Commissions (IOSCO), or a member of the World Federation of Exchanges (WFE).

"ThaiBMA" means the Thai Bond Market Association licensed to be established as an association related to securities business under the law on securities and exchange.

"valuation company" means a valuation company on the list approved by the Office of the Securities and Exchange Commission (the "Office of the SEC") under the Notification of the Office of the SEC re: Approval of Valuation Companies and Principal Valuers for Public Purposes.

"certified public accountant" means a certified public accountant under the law on accounting profession.

"GAAP" means the accounting standards, financial reporting standards, and accounting practices prescribed by the Federation of Accounting Professions.

"weighted-average duration of a debt instrument" or "duration" means the number of years during which a holder will receive interest and principal repayment, weight averaged by the present value of cash flow received in each period.

Clause 5 The meanings or definitions of the items of assets and liabilities other than those ascribed in this chapter shall be in accordance with the GAAP or, in the absence of the relevant definitions under the GAAP, the Notification of the Insurance Commission re: Investment in other Businesses by Life Insurance Companies.

Chapter 2
Valuation of Assets

Clause 6 Debt instruments shall be valued according to the methods and conditions prescribed below.

(1) For debt instruments listed in Thailand with high liquidity, the prices at the end of the valuation date published by the designated agencies shall apply as follows:

(a) in the case of debt instruments listed with the ThaiBMA, the price exclusive of accrued interest (clean price) published by the ThaiBMA or an agency recognized by the Office of the SEC;

(b) in the case of debt instruments listed on the BEX, the current bid prices published by the BEX.

In the case of listed debt instruments under (a) and (b), the prices under (a) shall apply.

(2) For debt instruments listed in Thailand which are inactive during the preceding fifteen business days, the fair value valuation technique using the pricing models as described below shall be adopted.

(a) The debt instruments shall be discounted by a rate appropriate to the risks associated with them, using any of the following rules on a consistent basis:

1) to estimate the value by making comparison with the yield from trading on the ThaiBMX or the BEX, or the bid yield from the market maker during the most recent valuation period which is not earlier than fifteen business days, for debt instruments of the same or similar type, credit rating or duration to the debt instruments to be estimated for the fair value (comparative bond method), and taking into account the liquidity of these debt instruments;

2) to estimate the value by making comparison with the reference yield published by the Thai BMX, which is of the same or similar duration to the debt instruments to be estimated for the fair value (reference yield curve method); or

3) to estimate the value using a discount rate which is an interest rate of zero-coupon Thai government bonds, as published by the ThaiBMA, plus an appropriate credit risk premium.

A company may change the method adopted by it only after the production of evidence to satisfy the Office that the value estimated according to the existing rules does not best represent the fair value of the relevant debt instruments.

(b) The fair value of debt instruments which have or may have problems with respect to financial condition, including debt instruments subject to temporary suspension of principal or interest payment or debt restructuring, shall be estimated at book value, adjusted to reflect the market price of assets and liabilities (adjusted book value method), or at liquidation value.

(c) Debt instruments under which principal payment is due and dishonored, or of which the issuer dissolves its business or is subject to a dissolution order, shall not be valued.

(3) Debt instruments listed on a foreign exchange shall be valued at the prices published by Bloomberg, Reuters, Telerate, or Euroclear.

(4) Debt instruments other than those under (1), (2) and (3) shall be valued using any of the following methods on a consistent basis:

(a) the fair value valuation technique based on the model under (2); or

(b) the amortized cost using effective interest rate less allowance for impairment method.

If the maturity of these debt instruments does not exceed one year from the issuance date, they shall be valued at cost *mutatis mutandis*.

Clause 7 Equity instruments shall be valued according to the methods and conditions prescribed below.

(1) For equity instruments listed on the SET which are active on the valuation date, the bid price at the end of the valuation date published by the SET shall apply.

(2) For equity instruments listed on the SET which are inactive on the valuation date, the bid price which is most recent, but no earlier than the preceding fifteen business days, shall apply.

(3) For equity instruments listed on the SET which are inactive during the preceding fifteen business days, any of the following fair value valuation techniques shall be adopted on a consistent basis:

(a) the discounted cash flow method, by projecting cash flow from the value anticipated from selling equity instruments, or from the dividend or other return anticipated by shareholders, and applying a discount rate which is the interest rate of zero-coupon Thai government bonds, as published by the ThaiBMA, plus an appropriate risk premiums;

(b) the comparison with any of the following ratios of equity instruments of the same type, category, and features:

1) price/earnings ratio;

2) enterprise value/earnings before interest, tax, depreciation and amortization ratio;

3) price/book value ratio; or

4) price/net asset value ratio;

(c) the average of the latest, written bid prices on the valuation date from at least three securities companies; or

(d) the comparison with the change in price during the same period of equity instruments of the same type, category, and features which are listed on the SET, or with the price index of the same industrial sector of the SET.

A company may change the method adopted by it only after the production of evidence to satisfy the Office that the value estimated according to the existing method does not best represent the fair value of the relevant equity instruments.

(4) Equity instruments which have been approved by the Office of the SEC, but are pending the application for listing on the SET, shall be valued at the initial public offering (IPO) prices.

(5) Equity instruments listed on a foreign exchange shall be valued at the bid prices at the end of the valuation date as published by the foreign exchange.

(6) For equity instruments listed on a foreign exchange which are inactive during the preceding fifteen business days, the fair value valuation technique under (3) shall apply *mutatis mutandis*.

(7) For equity instruments which are not listed on the SET or a foreign exchange, the fair value valuation technique under (3) shall apply *mutatis mutandis*, provided that:

(a) equity instruments which are investment units shall be valued at the net asset value (NAV) of the mutual fund at the end of the valuation date, or, if the NAV at the end of the valuation date is not available, the latest NAV before the valuation date;

(b) equity instruments which are warrants not listed on the SET shall be valued using any of the following methods on a consistent basis:

1) the prices of securities to be received from the exercise of right, according to the valuation rules prescribed in (1), (2), (3), (4), (5), (6) and (7), less the strike prices, provided that the prices of the warrants calculated according to this method are not less than zero; or

2) the fair value valuation technique generally adopted in the market, which has been proven to provide reliable prices based on actual trading price therein, and is recognized by the Office.

Clause 8 Savings lotteries shall be valued according to the discounted cash flow technique, without taking into account the contingent prizes, or at face value *mutatis mutandis*.

Clause 9 Loans, investment in hire purchase on car, investment in finance leases, outstanding premiums, accrued investment income, and other receivables shall be valued as prescribed below:

(1) Loans secured by insurance policies shall be valued according to the amortized cost using effective interest rate method, or the fair value valuation technique, provided that such value does not exceed the value assessed by the valuation method prescribed by the Office. Either method, when selected, shall be adopted on a consistent basis.

(2) Loans other than those under (1) shall be valued according to the amortized cost using effective interest rate less allowance for impairment method, or the fair value valuation technique with a discounted cash flow. Either method, when selected, shall be adopted on a consistent basis.

(3) Investment in hire purchase on car, investment in finance leases, outstanding premiums, accrued investment income, and other receivables shall be valued at the prices assessed according to the measurement method prescribed in the GAAP, less allowance for impairment.

(4) The allowance for impairment under (2) and (3) shall be determined according to the methods prescribed below.

(a) The items or groups of items of loans, investment in hire purchase on car, investment in finance leases, outstanding premiums, accrued investment income, and other receivables will be impaired and suffer an impairment loss when there is evidence of a decrease in the projected future cash flows of those items or groups of items which can be reliably estimated.

(b) If the items are material, impairment shall be determined on an item-by-item basis. If the items are immaterial, impairment may be determined on an item-by-item or a group basis.

(c) After considering both the material and immaterial items, if the company is of the view that there is no decrease in the projected future cash flow, the impairment of assets shall be assessed on a group basis. Items with the same credit risk shall be combined for further assessment of an overall impairment.

(d) The items of loans, investment in hire purchase on car, investment in finance leases, outstanding premiums, accrued investment income, and other receivables in respect of which impairment has been assessed on an item-by-item basis, and impairment loss has been recognized shall not be included in the assessment of impairment on a group basis.

(e) After determining the impairment according to the methods under (a), (b), (c) and (d), the values of the items under (2) and (3) must not exceed the limits as prescribed below.

1) Loans secured by mortgage of immovable property

a) If a debtor fails to pay principal or interest according to the terms of a loan agreement for a period in excess of three months but not exceeding six months from the due date of payment, the total amount of outstanding loan inclusive of overdue interest, after deduction of allowance for impairment, shall not be valued in excess of 80 percent of the appraisal price of collateral property, provided that this sum does not exceed the value of the outstanding loan inclusive of overdue interest.

b) If a debtor fails to pay principal or interest according to the terms of a loan agreement for a period in excess of six months from the due date of payment, the total amount of outstanding loan inclusive of overdue interest, after deduction of allowance for impairment, shall not be valued in excess of 50 percent of the appraisal price of collateral property, provided that this sum does not exceed the value of the outstanding loan inclusive of overdue interest.

c) If there is a compromise agreement and the debtor has made at least six consecutive payments thereunder in full, or has already paid a total amount of at least 10 percent of the outstanding principal and interest thereunder, the impairment shall be determined according to the methods in (a), (b), (c) and (d). If the debtor fails to pay principal or interest under the compromise agreement for a period in excess of two months from the due date of payment, the outstanding loan inclusive of overdue interest shall be valued according to 1) b).

d) The appraisal price of collateral property under 1) a), 1) b), or 1) c) shall be the value that has been appraised by a valuation company within the previous 36 months, less accumulated depreciation, and less allowance for impairment. That valuation company must not be related to the company in the same way as a person is related to a director under the Notification of the Commission re: Persons related to directors of the companies. If no condition is met, it shall be deemed that the appraised price of the collateral property is not available.

2) Loans secured by securities

a) If a debtor fails to pay principal or interest according to the terms of a loan agreement for a period in excess of three months but not exceeding 12 months from the due date of payment, the total amount of outstanding loan inclusive of overdue interest, after deduction of allowance for impairment, shall not be valued in excess of 90 percent of the value of security on the valuation date, which is appraised according to the rules under clause 6 or clause 7, depending on the type of security, provided that this sum does not exceed the value of the outstanding loan inclusive of overdue interest.

b) If a debtor fails to pay principal or interest according to the terms of a loan agreement for a period in excess of 12 months from the due date of payment, the total amount of outstanding loan inclusive of overdue interest shall be fully impaired.

3) Investment in hire purchase on car and investment in finance leases

a) If a hire purchaser or lessee is in default for a period in excess of three months but bot exceeding six months from the due date of payment, the investment after deduction of allowance for impairment shall not be valued in excess of 90 percent of the outstanding investment value.

b) If a hire purchaser or lessee is in default for a period in excess of six months from the due date of payment, the investment shall be impaired in full.

4) Loans other than those under 1), 2) and 3), with the exception of loans secured by insurance policies, in respect of which debtors fail to pay principal or interest according to the terms of the loan agreements for a period in excess of three months from the due date of payment, shall be impaired in full.

5) Upon occurrence of any of the following cases, accrued interest from bonds, notes, and convertible debentures shall be fully impaired:

a) interest payment is overdue in excess of three months from the due date of payment;

b) principal payment is due but dishonored; and

c) the issuer dissolves its business or is subject to a dissolution order.

6) Accrued interest other than those under 5), and other accrued investment income which are accrued in excess of three months from the due date of payment shall be fully impaired.

7) Receivables from the sale of debt instruments, equity instruments, and savings lotteries in respect of which payment is not received by the due date of payment shall be fully impaired.

8) Outstanding premiums, except for outstanding premiums under accident insurance policies

a) If a company is unable to collect premiums for a period in excess of 30 days but not exceeding 60 days from the expiration of relaxation period specified in insurance contracts, the remaining outstanding premiums after deduction of allowance for impairment shall not be valued in excess of 50 percent of the outstanding premiums before deduction of allowance for impairment.

b) If a company is unable to collect premiums for a period in excess of 60 days but not exceeding 90 days from the expiration of relaxation period specified in insurance contracts, the remaining outstanding premiums after deduction of allowance for impairment shall not be valued in excess of 25 percent of the outstanding premiums before deduction of allowance for impairment.

c) If a company is unable to collect premiums for a period in excess of 90 days from the expiration of relaxation period specified in insurance contracts, the outstanding premiums shall be fully impaired.

Clause 10 Fair value of derivatives instruments, including derivatives instruments embedded in debt instruments or equity instruments, shall be determined at market price. If no market price is available, the fair value shall be determined using the valuation technique generally adopted in the market, which has been proven to provide reliable prices based on actual trading therein, and is recognized by the Office.

Clause 11 Cash, deposits at financial institutions, deposit receipts, and negotiable certificates of deposit

(1) Cash shall be valued at the existing amount.

(2) Deposits at financial institutions and certificates of deposit shall be valued at the deposited amount. Certificates of deposit shall be valued at the amortized cost.

Clause 12 Land, building and condominium unit used as business premises, immovable property awaiting for sale, including investment in immovable property, shall be valued at the price appraised by a valuation company within the previous 36 months, less accumulated depreciation, and less allowance for impairment. That valuation company must not be related to the company in the same way as a person is related to a director under the Notification of the Commission re: Persons related to directors of the companies. If no condition is met, it shall be deemed that the appraised price is not available.

Clause 13 Immovable property which a company fails to dispose of within the period prescribed under section 34, paragraph two of the Life Insurance Act, B.E. 2535 (1992), as amended by the Life Insurance Act (No. 2), B.E. 2551 (2008) shall be valued at the price appraised by a valuation company within the previous 36 months, less accumulated depreciation, and less allowance for impairment. That valuation company must not be related to the company in the same way as a person is related to a director under the Notification of the Commission re: Persons related to directors of the companies. If no condition is met, it shall be deemed that the appraised price is not available.

The deduction of allowance for impairment under paragraph one shall be as prescribed below.

(1) If a company is unable to dispose of immovable property until the expiration of one year but not exceeding two years from the end of a relaxation period granted by the registrar under section 34, paragraph two, the allowance for impairment shall be deducted at the rate of 20 percent of the value from the assessment in clause 13, after deduction of accumulated depreciation.

(2) If a company is unable to dispose of immovable property until the expiration of two years but not exceeding three years from the end of a relaxation period granted by the registrar under section 34, paragraph two, the allowance for impairment shall be deducted at the rate of 40 percent of the value from the assessment in clause 13, after deduction of accumulated depreciation.

(3) If a company is unable to dispose of immovable property until the expiration of three years but not exceeding four years from the end of a relaxation period granted by the registrar under section 34, paragraph two, the allowance for impairment shall be deducted at the rate of 50 percent of the value from the assessment in clause 13, after deduction of accumulated depreciation.

(4) If a company is unable to dispose of immovable property until the expiration of more than four years from the end of a relaxation period granted by the registrar under section 34, paragraph two, the allowance for impairment shall be deducted at the rate of 70 percent of the value from the assessment in clause 13, after deduction of accumulated depreciation.

Clause 14 Immovable property acquired or held by the company in contradiction with section 33(9) of the Life Insurance Act, B.E. 2535 (1992) shall be valued at the price appraised by a valuation company within the previous 36 months, less accumulated depreciation, and less allowance for impairment. That valuation company must not be related to the company in the same way as a person is related to a director under the Notification of the Commission re: Persons related to directors of the companies. If no condition is met, it shall be deemed that the appraised price is not available.

The deduction of allowance for impairment under paragraph one shall be as prescribed below.

(1) If a company is unable to dispose of immovable property until the expiration of one year but not exceeding two years from the date of acquisition, the allowance for impairment

shall be deducted at the rate of 20 percent of the value from the assessment in clause 14, after deduction of accumulated depreciation.

(2) If a company is unable to dispose of immovable property until the expiration of two years but not exceeding three years from the date of acquisition, the allowance for impairment shall be deducted at the rate of 40 percent of the value from the assessment in clause 14, after deduction of accumulated depreciation.

(3) If a company is unable to dispose of immovable property until the expiration of three years but not exceeding four years from the date of acquisition, the allowance for impairment shall be deducted at the rate of 55 percent of the value from the assessment in clause 14, after deduction of accumulated depreciation.

(4) If a company is unable to dispose of immovable property until the expiration of more than four years from the date of acquisition, the allowance for impairment shall be deducted at the rate of 70 percent of the value from the assessment in clause 14, after deduction of accumulated depreciation.

Clause 15 Reinsurance assets shall be valued at the fair value in accordance with the rules and methods as prescribed below.

(1) Reinsurance recoveries on technical reserves shall be valued using the actuarial method in accordance with the rules and methods prescribed in chapter 3: valuation of liabilities.

(2) Reinsurance assets other than those under (1) shall be valued at the reinsurance contract value, less allowance for impairment.

(3) The allowance for impairment under (2) shall be determined from:

(a) explicit evidence that the company may not receive all amounts according to the conditions of contract; and

(b) impact that can be reliably measured in terms of money.

Clause 16 Any assets for which a valuation method is not specified herein shall be valued according to the recognition and measurement method specified in the GAAP, provided that:

(1) assets hedging against borrowers' failure to redeliver securities, which arise from securities borrowing transactions specifically where a company is a lender, shall not yet be valued as assets of a company;

(2) deferred tax assets shall not yet be valued as assets of a company.

Chapter 3
Valuation of Liabilities

Clause 17 The premium reserves for insurance policies with contractual term in excess of one year, or for contracts with guaranteed automatic renewal in respect of which a company cannot exercise termination right, or increase or decrease premiums, or change any benefits throughout the term thereof, shall be valued according to the rules and methods as prescribed below.

(1) The premium reserves for insurance policies not classified under (2) and (3) shall be calculated according to the rules and methods as follows.

(a) A gross premium reserve shall be calculated according to the gross premium valuation (the "GPV") method, using the assumptions that reflect the best estimates of the obligations under insurance contracts before reinsurance, and the provision for adverse deviations (the "PAD") of these assumptions.

(b) A net premium reserve shall be calculated according to the GPV method, using the assumptions that reflect the best estimates of the obligations under insurance contracts after reinsurance, and the PAD of these assumptions.

(c) A reinsurance recovery reserve shall be calculated by deducting the net premium reserve from the gross premium reserve.

(2) The premium reserves for group life insurance policies shall be calculated according to the rules and methods as follows.

(a) A gross premium reserve shall be calculated according to the GPV method, using the assumptions that reflect the best estimates of the obligations under insurance contracts before reinsurance, multiplied by one point zero nine.

(b) A net premium reserve shall be calculated according to the GPV method, using the assumptions that reflect the best estimates of the obligations under insurance contracts after reinsurance, multiplied by one point zero nine.

(c) A reinsurance recovery reserve shall be calculated by deducting the net premium reserve from the gross premium reserve.

(3) The premium reserves for accident insurance policies, or accident or health coverage endorsements to life insurance policies which do not cover partial or total disability or critical illness, shall be calculated according to the rules and methods as follows.

(a) A gross premium reserve shall be calculated according to the GPV method, using the assumptions that reflect the best estimates of the obligations under insurance contracts gross of reinsurance, multiplied by one point one five.

(b) A net premium reserve shall be calculated according to the GPV method, using the assumptions that reflect the best estimates of the obligations under insurance contracts net of reinsurance, multiplied by one point one five.

(c) A reinsurance recovery reserve shall be calculated by deducting the net premium reserve from the gross premium reserve.

The rules relating to GPV, as well as the assumptions and the PAD supporting the GPV under (1)(a), (1)(b), (2)(a), (2)(b), (3)(a) and 3(b) shall be in accordance with the attachments hereto.

Clause 18 The premium reserves for insurance policies not classified under clause 17 shall be valued according to the rules prescribed in the Notification of the OIC re: Valuation of assets and liabilities under the non-life insurance law. For the purpose of calculating unearned premium reserves, the commission rate for agents and brokers shall be 18 percent, and the reinsurance commission rate shall be the rate actually received by a company but not exceeding 18 percent. In calculating the unexpired risk reserves and claim reserves, the PAD at the confidence level of 75 percent shall be used for the unexpired risk reserves and claim reserves specified in clause 19. However, if the company also provides insurance coverage that offers the same benefit but with a coverage term of one year or more, such as a group life insurance policy that provides mortgage loan protection with a coverage term of one year or more but not exceeding 30 years, or a term life

insurance policy with a coverage term of one year or more but not exceeding 15 years, the company may conduct valuation according to the rules and methods under clause 17 *mutatis mutandis*.

Clause 19 The PAD at the confidence level of 75 percent for unexpired risk reserves and claim reserves represent the percentages of the best estimates of unexpired risk reserves and claim reserves as specified below.

Type of insurance	**PAD at the confidence level of 75 percent**
Short-term personal accident insurance	15 percent
Short-term riders: - term life insurance; - serious illness; - accident insurance; - daily medical expenses; - health insurance	15 percent
Short-term group insurance	9 percent

Clause 20 All new types of insurance of which the aggregate premium income is less than 5 percent of the total premium income of a company on the valuation date may be valued, *mutatis mutandis*, by making reference to the GPV for similar types of insurance with proportionate grossing up, provided that a company must set aside premium reserves that are sufficient for its obligations under existing insurance policies.

Clause 21 Any liabilities for which a valuation method is not specified herein shall be valued according to the recognition and measurement method specified in the GAAP except for the following items: ~~provided that~~:

(1) accrued commission expense payable out of accrued premium income which is not valued at the percentage prescribed herein, which shall not yet be valued as liabilities of a company at the same percentage;

(2) liabilities arising from securities borrowing transactions, specifically where a company is a lender, which shall not yet be valued as liabilities of a company;

(3) deferred tax liability, which shall not yet be valued as a liability of a company.

Chapter 4
Miscellaneous

Clause 22 In the event that asset valuation techniques are used, a company must submit the methods used in valuing assets, as well as supporting information and assumptions, and must be able to specify the sources of information, whenever it makes reference to fair values using the valuation techniques for these assets.

Clause 23 If the registrar is of the view that a company fails to assess fair values of its assets according to the standards, the registrar is empowered to order that the company conduct a revaluation and submit the results within the period prescribed by the registrar. The registrar may also require changes in the assumptions, or replacement of a valuation company.

Clause 24 With respect to valuation of insurance reserves, the registrar is empowered to order that a company submit a relevant analysis report in the form and within the timeframe prescribed by the registrar.

Clause 25 If the registrar is of the view that a company fails to value its premium reserves according to the standards, the registrar is empowered to order that the company revalue its premium reserves by changing the assumptions or replacing an actuary who is licensed by the registrar to certify valuation results, and submit the valuation results within the period prescribed by the registrar.

Clause 26 In the event of fluctuation that may severely affect the increase in premium reserves to the extent that a company's financial condition is affected, the registrar is empowered to order that the company revalue its premium reserves by changing the assumptions as specifically designated by the registrar.

Clause 27 If a company fails to comply with any provisions or conditions hereunder, the registrar is empowered to order that company to make rectifications to correctly or completely comply therewith, or to value its assets or liabilities as prescribed by the registrar.

Chapter 5
Transitional Provisions

Clause 28 A loan under clause 9(2) which was extended by a company before 1 September 2011 shall be valued at its outstanding principal, less allowance for impairment under clause 9(4) *mutatis mutandis*.

Notified on 22 August 2011.

(Mr. Areepong Bhoocha-oom)
Permanent Secretary for Finance
Chairman of the Insurance Commission

Note: It is necessary to issue this notification because life insurance companies must value their assets and liabilities in accordance with the risk based capital principles.

Gross Premium Valuation (GPV) Rules

The Gross Premium Valuation ("GPV") rules shall be as set out below.

1. The valuation shall be conducted on an individual policy basis. The sum of the premium reserves for each type of life insurance product (product type level) must not be less than zero.

2. Classification of life insurance products shall be as prescribed in the Notification of the OIC re: Designating the form, rules, procedures, conditions, and period for submitting an annual report on the calculation of liabilities under insurance policies.

A company may conduct a more detailed classification.

3. The premium reserve valuation formula shall be PV (O) – PV (I), where PV (O) is the present value of outgo, and PV (I) is the present value of income.

4. The PV (O) and PV (I) for non-unit-linked life policies and riders thereto shall be as specified below.

4.1 PV (O) is the present value of outgo according to at least the following items:

(4.1.1) death benefits including vested bonus and any terminal bonus payable on death;

(4.1.2) morbidity benefits including vested bonus and terminal bonus payable on morbidity;

(4.1.3) surrender benefits including basic cash value and terminal cash value payable on surrender;

(4.1.4) survival benefits and cash dividend payable on survival to the end of the designated period according to the conditions of the insurance policies;

(4.1.5) anticipated cash payments according to the conditions of the insurance policies;

(4.1.6) cash dividend and terminal cash dividend payable on death or surrender;

(4.1.7) maturity benefits including maturity bonus;

(4.1.8) wages and commissions for insurance agents, insurance agency leaders, and insurance brokers;

(4.1.9) management expenses including claims expenses;

(4.1.10) distribution expenses; and

(4.1.11) reinsurance expenses (if any).

4.2 PV (I) is the present value of income according to the following items:

(4.2.1) future gross premium receivable including extra premium for substandard risk; and

(4.2.2) reinsurance recoveries (if any).

5. Universal life policies shall be valued according to the method described below.

5.1 A unit reserve shall be equal to the account value.

5.2 For a non-unit reserve, the PV (O) and PV (I) shall be as described below.

(5.2.1) PV (O) is the present value of outgo according to at least the following items:

(1) death benefits, or death benefits which exceed the account value of insurance, that are payable on death;

(2) morbidity benefits, or morbidity benefits which exceed the account value of insurance, that are payable on morbidity;

(3) surrender benefits, or surrender benefits which exceed the account value of insurance, that are payable on surrender;

(4) survival benefits, or survival benefits which exceed the account value of insurance, that are payable on survival to the end of the designated period according to the conditions of the insurance policies;

(5) cash dividend and terminal cash dividend payable on death or surrender;

(6) maturity benefits including maturity bonus;

(7) wages and commissions for insurance agents, insurance agency leaders, and insurance brokers;

(8) management expenses including claims expenses and fund management expenses;

(9) distribution expenses; and

(10) reinsurance premiums (if any).

(5.2.2) PV (I) is the present value of income according to the following items:

(1) premium income after deduction of insurance operating expenses (unallocated premium);

(2) cost of insurance including extra cost of insurance for substandard risk;

(3) fund management fee;

(4) monthly policy fees;

(5) money withdrawal fees;

(6) other charges; and

(7) reinsurance recoveries (if any).

6. Unit-linked life policies shall be valued according to the method described below.

6.1 A unit reserve shall be equal to the market value of the underlying asset backing the units of the unit-linked life policy holder.

6.2 For a non-unit reserve, the PV (O) and PV (I) shall be as described below.

(6.2.1) PV (O) is the present value of outgo according to at least the following items:

(1) death benefits, or death benefits which exceed the value of the units, that are payable on death;

(2) morbidity benefits, or morbidity benefits which exceed the value of the units, that are payable on morbidity;

(3) cash dividend and terminal cash dividend payable on death or surrender;

(4) maturity benefits including maturity bonus;

(5) wages and commissions for insurance agents, insurance agency leaders, and insurance brokers;

(6) management expenses including claims expenses and fund management expenses;

(7) distribution expenses; and

(8) reinsurance premiums (if any).

(6.2.2) PV (I) is the present value of income according to the following items:

(1) premium income after deduction of insurance operating expenses (unallocated premium);

(2) bid-offer spread (if any);

(3) cost of insurance including extra cost of insurance for substandard risk;

(4) fund management fee;

(5) monthly policy fees;

(6) money withdrawal fees;

(7) other charges; and

(8) reinsurance recoveries (if any).

7. In the case of universal life policies, unit-linked life policies, and pension life policies with single premium payment and guarantee of benefit payment not lower than the total amount of premium payment, the value of reserve shall be the greater of the sum of the present value of premium and benefits arising from premium and the sum of the unit reserve and non-unit reserve.

Assumptions and Provision for Adverse Deviations (PAD) Supporting the Gross Premium Valuation (GPV)

1. At least the following assumptions shall be used.

1.1 Discount rate used in calculating the present value

1.1.1 For guaranteed benefits, expenses, and gross premiums receivable, the discount rate shall be the risk-free interest rate on the valuation date, which is the greater of the rate of return on zero-coupon Thai government bonds on the valuation date and the average of the rates of return on those government bonds at the end of the respective eight quarters before the valuation date. The weight for the end of the current quarter shall be 51 percent, and for each of the previous seven quarters shall be 7 percent.

The period of the interest rate used in calculating a discount rate shall be consistent with the duration of various cash flows, for example, cash flow from insurance policies which must be discounted by five years. In the case of cash flow from insurance policies of which the term is longer than the longest term of government bonds, the rate of return on government bonds with the longest term shall apply.

1.1.2 For non-guaranteed benefits, the discount rate shall be the risk-free interest rate on the valuation date, which is calculated as stated above, for the same period, plus no more than 6 percent.

1.2 Mortality rate and morbidity rate

1.2.1 Assumptions shall be prescribed based upon a company's experience data. If a company does not have sufficient experience data, it may partially or fully weight the assumptions which reflect the best estimates obtained from business sector data if it can be proven that this approach is suitable.

1.2.2 The classification of groups and categories, such as ages, genders, etc. used in determining mortality rate assumptions and morbidity rate assumptions must be consistent with the classification of groups and categories of assumptions used in determining the premium rates.

1.3 A lapse rate or surrender rate shall be determined based upon a company's experience data, including the impact of changes in the company's rules and market conditions on the lapsing and surrendering patterns of future policies.

1.4 Expenses

1.4.1 Distribution expenses include, *inter alia*, wages and commissions for insurance agents, insurance agency leaders, and insurance brokers.

1.4.2 Management expenses include, *inter alia*, maintenance expense, claim handling expense, fund management expenses.

1.4.3 The management expense assumptions shall be determined based upon the expenses actually paid by a company during the latest period, taking into account the inflation rate that will affect future projections.

1.5 Non-guaranteed dividend rate shall be determined based upon the latest dividend policy approved by a company's board of directors, the declaration of dividend payment for the current years, and the presentation of dividends in the sales literature, respectively.

2. The provisions for adverse deviations (PADs) are the additions to liabilities under insurance policies, which arise due to uncertainties of the assumptions that reflect the best estimates, with a view to ensuring adequacy of the value of liabilities under insurance policies at the confidence level of 75 percent. The PADs are prescribed as follows:

Type of assumption	PAD at the confidence level of 75 percent
Mortality rate/morbidity rate	+/- 12 percent of the best estimate
Maintenance expenses	+/- 5 percent of the best estimate
Lapse or surrender rate	+/- 17 percent of the best estimate

3. A company must calculate both the positive and negative PADs based on the assumptions that reflect the best estimates, and select the higher gross premium reserve as premium reserve.

Rules, Methods, and Conditions of the Office for Calculating Fair Value of Loans Secured by Insurance Policies

At present, several life insurance companies have assets in the form of loans secured by insurance policies, which are ordinary transactions of life insurance companies.

Under clause 9 of this notification, if a company has prescribed its internal model for assessing fair value of loans secured by insurance policies, the value of these loans assessed hereunder must not exceed the value calculated according to the method prescribed by the Office, as detailed hereunder.

1. Calculation assumptions

1) The initial balance is the balance of a loan inclusive of accrued interest thereon based on the book value on the valuation date.

2) The loan interest rate is a compound interest rate of 7 percent per annum.

3) Additional loan on account of premiums from new business is not taken into account.

4) Additional loan on account of renewal premiums is not taken into account.

5) The total loan repayment period is three years.

6) The schedule of repayment of loan together with accrued interest is as follows:

(a) repayment within the first year at 15 percent of the initial balance;

(b) repayment within the second year at 50 percent of the amount at the end of the first year; and

(c) repayment within the third year at 100 percent of the amount at the end of the second year.

7) The discount rate for calculating the value of cash flow is an interest rate of zero-coupon Thai government bonds, which is prescribed on the valuation date for a period equivalent to the remaining term of the loan.

2. Formula for calculating the fair value of a loan secured by insurance policy

$$PV = \frac{EB1}{(1+Y1)^1} + \frac{EB2}{(1+Y2)^2} + \frac{EB3}{(1+Y3)^3}$$

Where:

PV = fair value of loan secured by insurance policy;
Y1 = interest rate of zero-coupon Thai government bonds with a term of one year;
Y2 = interest rate of zero-coupon Thai government bonds with a term of two years;
Y3 = interest rate of zero-coupon Thai government bonds with a term of three years;
EB1 = IB x 1.07 x 50%
EB2 = EB1 x 1.07 x 50%
EB3 = EB2 x 1.07 x 100%

IB = initial balance (IB)

3. Example of the calculation of fair value of a loan secured by insurance policy

Company A has a loan balance of Baht 1,000 and accrued interest of Baht 100 in respect of that loan, as of 31 December 2011, based on the figures on its account. The interest rates of zero-coupon Thai government bonds are as follows:

Term (years)	Interest rate of zero-coupon Thai government bonds as of 31 December 2011
1	2 percent
2	2 percent
3	3 percent

- The company has an initial balance of Baht 1,100 (1000 + 100).
- The amount of repayment in the first year (EB1) is Baht 588.5 (1,100 x 1.07 x 50%).
- The amount of repayment in the second year (EB2) is Baht 314.85 (588.5 x 1.07 x 50%).
- The amount of repayment in the third year (EB3) is Baht 336.89 (314.85 x 1.07 x 100%).
- The fair value of the loan secured by insurance policy

  $= \frac{588.5}{(1.02)^1} + \frac{314.85}{(1.02)^2} + \frac{336.89}{(1.03)^3}$

  = Baht 1,187.88