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3 January 2012

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Dear Sirs,

Actuarial Consultants' Report – Components of Economic Value of Sinarmas MSIG as at 31 December 2010

Milliman Private Limited ("Milliman") has been engaged by PT. Asuransi Jiwa Sinarmas MSIG ("Sinarmas MSIG" or the" Company") and PT. Sinar Mas Multiartha Tbk ("Sinar Mas") (collectively referred to as "you", "your") to provide actuarial advice on certain matters relating to Sinarmas MSIG. In particular, Milliman has been engaged to prepare a report ("this Report") on the components of economic value of Sinarmas MSIG (formerly PT. Asuransi Jiwa Sinarmas prior to the acquisition of a 50% shareholding by Mitsui Sumitomo Insurance Co., Ltd. ("MSIG") on 1 July 2011).

In producing this Report, Milliman is acting exclusively for Sinarmas MSIG and Sinar Mas. Milliman has given, and not withdrawn, its written consent to the inclusion of this Report on the websites of Sinar Mas and the Company.

In order to understand and rely upon Milliman's work, this Report must be read in its entirety. All recipients of the Milliman report should understand that the Milliman work product is a complex, technical analysis, and that Milliman recommends all recipients be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

Milliman does not intend to benefit any third party recipient of its work product or create any legal duty from Milliman to a third party even if Milliman consents to the release of its work product to such third party.

Where Milliman has given authorization for this Report to be distributed, such authorization is contingent upon the report being distributed in its entirety.

The management of Sinarmas MSIG and Sinar Mas has read this Report to verify the accuracy of the information contained within, prior to the issuance of this Report in its final form.



This Report sets out the scope of the work that we have performed and provides a summary of the results.

1. Embedded Value Results ("EV Results")

In estimating the economic value of a life insurance company, it is common to start from an assessment of the embedded value of the company. The embedded value represents:

- the shareholders' adjusted net asset value("ANAV"); and
- the value of in-force business ("VIF")

The ANAV is the value of additional assets held above those used to support the liabilities, net of any difference between the carrying value of any balance sheet item and the market or fair value of that item.

The VIF is the present value of projected after-tax statutory profits emerging in the future from the current in-force business less the cost of holding the required capital to support the in-force business.

It is common to then show such values under alternative assumptions given the uncertainties associated with the future investment environment and other operational matters relating to the life insurance company.

1.1 Scope of Milliman work

Milliman has been requested to report on the following components of the economic value in respect of the life insurance operations of Sinarmas MSIG:

- the ANAV as at 31 December 2010 (the "valuation date");
- the VIF as at 31 December 2010; and
- the value of one year's new business ("VONB") that Sinarmas MSIG has written in the 12 months preceeding 31 December 2010.

The VIF as at 31 December 2010 and the VONB in the 12 months up to 31 December 2010 included in this Report are based on figures calculated by Milliman.

1.2 Methodology

The VIF of Sinarmas MSIG is derived from the projected stream of future after-tax profits available for distribution to shareholders from the existing business in- force at the valuation date less the cost of holding the required capital ("COC") to support the in-force business. These distributable profits are those which arise after allowance for policy liabilities on the required Indonesian statutory reserving basis.

The COC in respect of the in-force business of Sinarmas MSIG is calculated as:

- the required solvency margin as at 31 December 2010
- the discounted value, using the same risk discount rate in each future year as applied in the determination of VIF as at 31 December 2010, of expected after-tax investment income on the assets held to meet the required solvency margin, together with the discounted value of the expected release of the required solvency margin over the outstanding term of the in-force business.



The VONB of Sinarmas MSIG is calculated as the discounted value at the point of sale, using the specified risk discount rate, of the stream of after-tax profits distributable to shareholders projected to arise from one year's sales. This value is net of the cost of holding the required solvency margin over the outstanding term of the block of business, i.e. the VONB represents the discounted value of the expected profits from one year's sales, after allowing for the cost of the capital required to support the business.

The VIF and VONB have been determined using a traditional deterministic discounted cash flow methodology. This methodology makes implicit allowance for all sources of risk including the cost of investment return guarantees and policyholder options, asset/liability mismatch risk, credit risk, the risk that actual experience in future years differ from that assumed, and for the economic cost of capital, through the use of a risk adjusted discount rate. Typically, the higher the risk discount rate, the greater the allowance for these factors.

1.3 Assumptions

In order to assess the VIF and VONB, assumptions are required in order to project the various cashflows. The environment in which Sinarmas MSIG operates is dynamic and changing. The assumptions underlying the calculations have been selected jointly by Sinarmas MSIG and Milliman taking into account Sinarmas MSIG's recent operating experience, as well as experience of other life insurance companies operating in Indonesia. These assumptions have been made on a "going concern" basis, assuming a continuation of the economic and legal environment currently prevailing in Indonesia.

Various alternative results are shown to illustrate the uncertainty regarding the future operating experience of Sinarmas MSIG's portfolio.

The principal bases and assumptions used in the calculations are described below.

1.3.1 Investment returns

· Investment returns by asset class

The net investment returns for the purpose of deriving the VIF as at 31 December 2010 have been based on market yields as at 31 December 2010, while the net investment returns assumed for the purpose of deriving the VONB reflect average market yields achieved in 2010.

The net investment returns have been derived from applying gross investment returns for the major asset classes to an assumed asset mix which was derived taking into account the mix of assets as at 31 December 2010, the investment guidelines as set out in marketing materials and the Company's internal benchmark allocation set out within its investment policy and guidelines. The same asset mix was assumed in the derivation of the VIF and VONB. The net investment return is then determined net of withholding taxes and investment expenses.



Table 1.3.1a: Net investment return by class of business						
	VIF	VONB				
Rupiah denominated business (1)						
Traditional	10.0%	11.1%				
Stable Link	10.0%	11.1%				
Unit Link	11.0%	12.1%				
USD denominated business						
Traditional	6.6%	7.0%				
Stable Link	6.7%	7.1%				
Unit Link	5.0%	5.4%				

Note (1)The net investment returns above have been determined after application of the current withholding tax rate of 5% on Rupiah denominated bonds held in mutual funds. From 2014, this rate will increase to 15%, with the increase reflected within the valuation

• Crediting rates/ Target investment rate

The Company's two main products, Power Save and Stable Link have been designed as alternative investment savings products to the fixed deposit rates offered by banks.

Table 1.3.1b sets out the 3-month crediting/ target investment rate that has been assumed for the purpose of this exercise. These rates have been selected taking into consideration the economic environment as at 31 December 2010 and the Company's crediting rate policy.

Table 1.3.1b: Assumed crediting rates, target investment rates at roll- over					
	Rp	USD			
Power Save	8.0%	3.0%			
Stable Link	8.0%	3.0%			



1.3.2 Risk discount rates

The risk discount rates can be considered as the sum of the appropriate risk free rate, to reflect the time value of money, and a risk margin to make allowance for the risk profile of the business.

The results are presented using three sets of risk discount rates as shown in the table below. The risk discount rates were selected by the Company and differ between Rupiah denominated business and USD denominated business.

Table 1.3.2: Risk discount rates					
	RDR1	RDR2	RDR3		
Rupiah denominated business	13%	15%	17%		
USD denominated business	9.5%	11.5%	13.5%		

1.3.3 Mortality and morbidity

The mortality and morbidity assumptions have been developed based on the Company's recent historical experience, and its expectations of current and expected future experience. Where historical experience is not credible, reference has been made to pricing assumptions supplemented by market data where available.

1.3.4 Discontinuances

Discontinuance rates have been developed based on the Company's recent historical experience and its best estimate of expectations of current and expected future experience. Assumptions vary by policy year and product class, as well as by distribution channel. Where experience for a particular product was not credible enough to allow for any meaningful analysis to be performed, pricing assumptions were adopted.

1.3.5 Expenses

The expense loadings have been derived based on an analysis of the Company's expenses in 2010. The expense loadings make no allowance for any savings and efficiencies that may arise in the future, nor for a change in the pattern of expenses following MSIG's investment into the Company in 2011. The per policy unit maintenance expenses were assumed to inflate in the future at 7.0% per annum.

1.3.6 Commissions

Commission rates differ by product and distribution channel. The assumed levels of commission and commission override were based on the levels being paid at the valuation date.

1.3.7 Foreign exchange

The USD denominated business has been translated into Rupiah equivalent using the exchange rate as at 31 December 2010 of 1USD: 8,991Rp.

1.3.8 Statutory reserving basis

The valuation assumes a continuation of Sinarmas MSIG's current actuarial reserving methods and bases, as specified in its returns to the Ministry of Finance.



1.3.9 Corporate taxation

The allowance for future corporate tax payments has been made on the assumption that the application of current tax legislation and tax rates in respect of Sinarmas MSIG will continue unaltered.

1.3.10 Other assumptions

Allowance has been made for the cost of holding the minimum required solvency margin as prescribed by the Ministry of Finance.

The valuation assumes a continuation of Sinarmas MSIG's current reinsurance arrangements.

2. Components of Economic Value

The components of economic value as at 31 December 2010 are summarised in the following table:

Table 2a: Embedded value as at 31 December 2010 (Rp millions)						
Risk discount rate	13%/9.5%	15%/11.5%	17%/13.5%			
Adjusted net asset value	1,853,156	1,853,156	1,853,156			
Value of in-force business	497,168	435,908	390,081			
Cost of holding the required solvency margin	(15,715)	(24,577)	(32,635)			
Value of in-force business after cost of solvency	481,453	411,330	357,446			
Embedded value	2,334,609	2,264,487	2,210,602			

Table 2b: Value of one-year new business at point-of-sale (Rp millions)						
Risk discount rate	Annual Premium Equivalent (APE)	13%/9.5%	15%/11.5%	17%/13.5%		
Value of one year's new business	1,414,101	282,623	270,805	260,829		
Cost of holding the required solvency maring		(2,311)	(4,293)	(6,100)		
Value of one year's new business after cost of solvency		280,312	266,512	254,729		



The ANAV is based on the audited shareholder net assets of Sinarmas MSIG as at the valuation date, as reported on an Indonesian statutory basis. The values includes market value adjustment of Rp 348 billion placed on certain assets.

The risk discount rate appropriate to an investor will depend on the investor's own requirements, tax position and perception of the risks associated with the realization of future profits. It should be noted that an investor might choose a risk discount rate outside of the range of risk discount rates presented in this report.

In order for potential investors to judge the effect of using different risk discount rates, the Company has assessed the VIF, the cost of holding the required solvency margin and the VONB using a range of risk discount rates as shown above and described in the previous section. In calculating values at the different risk discount rates, all other assumptions, including those relating to future investment returns, have been left unchanged.

3. Sensitivity analyses

The Company has investigated the effect, on the VIF and the VONB, of varying independently certain assumptions regarding future experience. Specifically, the following changes in assumptions have been considered:

- a 0.5% increase in net investment returns;
- a 0.5% reduction in net investment returns;
- a 0.5% increase in Power Save/Stable Link crediting rates/target investment rates;
- a 0.5% reduction in Power Save/Stable Link crediting rates/target investment rates;
- a 10% reduction in policy discontinuance rates;
- a 10% increase in policy discontinuance rates;
- a 10% reduction in the mortality and morbidity rates;
- a 10% increase in the mortality and morbidity rates;
- a 10% reduction in operating expenses; and
- a 10% increase in operating expenses

For the sensitivities involving the 0.5% increase/reduction in net investment return, no changes were made to the Power Save/Stable Link crediting rates/target investment rates. The impact of any changes in value as a result of changes to the Power Save/Stable Link crediting rates/target investment rates are shown separately.



The results are summarised in the following tables:

Table 3a: Sensitivity analysis – Value of in-force business as at 31 December 2010 (Rp millions)						
Risk discount	Before Solvency			After Solvency		
rate/Earned rate	13%/9.5%	15%/11.5%	17%/13.5%	13%/9.5%	15%/11.5%	17%/13.5%
Central value	497,168	435,908	390,081	481,453	411,330	357,446
0.5% increase in investment return	582,666	517,994	469,095	569,575	495,936	438,886
0.5% decrease in investment return	411,670	353,821	311,067	393,331	326,725	276,006
0.5% increase in crediting rates/ target investment rates	432,189	373,594	330,180	416,463	348,998	297,521
0.5% decrease in crediting rates/ target investment rates	560,975	497,263	449,109	545,386	472,704	416,499
10% reduction in discontinuance rates	512,798	447,508	400,318	496,569	422,131	366,628
10% increase in discontinuance rates	482,733	425,066	381,643	467,512	401,259	350,008
10% reduction in mortality/morbidity rates	508,115	446,037	399,567	492,378	421,432	366,902
10% increase in mortality/morbidity rates	486,255	425,804	380,616	470,552	401,244	348,001
10% reduction in operating expenses	517,373	455,118	408,421	501,658	430,540	375,786
10% increase in operating expenses	476,963	416,698	371,741	461,248	392,120	339,106



Table 3b: Sensitivity analysis – Value of one-year new business at point-of-sale (Rp millions)						
Risk discount rate/Earned rate	Before Solvency			After Solvency		
	13%/9.5%	15%/11.5%	17%/13.5%	13%/9.5%	15%/11.5%	17%/13.5%
Central value	282,623	270,805	260,829	280,312	266,512	254,729
0.5% increase in investment return	384,670	369,170	355,854	382,937	365,433	350,290
0.5% decrease in investment return	180,576	172,439	165,805	177,687	167,590	159,168
0.5% increase in crediting rates/ target investment rates	185,638	177,277	170,439	183,322	172,974	164,324
0.5% decrease in crediting rates/ target investment rates	378,199	363,055	350,055	375,893	358,772	343,969
10% reduction in discontinuance rates	318,199	304,173	292,243	315,613	299,380	285,483
10% increase in discontinuance rates	250,383	240,369	231,993	248,198	236,340	226,317
10% reduction in mortality/morbidity rates	286,062	274,106	263,971	283,750	269,810	257,867
10% increase in mortality/morbidity rates	279,185	267,505	257,690	276,809	263,105	251,486
10% reduction in operating expenses	300,081	287,643	277,108	297,771	283,350	271,008
10% increase in operating expenses	265,164	253,966	244,550	262,854	249,673	238,450

The sensitivity results show the VIF and VONB to be most sensitive to the assumed rate of investment return. Given the significance of this assumption, a comparison of the historical investment performance for traditional business (includes Power Save) and Stable Link split by currency is shown in the table below.



Table 3c: Historial investment returns						
	Actual 2009	Actual 2010	Actual 2011*	Assumed return VIF	Assumed return VONB	
Traditional – Rp	16.6%	14.6%	12.7%	10.0%	11.1%	
Stable Link – Rp	17.4%	15.6%	13.0%	10.0%	11.1%	
Traditional – USD	10.1%	10.3%	10.3%	6.6%	7.0%	
Stable Link – USD	10.3%	10.4%	11.0%	6.7%	7.1%	

Note: * up to September 2011

4. Reliances and limitations

This Report is subject to the reliances and limitations set out below.

- We have relied on the information and calculations provided to us. We have reviewed the data, calculations, and information for reasonableness and consistency (see below), but have not audited or otherwise verified this data, calculations or information. Such a review is beyond the scope of our assignment. If the underlying data, calculations or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.
- The principal materials provided by Sinarmas MSIG and relied upon include:
 - statistical data and studies relating to the current and historical operating experience of the Life Insurance Subsidiaries;
 - audited financial statements prepared as at 31 December 2010;
 - asset values (both book and market value) as at 31 December 2010;
 - statutory values of liabilities and solvency capital as at 31 December 2010;
 - individual in-force policy database of Sinarmas MSIG as at 31 December 2010;
 - individual new business policy database for new policies sold by Sinarmas MSIG in 2010;
 - historic regulatory returns and supporting valuation information;
 - information on current and future investment strategies;
 - information and analysis prepared by Sinarmas MSIG on recent mortality, morbidity, persistency and expense experience;
 - information on current crediting rates and future crediting rate strategy in relation to Power Save and Stable Link;



- product descriptions for Sinarmas MSIG's more significant in-force and new business products measured by reserves, including profit test models;
- certain economic and exchange rate data as at 31 December 2010;
- information on expected future expense overruns;
- information on expected future levels of solvency capital; and
- information regarding the taxation basis for the Company.
- We have not attempted to assess the suitability or quality of the Company's assets or balance sheet
 provisions. We have also not assessed, or made allowance for, any claims against the companies other
 than those made by policyholders under the normal terms of life insurance business. In particular, no
 account has been taken of liabilities in respect of pension entitlements, stock option plans, service contracts,
 leases and breaches of regulations.
- The results shown in this Report are not intended to represent an opinion of market value and should not be interpreted in that manner. This Report does not purport to encompass all of the many factors that may bear upon a market value.
- The risk discount rates are intended to represent the levels of shareholder returns which an investor might
 consider appropriate to reflect the underlying risks of the Company. Milliman makes no judgment or
 representation as to the appropriateness of these risk discount rates in assessing the components of
 economic value of the Company.
- Judgements as to the contents of this Report should be made only after studying this Report in its entirety
 as a review of a single section or sections on an isolated basis may not provide sufficient information to
 draw appropriate conclusions.
- In order to understand and rely upon Milliman's work, this Report must be read in its entirety. All recipients of the Milliman report should understand that the Milliman work product is a complex, technical analysis, and that Milliman recommends all recipients be aided by their own actuary or other qualified professional when reviewing the Milliman work product.
- In taking the approach of grossing up the results to allow for unmodelled business, we have implicitly assumed that the profitability of unmodelled business is the same on average as that of the corresponding modelled business. We believe the approach of using the profitability of modelled products with similar benefits, reserving bases and charging structures to approximate the profitability of un-modelled products is reasonable, but it should be noted that we have not explicitly investigated the profitability of the unmodelled business. In reality, the profitability of the unmodelled business may be different to that of the modelled business used to approximate it.
- In determining the components of the economic value, assumptions have been made about future experience, including economic and investment experience, mortality, morbidity, persistency, expenses and taxes. Due to the uncertainty involved in projecting future events, actual experience may differ from that assumed in the projections, perhaps materially. To the extent actual experience is different from the assumptions underlying this Report, actual results will also differ from the projected results shown.
- The sensitivity tests shown in this Report do not represent upper or lower limits for potential variations in the results under changes in the values of parameters.



• The traditional embedded value method undertaken to derive the values presented in this Report uses a deterministic approach to value the cash flows. The method implicitly values the cost of the policyholder options, investment guarantees, asset/liability mismatch risk, credit risk, other risks and the economic cost of capital through a discount rate and the cost of holding regulatory capital, which are intended to allow for such risks. Alternative approaches such as "fair value" and "market consistent value" have been developed where these types of risks are explicitly valued. We have not examined the value which could be obtained by using these alternative approaches.

Yours faithfully,

Richard Holloway

Kich of Holloway

Fellow of the Institute and Faculty of Actuaries