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Research Article

Financial Health Analysis on PT Asuransi LMIGNKG Based on Premium Reserve Calculation

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Abstract

An insurance company's state of financial stability is crucial. This is required to guarantee that, if an event specified in the policy occurs, the insurance provider will be able to compensate the insured. Otoritas Jasa Keuangan (OJK) as the Financial Services Authority in Indonesia oversees the sound financial standing of insurance companies which are Risk Based Capital (RBC), technical reserves, investment sufficiency, equity, guarantee funds, and other provisions are the metrics. The purpose of this study is to assess PT Asuransi LMIGNKG's financial situation in 2022. The research is limited to using secondary data from the company, which was utilized to determine financial health based on investment adequacy, RBC, and premium reserves. This research showed the RBC calculation is 402 % which still exceeds the 120% limit set by the regulator. PT Asuransi LMIGNKG's investment adequacy ratio is also quite large, namely 8 times compared to its technical reserves. In managing investments, PT Asuransi LMIGNKG also does not violate these rules. PT Asuransi LMIGNKG's investment management is still below regulatory limits. From these indicators, it can be said that PT Asuransi LMIGNKG is a general insurance company whose financial condition is healthy.

Keywords: Insurance company, FSA, RBC, Investment

1. Introduction

Risk can be defined as an unplanned event with unpredictable impacts. Risk can have an impact on a person's financial condition. One of the efforts made to reduce this financial impact is through insurance. In general, insurance businesses are divided into 2 types, namely life insurance and general insurance. A life insurance business is a business that provides risk management services that provide payments to policy holders, insureds, or other entitled parties in the event that the insured dies or remains alive, or other payments to policy holders, insureds, or other parties who have the right at a certain time as regulated in the agreement, the amount of which has been determined and/or is based on the results of fund management. Meanwhile, the general insurance business is a risk insurance service business that provides compensation to the insured or policy holder due to loss, damage, costs incurred, lost profits, or legal liability to third parties that the insured or policy holder may suffer due to the occurrence of an uncertain event (Presiden RI 2014).

The financial health condition of an insurance company is very important. This is necessary to ensure the insurance company could pay claims to the insured if an event agreed to in the policy occurs. In (Mwangi and Murigu 2015) the health of an insurance company is measured by what is normally expressed in net premiums earned, profitability from underwriting activities, annual turnover, returns on investment and return on equity. These indicators state that they can be classified as profit performance measures and investment performance measures.

In Indonesia, the financial health of insurance companies is regulated by the Otoritas Jasa Keuangan (OJK). According to OJK Regulation Number 71 /POJK.05/2016, insurance companies must meet a Risk Based Capital (RBC) value of at least 120% to be said to be healthy (Otoritas Jasa Keuangan (OJK) 2016). In this regulation, apart from RBC, the measurement of the level of financial health of insurance companies can be measured by the size of technical reserves, investment adequacy, equity, guarantee funds, and other provisions related to financial health.

The RBC concept itself was initially implemented in banks and then in insurance companies. RBC is effective in increasing capital ratios and reducing portfolio risk in commercial banks (Jacques and Nigro 1997). Furthermore, stochastic RBC calculations were carried out at the Brazilian insurance company (Cafasso, Chela, and Kimura 2018). RBC is used in two distinct situations. First, it's employed in a regulatory framework to establish a minimum acceptable level of capital that an insurance business needs to maintain. Second, it helps to establish the overall optimal level of capital for an insurance company. This is utilized in financial planning and control within an insurance company. Therefore, from a regulatory standpoint, RBC denotes a minimum level of capital. However, the insurance company should focus to reach the

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optimal level of capital and its effective deployment (Dickinson 1997).

RBC is also known as the Solvency Level Limit because it is related to solvency or the ability to pay obligations (Nurfadila, Hidayat, and Sulasmiyati 2015). Customers need to know the RBC value information to analyze whether the company can pay its obligations. RBC calculations are accurate enough to indicate the health of a sharia life insurance company (Abdurahim and Setiawan 2021). In (Dani, Jasman, and Asriany 2023), RBC is one of the variables that influences the financial performance of insurance companies. RBC is also quite useful for assessing the health of general insurance companies (Cummins, Harrington, and Klein 1995).

Technical reserves in insurance refer to the amount of funds held by an insurance company to pay future claims. The number of technical reserves is very dynamic depending on the number of policies registered with the company (Hudakova and Adamko 2017).Technical reserves may not be used for any purpose other than paying claims. In general, technical reserves consist of premium reserves and claims reserves. Premium reserves are the amount of funds set aside by insurance companies originating from premiums paid by policy holders. Calculation of claims reserves is one of the factors in a company's failure to pay claims because claims reserves measure how big a company's obligations are to the insured.

Investment adequacy is a measure of company performance that measures the adequacy of the company's capital to support assets that contain or generate risk, such as credit provided by customers. If the investment adequacy is lower, the company's ability to pay its debts will be smaller because the company lacks capital. Investment adequacy is usually calculated as the ratio between permitted assets and the size of technical reserves. RBC and investment adequacy affect the financial health of insurance companies (Dani, Jasman, and Asriany 2023). PT Asuransi LMIGNKG is a general insurance company in Indonesia which has been established since 1981. This company has insurance products for aviation, motorbike and vehicle, fire, and sharia-based products. In 2021, the Company's RBC reached 405.64%. This shows that the company has good financial health. However, what will happen to conditions in 2022? This research aims to examine the financial health of PT Asuransi LMIGNKG in 2022. The data used comes from secondary data obtained from the company with the research limitations being the measurement of financial health based on premium reserves, RBC, and investment adequacy.

2. Literature Study

2.1. Premium reserved

Premium reserves are one of the technical reserves. One method for calculating premium reserves is Gross Premium Reserve (GPV). The premium reserves applied in a regulatory context to ascertain. In order to provide findings that are more in accordance with actual circumstances, the GPV technique incorporates the costs that the policyholder must bear into the computation. Because additional charges are frequently imposed on the insured in life insurance policies, the resultant premium is no longer a net premium. Thus, for this research, we employed the GPV approach. In general, prospective and retrospective methods can be used to calculate reserves. The retrospective approach which is very complex but can yield findings for reserves each year more quickly by using the entire amount of income from previous years. In the meanwhile, the prospective computation uses the present value of all future income to determine benefit reserves. One benefit of using prospective computations is that they can be completed more quickly in cases where the premium payment has been settled. (Anastasya Prionggo et al. 2022) used the GPV method to calculate the premium reserves of a life insurance company.

In calculating premium reserves, the calculation is differentiated between products offered by insurance companies which are divided into retail and non-retail products. If retail products are offered directly to the public, non-retail products are offered to companies that need insurance protection. Apart from that, the products offered by general insurance companies are differentiated into several Class of Businesses (CoB) which can be seen in Table 1 below.

Table 1
Class of Business (CoB) Insurance Products

Class of Business	Description
A	Aviation
B	Suretyship
C	Cargo
E	Engineering
F	Fire
H	Hull
K	Credits
L	Liabilities
M	Motorcycles & Vehicles
N	Onshore
O	Offshore
P	Health
V	Miscellaneous

2.2 Risk based capital

RBC is a metric used to assess an insurance company's health or degree of financial stability. The stronger an insurance company's financial standing, the higher its RBC ratio. In order to create legislation pertaining to insurance firms' solvency, the government mandates that all insurance companies submit data about their level of solvency, using the RBC method as a baseline.

The RBC calculation formula is:

$$\text{RBC} = \left(\frac{\text{Level of solvency}}{\text{RBMC}}\right) \text{x } 100\% \quad (1)$$

where $\text{Level of solvency} = \text{Assets} - \text{Liabilities}$ and RBMC is Risk Based Minimum Capital.

The ratio of the company's capital to the total number of short-term financial commitments is used to determine the solvency level. The capital adequacy ratio, often known as the solvency ratio, is frequently used in the insurance sector to gauge solvency. But only investment assets, permitted assets, and premium reserves, liabilities, are used in this research.

The amount of money needed to foresee potential loss due to a deviation in the management of assets and liabilities is known as Risk Based Minimum Capital (RBMC). Regulation No 71 / POJK.05/2016 stipulates that the company must have a minimum RBC level of 120%. The higher the percentage of RBC, the better the company's financial standing. Conversely, the company's financial health will deteriorate if the percentage is lower or below 120%.

In (Markets n.d.) RBC's approach develops capacity and technical skills of firms and supervisory agencies, aligns incentives to business actions, encouraging and rewarding actions that move toward market development outcomes, allows insurance to play a greater role in investment markets and development.

2.3 Investment adequacy

One measure of company performance that measures the company's capital adequacy to support assets that contain or produce risk is investment adequacy. Good investment adequacy helps the company to immediately fulfill its obligations to policyholders. The adequacy of an insurance company's investments depends on the extent to which it can meet its financial obligations with sound investments, cash holdings, and banks. The amount of investment adequacy can be calculated in the Investment Adequacy Ratio (IAC) in the following formula.

$$\text{Investment Adequacy Ratio} = \frac{\text{Investment Assets}}{\text{Premium Reserve}} \text{ x } 100\% \quad (2)$$

Apart from investment adequacy, insurance companies must also meet certain criteria in making investments. OJK Regulation Number 71 /POJK.05/2016 provides permitted investment limits. In summary, these regulations can be seen in Table 2 below.

Table 2
Allocation Limit of Investment

Investment Assets	Maximum Limit
Time deposits at Banks	20% of the investment amount
Time deposit	5% of the investment amount
Deposit certificate	50% of the investment amount
Share	40% of the investment amount
Corporate bonds	50% of the investment amount
Medium Term Notes (MTN)	40% of the investment amount
Securities outside the Republic of Indonesia	10% of the investment amount
Mutual funds	50% of the investment amount
Asset-backed securities	20% of the investment amount
Real estate investment fund	20% of the investment amount
REPO	10% of the investment amount
Shares that are not listed on the stock exchange	10% of the investment amount
Land, buildings with strata rights, or land with buildings	20% of the investment amount
Land for investment	1/3 of the total investment of land, buildings with strata rights, or land with buildings
Financing through the mechanism of cooperation with other parties in the form of cooperative lending	20% of the investment amount
Pure gold	10% of the investment amount
Policy loan	80% of the cash value of the policy concerned

3. Data and Methods

3.1. Data

The data used is secondary data which is the 2022 actuarial report prepared by the actuarial and accounting division of PT Asuransi LMIGNKG.

3.2. Methods

This research is descriptive research. Descriptive research provides a clear and accurate picture of a phenomenon or situation being studied. The research steps are as follows:

1. Calculate the Premium Reserve for each CoB
2. Calculate Total Premium Reserves
3. Calculate RBC
4. Analyze the investments made by the company

4. Results

Calculation of premium reserves using the GPV method is carried out using economic assumptions, discount rate assumptions and non-economic assumptions. Economic assumptions and discount rates refer to current economic conditions, while non-economic assumptions use company experience data for the last 3-5 years.

The calculation of PT Asuransi LMIGNKG's premium reserves in 2022 based on CoB can be seen in Table 3 below.

Table 3
Premium Reserves 2022

CoB	December 2022 (IDR)
A	40,857,506,942
B	9,154,956,212
C	1,088,083,420
E	34,729,336,015
F	136,054,252,456
F - Retail	**929,904,709**
H	21,643,294,792
K	8,996,910,156
L	15,970,147,656
M	19,251,081
M - Retail	**132,948,905,836**
N	6,486,694,706
O	41,274,796,160
P	1,037,573,311
V	7,040,593,716
V - Retail	**424,824**
Total	**458,232,631,993**

From Table 3 above, the largest premium reserves are in business class M, for retail product types amounting to IDR 132,948,905,836 and non-retail products amounting to IDR 19,251,081. Business class M is Motorcycles and Vehicles business class. Second place is business class F, namely IDR 929,904,709 for retail products and IDR 136,054,252,456 for non-retail products. Business Class F is Fire which is part of the property. The third place is business class , namely offshore products amounting to IDR 41,274,796,160. This is natural considering that PT Asuransi LMIGNKG is a general insurance company, whose superior products are Motorcycles and Vehicles.

In general, Indonesia's general insurance business lines are concentrated in three sectors that are closely related to business cycle volatility, namely the motor vehicle, property and banking credit industries (Siregar, Melati, and Serpina 2022)

In total, the premium reserve of PT Asuransi LMIGNKG is IDR. 458,232,631,993. Information on total premium reserves is required to calculate RBC. This calculation requires an actuarial report, where the 2022 actuarial report can be seen in Table 4.

Table 4
Actuary Report 2022

Information	(In million IDR)
Solvency Level	
Investment Assets	
Bonds and Securities	2,158,435
Mutual Funds	844,021
Deposits and Shares	823,040
Liability (Premium Reserve)	458,232
Total Solvency Level	**3,367,264**
Risk-Based Minimum Capital (RBMC)	
Credit Risk	
a. Credit Risk a (Debtor Default Risk)	156,261
b. Credit Risk b (Reinsurance Failure Risk)	234,921
Total Credit Risk	**391,182**
Liquidity Risk	-
Market Risk	
a. Market Risk a (Risk of Changes in Market Prices)	232,159
b. Market Risk b (Risk of Changes in Currency Exchange Rates)	1,446
c. Market Risk c (Risk of Changes in Interest Rates)	-
Total Market Risk	**233,605**
Insurance Risk	**208,859**
Operational Risk	**4,501**
Total RBMC	**838,147**

From Table 4 above, the Total Solvency level in millions of rupiah is 3,367,264 and the Total RBMC in millions of rupiah is 838,147. So the RBC of PT Asuransi LMIGNKG in 2022 is

$$\text{RBC} = \left(\frac{3{,}367{,}264}{838{,}147}\right) \text{ x } 100\% = 402\%$$

The calculation of the RBC value of 402% shows that the RBC value of PT Asuransi LMIGNKG is above the limit set by the OJK. This also shows that in 2022 PT Asuransi LMIGNKG will have free assets or assets remaining after fulfilling its obligations of 402% compared to the value of the risks. Thus, PT Asuransi LMIGNKG has capital adequacy far above the required value.

PT Asuransi LMIGNKG's investment management can be seen in Figure 1. When compared with the rules in Table 2, PT Asuransi LMIGNKG's investment management does not violate these rules. For example, according to the rules, investment in the form of deposits is a maximum of 20% of the total. PT Asuransi LMIGNKG invests 12% in the form of deposits and shares. Another example, according to the regulations, investment placement in bonds and securities is a maximum of 50%, while for PT Asuransi LMIGNKG it is 12%.

In general, PT Asuransi LMIGNKG's largest investment management is in the form of reinsurance, namely 40% of the total investment. This is important, because reinsurance is a safeguard if PT Asuransi LMIGNKG is unable to overcome the risk of huge claims that occur so that the risk is transferred to the reinsurance.

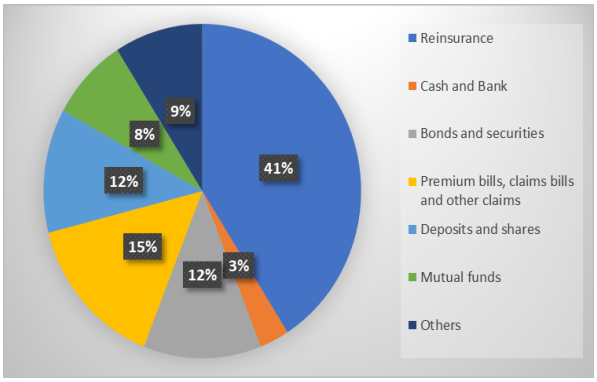

Fig. 1. PT Asuransi LMIGNKG 's Investment in 2022

The next measurement is the investment adequacy ratio. By using equation 2, then

$$\text{IAC} = \frac{\text{Bonds} + \text{Mutual Funds} + \text{Deposits and shares}}{\text{Premium Reserve}} \text{ x } 100\%$$

$$= \frac{2{,}158{,}435 + 844{,}021 + 823{,}040}{458.232} \; x \; 100\%$$

$$= \frac{3{,}825{,}496}{458{,}232} \; x \; 100\%$$

$$= 835\ \%$$

The IAC value is 835%, meaning that PT Asuransi LMIGNKG's investment assets are 8 times larger than its technical reserves. Another interpretation of this IAC is that PT Asuransi LMIGNKG can meet unexpected cash needs without selling investments prematurely.

5. Conclusion

The financial health condition of an insurance company is very important. This shows whether the company's performance is feasible or not. Several measures of the financial health of an insurance company are technical reserves in the form of premium reserves, RBC, and investment adequacy.

PT Asuransi LMIGNKG is a general insurance company in Indonesia which was founded in 1981. As a general insurance company, the products offered include aviation, motor and vehicle, fire, and sharia-based products. Of the products released, the largest premium reserves are in the Motorcycles and Vehicles business class amounting to IDR 132,948,905,836 for retail and non-retail products amounting to IDR 19,251,081. In total, PT Asuransi LMIGNKG's premium reserves are IDR 458,232,631,993. In 2021, the financial health condition of PT Asuransi LMIGNKG is quite good, as indicated by the RBC of 405.64%. In 2022 the RBC calculation will produce 402%. Even though the RBC value has decreased, in 2022 the RBC value will still exceed the 120% limit set by the regulator. This value shows that in 2022 PT Asuransi LMIGNKG will have free assets of 402% compared to the risk value it faces.

In managing investments, PT Asuransi LMIGNKG does not violate these rules. PT Asuransi LMIGNKG's investment management is still below regulatory limits. For example, the investment rule in the form of deposits is a maximum of 20% of the total, but PT Asuransi LMIGNKG places investment at 12% in the form of deposits and shares. PT Asuransi LMIGNKG's investment adequacy ratio is also quite large, namely 8 times compared to its technical reserves, so that PT Asuransi LMIGNKG can meet its cash needs.

From these indicators, it can be said that PT Asuransi LMIGNKG is a general insurance company whose financial condition is healthy. However, it is also necessary to check other indicators, such as equity, guarantee funds, and other provisions related to financial health.

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