

**ASSETS ADMITTED TO COVER GROSS TECHNICAL RESERVES
CASE STUDY: INSURANCE – REINSURANCE COMPANY ASTRA SA**

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Abstract

The aim of this paper is to analyze the asset structure and the coverage of gross technical reserves of the Insurance – Reinsurance Company Astra SA, for the period 2003 – 2014. Insurance companies are required to constitute technical reserves, in order to cope with the payment obligations to policyholders. These reserves may only be covered on account of certain assets, admitted by law. In Romania, Orders No. 8 and 9/2011, issued by the Insurance Supervisory Commission, contain Rules regarding the assets admitted to cover gross technical reserves, the dispersion of assets admitted to cover gross technical reserves and the liquidity coefficient. Order No. 9/2011, relating to general insurance, has been amended by Rule No. 22/2014. In this paper, we have analyzed the main elements of Astra’s assets, their share in total assets and we have calculated the coverage of gross technical reserves by total assets and liquid assets. In 2013 and 2014, the value of total assets was below the value of gross technical reserves, which demonstrated Astra’s financial instability, through negative capital and the inability to meet the obligations to policyholders. Failure to comply with the prudential indicators has been one of the main causes of Astra’s bankruptcy.

Key words: *assets, technical reserves, liquidity, Astra company;*

Classification JEL: *G220*

1. Introduction

Insurance companies carry out three main activities: operating, underwriting of insurance contracts, investing and financing. Each one is assigned a risk.

Insurers risks derive from the assets they hold, their liabilities and the relationship between them. Underwriting risk represents the core competence of an insurer and should therefore constitute the starting point for the construction of investment portfolio. Underwriting risk structure should be understood to perform investment management purposes, those of protecting underwriting business obligations. [1]

Even though the insurer does not make profit from underwriting, the operating activity helps to achieve capital by offsetting the loss against the investment profit. Investment profit growth can be achieved by increasing premiums. This increase, however, may be limited to accounting rules or regulations. [8]

Gregory Boal [5] also underlines the importance of supporting business lines through investment portfolio. Companies must understand how investments are correlated with general needs.

Achleitner et. Al [1] consider that portfolio optimization has to include scenario stress testing, combining assessments of underwriting and investment risks.

Hu and Yu [9] investigate the relationships among risk, capital and operating efficiency for life insurance companies from Taiwan, during 2004 – 2009. The results show an inverse relation between asset risk and capital ratio, meaning that the more asset risk the insurers have, the lower capital level they will hold. Also, the analysis shows that life insurers with risky portfolios (real estate, stocks, foreign investments) tend to operate more efficiently than life insurers with less risky portfolios (bank deposits, loans).

The authors [9] consider that both regulators and insurers should be more aware of the relationship between risk, capital and efficiency, particularly for the management of the different types of risk. The insurance supervisory authority could adopt corrective measures for the insurers that go beyond regulations when constructing their portfolios. Insurers may consider to reduce the risk of their foreign investments and to enhance their underwriting profitability. Insurers may hold a higher capital buffer to avoid insurance supervisory authority intervention through corrective measures.

The purpose of this paper is to analyze the asset structure of the Insurance – Reinsurance Company Astra SA and the extent to which it has managed to cover the technical reserves by admitted assets. The structure of the paper is

as follows: Section 2 presents the literature and the legislation on assets admitted to cover technical reserves. Section 3 is the case study on the Insurance – Reinsurance Company Astra SA. Section 4 provides the conclusions of the paper.

2. Assets admitted to cover technical reserves

Insurance companies are obliged to define in detail the amounts and structure of the investment risks, while taking into account the underwriting risks. [1]

They must keep at their headquarters, electronically, for each branch of insurance, registers of the assets admitted to cover technical reserves. [6]

Insurance company management analyzes, based on prudential considerations, the valuation of every asset, so that the value of total admitted assets does not fall below the value of technical reserves. [6]

Technical reserves are established and maintained by the insurer to cover its obligations to policyholders. The reserves held in relation to existing policies that have an unexpired risk exposure at the date of calculation are the unearned premium reserve and the additional unexpired risk reserve. The insurer's obligations for events that have already occurred and caused damage are highlighted in the reserve for unsettled claims. In addition to these, there may be other technical reserves: the catastrophe reserve and the claims equalisation reserve. [6]

In order to cover the assumed risks and to ensure permanent liquidity and solvency, insurance companies must invest with caution in certain categories of assets. The structure of asset portfolio should be correlated with company's obligations, both in terms of the currency of denomination and in terms of maturity or due dates. [7]

Insurance Supervisory Commission (CSA) issued Orders containing Rules regarding technical reserves coverage by admitted assets. Over time, several Orders were issued for non-life insurance, now being in force Order No. 9/2011.

Order No. 9/2011 for the implementation of rules on assets admitted to cover the gross technical reserves for non-life insurance activity, the dispersion of assets admitted to cover the gross technical reserves and liquidity coefficient, with subsequent modifications, entered into force on 01.07.2011.

According to this Order, there are three categories of assets admitted to cover gross technical reserves:

- Investments:
 - Government securities and treasury bills issued by member states;
 - Securities issued by the local public administration authorities;
 - Bonds and other money market and capital instruments assimilated thereto, traded on a supervised market;
 - Shares and other variable-yield securities assimilated thereto, traded on a supervised market;
 - Units of undertakings for collective investment in transferable securities and other investment funds;
 - Deposits and current accounts with credit institutions;
 - Land and buildings owned by the undertaking, other than farming land and plots outside of built-up area; [14].
- Receivables:
 - Amounts receivable from policyholders and intermediaries, from direct insurance and reinsurance acceptance;
 - Part of technical reserves related to reinsurance ceded contracts;
 - Interest receivable related to assets admitted to cover gross technical reserves.
- Others:
 - Cost directly attributable to underwriting contracts, included in deferred acquisition costs [14];
 - Cash in hand.

When investing the assets admitted to cover gross technical reserves, the insurer has to take into account its activity, to ensure efficiency, safety and marketability of its investments, the insurance company providing the dispersion of assets. [13]

According to the Order No. 9/2011, amended by Rule No. 22/2014, the insurer practicing general insurance may invest no more than:

- 50% of gross technical reserves in shares, bonds and other capital market instruments, traded on a regulated and supervised market, as well as in units of undertakings for collective investment in transferable securities and other investment funds, in compliance with the next point;
- 5% of gross technical reserves in shares and other securities treated as shares, bonds, debt securities and other money market or capital instruments, as well as units of undertakings for collective investment in transferable securities and other investment funds issued by the same entity;
- 20% of gross technical reserves in land and constructions;
- 10% of gross technical reserves in one land or building, or in a number of lands or buildings close enough to each other to be considered effectively as one investment;
- 90% of gross technical reserves in deposits and cash in hand at credit institutions, but not more than 20% of the reserves in one credit institution;
- 3% of gross technical reserves in cash in hand;

- 5% of the share of technical reserves related to contracts ceded to insurers/reinsurers that have not been rated by at least one of the credit rating agencies registered or certified under Regulation (EC) No. 1060/2009.

The new regulations, by Norm No. 22/2014, aim to diminish the weight of non-liquid assets in insurers portfolio, so as to increase their capacity to meet the obligations assumed under insurance contracts. [12]

Insurance companies must comply with prudential requirements, and the regulations assume that one of the prudential indicators, the liquidity coefficient, must be at least 1. The liquidity coefficient is calculated as the ratio between liquid assets and short-term insurer’s obligations to policyholders.

$$c = \frac{AL}{OTSA} \times 100, \quad (1)$$

where c – liquidity coefficient, AL - liquid assets, OTSA – short-term insurer’s obligations to policyholders.

[6]

Liquid assets [13] are represented by:

- Government securities and bonds issued by the local public administration authorities;
- Bank deposits;
- Cash in current accounts and cash in hand;
- Securities traded on regulated and supervised markets, under the following conditions:
 - Up to 5% of total securities issued by the same entity;
 - In calculating the liquid assets bonds will be weighted by a factor of 0,75;
 - In calculating the liquid assets the shares will be weighted by a factor of 0,50;
- Units of undertakings for collective investment in transferable securities and other investment funds, weighted by a factor of 0,90, up to a maximum of 20% of net asset for each fund.

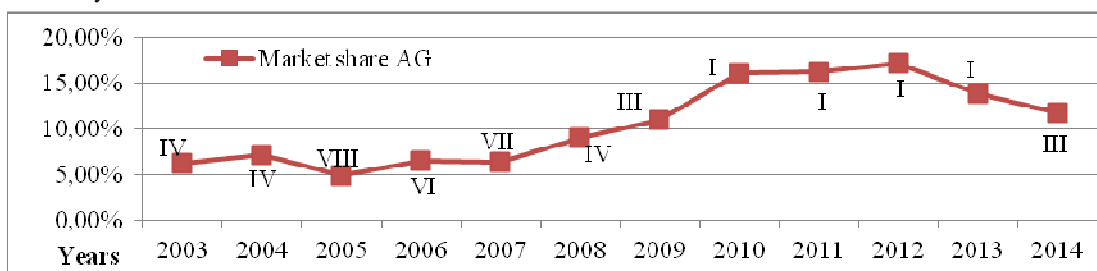
The securities traded on regulated and supervised markets and the units of undertakings for collective investment in transferable securities are taken into account up to 50% of total liquid assets.

Short-term insurer’s obligations to policyholders are represented by gross claims reserve.

3. Case Study: Insurance – Reinsurance Company Astra SA

The purpose of the paper is to analyze Astra’s asset structure and the degree to which it manages to cover gross reserves by admitted assets. The company analysis is performed during 2003 – 2014, due to availability of data in CSA and ASF (Financial Supervisory Authority) Annual Reports. Some data, especially for 2014, are taken from Astra’s Annual Report [10], due to lack of Annexes to ASF Annual Report.

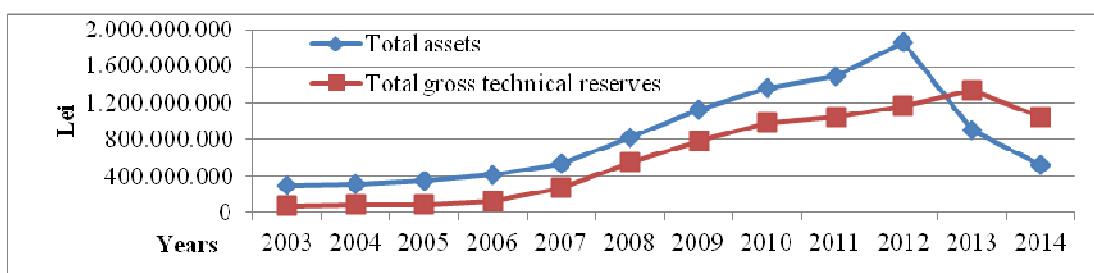
Astra was one of the leaders of the general insurance Romanian market (Figure 1). During 2010 – 2013, Astra was ranked number one in terms of gross premiums written for general insurance, holding a market share of approximately 17% in 2012.



Source: Authors’ processing based on CSA Annual Reports 2003 - 2012 and ASF 2013- 2014

The value of total assets (Figure 2) has had an upward trend until 2012, when it reached 1,8 billion lei. Their value had dropped in subsequent years, reaching about 500 million lei in 2014. Until 2012, the value of technical reserves had been below the value of total assets. In 2012, the value of gross technical reserves was of approximately 1,2 billion lei. In 2013 and 2014, the value of gross technical reserves exceeded the value of total assets, the difference between them was of 460 million lei in 2013 and almost 550 million lei in 2014. These results revealed the company’s need of capital, its assets being insufficient to pay the obligations to policyholders.

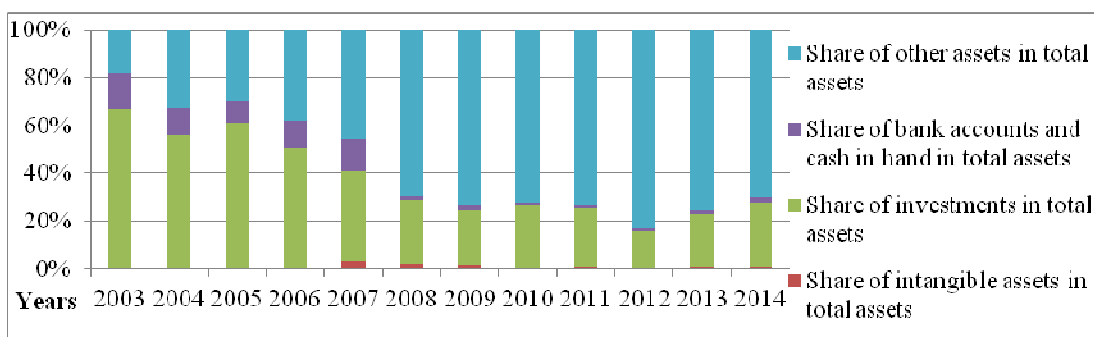
Figure 2 The evolution of Astra's total assets and total gross technical reserves, period 2003 - 2014



Source: Authors' processing based on CSA Annual Reports 2003 - 2012 and ASF 2013- 2014

From the graph (Figure 3), it can be seen that during 2003 – 2006, the highest share in total assets was held by investments, followed by other assets. Since 2007, the category other assets had represented the largest share of total assets, with a maximum of 83,42% in 2012. Intangible assets represented less than 1% of total assets throughout the period, except for 2007 – 2009, when the values were between 1 – 3%, because of the acquisitions made by the company. In 2003, the bank accounts and the cash in hand represented approximately 15% of total assets, decreasing to a share of about 2% in 2014.

Figure 3 The evolution of Astra's other assets share in total assets, period 2003 - 2014



Source: Authors' processing based on CSA Annual Reports 2003 – 2012, ASF 2013 and Astra 2014

Given the large share of other assets in total, we have been interested in what this category consisted of. Analyzing the company's annual reports, we have found that these amounts included receivables, deferred acquisition costs and, again, other assets. In the graph (Figure 4) it can be seen that the largest share in total was held by receivables, of approximately 60%. The maximum value of receivables was of about 937 million lei in 2012, dropping to 184 million lei in 2014.

Figure 4 The evolution of various items share in other assets, for Astra, during 2006 - 2014



Source: Authors' processing based on Astra Annual Reports 2006 - 2014

Most of the receivables consisted of receivables from insurance operations, namely unearned premiums. On average, they accounted for approximately 70% of total receivables, followed by receivables from reinsurance operations and other receivables.

In the second category of other assets were included the share of technical reserves ceded in reinsurance, the intangible assets and the advances for intangibles and stocks. The share of technical reserves ceded in reinsurance represented, on average, about 80% of total other assets.

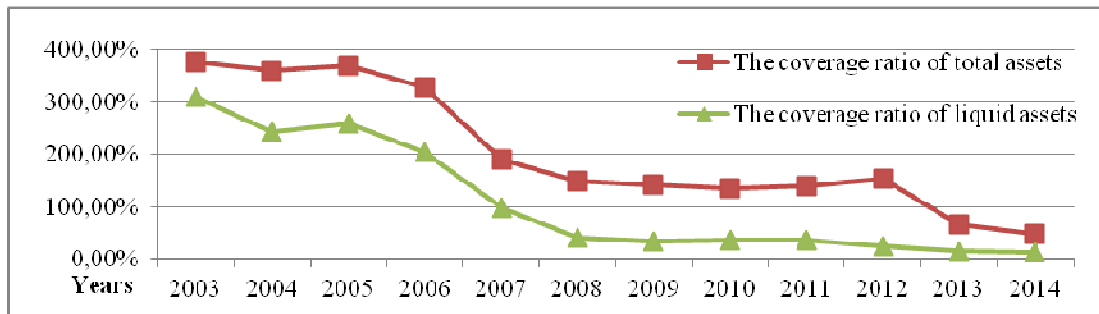
To see whether Astra was able to cover its gross technical reserves with its assets, we have calculated the coverage of total assets (R_A^{year}) and the coverage of liquid assets (R_{AL}^{an}), according to the following formulas:

$$R_A^{year} = \frac{\text{Total assets}}{\text{Total gross technical reserves}} \times 100, \quad (2)$$

$$R_{AL}^{year} = \frac{\text{Total liquid assets}}{\text{Total gross technical reserves}} \times 100, \quad (3)$$

If in 2013 and 2014, the value of total assets was below the value of gross technical reserves, than the coverage of total assets was below 100%, respectively 66% in 2013 and 48% in 2014 (Figure 5). In calculating the coverage ratio of liquid assets, we considered as liquid assets the investments, the bank accounts and the cash in hand. The greatest value was in 2003, approximately 300%. Since 2007, the company’s financial situation has deteriorated, the rate falling below 100%, being about 15% in 2013 and 2014. So the company did not have sufficient liquidity to meet debt payments to policyholders.

Figure 5 The evolution of coverage ratio of total assets and coverage ratio of liquid assets, for Astra, period 2003 - 2014



Source: Authors’ processing based on CSA Annual Reports 2003 – 2012, ASF 2013 and Astra 2014

Considering that the largest share in total assets was hold by other assets, and of these the receivables, it means that the company relied mostly on the fact that it could pay the obligations to policyholders with the future amounts received from them and other debtors. Given that these amounts were not actually in insurer’s possession, the company was on the risk of non-payment of debts to policyholders.

In 2013, during a regular inspection, among other important shortcomings, ASF found that the premium reserve and claims reserve were inadequately established and the coverage of technical reserves with admitted assets was wrong calculated. Therefore, ASF asked Astra to carry out an action plan that had to be fulfilled until 31 December 2013. The plan implied, inter alia, a review of the internal procedures related to investment activity, the emphasis and assessment of the insurance contracts and the calculation of the technical reserves according to legal requirements. Due to non-compliance with this plan until 31 December 2013, in the first quarter of 2014, the ASF Council ordered the opening of company’s financial recovery through special administration. [3]

Taking into consideration the vulnerability of the Romanian insurance market, ASF decided to evaluate the assets and liabilities of the insurance companies and to include them in a stress test. Initially, 13 companies were the subject of the program, then it was extended for another 21. Among other things, this exercise involved the analysis of the insurance portfolio of participating undertakings in order to establish the obligations under the insurance contracts and to assess the adequacy of technical reserves. It was also assessed the coverage degree of technical reserves with

admitted assets. The purpose of the stress test was to assess the resilience of the balance sheet of the insurance companies to stress scenarios and the compliance with the Solvency II capital requirements. [2]

The results of the BSR revealed that Astra was classified in the following groups: Group 1 (insurers with negative equity), Group 2 (insurers breaching the minimum guarantee fund), Group 3 (insurers breaching the solvency margin) and Group 4 (insurers not complying with the rules applicable to the coverage of technical reserves by admissible assets).

Based on the stress test, Astra was classified in Group 1 (insurers with negative own funds), Group 2 (insurers that do not achieve the Minimum Capital Requirement), Group 3 (insurers that do not achieve Solvency Capital Requirement). [11]

On August 27th 2015, ASF decided to close the procedure of financial recovery through special administration for Astra, the establishment of insolvency, the opening of the bankruptcy procedure and the withdrawal of the operating license. The main causes that led to Astra's bankruptcy were the poor management of the business, the fulfilment of personal or group interests through the use of assets and the distorted reporting of financial performance and prudential indicators, creating the appearance of compliance with legal requirements. [4]

4. Conclusions

Insurance companies carry out three main activities: operating, underwriting of insurance contracts, investing and financing. Each one is assigned a risk.

Underwriting risk represents the core competence of an insurer and should therefore constitute the starting point for the construction of investment portfolio. An underwriting loss of activity could be offset by profit from investments. Therefore companies should be able to correlate their investments with their general needs.

Insurance companies are required to constitute technical reserves for obligations to policyholders. According to law, these technical reserves can be covered on account of admitted assets. The admitted assets must provide insurer's liquidity.

In this paper, we have analyzed Astra's asset structure and the coverage of technical reserves by them. The company often had liquidity problems, being found irregularities regarding the coverage of technical reserves by admitted assets, but also regarding the calculation of technical reserves. Also, the liquidity coefficient, one of the prudential indicators, was below the value of 1.

We consider that the company should have invested more in liquid assets, cash and bank accounts, shares, bonds and government securities. Since 2007, the largest share in assets was held by receivables and deferred acquisition costs, which could not ensure the company's liquidity.

As a result of all the problems detected and unsolved, on August 27th 2015, ASF decided the opening of bankruptcy procedure, after a year and a half in which the company had been in financial recovery through special administration.

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