NATIONAL BANK OF SERBIA

INSURANCE SUPERVISION
DEPARTMENT

INSURANCE SECTOR IN SERBIA

Report for 2017

Contents:

List of abbreviations

mn	million
bn	billion
Q3	three quarters in one year (1 January – 30 September)

1 Introduction

According to law, the National Bank of Serbia (NBS) is entrusted with supervising the major part of the Serbian financial sector. In 2017, the financial sector under the NBS's supervision included 29 banks, 21 insurance undertakings, 16 financial lessors, 7 voluntary pension funds, 11 payment institutions and one electronic money institution.

2 Activities of the National Bank of Serbia in 2017

NBS’s activities in 2017 were focused on safeguarding the insurance sector's stability, creating conditions for its further development, and developing the supervisory function with a view to protecting the insured, insurance beneficiaries and injured parties.

On-site examinations

With a view to safeguarding insurance sector stability in 2017, the NBS conducted 20 on-site examinations in the field of insurance – five insurance undertakings, six insurance agency/brokerage undertakings, seven insurance agents and two banks. The NBS issued supervisory measures to seven supervised entities and 12 entities were fined, together with concluded on-site examinations in the last quarter of the previous period. One member of the insurance undertaking management board was dismissed, and a report for economic offence was filed against one insurance undertaking and its responsible person. Those examinations that did not identify illegalities and irregularities in operations were discontinued (five in total).

All examinations in 2017 were performed with clearly defined aims and effects. Special attention in insurance undertakings and other supervised entities was given to the sale of insurance and market behaviour of supervised entities, that is to informing of the policy holders as one of the basic principles of the protection of the insured and/or insurance beneficiaries. Also, great attention was placed on the sale of insurance by qualified staff, that is by those persons who are authorised to sell insurance according to the Insurance Law. Significant omissions were determined precisely in this segment, primarily with sales network of agents who hired persons not employed with their companies or trained to sell insurance in order to make sale easier and less financially demanding.

As it is expected that the insurance agent performs activities aimed at informing the beneficiaries about their rights and obligations in relation to using certain insurance service before, during and after the expiration of the contractual relation, violation of the Insurance Law in this respect brought about the first fines under this Law. A certain number of entities failed to disclose information from Article 111 of the Insurance Law, on entities performing insurance agency operations, and some entities did not comply with the obligation from Article 82 to present information that is clear, complete and understandable for the policy holder.

Examinations of insurance agents revealed irregularities related to incorrect reporting to the National Bank of Serbia, composing financial reports contrary to accounting regulations and not maintaining CET 1 capital at the required level. A certain number of agents used the so-called concept of business associations that is their name, brand and reputation, through which they promoted and offered insurance services.

Besides omissions in the market behaviour segment, on-site examinations of insurance undertakings revealed omissions in the system of governance, more precisely in the system of internal controls and actuarial function, irregular process of business planning, as well as omissions in monitoring of their implementation, in the part related to keeping records of invested assets of an undertaking contrary to International Accounting Standards and so on. Omissions in actuarial operations in one insurance undertaking, primarily in calculations and keeping records of technical provisions in business books, resulted in incorrect financial reporting. .

Year 2017 was definitely marked by life insurance sale supervision. In one insurance undertaking, it was necessary to impose radical supervisory measures, among other, those that are publicly disclosed, such as dismissal of one member of the management board[1].

During the year, irregularities identified in on-site examinations related to recording of insurance administration expenses resulted in repeated fines under the Law on Compulsory Traffic Insurance. Protection of rights of injured parties to timely settlement of claims for damages in MTPL insurance, that is within the established deadlines, was supervised after supervisory measures had been previously issued in that segment.

The NBS limited transfer of insurance risk in two insurance undertakings through supervisory measures.

Anti-money laundering and terrorism financing is a segment of operations which was supervised in insurance undertakings engaged in life insurance, as well as in their agents and brokers. All supervised entities have mostly established this process within their operations, and no significant irregularities were identified in the mentioned segment, except in the part of organizing thematic trainings of employees in insurance sale.

Supervision of the banking sale channel, which in the last years indirectly influenced the growth of premium volume, in particular the life insurance premium, was also carried out, inter alia, in the segment in which banks use insurance as a

[1] For more detail, see chapter 5.

collateral or security instrument against the risk of lending to natural persons, whereby the bank is registered as an insurance beneficiary, although this in most cases is not provided for unambiguously in the bank's internal acts. Omissions were also identified in delivering the conditions of insurance which are integral to insurance contract, disclosing information on the purpose of insurance contract and insurance expenses borne by the bank client.

In addition to the above, it was noticed that banks and insurance undertakings use such business practice which allows them to conclude contracts on insurance agency activities / contract on cooperation contrary to regulations governing obligations in which the bank has a double role in the same business – both as a policyholder and as an insurance agent, and in doing so, earns a commission.

Apart from conducting the planned on-site examinations, the activities undertaken during 2017 included follow-up examinations, in some cases even on-site examination of supervisory measures issued in the previous period, as provided for by the appropriate acts issued by the NBS.

Off-site supervision and examinations

In parallel with conducting on-site examinations, the NBS also continuously analysed, monitored and examined the operation of all supervised entities in the area of insurance from economic, legal and actuarial aspects. It examined all reports which supervised entities submitted in hard copy or electronically, in accordance with obligations established under the law or in response to the NBS's special request. Based on these data, the supervisor conducted a comprehensive analysis and assessment of riskiness of operations of insurance/reinsurance undertakings and prepared the examination plan for 2018 accordingly.

In situations envisaged by the regulatory framework and based on the received documentation and data, four off-site examinations of insurance undertakings were conducted, three of which were completed in 2017, on account of which supervisory measures were issued. Off-site examinations, as a completely new method in setting standards in some specific areas of insurance undertaking activities, yielded very significant effects in 2017, the most prominent being improvement of financial reporting by type of insurance, cooperation with utility companies, and above all, improving the quality of insurance of primary and secondary school pupils, as well as the users of hotel and related facilities.

In addition to the above, based on gathered data on complaints and other relevant indicators of the market behaviour, a corrective factor was determined for assessing market behaviour risks in insurance undertakings and other participants in the insurance market, used to adjust the risk assessments determined from the aspect of prudential supervision.

Starting from 2017, the NBS began off-site supervision of insurance undertakings licenced to carry on life insurance business, in the area of AML/CFT risk management. Also, a Questionnaire on AML/CFT Activities was composed. It is disseminated to undertakings once a year and it aims to indirectly monitor the system for detecting and preventing money laundering and terrorism financing, as well as analyse the implementation of regulations governing this field. The analysis of responses to the questionnaire indicated whether it is necessary to correct the level of risks in operations of insurance undertakings for the purpose of planning on-site examinations for the following year.

Licences, consents and other supervisory regulatory activities

As part of its insurance supervision, the NBS also conducted a whole series of other, regular activities, such as processing of different types of applications for licenses and approvals, issuing of professional opinions and similar.

After aligning the insurance sector in 2016 with the regulatory framework from 2015, the NBS activities aimed at establishing conditions for the development of the insurance sector in 2017 primarily included adopting amendments to certain by-laws.

Amendments to the Decision on Implementing Provisions of the Insurance Law relating to the Issuance of Licence to Carry on Insurance/Reinsurance Activities and Specific Approvals of the National Bank of Serbia allow lawyers to perform the function of a member of the management of the insurance / reinsurance undertaking. Amendments to the Decision on Investment of Insurance Funds have, among other things, prolonged the validity of one form of investment for three years, with the aim to facilitate optimum diversification of investments in the given circumstances. In order to achieve preconditions for stable operations of life insurance undertakings, amendments to the Decision on Technical Provisions determined lower maximum interest rate for calculating mathematical reserve in contracts agreed in foreign currency. Amendments to the Decision on Actuary Certification and Further Professional Education created conditions for introducing all interested faculties in the process of actuarial educating, through the establishment of a master degree program, which includes areas of actuarial science, aligned with the syllabus of the International Actuarial Association.

There is an on-going process of preparing a new Law on Compulsory Traffic Insurance, for the purpose of which the Ministry of Finance formed a Working Group in June 2017 for further aligning with the relevant EU acquis in this field. NBS representatives participate in the mentioned Working Group.

Development activities

NBS activities aimed at establishing conditions for the development of the insurance industry primarily included preparations for implementation of Solvency II in Serbia.

The Strategy for Implementation of Solvency II in the Republic of Serbia was adopted in July 2016 (Solvency II Strategy) and envisages phased implementation, according to the EU accession process. As at February 2017, the first phase was concluded. It included activities aimed at analysing the compliance of regulations governing insurance industry in Serbia with Solvency II and also the preparation of the Report on the implementation of Solvency II.

For the purpose of ensuring full implementation of Solvency II framework as of the date of Serbia's accession to the EU, amendments and supplements to the Solvency II Strategy were prepared and adopted in March 2018. Key amendments relate to activities within the second phase of Solvency II Strategy (impact assessment), when several quantitative impact studies will be implemented from 2018 to 2021, in order to adequately assess the readiness of insurance / reinsurance undertakings to apply new regulations. In addition, it is envisaged that activities relating to drafting of regulations necessary for establishing new regulatory framework for performing insurance and reinsurance operations will be concluded in 2021.

In 2017 the NBS conducted for the second time a micro stress test of the Serbian insurance industry, covering five unrelated extreme scenarios. Analyses of the stress test indicates that in case extreme and unlikely shocks were realised, insurance sector would remain stable and highly capitalised and capital adequacy would not be threatened.

As part of development of its supervisory function, in 2017 the NBS worked on: enhancing early warning indicators by introducing additional indicators; professional education and training of the NBS employees and so on.

Professional exams

The NBS devotes special attention to education of certified insurance brokers and agents, as well as certified actuaries. According to the new regulations, the candidates, prior to taking the exam at the NBS, should pass the appropriate levels of training, in order to acquire all the necessary knowledge for the successful performance of their new tasks.

In order to raise the level of competences of candidates who were certified for insurance brokerage/agency activities and to finalise the list of active insurance brokers/agents, continuous education was introduced as a requirement for renewing the membership in the registry and staying in the business.

Based on Agreement on Training for Certification Exam for Acquiring the Title of a Certified Broker or Certified Agent in Insurance and Continuous Professional Education of Certified Insurance Brokers/Agents which was signed between the NBS and the Serbian Chamber of Commerce, two trainings and two regular certification exams were organised for insurance brokers/agents in 2017. A total of 304 persons passed the certification exam for acquiring the title of a certified broker and/or certified agent in insurance, while 239 certified insurance brokers/agents fulfilled the required continuous professional education in the same year.

In 2017, there were two exams for obtaining the title of a certified actuary organised in the NBS, and two persons acquired that title upon passing the exam. The requirement for continuous professional education was fulfilled by 54 certified actuaries.

3 Insurance market[2]

3.1 General indicators[3]

In 2017, the global growth of economic activity was positive and in the cyclical recovery phase. After growing by 2.4% in 2016, real gross domestic product growth measured 3% in 2017.

It is expected that the global growth will be maintained in the following years or even accelerated in the developing countries owing to exports growth. The projected growth in 2018 is 3.1%.

The estimated real growth in *global non-life insurance premium* in 2017 was 3%; 2% in advanced economies and 6% in developing countries, while Central and Eastern Europe recorded a rise of almost 5%. The real growth forecast on a global level is at least 3% for 2018 – lower growth in advanced countries compared to the previous year, about 7% in developing countries, while Central and Eastern Europe expect somewhat lower growth compared to the last year.

Global *life insurance premium* in 2017 is estimated to have grown 3%, at the level of non-life insurance premium – 0.2% in advanced countries and 17% in developing

[2] The Report is based on data that insurance undertakings are obliged to submit to the NBS, but their accuracy was not verified by the NBS on-site examinations. When analysing the insurance market, it should be borne in mind that changes presented in the Report are calculated relative to data for insurance undertakings which operated in 2016.

[3] Source: Global Economic Prospects, World Bank, January 2018; Global insurance review 2017 and outlook 2018/19, Swiss Re, November 2017; World insurance in 2016, Swiss Re, Sigma No 3/2017, June 2017 and the National Bank of Serbia.

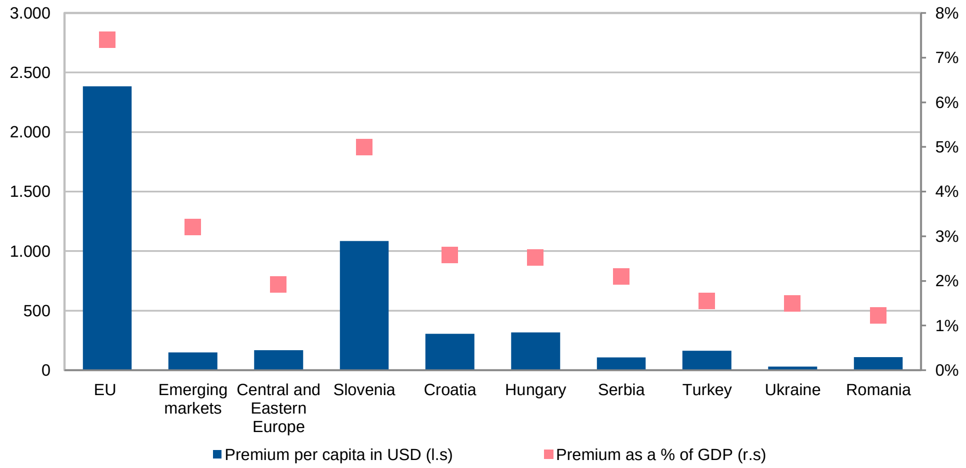
countries, while after falling fourth year in a row, it recorded a strong recovery in Central and Eastern Europe. The projected global growth of life insurance premium for 2018 is almost 4% – of which 1-2% in advanced countries and 12% in developing countries, and around 5% in Central and Eastern European countries.

Four countries with the largest share in global premium (the US, Japan, China and the UK) covered more than half of the global market (54.8%) in 2016. At the same time, Serbia ranked 82nd in the world by the size of its insurance premium.

The Serbian insurance sector is still underdeveloped and significantly below the average for EU member states. This is corroborated by the insurance market development indicators – the ratio of total premium to GDP and total premium per capita.

Judging by the 2016 premium to GDP ratio of 2.1%, Serbia ranked 61st in the world. The ratio for EU countries is as much as 7.4%. However, when compared with the 3.2% average for developing countries and 1.9% average for countries in Central and Eastern Europe, and given that countries such as Turkey, Ukraine and Romania are behind Serbia, it may be concluded that Serbia holds a satisfactory position.

Chart 3.1.1 **Comparison of insurance sector development indicators**
(in 2016)



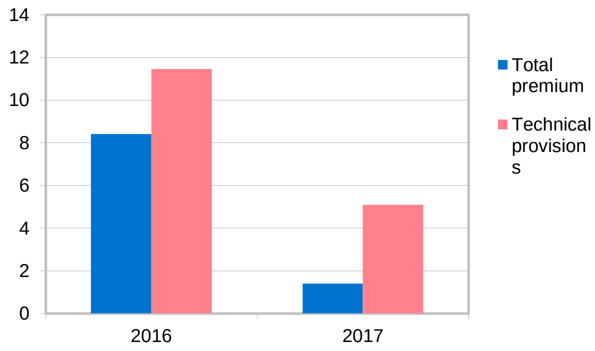
Source: Swiss Re, Sigma No 3/2017 and NBS.

Measured by the 2016 premium per capita of USD 108 or EUR 102, Serbia was 64th in the world. The same indicator for EU member states equalled USD 2,383, for the Central and Eastern European region USD 169, and for developing countries USD 149. The Cayman Islands ranked top in the world with USD 12,160, followed by Hong Kong and Switzerland, while Slovenia and Croatia held 33st and 53rd place with USD 1,084 and USD 307, respectively.

In 2017, the premium to GDP ratio for Serbia was 2.1%, as in the previous year, while premium per capita rose to USD 133 or EUR 112.

The development of the Serbian insurance market in terms of real premium growth indicates that positive trend was maintained.

Chart 3.1.2 **Real movement of total premium and technical provisions**
(in %)



Source: NBS.

In the financial sector as a whole (banks, insurance, leasing and voluntary pension funds)[4] , insurance ranked 2nd by its balance sheet amount, capital and employment levels. Of the total financial sector balance sheet worth RSD 3,714 bn in 2017, banks accounted for 90.7%, and insurance undertakings for 6.3%.

Table 3.1.1 **Share in total financial sector**
(in %)

	Banks		Leasing		Insurance		VPF	
	2016	2017	2016	2017	2016	2017	2016	2017
Balance sheet total	91,2	90,7	1,9	2,0	6,1	6,3	0,9	1,0
Capital	91,4	91,3	1,2	1,3	7,3	7,4		
Number of employees	67,5	67,1	1,1	1,1	31,0	31,5	0,3	0,4

Source: NBS.

3.2 Market participants

Insurance undertakings

In 2017 the insurance market in Serbia comprised 21 insurance undertakings, down by two relative to the previous year[5]. Seventeen undertakings engaged in insurance

[4] Excluding payment institutions and electronic money institutions.
[5] One non-life insurer and one life insurer merged with one insurance undertaking for both life and noon-life insurance in Q3 2017.

activities only and four in reinsurance activities. Of the insurance undertakings, four were exclusive life insurers, seven exclusive non-life insurers, while six provided both life and non-life insurance.

The breakdown by ownership in 2017 shows that of 21 insurance undertakings, 15 were in majority foreign ownership.

Foreign-owned insurance undertakings which entered the market via greenfield licences or privatisation arrived at a dominant share, which in 2017 stood at: 93.1% in life insurance premium, 62.0% in non-life insurance premium, 77.3% of total assets and 68.2% of total employment.

Chart 3.2.1 **Structure of insurance undertakings in Serbia by ownership**
(in 2017)

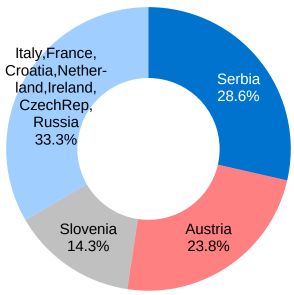
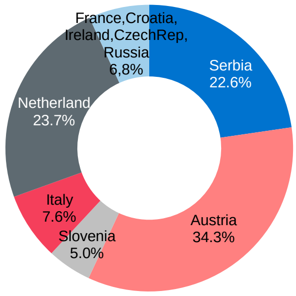


Chart 3.2.2 **Balance sheet total of insurance undertakings in Serbia by ownership**
(in 2017)



Source: NBS.

Other market participants

Beside insurance undertakings, the sales network included: 20 banks, seven financial lessors and one public postal operator, all of which are licensed for agency operations, 88 legal entities (insurance brokerage/agency services) and 90 insurance agents (natural persons – entrepreneurs).

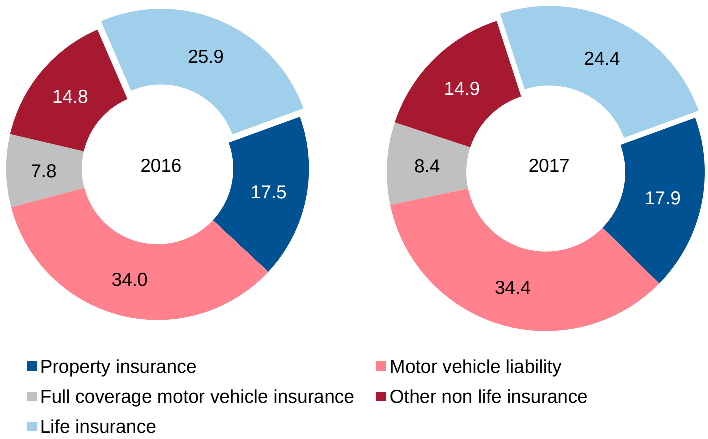
3.3 Insurance portfolio structure

Total premium generated from insurance undertakings in 2017 came at RSD 93.1 bn (EUR 786 mn or USD 939 mn)[6], which is an increase of 4.4% in nominal and 1.4% in real terms.

In 2017, the share of non-life insurance in total premium was 75.6%. Life insurance decreased its share from 25.9% in 2016 to 24.4% in 2017, due to a 1.6% fall in life insurance premium relative to the year before.

[6] At the NBS middle exchange rate as at 31 December 2017.

Chart 3.3 **Total premium according to the types of insurance**
(in 2016 and 2017, in %)



Source: NBS.

The composition of the overall portfolio indicates that five types of non-life insurance alone – accident insurance, motor vehicle insurance, insurance of property against fire and other hazards, other property insurance and MTPL insurance – account for 64.3% of the total.

MTPL, as compulsory insurance, kept the leading share in total premium in 2017 (34.4%), followed by life insurance (24.4%) and property insurance (17.9%).

Accident insurance, including, inter alia, compulsory types of insurance such as passenger insurance in public transport and insurance of employees from injuries at work, professional and work-related illnesses, accounted for only 3.7% of total premium in 2017.

The share of voluntary health insurance premium showed an increase from 2.5% in 2016 to 3.1% in 2017, owing to a significant nominal growth in premium of 28.3%. Three insurance undertakings covered slightly less than three quarters of the market.

MTPL insurance recorded growth in premium of 5.7% and property insurance of 6.8% relative to the year before. After the reversal of the downward trend in Q3 2015, the premium of full coverage motor vehicle insurance – “kasko” continued up, rising by 12.7% in 2017 and increasing its share in total premium to 8.4%.

Observed by rank of the five biggest insurance undertakings, there were no changes in total, non-life and life insurance premium. These undertakings participate in the total premium, non-life and life insurance premium of all insurance undertakings with 77.2%, 79.9% and 81.7%, respectively.

Table 3.3.1. **Ranking list of five largest insurance companies**
(RSD mn, %)

	2016			2017			Ranking change
	Amount	Share	Rank	Amount	Share	Rank	
				by total premiums			
Dunav	22893	25,7	1	24927	26,8	1	-
Generali	19830	22,2	2	19777	21,2	2	-
DDOR	10330	11,6	3	10949	11,8	3	-
Wiener	9510	10,7	4	10900	11,7	4	-
Triglav	4229	4,7	5	5308	5,7	5	-
				by non-life premiums			
Dunav	21537	32,6	1	23367	33,2	1	-
Generali	12858	19,5	2	13336	19,0	2	-
DDOR	9282	14,1	3	9548	13,6	3	-
Wiener	4422	6,7	4	6381	9,1	4	-
Triglav	3963	6,0	5	4824	6,9	5	-
				by life premiums			
Generali	6972	30,1	1	6442	28,3	1	-
Wiener	5089	22,0	2	4519	19,9	2	-
Grawe	3563	15,4	3	3763	16,5	3	-
Uniqa l	1831	7,9	4	1764	7,8	4	-
Societe Gen	1506	6,5	5	1691	7,4	5	

Source: NBS.

Observed by distribution channels, the major portion of *total premium* in 2017 was generated via: insurance undertakings (61%), technical inspections (12%), brokers (8%), insurance agency undertakings (8%) and banks (7%).

Speaking of *non-life insurance* premium, 63% of the total was collected by insurance undertakings, 16% via technical inspections and 10% via brokers. Banks collected as much as 80% of total loan insurance premium, and 35% of total MTPL insurance premium was collected via technical inspections of vehicles.

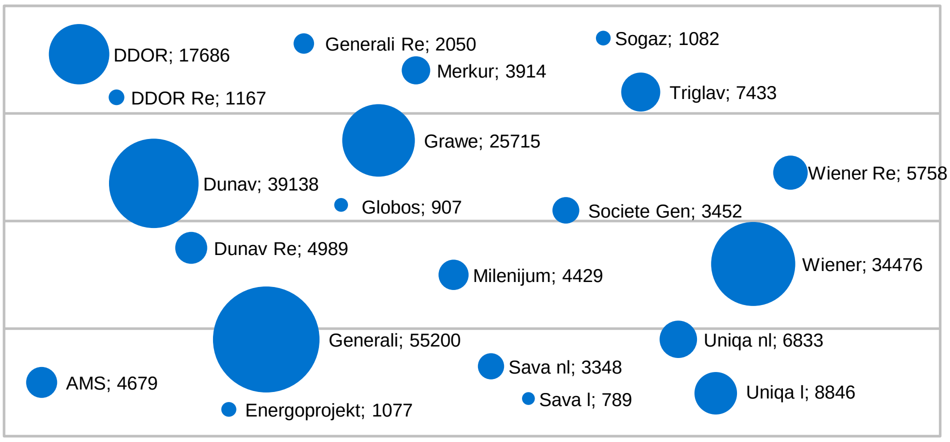
The largest portion of *life insurance* premium was collected by sale of: insurance undertakings (57%), banks (20%) and insurance agency undertakings (14%).

3.4 Balance sheet total and balance sheet structure

Balance sheet total

Insurance industry's turnover, in terms of the balance sheet total of insurance and reinsurance undertakings, increased by 8.1% in 2017 compared to 2016 and reached RSD 233.0 bn.

Chart 3.4.1 **Balance sheet total of insurance undertakings**
(as at 31/12/2017, in RSD mln)



Source: NBS.

In terms of the industry's balance sheet total, there was no change in the ranking of the top five insurance undertakings, which in 2017 accounted for 78.8% of the total.

Table 3.4.1. **Ranking list of five largest insurance companies by balance sheet total**
(RSD mn, %)

	2016			2017			Ranking change
	Amount	Share	Rank	Amount	Share	Rank	
Generali	51931	25,6	1	55200	25,8	1	-
Dunav	35327	17,4	2	39138	18,0	2	-
Wiener	29233	14,4	3	34476	15,4	3	-
Grawe	24142	11,9	4	25715	11,4	4	-
DDOR	16366	8,1	5	17686	8,3	5	-

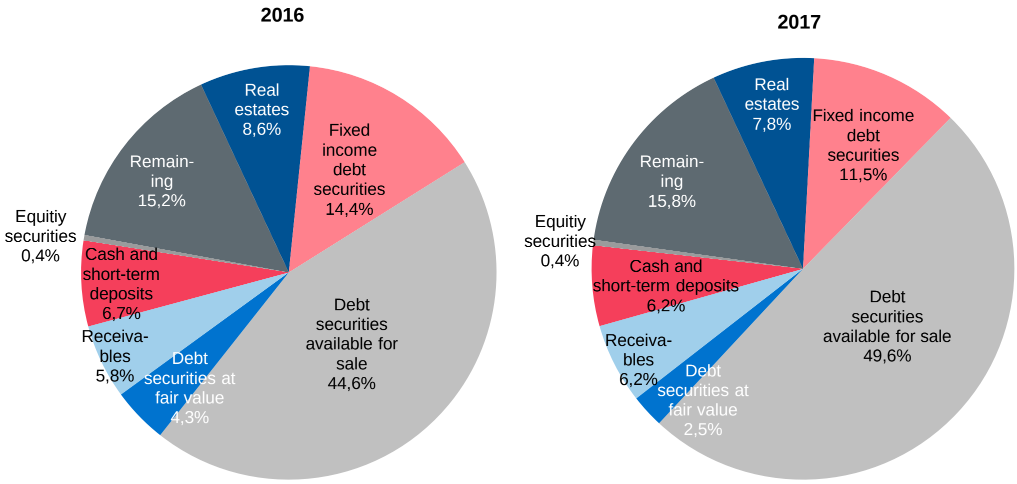
Source: NBS.

Structure of assets

As at 31 December 2017, assets of insurance undertakings comprised mostly debt securities available for sale (49.6%), fixed income debt securities (11.5%) and debt securities recognised at fair value through income statement (2.5%), followed by: property, plant and equipment (7.8%), receivables (6.2%), cash and short-term deposits (6.2%), equities (0.4%) and other[7].

When compared to 2016, it can be concluded that, on the one hand, the dominant share of debt securities available for sale increased at the rate of 20.3%, recording significant growth, while on the other hand, the share of fixed income debt securities and those recognised at fair value, as well as of real estate decreased as a percentage of total assets.

Chart 3.4.2 **Structure of assets**
(as at 31/12/2016 and 31/12/2017)



Source: NBS.

[7] This comprises: intangible investments, goodwill, software and other rights, participating interests, other long-term financial investments (with the exception of fixed income debt securities), other long-term assets, deferred tax assets, inventories, non-current assets held for sale, other securities within financial investments, other short-term financial investments, added value tax, prepayments and accrued income and technical provisions borne by the coinsurance and reinsurance.

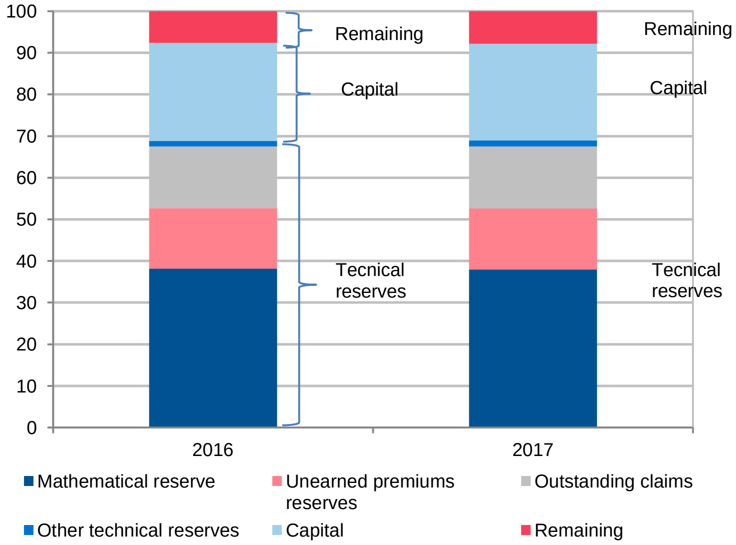
Structure of liabilities

As at 31 December 2017, technical provisions accounted for 69.0%, and capital and reserves for 23.2% of total liabilities.

Capital amounting to RSD 54.0 bn recorded growth at the rate of 6.3%, while technical provisions with the amount of RSD 160.6 bn recorded growth of 8.2% in the observed period, the most significant portion relating to mathematical reserves, with the growth rate of 7.4% in 2017.

Technical provisions enjoyed an interrupted growth in both nominal and real terms.

Chart 3.4.3 Structure of liabilities
(in %)



Source: NBS.

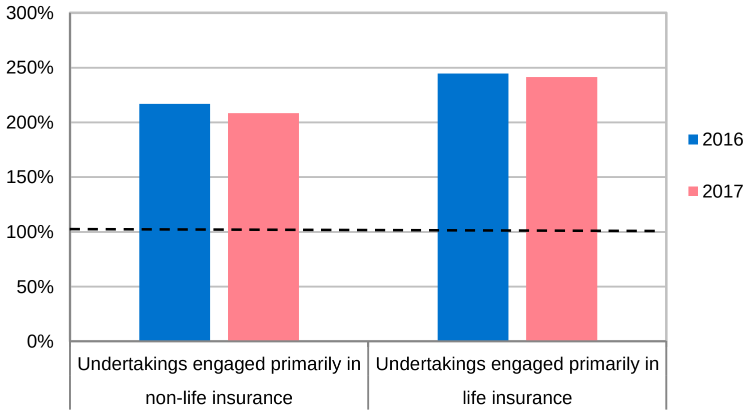
4 Performance indicators

4.1 Capital adequacy

The solvency of insurance undertakings depends on the sufficiency of technical provisions for undertaken obligations and on meeting the conditions related to capital adequacy, which have been established as the ratio of the required and available solvency margin.

The available solvency margin of the insurance sector (insurance and reinsurance undertakings) in Serbia as at 31 December 2017 amounted to RSD 37.4 bn, and the required solvency margin to RSD 16.5 bn. **The main capital adequacy indicator** (the ratio of the available to required solvency margin) was 208.4% for all insurance undertakings primarily engaged in *non-life insurance* and 241.5% for those primarily engaged in *life insurance* in Serbia.

Chart 4.1.1 **Ratio of available solvency margin to required solvency margin of insurance undertakings**



Source: NBS.

A *non-life insurer*'s ability to absorb the risk of inadequate premium pricing, unforeseen claims and inadequate transfer of risk to coinsurance and reinsurance etc. (insurance risk) is measured, among other, by the ratio of retained premium to total capital i.e. the **ratio of inadequately assessed non-life insurance risk**. Retained premium is the approximation of undertaken risks and must be sufficient to cover the insurance claims and compensations. In case of inadequacy of premium pricing or risk transfer to coinsurance and reinsurance, as well as in case of other insurance risks, total capital or parts thereof are used to guarantee the coverage.

In 2017, the ratio of inadequately assessed non-life insurance risk for all undertakings primarily engaged in *non-life insurance* equalled 179.0% compared to 181.8% in 2016. The ratio edged up as a result of capital growing faster than retained premium.

The **ratio of inadequately assessed life insurance risk**, as a ratio of total capital to technical provisions of undertakings engaged primarily in *life insurance*, declined to 25.6% in 2017, compared to 27.0% in 2016, reflecting the mathematical reserve rising at a faster pace than capital.

Such ratio meant that in 2017 there was a “reserve” of 25.6% to cover inadequate assumption of risks by these undertakings (in life insurance, technical provisions represent a good approximation of risks).

Stress test results

In 2017, the NBS successfully carried out the second micro stress testing of the insurance sector in Serbia with a view to identifying the exposure to risks of individual insurance undertakings and their capability for risk management. The stress test consisted of the following five, mutually unrelated extreme-case scenarios: (1) “less marketable investments” scenario – loss arising from a reduction in value of real estate and write-offs of premium receivables; (2) “retrocession” scenario – loss due to retrocessionaire's failure to fulfil the obligation; (3) “actuarial” scenario – loss due to increased mortality arising from a pandemic and insufficiency of provisions for damages; (4) "natural hazard – earthquake" – loss due to a hazardous damage caused by earthquake and (5) "natural hazard – flood" – loss due to a hazardous damage caused by flood. After the analysis, the NBS issued a public statement about the stability of the insurance industry in case of occurrence of extreme shocks, while issuing recommendations aimed at improving risk management to individual undertakings in which a higher level of risk was detected.

Chart 4.1.2 **Serbia - Effects of "less marketable investments" scenario on capital adequacy**

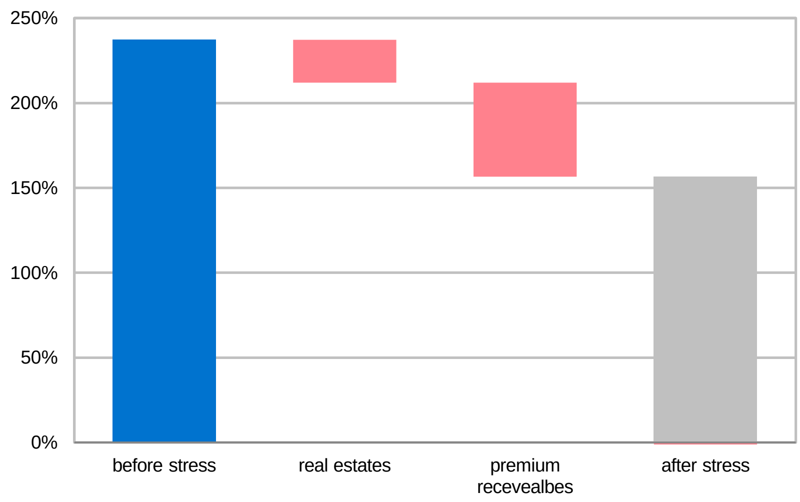


Chart 4.1.3 **Serbia - Effects of “retrocession” scenario on capital adequacy**

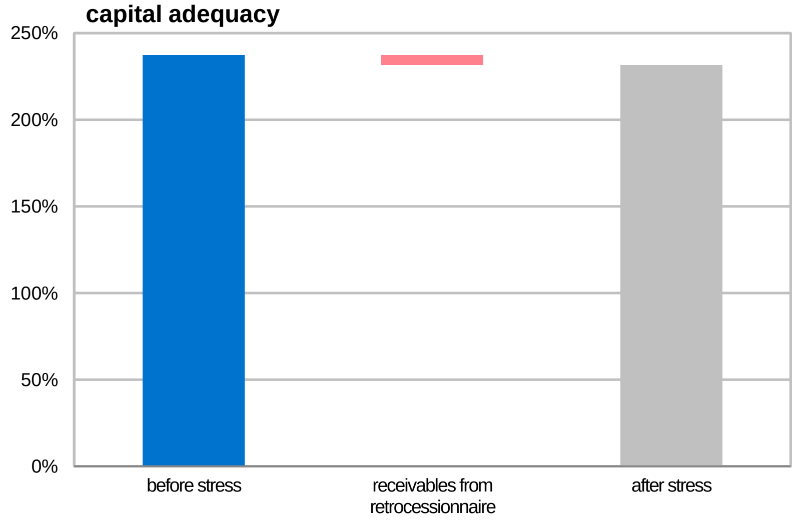
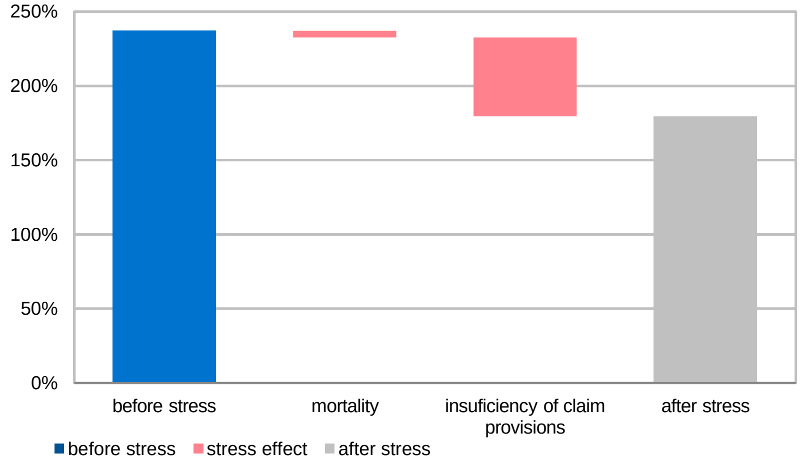


Chart 4.1.4 **Serbia - Effects of “actuarial” scenario on capital adequcy**



Source: NBS.

Chart 4.1.5 **Serbia - Effects of "natural catastrophe-earthquake" scenario on capital adequacy**

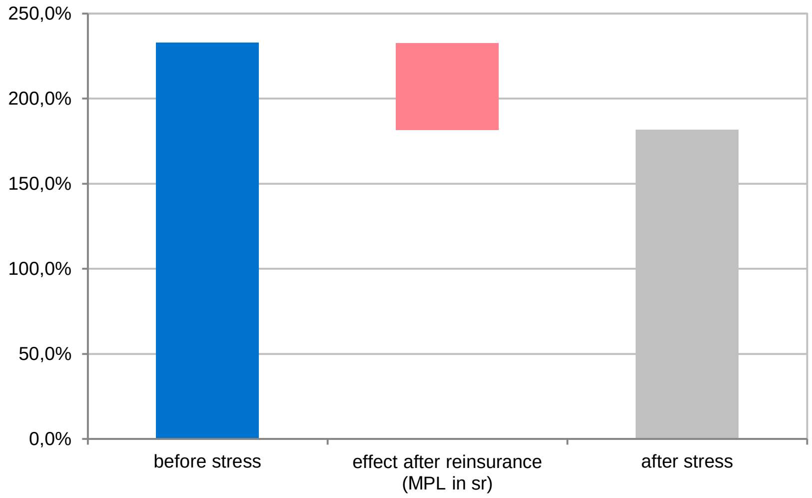
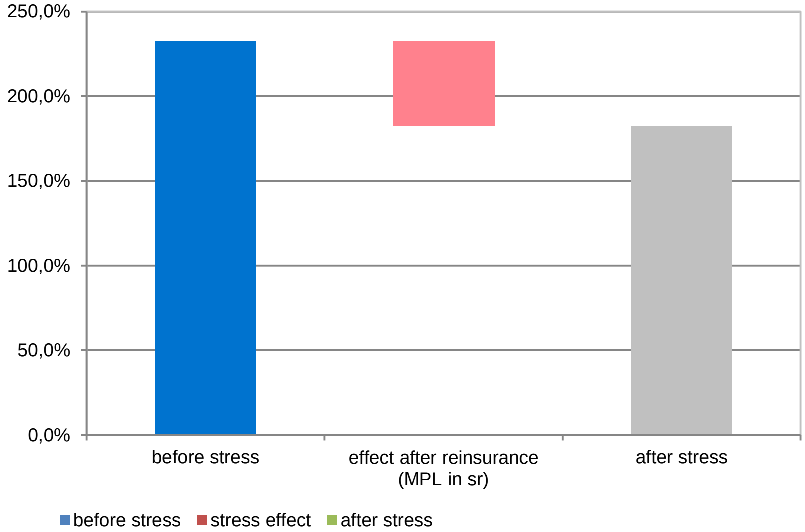


Chart 4.1.6 **Serbia - Effects of "Natural catastrophe-flood" scenario on capital adequacy**



Source: NBS.

The greatest effect on capital adequacy would come from the first scenario, mainly due to write-off of premium receivables, followed by the third scenario, mainly due to insufficient technical provisions, and finally the fourth and fifth scenario, in case maximum possible retained claims were realised. The second scenario would not have a significant effect.

4.2 Quality of assets

Judging by the share of intangible investments, property, investment in non-tradable securities and receivables in total assets of undertakings engaged primarily in *non-life insurance*, i.e. **the ratio of assets of lower marketability**, which in 2016 and 2017 measured 18.7% and 17.9%, respectively, it may be concluded that these types of investments increased at a slower pace than total assets in 2017.

In undertakings primarily engaged in *life insurance* this indicator dropped from 2.3% in 2016 to 1.7% in 2017. The ratio changed compared to a year earlier owing to the decline in assets of lower marketability.

Apart from calculating sufficient premium to compensate for the damages, it is also necessary to ensure premium collection. Otherwise, the insurer may face the risk of being unable to fulfil its obligations to the insured.

The **receivables ratio**, defined as a ratio of premium receivables to total premium written for all *non-life insurers* stepped up slightly, from 8.8% in 2016 to 9.2% in 2017, reflecting a faster rise in premium receivables compared to the rise in total premium written.

In undertakings engaged primarily in *life insurance*, the share of receivables to total premium underwritten remained unchanged compared to the previous year and equalled 2.6%.

4.3 Investment of technical provisions

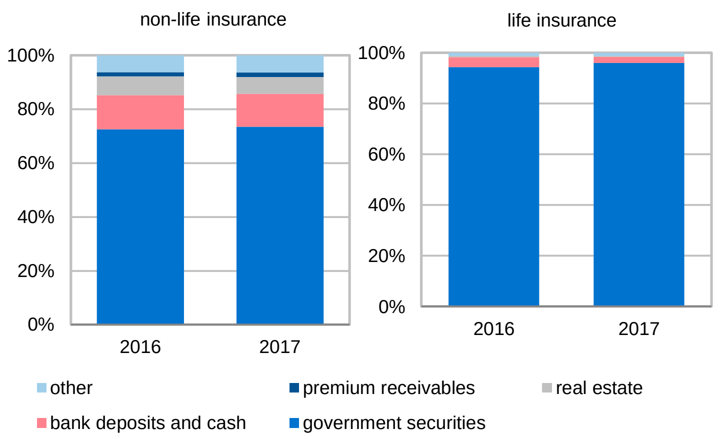
In order to protect the interests of the insured and third damaged parties and to ensure timely payment of damage claims, insurance undertakings need not only allocate adequate technical provisions, but also invest these assets so as to ensure that their real value is maintained and increased, so that the undertaken obligations may be fully and timely met, both at present and in the future period. To be able to meet its liabilities, an undertaking must invest its assets taking due account of the risk profile and risk tolerance limits (qualitative and quantitative), by pursuing its investment policy.

Technical provisions were fully invested in prescribed types of assets, in both non-life and life insurance undertakings, in 2017.

In 2017, *non-life insurance* technical provisions of all insurance undertakings in Serbia were mostly covered by government securities (73.5%), bank deposits and cash (12.1%), real estate (6.3%) and insurance premium receivables (1.8%).

Life insurance technical provisions were in major part invested in government securities (96.0%), followed by bank deposits and cash (2.4

Chart 4.3 **Structure of investment of technical reserves**



Source: NBS.

4.4 Reinsurance

Reinsurance and coinsurance provide the so-called risk offsetting and protection of insurers against major or massive losses that may jeopardise their operations. In relation to the portion of risks which is retained, the undertaking's capital is used as a buffer for unforeseen events and inadequate premium prices.

The **premium retention ratio**, i.e. the share of earned net premium in total earned premium, points to the extent of risks transferred to reinsurance and coinsurance. As regards *non-life insurance* undertakings, this indicator moved around 84% in the two years observed.

In terms of types of insurance, the percentage of risk transfer to reinsurance was the largest in aircraft liability insurance and aircraft insurance, followed by general liability insurance, vessel liability insurance, property insurance against fire or other perils, railway rolling vehicles insurance, insurance of goods in transport, financial loss insurance, other property insurance, which corresponds to the nature of those types of insurance types and the level of risks assumed.

As regards *life insurance* undertakings, this indicator moved around 98% in the two years observed. High indicator values resulted from the transfer of a portion of pure risk premium to reinsurance, while the investment portion (as a significantly larger portion of life insurance premium) remained in insurers' portfolio holdings.

4.5 Profitability

In 2017, the insurance industry posted a positive net result, which after partial distribution of profits after tax came at RSD 6.4 bn.

A measure of profitability of an insurance undertaking is the **net combined ratio** (the sum of net claims and underwritten expenses relative to earned net premium). A ratio below 100% indicates that an undertaking is able to cover damage claims and expenses out of the premium written, while a ratio above 100% means that in premium pricing it takes into account potential income received from investments in the financial and real estate markets, which exposes it to additional market risks. In undertakings primarily engaged in *non-life insurance*, the net combined ratio declined from 89.1% at end-2016 to 88.9% at end-2017. The ratio decline in 2017 resulted from somewhat faster growth of earned net premium relative to net claims and underwritten expenses.

For undertakings mainly engaged in *non-life insurance*, the **net loss ratio** (the ratio of net claims to earned net premium), as an indicator of price policy and adequacy, i.e. sufficiency of the premium to cover liabilities arising from insurance contracts and adequacy of the transfer of risk to reinsurance and coinsurance, increased from 50.3% at end-2016 to 51.2% at end-2017.

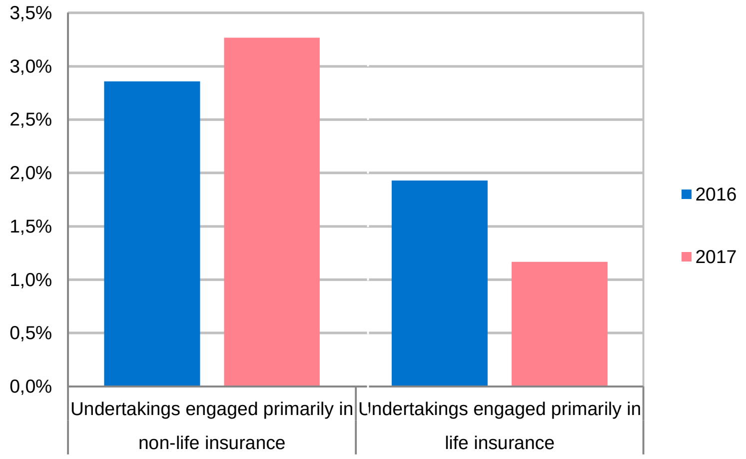
For undertakings engaged primarily in *life insurance*, the **benefit ratio**[8] edged down from 90.1% at end-2016 to 71.0% at end-2017.

ROA (net income to total assets) illustrates how well an undertaking employs its total assets in insurance, investment and other activities. In 2017, undertakings that are mainly *non-life insurers* posted a positive ROA of 3.3% (compared to 2.9% in 2016).

In undertakings engaged primarily in *life insurance*, ROA continued to record positive values, measuring 1.2% in 2017 (compared to 1.9% in 2016)

Overall, the Serbian insurance sector (insurers and reinsurers) posted a positive ROA of 2.8%.

Chart 4.5 **Return on assets - RoA**



Source: NBS.

4.6 Liquidity

To be able to meet its liabilities, an insurance undertaking must ensure an asset-liability maturity match and make sure its assets are marketable and of adequate quality. As the size and timing of individual damage claims cannot be predicted, an insurance undertaking must carefully plan the composition of its assets in order to be able to meet first its liabilities under damage claims, and then all other liabilities.

[8] Ratio of sum of net claims and changes in technical provisions to earned net premium. In interpretation one must take into account the long-term character of life insurance and a significant effect that changes in technical provisions have on this indicator.

Liquid assets to liquid liabilities ratio[9] for the insurance sector (insurance and reinsurance undertakings) stood at 170.8% in 2017, and 163.1% in 2016, suggesting that liquid assets were sufficient for servicing short-term liabilities in the insurance sector.

5 Supervisory measures that are publicly disclosed

The part of the Insurance Sector Report about supervisory activities is published without stating the names of individual supervised entities, except where the imposed supervisory measures belong to the category of measures that are publicly disclosed according to the Insurance Law. Those are the measures that may be of special interest to the public and the issuance of which significantly impacts the operation of an insurance/reinsurance undertaking. Immediately after issuing such measures, the NBS publishes them on its website and they are also covered by the next quarterly report on the insurance sector.

In 2017 (fourth quarter) the NBS issued one decision on supervisory measures that are publicly disclosed. Namely, based on the on-site examination procedure and according to the decision G No 11038 of 25 December 2017, the NBS issued a measure to “Merkur osiguranje” a.d.o. Belgrade (Undertaking) requiring the dismissal of one member of management (Miodrag Kvrgić – chairman of the Executive Board). The measure was imposed after it was established that this person acted contrary to the provisions of the Insurance Law and was responsible for illegalities and irregularities in the undertaking’s operation. Namely, it was established that the insurance undertaking conducted unauthorised sale of life insurance thus breaching one of the basic principles of insurance beneficiaries’ protection – the right to be informed. Persons who sold insurance had not been employed with the undertaking or in any other legal way authorised for such operation. They were not qualified and did not have experience necessary for performing insurance agency operations. It was also established that the mentioned person was responsible for changing original documents before submitting them to NBS authorised persons with a view to disabling them to have accurate overview of the facts. The measure was issued in order to prevent further illegalities and irregularities in the undertaking’s operation and was implemented within the set deadlines.

[9] For the purposes of this Report, liquid assets comprise: financial investments, cash and deposits with banks and other long-term financial investments, while liabilities refer to: short-term liabilities, accrued costs and deferred revenues, outstanding claims and other technical provisions in insurance up to one year.

6 Social responsibility and protection of citizens' rights

Insurance supervision is conducted primarily in order to protect citizens and companies in the capacity of the insured, insurance beneficiaries and injured parties. Activities conducted by the NBS aim to preserve stable and solvent operation of the insurance sector, so that it remains capable of meeting its liabilities at all times. However, financial means do not necessarily imply the fulfilment of liabilities, which is why this issue must be addressed separately.

The existing regulatory framework provided to the NBS, as the insurance supervisor, a whole range of mechanisms that enable it to directly influence the quality of insurance services provided to citizens and corporates. The purpose is to ensure that insurance services are easily accessible, easily understandable and voluntary (unless stated otherwise by law), and that they are distributed by authorised and adequately trained persons.

Socially responsible insurance supervision includes a range of new activities by which the NBS achieves the set objectives. Based on gathered data on complaints during 2017 and all other relevant indicators, market behaviour of participants in the insurance market was assessed. Aspects of market behaviour, which were identified as problematic in some participants, were subject to targeted on-site and off-site examinations conducted in 2017, during which correctional measures for removing established irregularities were issued. Also, the NBS prepared the proposal of the document "Guidelines on minimum standards of behaviour and good practice of participants" defining the framework and standards of behaviour and good business practice in the insurance market which would ensure fair and transparent activities of market participants in relation to insurance beneficiaries, as well as higher protection of rights and interests of those beneficiaries, which is the primary aim of supervising activities of market behaviour.

In 2017, off-site examinations of more specific aspects of insurance operations continued to set standards of good business practice in all insurance undertakings with a view to improving the quality of protection of rights of citizens in the capacity of the insured, passengers in public transport, primary and secondary school pupils, payers of utility services or hotel guests. After successfully concluded activities of introducing order to charging insurance through utility companies and protecting citizens from compulsory sale of insurance along with bus tickets, the NBS supervisors established new mechanisms of insuring primary and secondary school pupils so as to make information on insurance complete and easily accessible, and to direct the funds from the insurance preventive activities to projects that will enhance the safety of children in schools (i.e. repairing of access roads, stairways, fire extinguishers, etc.).

7 Conclusion

The comparison of indicators for 2017 and 2016 points to the following changes in the year under review:

- a total of 21 insurance undertakings operated in Serbia, two undertakings less than in the previous year, while employment in the sector dipped by 1.3% to 10,813 persons;
- the insurance sector balance sheet total rose by 8.1% to RSD 233.0 bn;
- capital increased by 6.3% to RSD 54.0 bn;
- technical provisions gained 8.2%, coming at RSD 160.6 bn, and were fully invested in prescribed types of assets, both in life and non-life insurance;
- total premium gained 4.4% and came at RSD 93.1 bn;
- Non-life insurance continued to account for the dominant share of total premium (75.6%). Non-life insurance premium rose by 6.6%, with MTPL insurance, property insurance and full coverage motor vehicle insurance going up;
- Life insurance reduced their share in total premium from 25.9% to 24.4%, recording a nominal fall of 1.6%.

Insurance regulations adopted in late 2014 and the first half of 2015 laid the legislative ground for a significant convergence of the Serbian insurance sector to that of the EU, with a view to ensuring the level of protection of insured persons equivalent to that in the EU. At the time of drafting the regulations, the EU applied the Solvency I regime, hence the domestic framework was designed as Solvency I-compliant, while incorporating some requirements of Solvency II, in response to the level of development of the Serbian insurance market. Accordingly, it may be said that Solvency 1½ regime is currently in force in Serbia. To be exact, domestic regulations have implemented certain Solvency II provisions pertaining to the qualitative requirements under Pillar 2 (governance system comprising four key functions: risk management, system of internal controls, internal audit and actuarial function, as well as own risk and solvency assessment – *ORSA*, risk-based supervision, *fit and proper* requirements in licensing of supervised entities, etc.).

Completing the first phase of strategic activities aimed at implementing of the new methodological framework – compliance analysis, implementing current activities, which are integral to the second phase – impact assessment, and moving to harmonisation of the regulatory framework, as the third phase, will ensure that by the time Serbia accesses the EU, its insurance sector will have achieved full compliance with the EU rules, i.e. even greater stability and beneficiary protection.