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ECONOMICS AND REGULATION OF MOTOR THIRD PARTY LIABILITY INSURANCE

Ljubljana, September 2022 Olja Đurić

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LIST OF ABBREVIATIONS

bn – billion

EEA – European Economic Area

EEC – European Economic Community

EIOPA – European insurance and occupational pension authority

EU – European Union

FBIH – Federation of Bosnia and Herzegovina

GDP – gross domestic product

GWP – gross written premium

HUO – Croatian Insurance Bureau

IBNR – incurred but not reported claims

IFRS – International Financial Reporting Standards

IRS – Internal Revenue Service

M - million

MTPL – Motor Third Party Liability

NBS – National Bank of Serbia

RBNS – reported but not settled claims

RS – Republic of Srpska

RSD – Serbian currency (dinar)

SEE – Southeast Europe

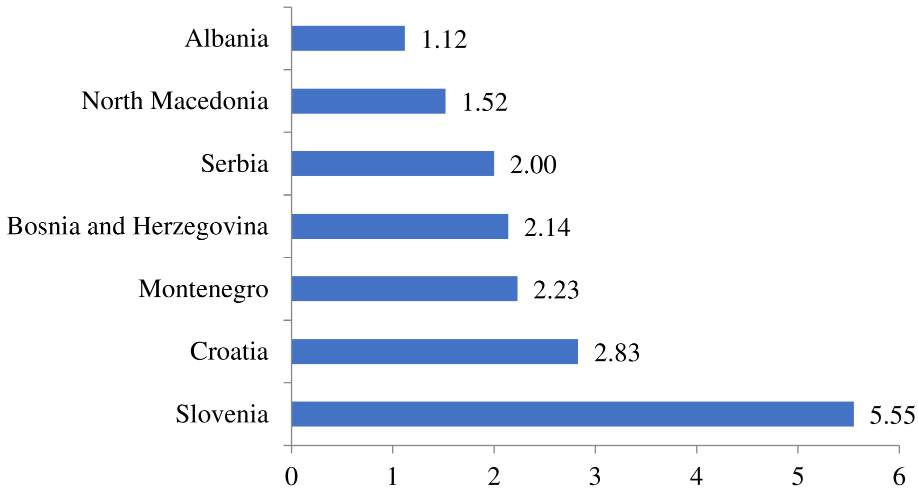
UK – United Kingdom

INTRODUCTION

Insurance is one of the products that drives of the wealth of a country, influencing macroeconomic factors, primarily the gross domestic product[1] and employment. Insurance supports economic development by establishing security and trust, giving support for social welfare, and finally supporting international economic relationships.

The main function of insurance is to distribute the losses of a few among the many who are exposed to the same risk and contribute with the paid premium. The importance of insurance can be presented by the participation of premiums[2] in GDP, as we can see in the example of the West Balkan Countries in Figure 1. In European countries, the level of premium participation is at around 6%; as we can see in the example, in Slovenia, the premium has participation of 5.55% in GDP. In the other countries that are presented in Figure 1, this level is quite lower, and is between 1% and 3%. Even Croatia, which is a member of the European Union, has a premium penetration at the level of 2.83%.

Figure 1: Participation of premium in GDP of West Balkan countries, 2020 (in %)



Adapted from National Bank of Serbia (2021b); Slovenian Insurance Association (2021); Information Centre at the Croatian Insurance Bureau (2021); Insurance Supervision Agency of North Macedonia (2021); Albanian Financial Supervisory Authority (n.d); Insurance Agency of Bosnia and Herzegovina (2021); Insurance Supervision Agency of Montenegro (2021).

An increase in the number of motor vehicles[3] is obvious in the world. In the territory of the European Union, there are more than 280 million vehicles. As an example, in Figure 2 we

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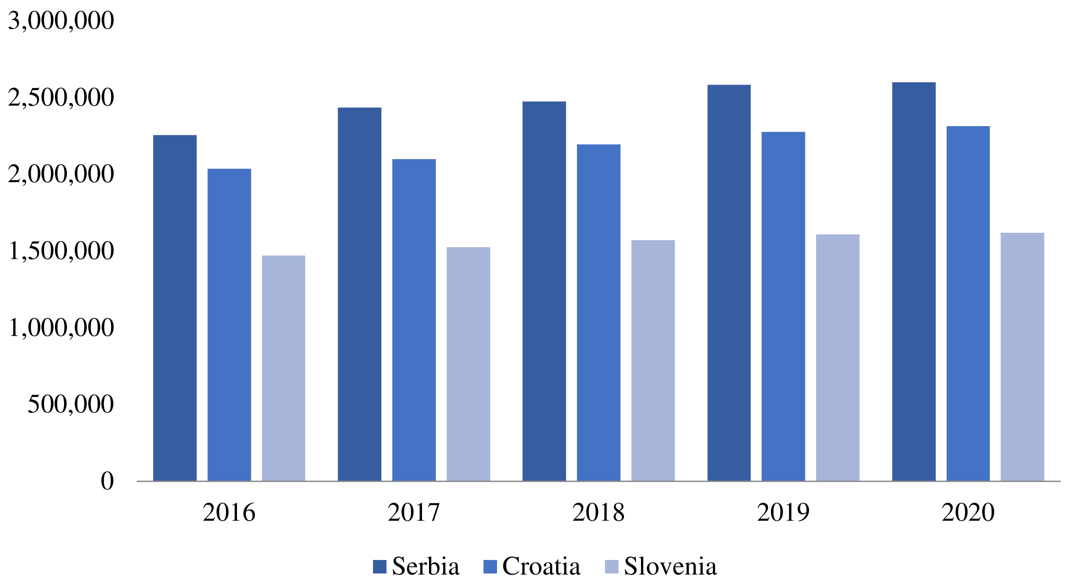
[1] GDP
[2] Distinction between gross and net written premium is in the reductions, as expenses and reinsurance. Gross written premium is the total premium that one insurance company got, before any deductions paid. Net written premium represents premiums after deductions. Here we use gross written premium.
[3] "The Law says that a motor vehicle is any motor vehicle, which is powered by its own engine, except for vehicles that move on rails and all trailers, regardless of whether they are attached or not", Article 1, MTPL directive

can see the trend of motor vehicles in Serbia, Slovenia, and Croatia in the period 2016 to 2020, which shows us that there was a trend of increasing the number of motor vehicles.

Figure 2: Number of motor vehicles during the period 2016-2020 in Slovenia, Croatia, and Serbia



Adapted from Croatian Bureau of Statistics (2021a); Statistical office of the Republic of Slovenia (2021); Statistical Office of the Republic of Serbia (2021a).

More motor vehicles on the road implies an increase in traffic mostly in urban areas. The consequence of heavier traffic is higher accidental risk exposure. Regarding the increased risk of exposure to accidents, there is also an increase in demand for insurance that covers material and moral damage. An increased demand implies the fact that most countries all over the world have mandatory primary insurance for motor vehicles. This obligatory type of insurance is the Motor Third-Party Liability[4] insurance. Motor Third Party Liability insurance covers liability for the damage caused to a third party by driving the motor vehicle. To protect their assets and cover all the damage that is caused by an accident, natural disasters, or other factors, people are allowed to buy voluntary insurance for their vehicles. That is Casco insurance, and it presents additional costs for the policyholder.

In most European countries, the MTPL insurance is obligatory for the protection of public interest and particularly for victims of traffic accidents. When a vehicle is registered, policyholders must buy the MTPL insurance, otherwise, a vehicle cannot be on the road legally. This type of insurance is the best-selling insurance product in most countries and has the highest stake in the amount of total gross written premium in developed and developing countries. According to the European insurance and Reinsurance Federation, the number of motor vehicles in Europe in the year 2020 was 281,975,401, and out of that

[4] MTPL Insurance

246,345,770[5] personal cars. There are 560 personal cars and 81 commercial vehicles per 1,000 people in the EU. The motor insurance premium paid represents 11,7% of the total gross written premium in the countries of the European Union or the European Economic Area.

If the driver does not respect the rules prescribed by the law, they cannot expect to be paid for the accident that occurred. A driver must follow the rules and have an approved driver's license, and the vehicle should be used only for the purpose it is made for. Also, drivers should not drink alcohol while driving, the vehicle should be technically correct and there are other rules, as well, that should be followed. If the damage is made on purpose, or the driver does not follow the rules (for example he or she is intoxicated or does not have a valid driving license), the insurance company will cover the loss. The company than has a subrogation claim against the person who caused the accident.

Across the world, different frameworks exist for the MTPL market prices. Those are regulated markets, partially regulated markets with a set of allowed tariffs (more flexible markets which allow the insurance companies to define premiums, between the prescribed minimum and maximum level of premium), and market with a liberal tariff regime, where the price for MTPL is created by supply and demand in the market. Countries have different experiences with the implementation of liberalization.

Throughout the thesis, the functioning of the MTPL market in Europe and the countries of West Balkan, will be explained, which will be presented by a comparative analysis of the insurance sector for those countries. The thesis aims to present the functioning of the MTPL insurance product, examine different types of pricing in the MTPL market and present the future of the MTPL market in Serbia, as an important part of the insurance sector. Data research in this thesis is based on the laws, books, articles, statistical data, and yearly publications from various sources.

The main part of the thesis will consist of the following chapters.

Chapter 1 provides an overview of the insurance history and regulation of MTPL. For this chapter, the information is used from the Directive 72/166/EEC and the latest published and reviewed Directive 2021/2118. The Motor Insurance Directive, regulation regarding the Green Card system and all legal information are published by the Council of bureau (n.d.a; n.d.b). The Council of bureau is the managing organization of the Green Card system and the Motor Insurance Directives. In the countries where claims are covered only for the accidents within their borders, policyholders should have additional coverage known as Green Card, examples of those countries are Russia, Ukraine, Belarus, The Republic of Moldova (Boldijar & Doroncenau, 2014). A brief history of an MTPL insurance is explained

[5] Report – Vehicles in use, Europe 2022 – ACEA – European Automobile Manfacturers' Association

on the Wikipedia (n.d), where it says that a mandatory vehicle insurance first was introduced in the United Kingdom with the Road Traffic Act in 1930.

Chapter 2 examines statistical data for Europe, Slovenia, and Serbia. Also, the ratios that affect the profitability and costs of an insurance company will be explained. An important indicator in insurance, next to ratios, is to see what are the incurred but not reported claims, and that would be examined also through Chapter 3. For the statistics of Europe, and the overall picture of trends in Europe, data from the web pages of Insurance Europe and European Insurance and Occupational Pension Authority – EIOPA are used. Insurance Europe, as an insurance and reinsurance federation collects, analyzes, and presents statistical data from their member countries, following the regulation.[6] EIOPA is a supervision agency on the territory of the European Union, it has an aim to maintain stability and effectiveness of the financial system on the territory of the Union (European insurance and Occupational pension authority [EIOPA], 2019). Also, on the web page of the Statista Research statistical data regarding the insurance trends are published.

Furthermore, Chapter 3 explains pricing methods, going through the liberalization process, and other pitfalls of regulated markets. Insurers receive the payments from customers before incurring the costs, therefore they must set the premium level based on an expectation of future claims and adjusting for the past forecasting errors or for large, unpredictable shocks (Zanghieri, 2017). That topic will be covered also with the source in the article of "Development of Motor Third Party Liability Insurance Market in terms of changing regulation" (Tomeski, 2012). Source for liberalization explanation and understanding is also in the article "Liberalisation, market concentration and performance in the non-life insurance industry of Ex-Yugoslavia" (Njegomir, Stojić & Marković, 2011). To cover the total process of price determination for MTPL, we will also present a Bonus-Malus system. Since 1994, countries have the ability to define the Bonus-Malus on their own (Simeunović, Domazet & Balaban, 2012). Liberalization processes have equally involved the developed, as well as the developing countries, but with different dynamics (Skuflic, Galetic & Greguric B, 2011). Furthermore, cases of some countries will be represented based on the data from the article "Meeting liberalization of Motor Liability Insurance premium in Serbia" (Doganjić & Ristić, 2020). Data published in this text is used to present the implementation and effects of liberalization in Slovenia and Croatia. The results of liberalization and an overview of the Croatian insurance market are seen at the discussion of the Motor Insurance – the innovation challenge (Circu, 2019). The third country that I have chosen is Italy, as the last country that implemented liberalization into their insurance market, out of all countries that formed the EU. Source for explanation of liberalization and the consequences of liberalization in Italy are founded in the books of Gonülal (2009, 2010). The article "Market for motor third party liability insurance in selected countries of Southeast Europe" (Xprimm, 2015), contains interesting data regarding the liberalization of MTPL prices in Croatia and the overview of

[6] Lithuania is excluded. Included in analysis are: members of the European Union, Switzerland, Turkey, Iceland and Norway

insurance markets in the SEE region. Regulatory agencies should have more influence on promoting the insurance market of one country to foreign insurance companies. In accordance with that, competitive or liberalized policies should be used. The aim of liberalization is to reach the level of participant's behavior, which provides self-regulation of an insurance market (Stevanović, 2019).

Chapter 4 examines the analysis between countries of Southeast Europe (Serbia, North Macedonia, Albania, Bosnia, and Herzegovina and additionally Croatia and Slovenia). For the observed period from 2016 to 2020, data regarding MTPL, and total insurance indicators are analyzed, by observed countries. Data is taken out of annual reports of insurance supervision agencies in each observed country. I have presented that data in Figures and Tables. For Serbia, I took the data from web page of the National Bank of Serbia (NBS), while Croatia has published data on the web page of the Croatian Insurance Bureau (HUO). Slovenian Insurance Market is tracked by the Slovenian Insurance Association and yearly data is presented in the annual reports. The web page of Insurance Supervision Agency of North Macedonia presents data that will be used for yearly overview within the comparative analysis. Data regarding the insurance market of Bosnia and Hercegovina are used from the web page of Insurance Agency of Bosnia and Herzegovina. Officially there are three separate entities in Bosnia and Herzegovina. Premiums of the Republic of Srpska and the Federation of Bosnia and Herzegovina will be presented separately, for the year 2020. All data is published at the official site of the Insurance Agency of Bosnia and Herzegovina, and beside that there is also additional data at the web page of Insurance Agency of Republic of Srpska. Montenegro has yearly data published at the web page of the Insurance Supervision Agency of Montenegro. The Albanian Financial Supervision Authority has published yearly data at their web page in excel format. Data regarding population, number of cars and number of accidents are taken out of the Statistical Offices of the observed countries.

Finally, chapter 5 looks at the history and organization of the MTPL market in Serbia, with the view of MTPL regulation, as an example of the regulation outside of the Union. As a literature source, will be used the book "Insurance" (Vojinović & Žarković, 2016, p 44-56; 156-159; 206-208) and "Insurance and Risk management" (Ostojić, 2007, p 130-167; 222-241). In focus will be the law on compulsory traffic insurance ("Official Gazette RS", no. 51/2009, 78/2011, 101/2011, 93/2012 and 7/2013 – decision US). I will also discuss future trends of the MTPL market and possible implementation of liberalization, as a condition to join the European Union. The article "Meeting liberalization of Motor Liability Insurance premium in Serbia" (Doganjić, Ristić, 2020) is used as a main source for this part of the thesis. "Development of the insurance sector and economic growth in countries in transition" (Stojaković, Jeremić, 2016), presents the comparison of insurance sector in the SEE countries. Literature, which is used in this chapter presents the importance, development, and the future of the insurance sector.

1 OVERVIEW OF THE MTPL MARKET IN EUROPE

Two important parts of insurance today are mathematics and statistics. Without these sciences, insurance would not be developed. By developing these scientific fields and probability, insurance, as we know it today, started to exist. The roots of insurance reach to early years, but the organization into insurance companies started to exist at the end of the 17th and during the 18th century. The first insurance company was set up in England in 1680 with the name *Fire office*, although there are speculations that it had existed since the big fire in London in 1666. Insurance is still developing and has a significant influence on economic, social, and scientific development. The main task of insurance is the protection of people and property (by diversifying the risk within a large group of people).

With the raising importance of insurance, as a tool to reduce risk, the emergence of different parts of insurance was in the following order:

- In the middle of the 16th century in England Marine insurance starts operating
- At the end of the 16th century, life insurance was incorporated into the business of insurance
- Fire insurance – second half of 17th century
- Second half of 19th century - liability insurance, theft insurance, health insurance, production disruption insurance, motor vehicle insurance
- 20th century – other insurance line of business

Insurance has become a very powerful branch of the world economy.

The roots of MTPL Insurance date back to 1918 when it was first introduced in Denmark, while mandatory car insurance started existing in the United Kingdom in 1930 with the Road Traffic Act. Similar legislation was introduced in Germany in 1939. By developing MTPL, countries started to pass laws to define models of functioning in this line of business. Over time, MTPL has become a more important product in the insurance market. At the very beginning, every country had its regulation for motor insurance. In 1972, six countries, members of the European Economic Community (EEC) and the European Atomic Community (Euratom)[7] defined the first Directive, no. 72/166/EEC. Since 1972 the MTPL market has been regulated by Directives, which have been audited, revised, and changed in the meantime. During the time, there have been issued five Directives that defined the market of MTPL insurance. All of them had the same aim, which is defining and regulating an open market between Member states and protecting victims. Today, MTPL Insurance is regulated in the European Union by the Directive 2021/2118, issued November 24, 2021. The Directive aims at harmonizing the minimum amount of coverage within the Union. The Directive has the aim to define the transfer of claim history data through the EU countries.[8] Every country has a database with the historical data for insured persons, intending to track

[7] Member Countries in 1972 were: Belgium, France, Italy, Luxembourg, the Netherlands, West Germany
[8] Portability of claims history statements

the behavior of policyholders. One of the plans is to create a common database where all data regarding vehicles in the Union would be collected and every insurance company could access the data to create fairer premiums.

The very first regulation was passed in 1972. The first Directive was signed in Brussels, by six national bureaus (that were members of EEC Euratom). Directive 72/166/EEC was introduced on April 24, 1972. The purpose of the regulation was to establish a common market between the member countries. All six countries had to comply with the Directive, and despite that, their national bureaux were supposed to guarantee that claims are paid in their countries, for the accidents caused by vehicles, which were insured or not insured in other member states of EEC. People had to be aware of those changes, as they are an essential part of the establishment and functioning of an open market.

The Directive was introduced to countries as they were joining the European Economic Community (Which later became the European Union). In the beginning, in 1957 there were six member countries: Belgium, France, Italy, Luxembourg, the Netherlands, and West Germany. In 1973 the United Kingdom, Denmark and Ireland joined the Union. Greece joined the Union in 1981 and Portugal and Spain in 1986. After the reunification of Germany, East Germany became a member of the Union in 1990 as a part of Germany. Austria, Finland, and Sweden joined in 1995. Later, in 2004 the acceding countries were: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia. In 2007, Bulgaria and Romania also joined the Union and the last one in 2013 was Croatia.

Through time, the five directives, 72/166/EEC, 84/5/EEC, 90/232/EEC, 2000/26/EC, 2005/14/EC, were issued, and in 2009 The European Economic Area decided to consolidate them into Directive 2009/103/EC. The Directive was revised and audited in 2016, 2017, and 2018. In 2021, the new MTPL Directive 2021/2118 was issued. All of the 27 member countries should follow the legislation. The exceptions of this are countries for which incorporation into national laws and transposition to the Directive is not needed. Countries that have such laws are Germany, Austria, Belgium, Spain, Czech Republic, Slovakia, Hungary, Latvia, Lithuania, Poland, Portugal, and Romania. Croatia had a deadline until July 1, 2013, to harmonize laws with the Directive. Also, prescribed by the law of the Union are three Council Directives, 73/239/EEC, 88/357/EEC, and 92/49/EEC – they define the coordination of laws, regulations, and administrative provisions.

Under the Directive, every vehicle having an insurance policy in one of the European Union countries has the right to drive through the entire European Union area without boundaries and to receive payment of claims for potential accidents. Those vehicles which have a policy issued by one of the member countries of the EU are protected within the Union area, in the way that if an accident happens, they will be treated equally as domestic policyholders. The difference can be seen in the coverage of material damage, which each country is allowed to determine by itself. Only the minimum amount should be met while determining the amount of coverage.

The Minimum coverage defined by the revised Directive in 2021 is:

– In the case of personal injury, the minimum amount of cover is 6,450,000 € per accident, irrespective of the number of injured parties, or 1,300,000 € per injured party;
– In the case of material damage, the minimum amount increases to 1,300,000 € per accident, whatever the number of victims.

Under directives, 88/357/EEC, 92/47/EEC, and amendment 90/232/EEC all countries that are members of the Union must have liberalized motor insurance markets. Also, those countries which want to become members should harmonize the legislation and implement liberalized markets.

In January 2016, Solvency II was implemented into the EU regulation of the insurance market. It is implemented in all 28 member states, including the UK. Solvency II replaced 14 insurance directives from the scope of Solvency I. The Changes were related to the rules of harmonization of the regulatory regime in the Union.

Outside of the Union, where the law is made as such to cover claims for the accidents that happened only in that country (where an insurance policy is paid), policyholders should have additional documentation.

A specific contract was signed between the countries, which has the name Green Card system. There are 47 member countries, within the Green Card.[9] The Green Card presents an international certificate of insurance, issued on behalf of a national bureau following Recommendation No 5 adopted on January 25, 1949 by the Road Transport Sub-committee of the Inland Transport Committee of the United Nations Economic Commission for Europe.[10] The Green Card presents an additional cost to an insurance policy, but it is not practiced in all countries, for example, in Croatia, it is not an additional cost, while in Slovenia you pay a few euros to get it (at Sava insurance it is 4 €). By possessing a Green Card, policyholder is protected in the countries outside of the Union, which are members of the Green Card system.

The Treaty is valid in and outside of the Union, as some countries within the system are not members of the Union. Policyholders must provide the Green Card in case they have an accident outside of the Union, in the countries where they must possess it. For example,

[9] Those are: Austria, Albania, Andorra, Azerbaijan, Belgium, Bulgaria, Bosnia and Herzegovina, Belarus, Switzerland, Cyprus, Czech Republic, Germany, Denmark, Spain, Estonia, France, Finland, Liechtenstein, Greece, Hungary, Croatia, Italy, Israel, Iran, Ireland, Iceland, Luxembourg, Lithuania, Latvia, Malta, Morocco, Moldova, North Macedonia, Montenegro, Norway, Netherlands, Portugal, Poland, Romania, Russia, Sweden, Slovak Republic, Slovenia, Serbia, Tunisia, Turkey, Ukraine, United Kingdom; Green Card Bureaux | Council of Bureaux (cobx.org)

[10] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31972L0166&from=EN

those countries are Ukraine, Russian Federation, Belarus, Turkey, Albana, North Macedonia, Tunisia, Morocco, Azerbaijan, and Islamic Republic of Iran. Under the legislation, while traveling to the United Kingdom, Switzerland, Serbia, Bosnia and Herzegovina, Montenegro and Greenland possessing the Green Card is not obligatory, because claims would be covered anyway. Under the Green Card system, countries and their bureaux have the right that in case of an accident, that is caused by a vehicle from another Green Card member country, they get the information regarding the vehicle, for example where it is based, registration mark, insurance data (which can be seen on the green card) and all relevant data that is needed for the claim coverage.

Claims are paid either for insured or not insured vehicles. Responsible for paying claims for uninsured vehicles is Guarantee Fund. Insurance Associations usually have control over the Guarantee Fund, as it is established by the Association, according to the law. The Guarantee Fund is organized at the national level, to cover the claims of uninsured vehicles or if the damage is caused by an unknown motor vehicle or even if the contract on compulsory insurance is concluded with an insurance company that is at the bankruptcy process. Those funds are financed out of MTPL premiums. The claim amounts must be the same as it would be under the valid contract.

2 ASSESSING THE ECONOMIC HEALTH OF THE MTPL SECTOR

The economic health of the MTPL market can be expressed by the participation of written premiums in the insurance market. Premiums are defined by supply and demand by insurance companies when the market is liberalized, and by regulation when the market is regulated or partially regulated. The factors that can affect the premium are numerous. Pricing and liberalization issues are described in Chapter 3. Firstly, we will look at the statistics of the total insurance sector in Europe.

Total written premiums are the primary source of revenue for insurance companies, and under Solvency II it is reported to the authorities in the same way for every member country of the European Union. Reporting is harmonized and it is easier to publish and present statistics. In the European Union, insurance is split into life insurance, non-life insurance, and health insurance.

Premiums can be a tool to define the range of countries with the highest participation in the insurance market in Europe. According to the latest data, as we can see in Table 1, the EU countries are ranked[11] for the year 2020, and we can see that the United Kingdom has the leading place with the written premium of 248.6 €bn, followed by Germany with 221.0 €bn and in the third place is France with 197.7 €bn. The first three countries account for approximately 50% of the EU insurance market.

[11] The United Kingdom still was a member of the Union in 2020

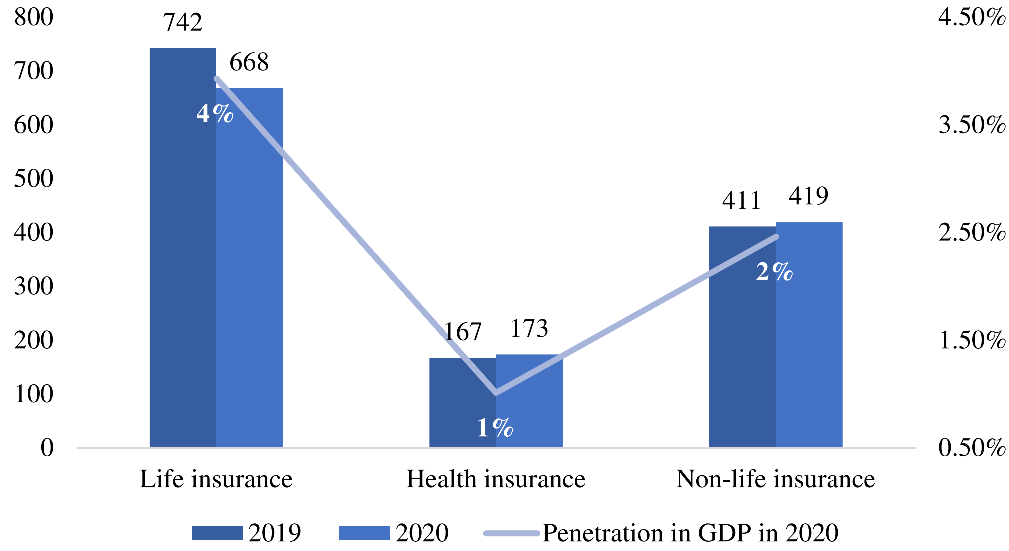
Table 1: Total written premiums in the insurance market in Europe in 2020

Country	Premium in billion €	Rank
United Kingdom	248.6	1
Germany	221.0	2
France	197.7	3
Italy	159.0	4
Netherlands	76.7	5
Spain	56.8	6
Switzerland	50.2	7
Sweden	38.4	8
Luxembourg	35.4	9
Denmark	34.8	10

Source: Statista (2022a).

Total non-life insurance premiums written in Europe in 2019 were 409 €bn and participates in GWP with 33%. It ranks second, according to the level of written premium. Life insurance has a stake of 56%. In developed countries, life insurance is more developed than in developing countries, and it has a higher level of penetration. According to the statistical data of EEA countries, for the year 2020, we can notice that there were 1.264 €bn of total gross written premiums, 4% less than in 2019. Life insurance premiums fell by 9.6% compared with 2019. This drop was driven by the economic situation in the world caused by Covid-19. People were careful about spending money, as there was the question of how far the pandemic would last. People paid only compulsory insurances, like MTPL. As for the non-life insurance, the amount of GWP was 419 €bn and it grew by 2.8%, compared to the year 2019, due to obligatory insurance in the non-life insurance market. The data for total gross written premiums in 2019, and 2020, together with penetration in GDP can be seen in Figure 3, which is presented at the next page, due to Figure size.

Figure 3: Amount of gross written premiums in the European Union market, for the years 2019 and 2020 and penetration in GDP for the year 2020



Source: Insurance Europe (2021); Insurance Europe (2022).

The health of the insurance sector can be presented by penetration of insurance and the density of an insurance. We can use those data as criteria for country ranking. A higher level of insurance penetration encourages the increase in the production and offers better quality of goods and services. This trend is especially seen in the developed countries, where there are more premiums paid and more money invested into the country's development. Insurance has an important role in the economic system of those countries. The contribution of insurance is also obvious in developing countries. Developing countries have higher participation of non-life insurance (usually motor third party liability insurance) in total gross written premium. As we can see in Table 2, for the countries of the EU, participation of total gross written premiums in GDP was on average of 7.96% during the period 2014 to 2020.

Table 2: Penetration of gross written premium to GDP in Europe from 2014 to 2020

Year	Total premiums to GDP
2020	6.8
2019	9.5
2018	9.3
2017	9.2
2016	8.2
2015	6.5
2014	6.2

Source: Statista (2022d).

The penetration of GWP in the GDP of Europe has reached the peak in 2019 with the penetration of 9.5%. In 2020 the amount of premiums decreased by 4% and accordingly to that also the participation of GWP in GDP, which in 2020 was 6.8%. The density of insurance means that the premium per capita is calculated, and we can see how much money is paid per person in the country.[12] The premium per capita in the domestic insurance market of Europe in 2019 was 2,187 €. There was a drop of 4.3% in premium per capita, compared to the year 2018. The premium per capita for the non-life segment in 2019 is 949 €. Insurance density in Europe in 2020 was 2,093 € for total insurance premiums paid. Out of that, 973 € went to non-life insurance, per capita. Penetration of the non-life sector was higher for 0.23 percentage points in 2020 than in 2019, and it was 3.48% in 2020.[13] Life insurance participates in the total premium with 53%, and non-life insurance with 33% (the rest of 14% goes to health insurance) (Insurance Europe, 2022).

That amount of GWP was written by 827 insurance companies in the European Union, more precisely in the European Economic Area (EEA). In the insurance market, individual countries allow domestic and foreign companies to operate. Over 1,000 insurance companies operate with motor third-party liability insurance.

At the territory of the EU, non-life insurance consists mostly of motor insurance, property insurance, and insurance for general liability. Motor insurance has the highest share, with a penetration in the total GWP of 36% in years 2019 and 2020, property insurance participates in the total GWP with 27% in both years and the third one is general liability with 11% and 12% in 2019 and 2020, respectively.

Out of the total paid premiums in the EU, for 2020 Slovenia wrote 2.5 €bn in premiums, at the total insurance market. Companies in Serbia had 934 €m gross written premiums, in the same year.

For the market of Slovenia, according to the data from the Slovenian Insurance Association web page, we can say that in 2019 the penetration of total gross written premium in GDP was 5.20%, while in 2020 penetration increased to 5.55%. As for the density of insurance in 2019, insurance premium per capita was 1,210 €. The density was higher in the year 2020, as it increased to 1,226 € per capita. The GWP in the Slovenian insurance market was 2,570 €m, with the participation of life insurance of 30%, while non-life insurance has a participation of 70%.

According to the report of the NBS and Swiss Re, for 2019, the penetration of total insurance premium in GDP in Serbia is 2%, while the premium per capita is 119 €. In 2020 the penetration is at the same level, and density is higher than in 2019 and is 135 €. In the insurance market of Serbia, the GWP in 2020 was 109.9 billion RSD (934 €m), 2.5 billion RSD higher than in 2019, when it was 107 billion RSD (914 €m). Life insurance premiums increased by 0.5%, and in fact, it represents 23.8% of the total gross written premium. In

[12] Data regarding population is taken out of last published data at official web pages.
[13] In 2019. the ratio of non-life insurance to GDP was 3.24%

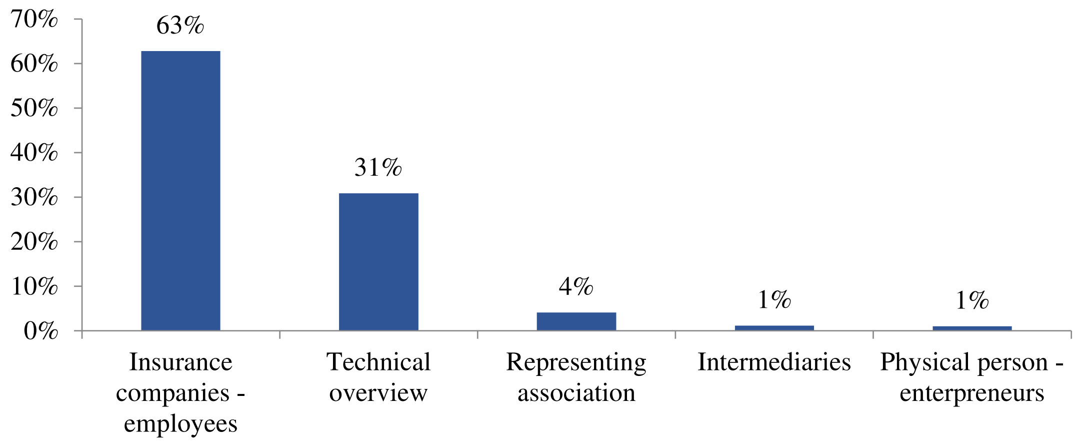
non-life insurance, motor third party liability insurance still has the highest participation with 32.8%.

2.1 Statistical data for EU, Slovenia, Serbia

The number of insurance companies in the territory of the EU was 4,909 in 2020. The distribution of insurance policies can be done through different channels. There are internet sales (which are increasingly common), sales by internal agents, external agents, brokers, etc. Specifically, MTPL insurance can be sold at the technical check points, so when the person comes to inspect the car, there is an option to make an insurance contract as well. The main distribution channel remains sales by agents and sales at the technical checkpoints. In the territory of the EU, in the year 2020 non-life insurance policies were sold mostly by agents or brokers. Life insurance policies were mostly sold in branches. In 2018, MTPL policies were sold through websites where can be seen comparable prices between different insurance companies.

The data published by the NBS on December 31st, 2020, are given in Figure 4. We can see that the most effective distribution channel is by employees, who work in insurance companies (direct sales), and the total amount for the year 2020 is 23 m € and it represents 63% of sales. The next sales channel is the periodic technical checkpoint[14] before the car registration. It takes the second place, with a share of 31%. Other channels take only 6%.

Figure 4: The most important distribution channels in Serbia in %



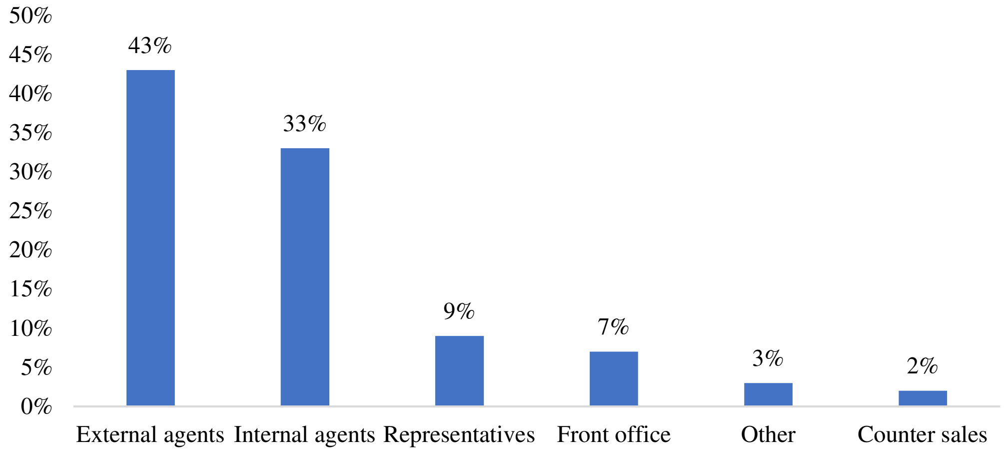
Source: National Bank of Serbia (2020c).

In Slovenia, there are 19 insurance companies, of which 14 are in domestic ownership. In Slovenia, as we can see in Figure 5, the most favorable distribution channel is by external agents, which accounts for 43% of the total sales. External agents are also agents at the technical checkpoints. 33% of the MTPL insurance is sold by internal agents. Other channels have a participation of 23%, and those are by representatives, front office, other, counter

[14] Roadworthiness test

sale, over the internet, and phone (or e-mail). Other channels are more present in Slovenia than in Serbia.

Figure 5: The most important distribution channels in Slovenia in %



Source: Slovenian Insurance Association (2021).

In Europe, the largest motor insurance markets are Germany, France, and the United Kingdom. Motor insurance represents 36% of the non-life sector, as there were 149.4 €bn paid into Motor insurance (either MTPL or optional – casco) in 2020. Premiums have been higher than in the year 2019 by 1.6% (in 2019, the written was 148.5 €bn). The density of motor insurance is 248 € and its penetration in GDP is 0.88%. The detailed data can be seen in Table 3 below, where we present the total written premiums for motor insurance, paid claims, density, penetration, and claims per inhabitant.

Table 3: Motor summary overview

	2019	2020	Growth rate
Premiums (€bn)	149	149	1.6%
Claims paid (€bn)	107	97	-8.6%
Density (€)	247	248	0.2%
Penetration (% of GDP)	0.84%	0.88%	0.05 p.p.
Claims per capita (€)	180	164	-8.9%

Source: Insurance Europe; Statistics; Property and Causality Insurance (2022).

Written MTPL premiums in Slovenia are 267,037,567 €. In Serbia, in the same year, the MTPL insurance premium was 306,327,819 €. We can see that there was more premium paid in Serbia than in Slovenia, but this is relative. When we look at the premium per capita or premium per vehicle, we can see a different figure, and that one would be correct, as the premium per capita is more relevant data than the total written premium. As we can see in Table 4 the density of MTPL premium is higher in Slovenia than in Serbia.

Table 4: Overview of MTPL premium per capita and a vehicle in Serbia and Slovenia in 2020

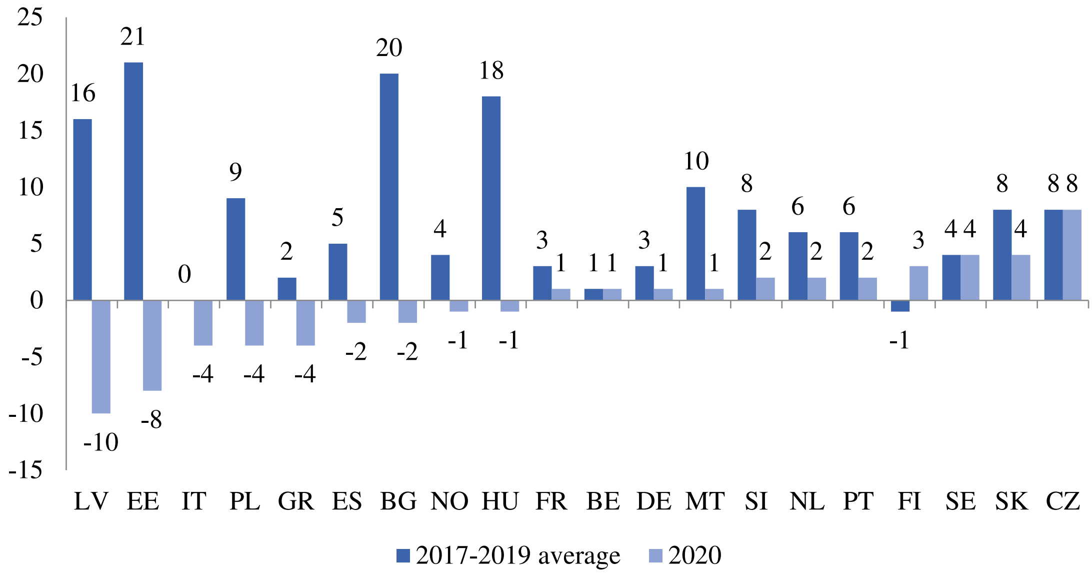
	Serbia	Slovenia
Population	6,926,705	2,108,977
MTPL premium paid	306,327,819 €	267,037,567 €
Density	44 €	127 €
Number of insurances	2,650,499	2,083,353
Premium per policy	115 €	128 €

Adapted from Statistical Office of the Republic of Serbia (2020b); National Bank of Serbia (2020c); Slovenian Insurance Association (2021); Statistical office of the Republic of Slovenia (2021).

We can see from the presentation that both calculated parameters, the premium per capita and the premium per vehicle are higher in Slovenia than in Serbia. One of the reasons for that is the fact that Slovenia is a member state of the European Union and as such, it has a higher standard and the MTPL premiums follow that. In Slovenia, there is freedom for insurance companies to charge more for this type of insurance product. Also, Slovenia as a member of the EU has a liberalized tariff, while Serbia has a partially regulated market, where authorities define the minimum premium that can be charged. The insurance market is the second most important market in the Serbian financial sector.

As we can see from the statistics of chosen countries from the Union, and their change in motor premiums written in 2020, compared with the average 2017-2019 (in %), the biggest decrease was in Latvia (-10%), while in the Czech Republic the written premium was at the same level as in the previous years (+8%). The drop happened due to lower vehicle use in 2020. The total MTPL market of the European Union wrote slightly higher premium, compared to the average in 2017-2019. We can see the data presented in Figure 6, presented at the next page, due to Figure size.

Figure 6: Change in motor premiums in 2020 compared with average 2017-2019 (%)



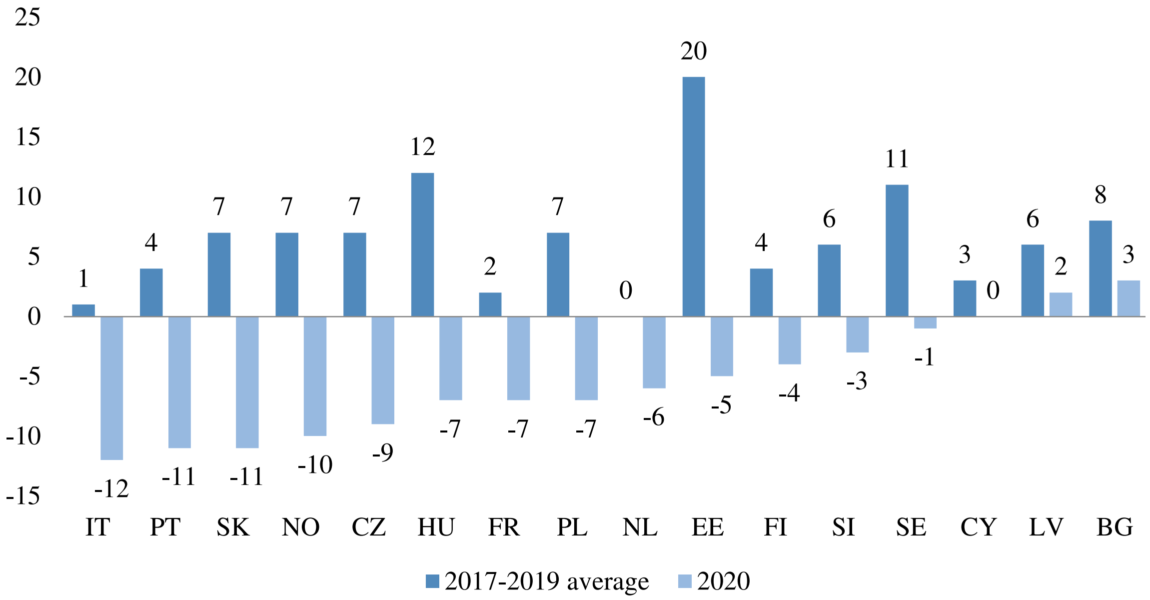
Source: Insurance Europe (2022).

The Reported claims for MTPL in Slovenia were 57,281, and it was less than in 2019 by 8,916. Paid claims were 157,172,735 €, around 10 €m lower than in 2019. The average paid claim in 2020 was 2,744 €, while in 2019 it was 2,525 €. We can conclude that claims were more expensive in 2020. The claim frequency was 2.75%. The Serbian insurance market had more claims in 2020 than Slovenia, due to larger number of vehicles. There were 78,045 reported claims in 2020, less than in 2019 by 306 claims. The amount of total paid claims was 11,681,829,000 RSD in 2020, and 11,182,196,000 RSD in 2019 (100 €m in 2020 and 95 €m in 2019). The average paid claim in 2020 was 1,279 € and in 2019 1,174 €. We can say that in Serbia claims were more expensive in the year 2020 too.

The number of paid claims in the EU decreased in the year 2020 by 8.6%. The decrease in paid claims was the consequence of the global pandemic of Covid-19 and government measures, which included lockdowns and restrictions on movement. Due to that, there was less traffic. In Figure 7 we can see a drop in motor claims in the year 2020, compared with the average 2017-2019 change (in %), by country[15]. The cost of a claim was rising, due to inflation. The number of motor claims on the territory of the Union was 6,093,350, and paid claims were 97,364 €m.

[15] Presented for countries: Italy, Poland, Slovakia, Norway, Czech Republic, Hungary, France, Poland, Netherlands, Estonia, Finland, Slovenia, Sweden, Cyprus, Latvia, Bulgaria

Figure 7: Change in paid claims for the motor insurance industry in 2020, compared with average 2017-2019 (%)



Source: Insurance Europe (2022).

Within the European Union countries, the MTPL insurance is one of the best-selling insurance products. The MTPL is third on the list of direct businesses with a participation of 12%. The first one is insurance for medical expenses (also known as health insurance), with the participation of 17% and after that is property insurance against fire also with the participation of 17%. These three products, together with other motor insurance, cover over 55% of the non-life insurance market.

The regulatory framework for MTPL in Europe is defined by the Directive (see the previous chapter). The regulatory framework for MTPL in Slovenia is based on the Directive and domestic laws, and they are:

– Compulsory Transport Insurance Act;
– Insurance Act;
– Rules on the cooperation of supervisory authorities in the field of micro-prudential supervision;
– EU Regulation 1286/2014;
– EU Regulation 1094/2010.

The regulatory framework for MTPL in Serbia relies on the Insurance Law and the Law of Compulsory Traffic Insurance. In Slovenia, the supervision of the insurance sector lies with the Insurance Supervision Agency. In the European Union, EIOPA, as the European Insurance and Occupational Pension Authority oversees regulation. In Serbia, the monitoring of insurance business is conducted by the NBS.

At the territory of the European Union, complaints regarding the MTPL insurance are increasing. Most complaints are related to claim handling.

2.2 Claim ratios, expense ratios, and profitability

With ratios, we can measure the success and profitability of a company or a sector. Here will be presented the ratios defining the success of an insurance company and the insurance sector of one country or region. Those are the claims ratio, expense ratio, and combined ratio.

As equation (1) shows, „The claim ratio presents the percentage of claims costs incurred concerning the premiums earned" (Collins, n.d).

$$Claim\ ratio = \frac{Claim\ costs\ (Incurred\ losses)}{Earned\ premiums} \tag{1}$$

The claims ratio shows if an insurance company can cover the costs of incurred claims with the collected premiums in one year and what amount of premium is needed to cover them.

"The expense ratio in the insurance industry is a measure of profitability calculated by dividing the expenses associated with acquiring, underwriting, and servicing claims by the net premiums earned by the insurance company." (Sebastian A, 2020). The expense ratio, presented in equation (2) represents the efficiency of the insurance company, before calculating claims on its policies and investment gain or loss.

$$Expense\ ratio = \frac{Expenses}{Earned\ premiums} \tag{2}$$

Profitability is measured by the combined ratio, which represents a measure of profitability used by an insurance company to gauge how well it is performing in its daily operations. Equation (3) calculates the sum of incurred losses and expenses and then dividing them by the earned premium.

$$Combined\ ratio = \frac{Incurred\ losses + Expenses}{Earned\ premius} \tag{3}$$

If the combined ratio is under 100%, the insurance company can pay claims. If the ratio is over 100%, that means that the insurance company cannot cover all its claims with the collected premiums.

The combined ratio of overall insurance for European countries in 2020 was 96%, while in 2019 it was 97%, so it was slightly better than the year before. We can conclude that in the EU region, insurance is a profitable business.[16] The expense ratio was 31% in 2020 and in 2019 it was 32%. The expense ratio tells us that there are enough paid premiums to cover

[16] For the data since 2017, the combined ratio is below 100%, and in fact for years 2017, 2018, 2019 it is equal to 95%, 96%, 97%, respectively.

the expenses of the insurance sector. The combined ratio for MTPL at the end of 2020 was 94.1% and it remains a highly competitive line of business in the EU.

In Slovenia, the claim ratio in 2020 was 62.94% for the entire insurance market. For MTPL, this ratio was 58.49%, which shows us that 58.49% of premiums can cover incurred claims, and that the insurance market remains profitable. The claim ratio in 2020 is slightly lower than in 2019, which is an improvement of the insurance sector in the year 2020. The lower gross written premium and decreased number of claims drive the decrease of the claim ratio. The incurred claim ratio for MTPL in Slovenia is equal to the paid claim ratio for MTPL. According to that, we can see that every incurred claim is paid (difference is 0,13%). The expense ratio in Slovenia for the year 2020 was 23% and presents the ability of insurance companies to payout expenses which occurred during the servicing of claims.

The combined ratio in Serbia, for the entire insurance sector at the end of 2020 was 79.3% which tells us that the insurance sector remains profitable. The ratio was better than in the year 2019 when 84.2% of premiums were needed to cover claims and expenses of the insurance sector. Price adequacy, presented by the claims ratio in 2019 was 49.5%, and in 2020 it was 45.8%, and according to that insurance companies increased their ability to cover liabilities. That tells us that the insurance sector remains profitable and sustainable. The expense ratio in 2020 was 33,6%, and cost management is more efficient than in 2019 (expense ratio was 34,8%).

2.3 The share of IBNR in the MTPL technical provisions

Technical provisions as part of the liability side on the balance sheet are prescribed by the Solvency directive. Technical provisions present the best estimate of possible claims and should estimate the underwriting liabilities of the insurer. Technical provisions are prepared by actuaries by statistical and probability modeling. Important parts of technical provisions are incurred but not reported[17] claim provisions and reported but not settled[18] claim provisions that are made to meet unexpected liabilities. In the balance sheet, at the position of claim provisions there are provisions for IBNR and RBNS. Insurance companies do not have an obligation to report IBNR and RBNS separately.

To define the volume of those ratios, insurance companies must be aware of a lot of factors. RBNS claims are easier to define as they are claims which are already reported but are still in the process of payment. To maintain business profitable, insurance companies should track RBNS claims and present them in the balance sheet as provisions.

For IBNR reserves we can say that they need a higher estimation level because it is not known how many accidents have happened at the end of an accounting period that are not yet reported.

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[17] IBNR
[18] RBNS

Potential not reported claims should be calculated with probabilities and statistical tools. Provisions should not be estimated at too high or too low level. If provisions were estimated higher than their real estimate is, than the ratios like debt-to-asset ratio, equity ratio (solvency ratios) would indicate unfavorable position for the company in the meaning that it cannot cover its liabilities with the amount of assets it possesses. This is a dangerous tool that can be used for fraud in a way to avoid tax payment. On the other hand, if the provisions were calculated at a very low level, then the profitability would be affected because the insurance company would not have enough resources to cover claims.

By determining an IBNR reserve, actuaries must be aware of several factors, such as:

- claim amount
- claim number
- claim settlement expense
- class of business
- intimation date
- loss date
- policy from date
- policy number
- policy to date
- product type
- reinsurance paid – a share of the claim amount
- reinsurance paid – a share of claim settlement expenses (Finance training course, 2017).

With reinsurance, the insurance company is diversifying the risk and when they are calculating the IBNR reserves, they can adjust those reserves for the participation in the reinsurance. That risk, or group of risks, are in total or partially transferred to the reinsurance company. The MTPL market of Serbia, as of December 31st, 2020, had booked technical provisions for 42,862,928,000 RSD (365 €m). Out of that, claim provisions were 23,866,698,000 RSD (203 €m), with the participation of 55.7% in total technical provisions. The highest claim provisions were made for MTPL insurance, with a stake of 63.2%. For the MTPL insurance, 15,083,753,136 RSD (128 €m) of claim provisions was booked.

In Table 5, we can see the data regarding claim provisions for the year 2020 in Serbia. We can see the provisions for MTPL, non-life sector and total insurance sector. Paid claims and expenses for non-life insurance present 52.9% of total paid claims and expenses, while paid claims for MTPL present 24% of paid claims for total insurance sector. We can see that provisions for MTPL have the highest participation in total claim provisions and are 45.9%. Provisions for RBNS are lower by 15% than IBNR.

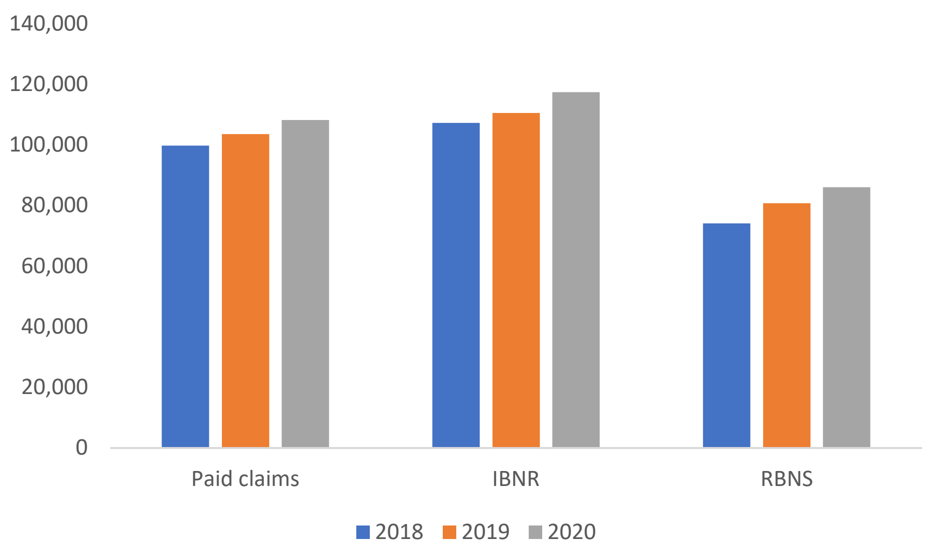
Table 5: Claim provisions for 2020 in 000 €

	Reserved claims without expense provisions			Reservation for expenses related to solving and payout claims		Reserved claims with expense provisions		Paid claims and expenses
	reported but not settled	rent claims	incurred, not reported	reported but not settled	incurred, not reported	reported but not settled	incurred, not reported	
MTPL	79,456	16,932	108,052	6,645	9,440	86,101	117,492	108,295
Non-life	143,266	16,991	154,633	10,795	13,290	154,061	167,922	329,208
Total	153,496	16,993	157,968	10,889	13,349	164,385	256,622	451,789

Source: National Bank of Serbia (2020c).

With an increase in paid claims, the volume of provisions is increasing. As we can see in Figure 8, IBNR, RBNS and paid claims have increased in the observed period. The data show that during the observed period IBNR was at a higher level than paid claims or RBNS. The reason for the higher IBNR than RBNS is in the fact that IBNR are more difficult to predict, while for RBNS we know the volume at the end of the year.

Figure 8: Trend of provisions and paid claims in the period 2018 to 2020 in 000 €



Adapted from National Bank of Serbia (2020c).

We can conclude that IBNR has the highest participation in technical provisions.

In the insurance market in Slovenia claim provisions amounted to 1,089,108,993 € and represent 25% of total technical provisions (for life and non-life insurance). For non-life insurance 1,029,385,768 € claim provisions were booked and presents 95% of total non-life technical provisions. According to the statistical data of Slovenia, technical reservations for MTPL are approximately 300 €m.

Higher provisions are booked in Slovenia than in Serbia, due to higher gross written premiums. With the low prices of MTPL comes to under reserving.

3 PRICING AND LIBERALIZATION ISSUES

3.1 Pricing methods in liberalized markets

Determining the level of premium that should be charged for a specific insurance product is a thought process and that is why specialists as actuaries are hired. Premium is collected and then directed to cover the claims. Premiums should be created in a way to be sufficient to cover potential losses and to provide a certain profit margin for insurance companies. One of the main factors that influence the determination of premiums is risk. The higher the risk, the premium should be higher.

The level of the premium is determined by the probability factors and is the product of two factors: the likelihood of a claim event and the level of damage sustained during the event. The lowest premium covers only primary costs. Factors that affect premium determination can be various, and they are split into factors regarding persons (owners of the vehicles), vehicles, and the environment. For example, in the EU area, factors that are used to define the level of premiums are different by country and can be age, nationality, marriage, occupation, other contracts with insurance companies, driver experience, health, area of driving, zodiac sign (as one of the most interesting and unusual factor), etc. Then there are factors regarding the car, which should also be considered: type of vehicle, age, price of car, motor engine power, maximum speed, fuel, weight, etc. These factors can be determined a priori. The behavior of the policyholder affects the premium through the Bonus-Malus system, which we will describe in the next chapter. To keep the stability of the financial system, to ensure fair market competition and protection of policyholders, in the process of introducing the liberalized tariff systems certain procedures must be followed.

Tariff liberalization creates certain risks and benefits for the MTPL insurance market (Stevanović, 2019). Directives EU 88/357/EEC, 92/47/EEC, and the amendment 90/232/EEC, define that all countries that are members of the Union must establish a liberalized tariff for MTPL system in their countries. Insurance companies in the member countries have freedom to define premium tariffs on their own. In addition, the countries that are candidates for membership must consolidate their insurance market with the Motor Directive, and by entering the Union, they must have liberalized tariff systems for MTPL established. Outside of the Union, countries can choose whether they will have a regulated, partially regulated, or liberalized market.

In the liberalized markets, the risk is segmented, and premiums are defined by the risk groups. To have better segmentation, there should be a common database for each country, where all historical data of policyholders are collected. The data should be stored for 5 years, and according to the history of a driver, an insurance company could apply the Bonus-Malus system.

With a more adequate risk assessment, the range of an insurer would be fairer and with more specific risk classification, insurers can get a premium that suits them best. This way of charging a premium would lead to improvement in the behavior on the roads to avoid large losses. With risk classification, costs for an insurance company would be lower, and the premium charged will be more suitable. If the premium is not fair, there can be a problem of Moral Hazard, where the insurer would not care about losses, whether they are low or high, because they feel protected either way. Also, there can be a problem with adverse selection if a policyholder is more exposed to some risk and does not say at the moment of signing a policy. As the market is more competitive, insurance companies would be able to classify and charge more to those policyholders who are more exposed to risk (bad risk).[19] In some markets, insurance companies can decline insuring bad risks. Those risks would be insured by the government at higher premium prices. Examples are France, Spain, and Portugal. In Ireland and The Netherlands, there are special insurance companies that insure bad risks and charge the highest premiums. In Italy, every insurance company must accept bad risks and insure them.

Risk classes should be made for individual buyers and by their exposure. The definition of risk classes can be done by technique, by defining the parameters and establishing the system where the risk exposure would be defined automatically. Insurance companies are allowed to also include good – bad driver distinction, known as the Bonus-Malus scheme, and to introduce more personal factors, create personalized premiums, and be more competitive.

The process of liberalization usually lasts for a longer period. As it requires discussions among different parties, which includes different levels of government, insurance authorities (if they exist), and insurance companies, the process of alignment from discussion to implementation takes a long period. The government defines the level of mathematical and legal provisions, so it is the guarantee for the insurance companies' solvency. Introducing the liberalization does not guarantee stabilization in long term.

The advantages of the liberalization tariffs can be seen in the more adequate risk assessment and premium segmentation, the fairer position of insurers by defining the correct risk group and risk segmentation, encouragement of the desirable behavior of the insurers, services are better and more qualitative, improvement of direct sales, more efficient regulation of market behavior, etc.

The amount of coverage should be defined in the contract or prescribed by law. For MTPL, the level of coverage is defined by Law (by the Directive in the EU and the individual laws

[19] Those people who are more exposed should conduct that an insurance is expensive for them and that would be another problem for insurance companies.

in separate countries, outside of the Union). The level of coverage should not be higher than any of those individual values. Insurance coverage should be paid out within 14 days from the moment of a received note that an insured case has happened. In liberalized markets, obstacles are mostly lack of expertise (actuarial and regulatory) and lack of proper IT support.

“Reinsurance is defined as transfer of part or total risk from insurance to reinsurance company.” (Siniša Ostojić PhD, 2007). Insurance companies, with the license for reinsurance, can reinsure the risks which are transferred from another insurance companies. Insurance companies can transfer part of the risk to one or more reinsurance companies and in that way disperse the risk. When risks are insured with more reinsurance companies, the dispersion of risk is higher. That is the way insurance companies can protect their business and maintain profitability.

With liberalization, there is more space for reinsurance abroad and with foreign insurance companies, as the market is open. The advantages of reinsurance can be seen in increasing the capacity of the insurance company, stabilization of profits in insurance companies and reduction of the transfer premium of the insurance company providing protection against catastrophic losses.

3.2 The Bonus-Malus system

The process of selection between good and bad drivers is known as the Bonus-Malus system[20]. The main aim of the Bonus-Malus system is to reward those drivers who have not reported claims and to punish those who have reported claims. A good driver does not have reported claims and gets bonuses over the years, while a bad driver will have higher premium with negative bonuses (maluses). For a bad driver, the premium can be even higher than it was at the beginning of the paying period.

The introduction of the Bonus-Malus system into premium determination implies the existence of a fundamental premium, the level of discount that an individual policyholder takes, as well as the rules for moving through the levels of discounts. Within the process of premium determination, the history of drivers’ experience is included. Data regarding the history of policyholders’ insurance companies can be obtained from the common database of a country, if the one exists. If a person does not have damage, for which he or she is responsible then, during the time, he or she can get even bigger bonuses for the premium to be paid. If they had an accident, which they are responsible for, and a third party had damage because of that, then they will lose all their bonuses. If this behavior continues to happen, then they will get bigger negative bonuses, or malus.

In some countries, it is allowed for insurance companies to determine their Bonus-Malus system (for example in Belgium). The scheme is different by country, and each country has

[20] Also known as merit rating

the right to define it on its own (for example in Serbia there is a unified Bonus-Malus system for all insurance companies, defined by Law on compulsory traffic insurance). Some countries do not have this kind of system implemented.

In Serbia, Bonus-malus has been applied since 2011. In Table 6, we can see the structure of the Bonus-Malus system. Level 4 is the starting level for new policyholders, who have just bought the car, but in the case of selling the car, people can keep the bonus, but they must provide a policy and contract for car selling. Data regarding the history of a policyholder is stored in the database. For good drivers, there is an increase in premium level each year by a different percentage. As we can see, in the first year 5%, in the second year up to 15% and if they do not have any claims within three years there will be a discount of 25%.

Table 6: The levels of Bonus-malus tariffs in Serbia

Premium level	Coefficient of premium levels
1	0.75
2	0.85
3	0.95
4	**1.00**
5	1.15
6	1.30
7	1.50
8	1.70
9	1.90
10	2.10
11	2.30
12	2.50

Source: Association of Serbian Insurers (n.d).

On the other hand, if they reported damage, they would lose all their bonuses. For repeating the actions of damage, one person can get to pay up to 150% of their starting premium. To protect the rights and interests of insurers and other insurance users on the one hand and strengthen the stability of the financial system, on the other hand, the NBS has adopted the change of Decision of primary bonus-malus criteria, data for the application process, and maximum bonus. This decision has increased bonuses for insurers at the first and second premium levels. For policyholders at the first premium level bonuses are increased for 10 percentage points and for policyholders at the second premium level, bonuses are increased for 5 percentage points (National Bank of Serbia, 2020).

The NBS used a tool for reporting fewer claims to insurance companies by increasing the bonus in the first and second premium levels. Improving the existing bonus-malus system in MTPL insurance has benefits for the people who are not risky with their behavior in traffic.

Benefits of Bonus-Malus: encouragement of drivers to drive more carefully, fewer damages, more adequate estimate of individual risk, in the long term we can see that there is an equivalent between the amount of premium and frequency of policyholders' claims, etc. Damages are related to cars, not drivers, and even if the owner of the car did not drive, or had an accident, he or she would have to pay an increased premium.

In Slovenia it starts with the 14^{th} premium level, with a 0% of bonus and an individual would pay 100% of the premium in the first year. If there are no accidents, then an individual would receive a 5% bonus each year. The highest bonus that can be received is 45% and is at the premium levels 1, 2, and 3. If there was an accident that the policyholder is responsible for, then in the first year he or she would lose all the bonuses, and if accidents repeat in the second year, a policyholder will have to pay 10% more for the premium (110%). The maximum malus that can be charged is at the 20^{th} premium level and is 200% of premium value.

Insurance companies can give additional commercial discounts for premiums, to remain competitive in the MTPL insurance market.

3.3 The pitfalls of the regulated market

In countries where there is a regulated market for MTPL, the government is giving the arguments in favor of regulated markets, as it is that the premium has the same characteristics as most necessary products for existence, and in the hands of the government is to define the minimum price that should be charged for it. On the other hand, the premium charged can be seen as a tax, as well, but not a tax collected by the government, but by insurance companies, as it has a yearly occurrence.

The advantages of a regulated market can be seen in the profitability of small or new insurance companies in the market. In a liberalized market, if the competitors are weak and competition is not healthy, then there would be a large gap between developed and undeveloped insurance companies (price war). Without price regulation, small or new insurance companies in the market cannot develop, because of the competition which is stronger and more flexible in defining the amount of premiums. Finally, the argument in favor of regulated market is that the claims are covered by Guarantee funds.

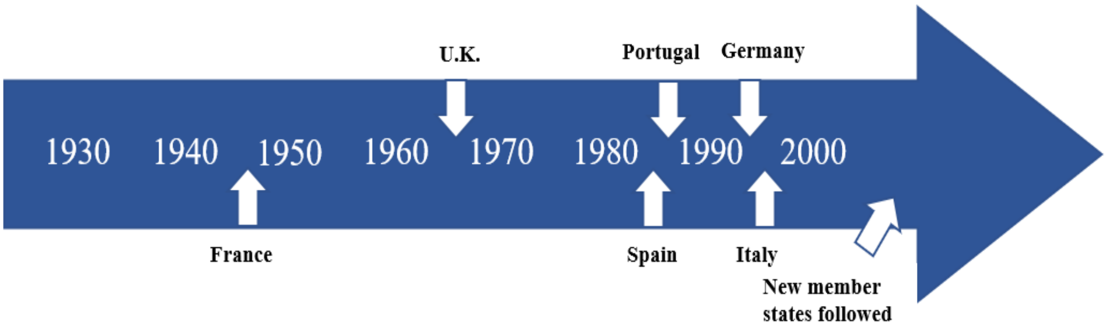
The pitfalls of a regulated market can be seen in too much administration, narrow space for competition, social policy, etc. Besides that, in regulated markets, the insurance sector is in stagnation as there are not enough resources to develop it. Solvency problems of the insurance companies are one of the important pitfalls of the regulated market. Economic consequences of regulated markets can be seen in mispricing and under reserving.

In developing countries, there are usually regulated MTPL markets, which would define low premium prices, to lower the number of uninsured vehicles. If there were more uninsured vehicles at the road, more claims would be paid out of Guarantee Funds and at one point, premiums would increase. That would be the cost of uninsured driving. Low prices would drive other issues in the insurance market, like reduced solvency, slow liquidation, under reserving, etc. Implementing liberalization does not necessarily lead to better conditions in the insurance market, better protection of insurers, or improving and developing the insurance system. As we can see in the following section, experiences of countries with implementing the liberalized tariff system are different.

3.4 Roadmap towards liberalization, experiences of other countries

Liberalization is introduced into the Union countries, which is regulated by the Directive. The time of liberalization was different for countries of the Union, for example, France introduced liberalization in the early times, after World War II. As we can see in Figure 9, the time of implementation of liberalization into the insurance market was different for countries of the European Union.

Figure 9: Implementation of liberalization in various EU countries



Source: Gonülal (2009).

To have a liberalized market, the following conditions should be met:

1. enough actuarial expertise
2. the solvent (and reserved) insurance market
3. strong supervisor
4. strong policy preventing non-insurance vehicles
5. consumers' awareness, etc.

The process of liberalization was completed in 1994 when it was introduced by the Directives 88/357/EEC, 92/47/EEC, and amendment 90/232/EEC. Italy was the last European country that implemented liberalization in 1994. Later, all countries that were becoming members of the Union implemented liberalized tariffs. The process of introducing liberalization should have a plan, which would include a defined period, professional staff, the reaction of different market participants, effects on prices, and effect on distribution.

In the first phase, the process requires regulation by law and sufficient time is needed for implementation to be discussed and to predict a potential consequence. As the process is complicated, insurance companies should have help from the authorities and adequate training for employees. Insurance companies have a significant role, as they are those which will define prices and will be most affected by decisions. It is important to ensure the healthy competitiveness of the market.

In the second step the effects on prices should be checked. There is always a worry if liberalization would lead to higher or lower prices. Practice shows that after the liberalization prices are higher, but of course, there are exemptions. It is not odd that there would be a drop in prices, and that some insurance companies would become insolvent, especially those which have the highest stake of MTPL in their GWP structure. In the case of lower prices for MTPL, insurance companies would charge higher prices for other insurance products (for example life insurance, or health insurance). In the long run, the cost of insurance should drop by introducing liberalization.

In that process, insurance companies would have a large burden and additional side effects that they would have to deal with. To avoid those unwanted effects, they would have to improve the level of knowledge of their staff, especially in the actuarial sector. Also, there would be the need for qualitative training and analysis of databases, due to efficient and effective performance.

The Effect on distribution can be seen as a change in the main channel of distribution. The change of distribution channel can in the long run affect the structure of the insurance market in a country.[21] Sales over the internet and telephone are becoming the two most popular distribution channels.

In Slovenia, liberalization was introduced in 1998. There were no huge changes in the market or the level of premium. It can be explained by cooperation between insurance companies and good supervision of the insurance sector. The result is better risk selection and charging more adequate premiums.

Croatia implemented the liberalization in 2013, when entering the European Union. Liberalization started at the MTPL market. Premiums were at the same level as before, probably because of cooperation between insurance companies. The distinction between insurance companies is introduced with different discounts or additional coverage for free. Open market drives to higher competition. After a certain period, the prices dropped. In 2013 the average price for an insured car was 201 €, and in 2018 it was 125-130 €. The combined ratio which was before liberalization at the level of 75% declined. Despite all those factors that affected the insurance market, none of the insurance companies lost their license due to insolvency. The effect of liberalization was restructuring the market and switching positions between the first and second participants in the market. Participation of non-life insurance in total GWP decreased from 74% in 2009 to 68% in 2018, due to decrease of MTPL premiums, because of liberalization. The participation of MTPL in non-life decreased from 42% in 2009 to 31% in 2018.

[21] Serap O. Gonulal; 2009; Chapter 9

In the example of Italy, we can see that the process of implementation is quite long. The Directive was introduced in 1988, while in 1990 Italy started discussing the process of liberalization. In 1992 the Directive was updated with the deadlines and then the government of Italy decided to continue with the implementation. In the process of transition, insurance authorities, and insurance companies were cooperating. Until 1994 the process was in progress, and even then, tariffs were abolished. On July 1st, 1995, insurance companies started adjusting to the new system. During the period of liberalization, the insurance sector lost a lot of money, as there was no appropriate underwriting risk[22]. The prices of policies rose after the liberalization, and policies could be offered to those individuals who have higher risks, for a lower price (bad risks). Until 2005 premiums and costs were rising faster than inflation, and in 2005 the costs of claims declined and that was the reason for the average premiums to fall. Insurance agents remain the main channels of distribution, only there was registered an increase of direct sales by internet and telephone. Insurance companies have become more profitable after the deregulation.

4 COMPARATIVE ANALYSIS OF THE WEST BALKAN COUNTRIES

The analysis will include the following West-Balkan countries: Serbia[23], Croatia, Slovenia, Montenegro, Albania, Bosnia and Herzegovina, and North Macedonia. The geographical presentation of observed countries, we can see in Figure 10. I will compare the insurance markets of former Yugoslavia countries together with Albania.

[22] A few insurance companies went into liquidation
[23] Without Kosovo

Figure 10: Presentation of observed countries

Source: own work

I will look at the data for the past five years, from 2016 to 2020. The chosen period is full of volatility as there was the pandemic in the year 2020 and it has affected the world's insurance market.[24] Normal trends were in the period 2016 to 2019.[25] We can see how the pandemic is influencing the insurance markets.

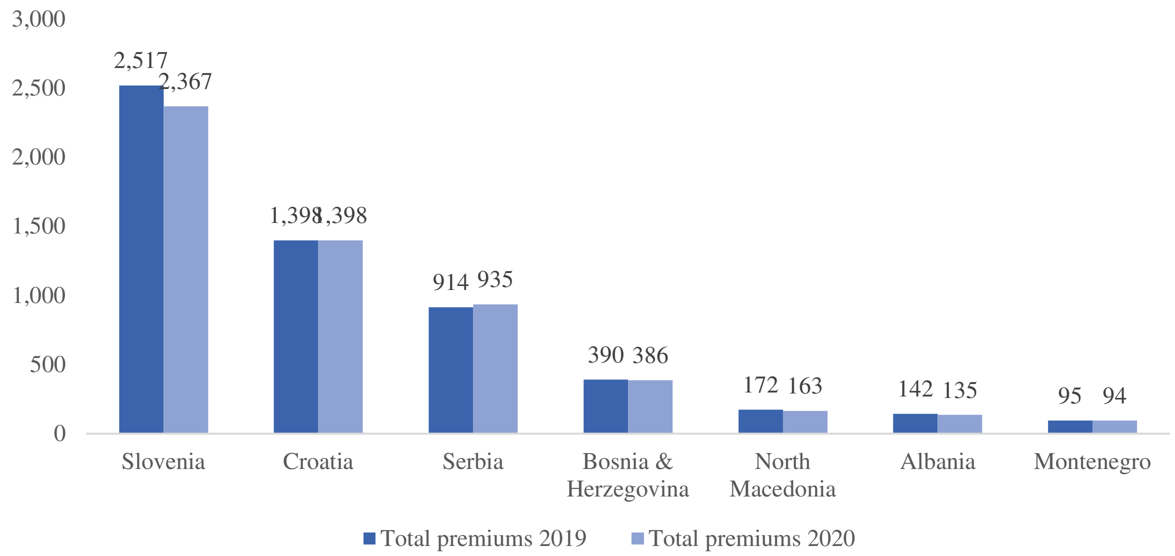
Data which will be presented will help us to see the importance of MTPL in each of those countries, during the observed period, and how MTPL defers from country to country. In the beginning, I will start with general data, such as total gross written premium, paid premium per capita, and share of non-life premium in total gross written premium. Those data show the importance of an insurance sector in one country and participation of life and non-life type of an insurance in total GWP. Next, I will present the paid MTPL premiums, MTPL penetration in GDP, MTPL insurance density per capita, the number of vehicles and the number of policies. The volume of premium is defined by prices on the market, and for the chosen countries, Slovenia, Croatia, and Albania have a liberal tariff regime, while Serbia, Montenegro, Bosnia, and Herzegovina, and North Macedonia have a regulated regime. Also,

[24] It has been presented also in year 2021 and 2022. In year 2022 can be seen consequences of war between Russia and Ukraine.
[25] Except in China, where Covid-19 started to develop in December 2019.

I will present the number and amount of paid claims. For the presentation, I will use Figures and Tables.

Total gross written premiums in the insurance sector in 2020 are at a high level, as we can see in Figure 1, where we present the penetration of premium in the GDP. The amounts of paid premiums per observed country in 2019 and 2020 are presented in Figure 11. We can see that the most premiums were paid in the Slovenian insurance market and in 2020 the premiums decreased, comparing to 2019. Croatia is in the second place and in 2020 was written only 30,000 more premiums than in 2019, or 0.002%. The insurance market in Serbia wrote 934,825,166 € in 2020, 0.02% higher than in 2019. Serbia is at third place, when we look at the amount of paid premium. In Bosnia and Herzegovina, North Macedonia, Albania, and Montenegro we can see lower paid premium in 2020 compared to 2019. In Bosnia and Herzegovina there are two separate entities, and according to the data, we can see that 30% of premium is written in the Republic of Srpska, while 70% is written in the Federation of Bosnia and Herzegovina. In the year 2019, the ratio was at the same level (30% was written by insurance companies in Republic of Srpska and 70% by insurance companies in Federation of Bosnia and Herzegovina).

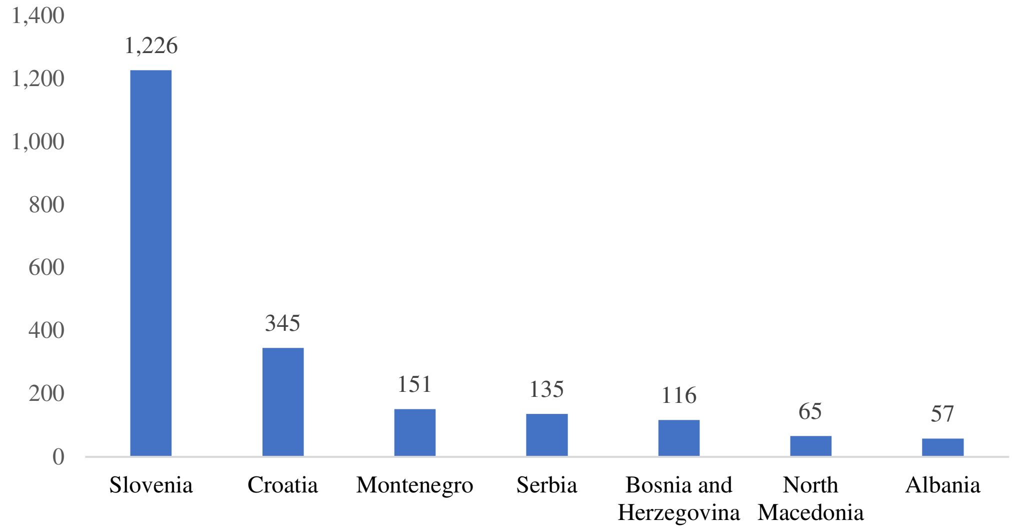
Figure 11: Total premiums paid in by countries in 2020 and 2019 (in million €)



Adapted from National Bank of Serbia (2020b, 2021b); Slovenian Insurance Association (2020, 2021); Information Centre at the Croatian Insurance Bureau (2020a, 2021); Insurance Supervision Agency of North Macedonia (2020, 2021); Albanian Financial Supervisory Authority (n.d); Insurance Agency of Bosnia and Herzegovina (2020, 2021); Insurance Supervision Agency of Montenegro (2020, 2021).

Premium per capita or insurance density can be seen in Figure 12. The amount of premium per capita is higher in the countries that are members of the European Union than those outside of the Union (Slovenia and Croatia have a premium per capita of 1,226 € and 345 € respectively). There is a different range, and Montenegro is in the third place with a premium of 151 € per capita. Even though there is a liberalized market in Albania, premium per capita is very low (57 €).

Figure 12: Total premium per capita, by countries in 2020 (in €).

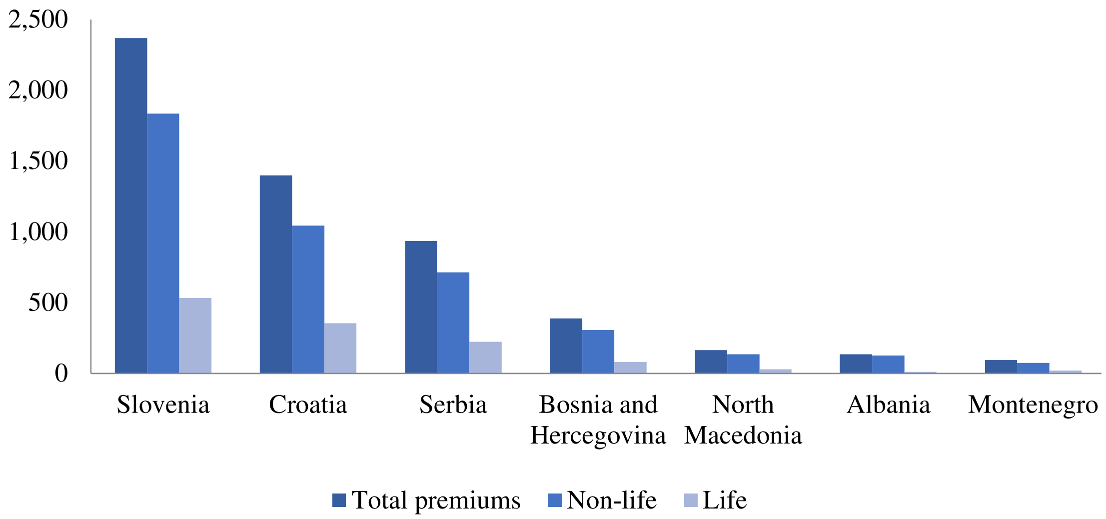


Adapted from National Bank of Serbia (2021b); Slovenian Insurance Association (2021); Information Centre at the Croatian Insurance Bureau (2021); Insurance Supervision Agency of North Macedonia (2021); Albanian Financial Supervisory Authority (n.d); Insurance Agency of Bosnia and Herzegovina (2021; Insurance Supervision Agency of Montenegro (2021).

The structure of total paid premiums split into life and non-life insurance is presented in Figure 13 when Slovenia, as the most developed country in the region, has the highest gross written premiums in the year 2020, with the share of non-life premium of 78%. In the past, in the third quarter of 2011 an insurance market in Slovenia was mostly balanced with increase in GWP and decrease in paid claims. In 2011, gross written premium was 2 €bn, while in 2020 it increased to almost 2.5 €bn. Even though it says that Motor insurance accounted for almost 38% of the non-life business in 2011 (Ghetu, 2012), according to the statistics, we found that participation of MTPL in non-life premium at the end of 2011 was 20% (Slovenian Insurance Association, 2021). Compared to 2011, premiums are lower, and claims are higher, mostly because MTPL is price sensitive product. We can see that there is the highest participation of non-life insurance in total premiums in Albania (93%). On the other hand, life insurance is more developed in Slovenia and Croatia than in other countries but has a lower participation in the total premium, which we can also see in Figure 13.

A characteristic of the developed countries is the high participation of life insurance in total gross written premium. In developed countries, the awareness of life insurance importance is high, and it is affordable to all citizens. In developing countries people should become more aware of the importance of life insurance.

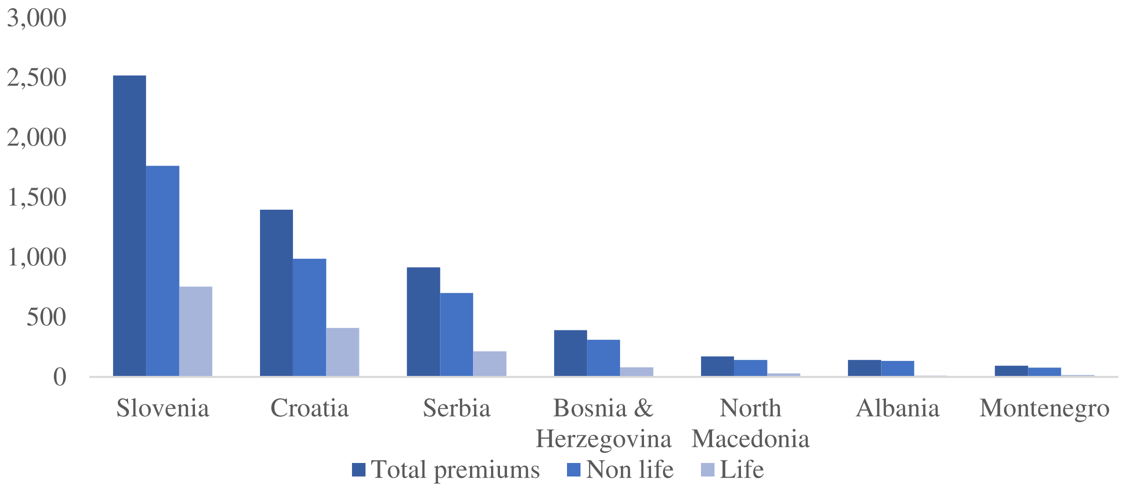
Figure 13: Gross written premiums in 2020 for West Balkan countries (in million €)



Adapted from National Bank of Serbia (2021b); Slovenian Insurance Association (2021); Information Centre at the Croatian Insurance Bureau (2021); Insurance Supervision Agency of North Macedonia (2021); Albanian Financial Supervisory Authority (n.d); Insurance Agency of Bosnia and Herzegovina (2021); Insurance Supervision Agency of Montenegro (2021).

In Figure 11, we saw the amount of total paid premiums in 2019, compared to 2020. Now, in Figure 14 we can see the distribution of total premiums for life and non-life insurance, for year 2019. Paid premiums in 2019 had the same structure as in 2020, and all countries remain ranked in the same order as in the year 2020. We can conclude that the relation between life and non-life insurance is the same, and non-life insurance remains dominant in the insurance sector, through all observed countries. All countries keep the same trend through the years and maintain the same correlation between total premium, life, and non-life insurance premium. Figure 14 will be presented on the next page due to size of the picture.

Figure 14: Gross written premiums in 2019 for West Balkan countries (in million €)



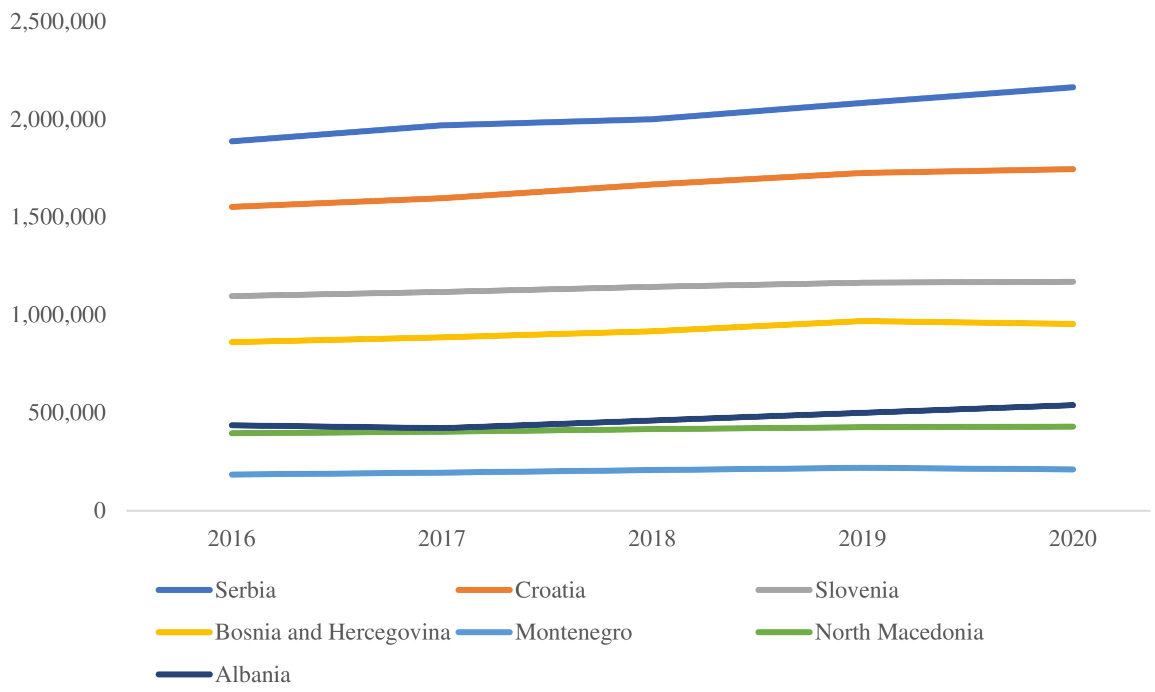
Adapted from National Bank of Serbia (2020b); Slovenian Insurance Association (2020); Information Centre at the Croatian Insurance Bureau (2020a); Insurance Supervision Agency of North Macedonia (2020); Albanian Financial Supervisory Authority (2020); Insurance Agency of Bosnia and Herzegovina (2020); Insurance Supervision Agency of Montenegro (2020).

During a certain period, we can see that there is an obvious increase in the number of motor vehicles in the world, and so in the countries of the West Balkan as well. We have presented the period from 2016 to 2020, as a comparative analysis, and we can notice that there is an increase in the number of registered cars[26] during the years and a decrease in the number of cars per capita[27].

As we can see in Figure 15, the number of cars per Western Balkan's country in the period 2016 to 2020 is presented, and we can see the trend of growth per country per year. We can see a slight drop in the year 2020 in Bosnia and Herzegovina and Montenegro. In Slovenia and North Macedonia, the growth was slower than in the other countries.

[26] We used is the number of cars, not number of motor vehicles.
[27] We used predicted data for population number for each year, which we get at the statistical institutions of each country.

Figure 15: Number of cars in the period 2016-2020, for countries of West Balkan

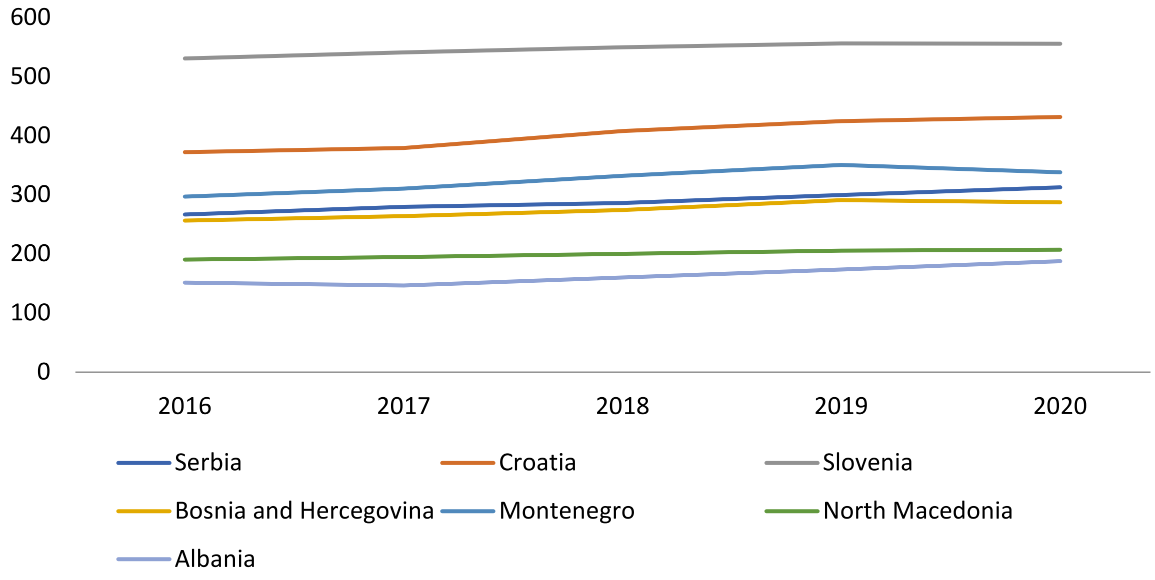


Adapted from Statistical Office of the Republic of Serbia (2021a); Slovenian traffic safety agency (2021); Ministry of the Interior of the Republic of Croatia (2021); Auto-moto club of Bosnia and Herzegovina (2021); Statistical office of Montenegro (2021); Statistical Office of the Republic of North Macedonia (2021); Institute of Statistics of the Republic of Albania (2021a).

To get an even bigger picture, I have presented the motorization rate by country. The motorization rate presents the number of cars per 1 000 persons. The data is presented in Figure 16, and it represents a more relevant figure, because of the difference in the population. This type of data is comparable between the countries. We can see an increase in motorization rate during the whole observed period in Slovenia, Croatia, Serbia, North Macedonia, and Albania. In Bosnia and Herzegovina and Montenegro, the motorization rate started dropping in 2019. One of the reasons is the Covid-19 pandemics, and another reason is the decrease in the population in the observed countries. When we look at the year 2020, we can see the following:

- Slovenia has the highest motorization rate in 2020 when per 1,000 persons there were 555 cars.
- Next is Croatia with 431 cars per a thousand people,
- After that is Montenegro with a motorization rate of 338 cars,
- Serbia is in the fourth place with a motorization rate of 313 cars,
- Next is Bosnia with 287 cars per thousand people,
- after them is North Macedonia with 207 cars and
- at the end is Albania with 187 cars per 1 000 people.

Figure 16: Motorization rate in the period 2016 to 2020, for countries in West Balkan

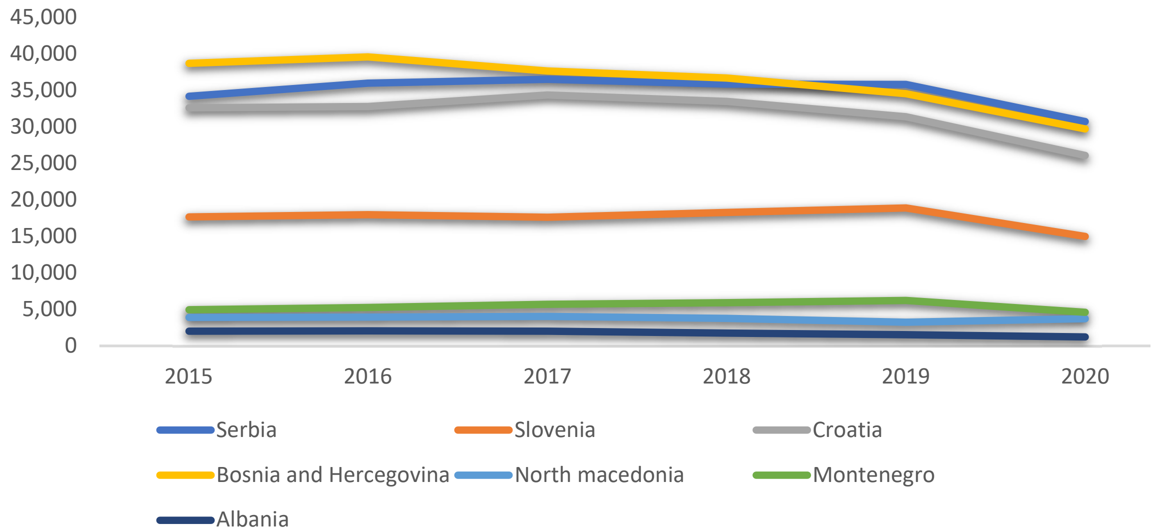


Adapted from Statistical Office of the Republic of Serbia (2021a); Slovenian traffic safety agency (2021); Ministry of the Interior of the Republic of Croatia (2021); Auto-moto club of Bosnia and Herzegovina (2021); Statistical office of Montenegro (2021); Statistical Office of the Republic of North Macedonia (2021; n.d); Statistical Office of the Republic of Serbia (2021b); Statistical Office of the Republic of Slovenia (2021); Statistical Office of the Republic of Montenegro (n.d); Institute of Statistics of the Republic of Albania (2020, 2021a); Agency for Statistics of Bosnia and Herzegovina (2021); Croatian Bureau of Statistics (2021).

As there is an increase in the number of vehicles, and more vehicles in traffic, then there is more possibility of accidents, and the risk is higher. In the period 2016 - 2019, the trend of accidents[28] was different by country. As we can see in Figure 17 in Serbia there was a slight increase, while in Bosnia and Herzegovina and Croatia a decrease is obvious in the number of car accidents. We can assume that the lower number of accidents is due to modern technologies, and more awareness of consequences. Also nowadays, roads are safer and there is more control over the highways. In Slovenia and Montenegro, the number of accidents was raising (until 2019), while other countries had a decreasing trend during the observed period. In Albania, the number of accidents was stagnating. In 2020, obvious and logical (due to measures because of the pandemics, which included a lockdown, a prohibition of transition between regions, and similar), there is a decrease in the accidents, except in North Macedonia, where we can see a slight increase. That increase can be explained by less control over the roads, bad infrastructure, and endangering traffic safety. The average number of accidents in Serbia is 34,950, in Bosnia and Herzegovina 35,613, and in Croatia 31,601. Slovenia has a fourth place with 17,519 accidents on average. The last three countries that have less than 10,000 accidents per year are Montenegro (5,517), North Macedonia (3,718) and Albania (1,692).

[28] Reported accidents to police.

Figure 17: Number of accidents per year

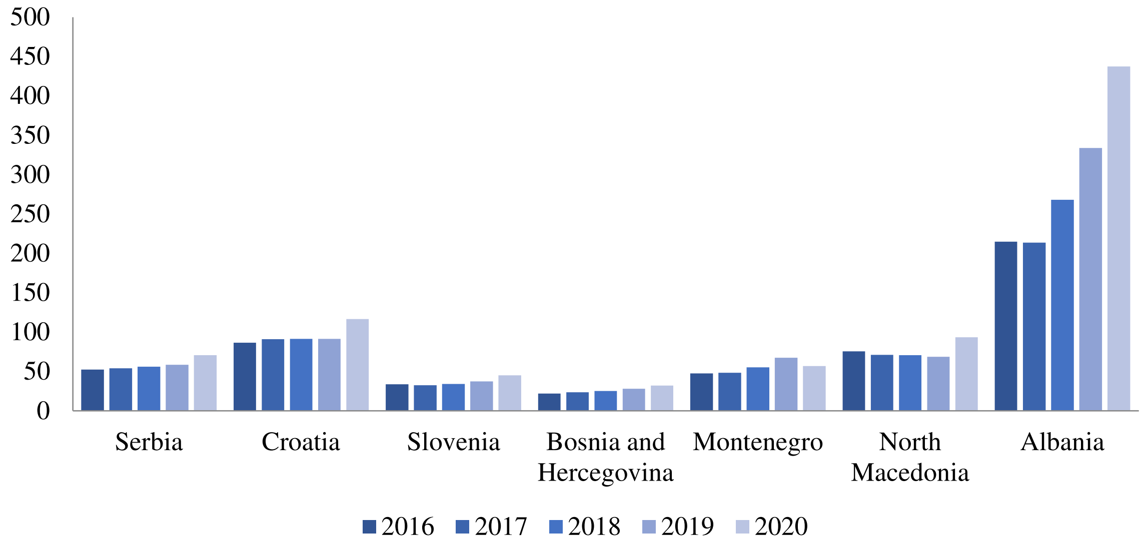


Adapted from Statistical Office of the Republic of Serbia (2021b); Slovenian traffic safety agency (2021); Ministry of the Interior of the Republic of Croatia (2021); Auto-moto club of Bosnia and Herzegovina (2021); Statistical office of Montenegro (2021); Statistical Office of the Republic of North Macedonia (2021); Institute of Statistics of the Republic of Albania (2021b).

To present data more reliably, I have presented the number of accidents per car. We can say that is the rate of traffic accidents.

In Bosnia and Herzegovina, there is the highest density of car crashes (22, 24, 25, 28, 32 respectively by years since 2016 to 2020), and we can say that for example, in the year 2016 every 22nd car had a car crash, in 2017 the occurrence of accidents repeated at every 24th car. On average from 2016 to 2020, for every 26th car, there was an accident. In more detail, we can see the fluctuation of accidents per car in Figure 18. In Figure 18 the number of accidents per number of cars by year, from 2016 to 2020 is presented. We can see that there is the least number of accidents in Albania in 2020 when there was an accident at every 437th car. Based on the average of the last five years, the highest risk was in Bosnia and Herzegovina, then Slovenia, Montenegro, Serbia, North Macedonia, Croatia, and Albania.

Figure 18: Accidents per car by year and by countries

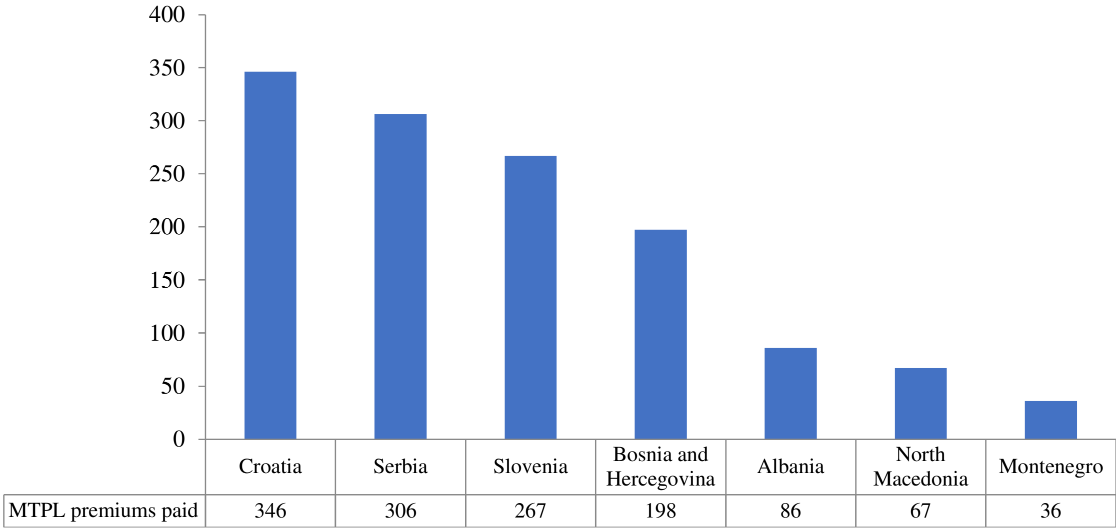


Adapted from Statistical Office of the Republic of Serbia (2021a); Slovenian traffic safety agency (2021); Ministry of the Interior of the Republic of Croatia (2021); Auto-moto club of Bosnia and Herzegovina (2021); Statistical office of Montenegro (2021); State Statistical Office of the Republic of North Macedonia (2021); Institute of Statistics of the Republic of Albania (2021b).

In general, the number of accidents was decreasing by years, but still for claims those accidents were paid out of insurance companies, with the collected amount of premiums for MTPL. When we calculate the average premium per every registered car, we can see that countries of the Union have premiums at a high level (228 € in Slovenia and 198 € in Croatia). Outside of the Union, the most expensive MTPL insurance per car has Bosnia and Herzegovina with an average premium of 207 €. If we compare the premium per car in separate entities (Republic of Srpska and Federation of Bosnia and Herzegovina), we can see that there is no big difference between paid premiums, because the average premium in the RS is 187 € and in the FBIH is 182 €. Republic of Srpska has more expensive MTPL insurance than FBIH. After Bosnia, there is Montenegro with 171 €, Albania with 159 €, North Macedonia 156 € and Serbia with 142 € of premium per car on average. According to the collected data, the most expensive MPTL insurance is in Slovenia and the cheapest is in Serbia.

By determining the level of premium for MTPL, there are differences between countries, but in all of them, the Bonus-Malus tariff system is included. The level of paid MTPL premiums in 2020 can be seen in Figure 19. We can see that there are the highest amounts of premiums paid in Croatia, then Serbia, Slovenia, Bosnia and Herzegovina, Albania, North Macedonia, and Montenegro. If we look at the density of MTPL, we can see that the highest MTPL premiums per capita are in the countries of the Union, Slovenia, and Croatia, due to the liberalization of MTPL premiums. In Slovenia, the MTPL premium per capita is 127 €, while in Croatia that number is lower, 86 € per capita. When we look at the premium per capita, Bosnia and Herzegovina still has the first place within the countries that are observed outside of the Union (59 € of MTPL premium per capita). In the second place is Montenegro, with 58 €, then is Serbia with 44 €, North Macedonia 32 € and Albania 30 €.

Figure 19: The amount of MTPL premiums paid in 2020 (in million EUR)

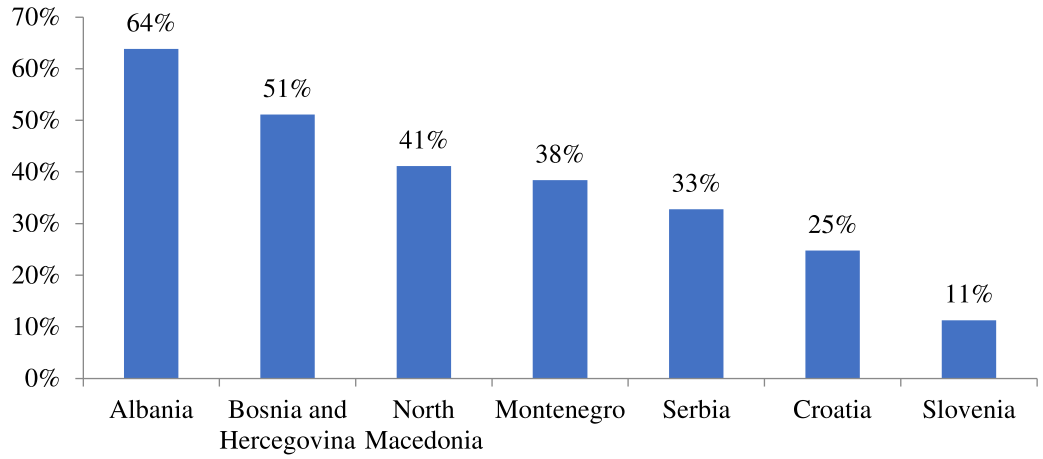


Adapted from National Bank of Serbia (2021b); Slovenian Insurance Association (2021); Information Centre at the Croatian Insurance Bureau (2021); Insurance Supervision Agency of North Macedonia (2021); Albanian Financial Supervisory Authority (n.d); Insurance Agency of Bosnia and Herzegovina (2021); Insurance Supervision Agency of Montenegro (2021).

Penetration of MTPL in GDP is at nearly the same level for all countries, and represents 0.01%, while penetration in GWP is different by country. In developed countries, life insurance has a higher participation in GWP, while the high share of MTPL defines a developing country.

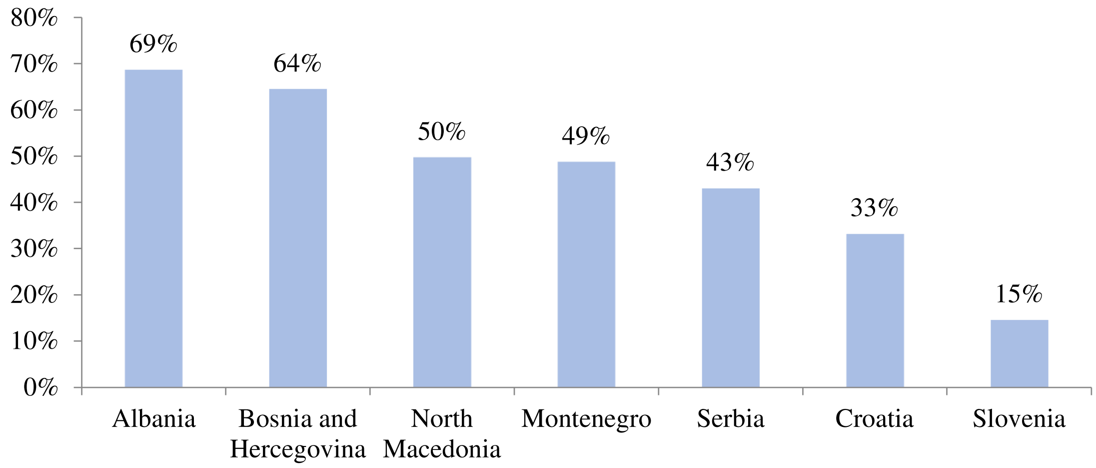
As we can see, the participation of MTPL in GWP and MTPL premium as participation of non-life insurance are presented in Figure 20, and Figure 21 Albania had the highest stake, with the participation of MTPL in GWP of 64% and non-life insurance at 69%. Under the presented data we can see that Slovenia, has the lowest participation of MTPL in GWP and in non-life insurance with 15% and 11% in 2019 and 2020 respectively.

Figure 20: Participation of MTPL in GWP, by country in 2020



Adapted from National Bank of Serbia (2021b); Slovenian Insurance Association (2021); Information Centre at the Croatian Insurance Bureau (2021); Insurance Supervision Agency of North Macedonia (2021); Albanian Financial Supervisory Authority (n.d); Insurance Agency of Bosnia and Herzegovina (2021); Insurance Supervision Agency of Montenegro (2021).

Figure 21: Participation of MTPL in non-life business



Adapted from National Bank of Serbia (2021b); Slovenian Insurance Association (2021); Information Centre at the Croatian Insurance Bureau (2021); Insurance Supervision Agency of North Macedonia (2021); Albanian Financial Supervisory Authority (n.d); Insurance Agency of Bosnia and Herzegovina (2021); Insurance Supervision Agency of Montenegro (2021).

When an insured event happens, an insurance company must pay claims for the damage that happened. All countries have a centralized market, with the Guarantee Fund which is responsible for payment for the vehicles that are not insured. In Table 7 we can see the overview of claims per country. Data is presented in Figures 22 and 23 where we can see data regarding paid claims per country and the number of claims. The highest average paid claims are in the MTPL market of Slovenia, which is 2,744 €. Slovenia is the most developed country of the observed and has the highest costs. Bosnia and Herzegovina has the lowest average paid claims with the amount of 1,041 €.

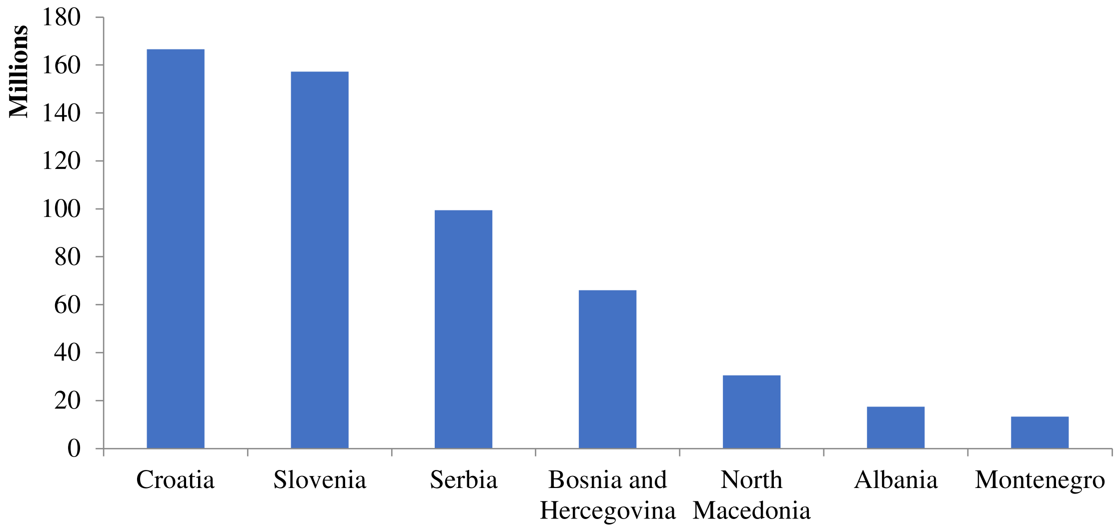
Table 7: Overview of claims per country in 2020

Paid claims at MTPL market	*Volume of paid claims*	*Number of paid claims*	*Average paid claims*
Croatia	166,594,480	88,630	1,880
Slovenia	157,172,735	57,281	**2,744**
Serbia	99,352,177	78,045	1,273
Bosnia and Herzegovina	65,962,197	63,362	1,041
North Macedonia	30,518,989	25,370	1,203
Albania	17,461,963	12,049	1,460
Montenegro	13,265,837	12,563	1,056

Adapted from National Bank of Serbia (2020c); Slovenian Insurance Association (2021); Information Centre at the Croatian Insurance Bureau (2021); Insurance Supervision Agency of North Macedonia (2021); Albanian Financial Supervisory Authority (n.d); Insurance Agency of Bosnia and Herzegovina (2021); Insurance Supervision Agency of Montenegro (2021).

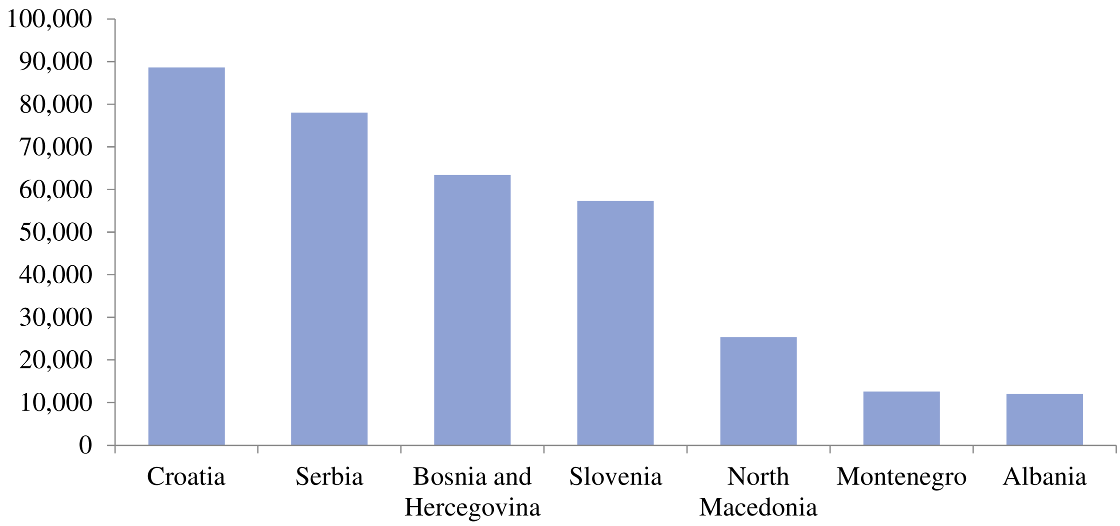
We can see that Croatia, Slovenia, Serbia, Bosnia and Herzegovina, North Macedonia, Albania, and Montenegro have the highest amounts for paid claims, respectively. With the number of claims, Croatia is in the first place as well as in the paid amount. By the number of claims, Serbia is in the second place then Bosnia and Herzegovina, Slovenia, North Macedonia, Montenegro, and Albania. In some countries maintenance, repair of cars, spare parts for cars, are more expensive, and because of that, countries have a smaller number of claims and are paying more for those. Presented Figures we can see in the following page.

Figure 22: Paid claims per country in 2020



Adapted from National Bank of Serbia (2021b); Slovenian Insurance Association (2021); Information Centre at the Croatian Insurance Bureau (2021); Insurance Supervision Agency of North Macedonia (2021); Albanian Financial Supervisory Authority (n.d); Insurance Agency of Bosnia and Herzegovina (2021); Insurance Supervision Agency of Montenegro (2021).

Figure 23: Number of claims per country in 2020



Adapted from National Bank of Serbia (2021b); Slovenian Insurance Association (2021); Information Centre at the Croatian Insurance Bureau (2021); Insurance Supervision Agency of North Macedonia (2021); Albanian Financial Supervisory Authority (n.d); Insurance Agency of Bosnia and Herzegovina (2021); Insurance Supervision Agency of Montenegro (2021).

If we look at Table 8, we can see overall amounts of MTPL premiums, number of MTPL premiums, paid MTPL claims and number of MTPL claims in 2020 by country. The last two columns in the table present the percentage of paid claims or claim ratio and frequency of claims (in %). Frequency of claims calculation is presented with the formula (4).

$$Frequency\ of\ claims = \frac{Number\ of\ claims}{Number\ of\ contracts} \quad (4)$$

Table 8: Overview of premiums and claims in 2020, by country

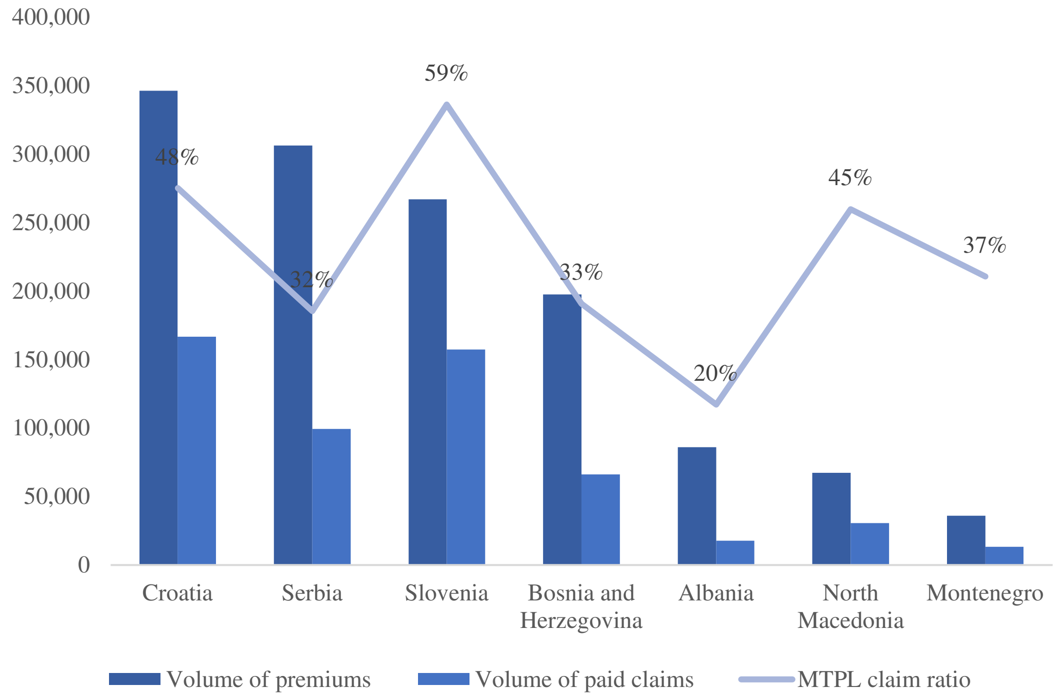
In €	MTPL premium paid	Number of MTPL premiums	Paid claims	Number of paid claims	Claim ratio (%)	Claim frequency (%)
Serbia	306,327,819	2,635,374	99,352,177	76,865	32%	2.92%
Croatia	346,106,933	2,403,103	169,524,000	88,630	49%	3.69%
Slovenia	267,037,567	2,083,353	157,172,735	57,281	59%	2.75%
Bosnia and Herzegovina	197,553,570	1,248,832	65,962,197	64,179	33%	5.14%
Montenegro	36,038,689	198,772	13,265,837	12,563	37%	6.32%
Albania	85,860,162	622,002	20,893,391	12,049	24%	1.94%
North Macedonia	67,132,100	729,752	30,518,989	25,370	45%	3.48%

Source: own work

From the data in Table 8, we can see that Montenegro has the highest claim frequency of 6.32%. Bosnia and Herzegovina is in the second place with 5.14% of claim frequency. Albania has the best claim frequency with 1.94%.

In Figure 24, the level relationship between paid MTPL premiums and paid claims for that insurance product is presented. To see the ability of the insurance sector, of each country, to settle claims I have calculated the claim ratio for MTPL insurance. If this ratio is over 100 then that type of insurance product would not be profitable. We can see that relationships are different by country. Based on the calculated claim ratio, we can conclude that Albania has a high ability of claim settlement, with the lowest claim ratio of 20%. The highest MTPL claim ratio is in Slovenia and it is 59% which means that in the MTPL insurance sector at every 100 units of premium needs 59 units to cover the claims. Still, this ratio is positive, and premiums are enough to cover the occurred costs. In Croatia 48% of premiums is needed to cover claims for MTPL. North Macedonia has the MTPL claim ratio of 45% in Montenegro it is at the level of 37%, Bosnia and Herzegovina at 33%, and Serbia at 32%.

Figure 24: Paid premiums and claims and MTPL claim ratio in 2020 by country (premiums and claims in 000 €)



Adapted from National Bank of Serbia (2021b); Slovenian Insurance Association (2021); Information Centre at the Croatian Insurance Bureau (2021); Insurance Supervision Agency of North Macedonia (2021); Financial Supervisory Authority of Albania (n.d); Insurance Agency of Bosnia and Herzegovina (2021); Insurance Supervision Agency of Montenegro (2021).

By law, payment of claims in Serbia should be solved within 14 days after an incidence happens. Promptness in damage resolving in Serbia has 85.54% for all insurance products. Under the Directive, countries of the European Union should resolve claims within 15 days of the request.

In North Macedonia, supervision is assigned to the Insurance Supervision Agency. Slovenia has also established the Insurance Supervision Agency which is responsible for the supervision of the insurance sector in the country. In Montenegro, the supervision over the insurance market is done by the Insurance Supervisory Agency of Montenegro. In Bosnia and Herzegovina, the situation is a little bit different as there are three entities, so the Federation of BIH and Republic of Srpska have their separate supervisory agencies (Insurance Agency of Federation of Bosnia and Herzegovina and Insurance Agency of the Republic of Srpska). Agencies operate together with the Insurance Agency of Bosnia and Herzegovina. In Albania, there is the Insurance Supervisory Authority, which oversees insurance supervision.

We can conclude that the insurance business is sustainable and profitable in all observed countries. MTPL is one of the most important lines of business and setting a correct price is vital for the insurance companies. Slovenia has the highest total premiums paid, as it is a member of the European Union and has a liberalized tariff system. In Slovenia, MTPL policy prices reacted positively to liberalization, because after introducing the liberalized tariffs, prices went up, which is positive for the economy. In the insurance market of Slovenia, higher participation in total gross written premium has health and life insurance, with 25% and 29% respectively. Other motor vehicle insurance has a significant participation in total GWP with 12%. MTPL still has an important place and is highly competitive with life and health insurance. Croatia, as a member of the Union also has a liberalized tariff system and high premium level, but their premiums are lower than in Slovenia. Influence of liberalization in Croatia could be seen in the lower premium prices at the MTPL market. Nowadays, prices have increased, and Croatia has the highest written premiums for MTPL. To introduce the liberalization in Bosnia and Herzegovina, it must be done through implementation in its separate entities Republic of Srpska and Federation of Bosnia and Herzegovina. As an example, we would look at the possibility of introducing the liberalization into the MTPL market of the Republic of Srpska. To have liberalized market, it is necessary to provide conditions for it and the most important are setting the reliable statical data base, which would help in defining the prices, improvement of supervision at the insurance market, through the work of the insurance agency and reconciliation with the laws of the European Union and Directive 2118/2021. In the current situation of the Republic of Srpska, partial and gradual liberalization would be the best solution. In other countries, MTPL is a very important part of the insurance sector and drives it to profitability and development.

5 MTPL MARKET IN SERBIA

5.1 History and the organization of the insurance market

Unlike Western European countries, Serbia was introduced to the idea and practice of insurance quite late. The roots of insurance in Serbia, are known with the appearance of collective responsibility for compensation for damages, but the insurance, in its right shape and form began to develop in the 19th century. The first companies that were operating in the insurance sector in the Kingdom of Yugoslavia were foreign companies. The milestone in insurance was the year 1937 when the regulation on supervision of insurance companies was introduced. The regulation was focused mostly to place provision funds and was focused especially on mathematical provisions. Later, at the beginning of the 20th century, the first domestic insurance companies were established.

Since the establishment of the insurance sector and organization of insurance companies in Serbia (ex-Yugoslavia) until 2004, only domestic companies were contributing to the insurance market. In 2005 the NBS started the supervision of the insurance sector and opened the market also to foreign companies.

Until 2005, the supervision of the insurance market was under the authority of the Ministry of Finance. In the insurance market there were 38 insurance companies, 2 reinsurance companies and 152 mediation agencies in 2004, when the audit of the insurance sector started. In 2005 the NBS took over the supervision of the insurance market and found numerous irregularities, for example, misuse of assets, risky investments into the securities issued by relatives, unrealistic financial statements, etc.

The NBS decided to withdraw 15 licenses and 3 companies decided to start voluntary liquidation process. In that period, that was an opportunity for foreign companies. To be more effective in insurance supervision, the NBS formed the Insurance Supervision Department.

Only seven months after the NBS took over the responsibility of supervising the performance of insurance activities, the insurance sector began to get the outlines of a regulated market. Companies that were closed by the decision of the NBS had the main line of business in motor insurance and had a participation in the total amount of gross written premium of around 10%. Even then, the most profitable line of business was motor insurance.

The insurance sector, as an important part of the financial sector in Serbia, drives economic development. The penetration of insurance premiums in GDP is 2%. The importance of insurance can also be presented as a participation in the financial sector balance, where insurance has a stake of 6%, as per December 31st, 2020. and it is at a lower level than it was in 2019 (6.6%). The consequences of that drop can be found in the world pandemic crisis in 2020. Despite the Covid-19 pandemic, the insurance sector in Serbia is still profitable and it is adequately capitalized. Because of its importance, the NBS took over the supervision of the insurance sector (in 2005).

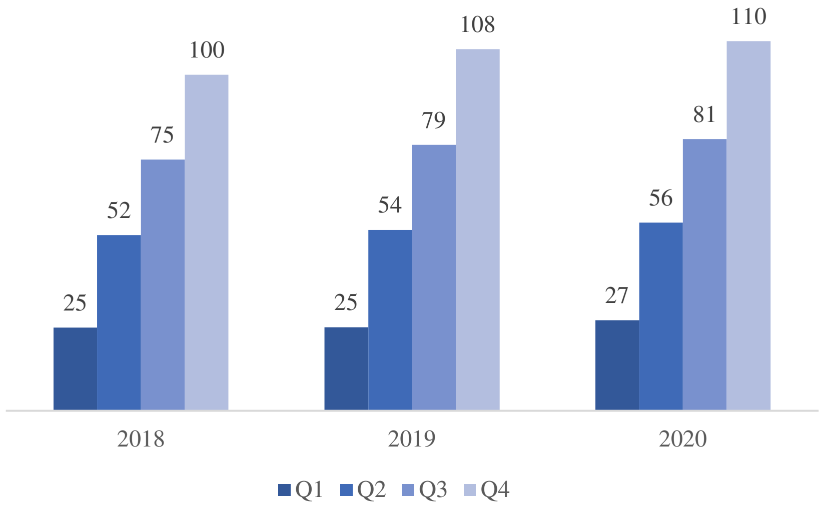
According to the currently available data, at the end of 2020 in Serbia, 20 insurance companies were operating in the insurance market (insurance and reinsurance[29]). Insurance was also sold by 17 banks, 6 leasing companies and public post operators, 101 insurance brokerage companies and insurance representation companies, and 77 insurance agents.

Nowadays, in the insurance market of Serbia, most insurance companies are in foreign ownership. In 2020, foreigners owned 15 insurance companies. (Main owners are from Austria and Slovenia)

The total gross written premium in 2020 was 109.9 billion RSD, which presents a 2.3% higher premium than in 2019. The participation of non-life insurance premiums was 76.2%. On the other hand, the level of life insurance premium increased by 4.4% and had a share in the gross written premium of 23.8%. The movement of the total premium is shown in Figure 25 and represents the movement towards the quarters in 2018, 2019, and 2020. We can see the trend of increasing premiums.

[29] 16 companies were operating with insurance and 4 with reinsurance.

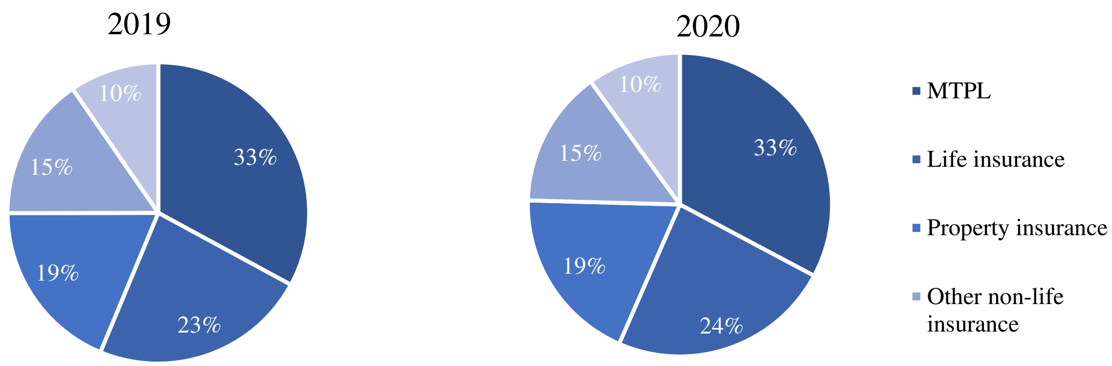
Figure 25: Quarterly movements in total premium (RSD bn)



Source: National Bank of Serbia (2021a).

As we can see, from Figure 25, the level of gross written premium has been higher, by years and quarters as well. In Figure 26, we can see the participation of lines of business in total GWP in years 2019 and 2020. The highest share in the total gross written premium has Motor Third-party Liability insurance, with 32.8%.

Figure 26: Total premium by type of insurance, for years 2019 and 2020.



Source: National Bank of Serbia (2021a).

The development of MTPL insurance goes hand in hand with the development of the auto industry. As we can see, it is the most common type of insurance in the total gross written premium of Serbia in 2020, and 2019 as well.

The insurance companies that are offering this type of product in Serbia are Dunav, Delta Generali, DDOR, AMS, Milenijum, Triglav, Globos, Sava, Wiener Städtishe, Uniqa, Grawe. Three insurance companies have 63% of the MTPL market share and those are Dunav with 33%, Generali 19%, DDOR 11%. Other insurance companies that are selling MTPL have only 37% of the market.

5.2 MTPL Regulatory framework

The position of the participants in the insurance market is determined by a series of bylaws. Numerous decisions, instructions, and regulations issued by the NBS define the insurance industry. Laws rely on the obligation law from 1978, which regulated contracting parties' liabilities derived from the insurance business.

The sources of MTPL law we can see in the laws for the insurance sector in Serbia. The most important is the Insurance Law, which was introduced in 2004, and published in the Official Gazette no 55/04. The insurance Law defines the position of an insurance company and other participants in the insurance market. It was updated in 2014 and the changes regarding pricing and monitoring the insurance sector, which represents an important part of the Law.

The law that regulates compulsory motor insurance is the Law of compulsory traffic insurance[30,] from 2009, which includes insurance of passengers in public transportation from the consequences of an accident, motor third party liability insurance, aviation third party liability insurance, and boat third party liability insurance. This law regulates all types of compulsory insurances, establishes, and regulates the functioning of the Guarantee fund, checks the special public competences of the Insurance Association. With the Law of compulsory traffic insurance, the part of MTPL defined higher compensation limits and that legislation would bring MTPL closer to harmonization with the laws of the Union.

The insurance sector has been regulated by the NBS, since 2005 and since then, insurance companies have an obligation to prepare the annual reports and financial statements under Solvency II, international financial reporting standards (IFRS) and international revenue service (IRS) standards, and domestic laws, prescribed by the NBS.

The amount of the minimum premium for MTPL is approved by the NBS, at the proposal of the association of Serbian insurers. By agreement, they define the amount of premium which should be charged by insurance companies. The association of insurers in Serbia has 19 members, which are insurance and reinsurance companies, registered on the territory of Serbia. Insurance companies which sell MTPL insurance policies must be members of this organization.

The amount of minimum upper limit of claims is defined by the Government of the Republic of Serbia, at the proposition of the NBS. The minimum upper limits are defined as follows:

- In the case of personal injury, the minimum amount of cover is 1,000,000 €, per claim irrespective of the number of victims;
- In the case of material damage, the minimum amount is 200,000 € per claim, whatever the number of victims[31].

[30] Official gazzete RS, no. 51/2009, 78/2011, 101/2011, 93/2012 and7/2013
[31] The amounts are calculated according to mean exchange rate, published by NBS

In the case of an accident, the European report must be filled in properly, and with that, an individual can cover the claims from the insurance company. There is a deadline of 14 days to pay out the claims.

If the accident happens on the territory of the Union or another country that is a member of the Treaty and in that country the defined minimum premium is lower than the one defined in Serbia, then the insurer would get the amount prescribed by the law in Serbia. If the responsible company does not pay the claim, it is paid out of the Guarantee Fund.

Prices for MTPL in Serbia are partially regulated, since 2014 when the Parliament has updated the Law of compulsory traffic insurance. Under this decision, the government is allowed to define the minimum tariffs, above which insurance companies can create their MTPL premiums. This partially regulated market is not a good decision in the long term.

5.3 Future of the MTPL market in Serbia

Even though there is a partially regulated market with a set of allowed tariffs, the insurance market in Serbia has a continuous trend of increasing and developing. We can see that there is a constant increase in GWP and MTPL premium during the years.

Prices for MTPL insurance are highly regulated in the Serbian insurance market. By Law, there is a minimum amount of premium that must be charged, and insurance companies cannot charge premiums lower than those amounts. That is not happening in practice, as it was shown in recent events. In those recent events the Association of Serbian Insurers (in agreement with insurance companies at the market), increased the MTPL premium for approximately 22%. After few days, there was a loud reaction from the NBS, which said “MTPL premiums should be returned to the previous amounts”. Insurance companies in agreement with Association of Serbian insurers decided to withdraw the new prices and restore them to the previous amounts. Also, the decision of the NBS was that each insurance company should return the excess amount for which it was overcharging the vehicle (for the period of 20 days, when the tariffs were higher). Due to inflation, insurance companies are willing to help the citizens of Serbia and will return prices to previous levels and return the money to the vehicle owners. At the emergency meeting of the NBS new regulations regarding conditions and premium tariffs of compulsory insurance were passed. It says that “insurance companies must inform the NBS 60 days before they plan to change the premium tariffs for compulsory insurances. They must give “reasonable” explanations and provide supporting documentation, for the decision on increasing tariffs.” In the last eight years, the price has not been changed and in 2018 the cabinet of the NBS Governor stated that “there is room for decreasing the MTPL premium, but that the Association of Serbian insurers is responsible for setting the minimum tariffs”. The low level of MTPL premiums would lead to underpricing and consequently under reserving in the MTPL market. That could make the MTPL market unprofitable.

We could see that the MTPL prices are defined by the Association of Serbian Insurers and approved by the NBS. That will have a high impact on the implementation of liberalization.

Supervisors would like to have full control over the MTPL premiums, as it is one of the fundamental goods. That is the main problem of the future of MTPL market in Serbia.

It is obvious that introducing the liberalization into the Serbian MTPL insurance market could be useful, but also dangerous if there wasn't good preparation and adequacy in the process of implementation. To maintain a stable insurance market, which will be prepared for liberalization, it is important to provide conditions for it. Those conditions should be related to the new Law on compulsory traffic insurance or even a change of it, to harmonize supervision of insurance with Solvency II directive, tracking the activity of insurance companies, and other professional associates, etc. The most appropriate would be introducing the transition period for adjustment of insurance companies to the new system. The liberalization in the insurance sector should not be implemented just because it is a condition to enter the European Union, it should be implemented because of the benefits that it will give to the country. First, we should look at the benefits towards financial stability. Second, but not less important is the benefit that prices would be more competitive, and that the good drivers would be rewarded for their behavior. It would improve the position of policyholders. Liberalization will enable foreign insurance companies to enter the market of Serbia and there is a possibility that they will dominate the market, which will cause the outflow of the capital.

Implementing the liberalization is dependent on the willingness and competence of insurance companies and supervisory authorities to face changes, as they are the most important factor in liberalization establishment. In the process to join the Union, Serbia will have to introduce liberalization and align laws on compulsory insurance with the regulation of the EU.

According to the Insurance Law in Serbia, only specific types of risks can be reinsured abroad. The latest update of risks that can be reinsured outside of the Serbia was in 2015 and MTPL is not on the list. For the future of MTPL this can be an issue, high quality reinsurance is one of the conditions for profitability of the insurance market. Unlike the other countries, in Serbia commissions are defined by the NBS. Insurance companies are allowed to give commission fees to intermediaries. In Serbia they are limited to 5%[32]. With the revision of the insurance sector, the NBS found irregularities with commissions, as insurance companies gave 15%, 20% or even 30% of commissions. In other countries the commissions are higher.

In the long term, neither regulated or partially regulated prices for MTPL are not a satisfactory solution, and those restrictions affect the profitability of insurance companies. Changes in the supervision of the insurance market would be when the legislation is harmonized with the Solvency II regulation, which is (according to the NBS) expected to

[32] Information from year 2019

happen in the near future. For the future of the MTPL market in Serbia, it is not good to have regulated commission fees.

"The insurance market of Serbia is not prepared for liberalization. Liberalization is usually introduced when the average policy price of MTPL is approximately 250€, and in Serbia the average amount is 100€. Introducing liberalization would decrease premium prices, but at the same time it should not affect the profitability of insurance companies. If you introduced liberalization today, out of 11 insurance companies that are selling MTPL, barely 4 would survive, because with decreased premiums in order to attract more customers, they could not survive. It will not be possible to cover the claims and hold on to their market share. If the policy is sold at 30% lower price and claims cannot be covered, insurance companies will go bankruptcy and there would be thousands of people unemployed" said Dragan Filipović, Chairman of the Executive Committee of Generali Insurance Serbia in the interview in 2018 (Saković, 2018).

Also, the development of the internet and technology provides the development and wider sales of insurance products – digitalization. Internet sales of insurance products started in 2008 when Delta Generali started working online. Nowadays all insurance companies have developed online platforms for selling insurance products and filing claims.

In the third quarter of 2021, the volume of gross written premium for MTPL in the insurance market of Serbia was larger, compared to the same period of the past year, and it is expected that premiums will continue to grow.

CONCLUSION

High number of insured vehicles implies higher road safety. Motor third party liability insurance is one of the most important non-life insurance products in developing and developed countries, with the highest participation in non-life gross written premium. Because of the safety of property and persons, MTPL is an obligatory line of business in insurance. The implementation of liberalization can be seen in the abolishment of uniform conditions in the insurance market. Candidates for the EU must adjust their national legislation with the insurance legislation of the Union before they get the status of a member country. All conditions must be fulfilled, including the introduction of liberalization into their insurance market, in order to provide an open market at the territory of the EU, as the main aim of liberalization.

Candidate countries are Serbia, Montenegro, North Macedonia, and Albania. For now, only Albania has implemented liberalization, while other countries do not have conditions for that. Out of the observed countries, Serbia, Bosnia and Herzegovina, Montenegro and North Macedonia have regulated regimes of MTPL and insurance at all. We can see that the MTPL insurance is very expensive in the Republic of Srpska, as it is more expensive than in Serbia, Montenegro, North Macedonia, and Albania. To keep Bonus Malus system, each country should organize a common data base, which will be available to all insurance companies, and they could use the data regarding the policyholder to assure premium which will have included rewards (bonuses) for good drivers and punishments (maluses) for bad drivers. The organization of common data base at the territory of the European Union, as one of the aims of the Directive improvement, should be useful to all insurance companies.

Solvency II is implemented as a tool to harmonize the rules for performing insurance activities. With Solvency II, which started applying in January 2016 was introduced a regime of maximum compliance, which ensures greater convergence of the internal insurance services within the member countries of the EU. Solvency II replaced some of the directives and is implemented into the insurance companies by International Financial Reporting Standards (IFRS).

Main findings of this thesis can be seen in the importance of insurance sector for the economy of observed countries and MTPL as an important part of insurance. Also, we can rank the observed countries by the parameters.

– High correlation between MTPL and GWP can be seen in the developing countries, where MTPL is one of the most important insurance products. Nevertheless, in other countries MTPL is also an important insurance product. For example, we could see that Albania has the highest participation of MTPL in their GWP and non-life insurance GWP, but in Slovenia more revenue is booked out of that line of business than in Albania, regardless of the lower participation in GWP.
– Measured by gross written premium on insurance market, premium per capita and the participation of gross written premium in gross domestic product, we can see that Slovenia, as a part of the European Union, has the most developed insurance market. The main indicator of the developed insurance market is high premium per capita, and we can see that Slovenia has the highest premium per capita within the observed countries (1,226 €), with the participation 5.55% of GWP in GDP. At the second place is Croatia with the premium per capita 345 €. If we look the volume of GWP Serbia is at the third place and measured by premium per capita Serbia is at the fourth place with the premium 135 €. Montenegro has high premium per capita, even though it has the lowest amount of GWP. Last three places are held by Bosnia and Herzegovina, North Macedonia, and Albania.
– For the MTPL market, we can say that highest premiums are collected in Croatia, Serbia, Slovenia, Bosnia and Herzegovina, Albania, North Macedonia, and Montenegro respectively. The most expensive premium is charged in Montenegro 181 €, at the second place is Bosnia and Herzegovina with the average premium 158 €. We can see that the most expensive policies are in the developing countries. In third place there is Croatia with 144 € and in fourth place is Albania with 138 €. Slovenia is at the fifth place with the average premium of 128 €, and after Slovenia is Serbia with the average premium of 116 €. The cheapest average premium has North Macedonia, with the average amount per premium 92 €.

Slovenia is a developed country and like that is the leader at the insurance market, between observed countries.

Implementation of liberalization in Serbia would be difficult process because of the many obstacles. Some of them can be seen in highly regulated prices, which we could see in the recent events, with MTPL price increasing. According to that, the NBS has decided that in the future, if an insurance company wants to increase the premium for MTPL, they should announce that 60 days earlier, and they would have to provide all documentation that justifies the increase. The intervention of the NBS was at the first place because they assume that profitability of such line of business is high, and that there is positive claim ratio (ratio between premiums and claims). Other obstacles can be seen in regulated commission fees, and reinsurance, which is limited to Serbia, and according to that, MTPL cannot be reinsured abroad.

We can see the influence of technology in transport, as the occurrence of the autonomous vehicles. Growth of the autonomous vehicles is significant and, in the future, probably it will have the highest participation in the total transport system all over the world. Autonomous vehicles will make the roads safer. Insurance of MTPL will change in the future in accordance with the vehicle and technology development. If vehicles are highly automated, then the responsibility for the accidents would not lie with the human factors, but the manufacturer.

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APPENDICES

Appendix 1: Summary in Slovene

Zavarovanje avtomobilske odgovornosti je eden od najpomembnejših produktov premoženjskih zavarovanj v državah v razvoju in hkrati v razvitih državah. Največji delež kosmatih premij premoženjskega zavarovanja ima zavarovanje avtomobilske odgovornosti. Zaradi varnosti premoženja in oseb je avtomobilska odgovornost obvezno zavarovanje. Večje število zavarovanih vozil povečuje varnost v cestnem prometu.

Preden država kandidatka za v vstop v EU dobi status države članice, mora svojo nacionalno zakonodajo uskladiti z zavarovalniško zakonodajo Unije. V okviru vseh pogojev, ki morajo biti izpolnjeni, je potrebna liberalizacija lastnega zavarovalniškega trga. Uvedba liberalizacije se kaže v odpravi edinstvenih pogojev. S tem se zagotovi pogoj odprtega trga na območju EU. Med države kandidatke spadajo Srbija, Črna gora, Severna Makedonija in Albanija. Liberalizacijo je za zdaj izpeljala le Albanija, preostale še pogojem ne ustrezajo. Od opazovanih držav Srbije, Bosne in Hercegovine, Črne gore ter Severne Makedonije imajo te urejene cenovne režime zavarovanj avtomobilske odgovornosti in zavarovanj nasploh.

Organizacija skupne baze podatkov na območju Evropske unije, kot eden od ciljev izboljšave direktive, naj bi bila koristna za vse zavarovalnice. Zavarovanje od avtomobilske odgovornosti je regulirano z Direktivo 2021/2118. Vsaka država ima zakonodajo, s katero dodatno urejuje trg zavarovanja avto odgovornosti. Za ohranitev sistema Bonus Malus bi morala vsaka država urediti skupno bazo podatkov, ki bo na voljo vsem zavarovalnicam, te pa bi lahko podatke o zavarovalcih uporabile za zagotavljanje premije, ki bi vključevala nagrade (bonuse) za dobre voznike in kazni (malusi) za slabe voznike.

Solventnost II je implementirana kot orodje za uskladitev pravil za opravljanje zavarovalniške dejavnosti. S Solventnostjo II, ki se je začela uporabljati januarja 2016, je bil uveden režim maksimalne skladnosti, ki zagotavlja večjo stekanje notranjih zavarovalniških storitev v državah članicah EU. Solventnost II je nadomestila nekatere direktive in je v zavarovalnice implementirana z mednarodnimi standardi računovodskega poročanja.

Iz opazovanega razločimo, da je zavarovanje avtomobilske odgovornosti v Republiki srbski zelo drago. Prav tako kot v Srbiji, Črni gori, Severni Makedoniji in Albaniji. Najvišjo ceno zavarovanja od avtomobilske odgovornosti ima Črna gora 181 €, na drugem mestu je Bosna in Hercegovina s povprečno premijo 158 €. Najdražje zavarovanje od avtomobilske odgovornosti imajo države v razvoju. Na tretjem mestu je Hrvaška s ceno premije 144 €. Na četrtem pa je Albanija s 138 €. Peto mesto ima Slovenija s povprečno premijo 128 €, za njo pa je Srbija s povprečno premijo 116 €. Najcenejšo povprečno premijo ima Severna Makedonija , kjer premija dosega 92 €.

V Srbiji, je prihodnost zavarovanja očitna z uvedbo liberalizacije, ko bo država pristopila Evropski uniji. Za enkrat je potrebno narediti spremembe zakonodaje katera ureja zavarovalniški trg in še drugih sprememb, da bi implementacija liberalizacije bila čim lažja in bolj enostavna, ter da ne bi imela negativnega vpliva na dobičkonosnost zavarovalnih družb. Trenutna praksa prikazuje velik nadzor cena premije zavarovanj s strani NBS. Pri liberalizaciji, zavarovalniške družbe lahko same določajo cene zavarovalnih produktov. Potrebno je narediti tudi spremembe v segmentu pozavarovanja, kjer bi se dovolilo pozavarovanje vseh tveganj v tujini. Trenutno je v tujini možno zavarovati samo določena tveganja in sicer ta katera izhajajo iz mednarodnega sodelovanja.