

SOCIAL INFLATION IN MTPL INSURANCE

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Abstract. *The insurance industry is facing the negative effects of inflation in the post-pandemic period. In addition to economic inflation, the insurance industry also faces the phenomenon of social inflation, i.e. abnormal growth of claims caused by various social factors. In this paper, we examine whether insurance companies in the Balkans face social inflation. We analyze the growth rate of motor third-party liability insurance claims in 11 countries of the region for the period 2011-2020, including a more detailed analysis of the insurance market in the Republic of North Macedonia. The results show that there is no systematic existence of social inflation, but occasional abnormal shifts are noticeable for certain countries in the region, especially EU countries, i.e. certain companies in the Republic of North Macedonia. In addition, we find that social inflation occurs in countries with a higher rule of law index, indicating that low institutional development and low trust in institutions potentially prevent the development of social inflation. The paper contributes to the current literature by analyzing the problem in an international context and in a new region, as well as producing recommendations for policy makers.*

Key words: *Social inflation, Balkans, Motor third-party liability insurance*

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1. INTRODUCTION

The acceleration of inflation in the post-pandemic period remains in the focus of central banks and policy makers due to the harmful effects of inflation on various economic sectors around the world. Inflationary pressures also significantly affected the insurance sector through a reduction in the ability of policyholders to purchase insurance policies, growth in administrative and sales costs, growth in the amount of claims paid out, disruption of returns from invested assets, etc. (Swiss Re, 2010). In addition to economic inflation, the insurance sector can also be affected by the phenomenon of social inflation. Social inflation is defined as all the influences through which the amount of claims of insurance companies grows faster than the general economic inflation. If this phenomenon exists in certain economies, it can significantly increase existing insurance prices, cause reduced supply and demand for insurance, as well as reduced capacity by increasing the number of exclusions in insurance contracts (Heim, 2022).

Social inflation is an old phenomenon that occurs periodically, but recent literature emphasizes the existence of this problem, especially during and after the Covid-19 crisis, focusing mainly on developed countries. (Dunsavage, 2019; 2020a; 2020b; 2021; Geneva Association, 2020; Heim, 2022; Oh, 2021). However, social inflation can be a potential problem for insurance companies in less developed countries, i.e. the countries of the Balkans and the Republic of North Macedonia. The insurance markets in the region are relatively underdeveloped with the dominant participation of the mandatory motor third-party liability insurance (MTPL). Their institutional development is significantly lower than developed countries, while the low development of road infrastructure can contribute to a higher frequency of traffic accidents and higher mortality resulting in an abnormal growth of claims. Therefore, the question arises: does social inflation exist in the region and in the Republic of North Macedonia?

The purpose of this paper is to find out whether the insurance companies in the Republic of North Macedonia and in the countries of the Balkans face the problem of social inflation and abnormal growth in the amount of claims. Social inflation occurs most often in liability insurance, where there are opportunities for abnormal claims, especially in relation to non-material claims. The insurance structure in the Balkan countries is dominated by motor third-party liability insurance. Therefore, the analysis of MTPL claims in the selected region is appropriate to detect the problem of social inflation. First, we analyze the aggregate level and annual growth rate of claims per premium unit in motor liability insurance for a selected set of 11 Balkan countries by providing data from XPRIMM for the period 2011-2020. Due to the potential problems in the analysis with aggregate claims, we focus on North Macedonia and analyze the level and pace of growth of claims per individual company, providing data from the Insurance Supervision Agency of the Republic of North Macedonia for the period 2018-2021.

This paper makes a contribution in two domains. First of all, the paper analyzes the problem of social inflation in the Balkan region for the first time. Research so far has concentrated on developed countries, such as the United States, neglecting the potential for social inflation to develop in underdeveloped countries, especially in countries where motor liability insurance has a dominant share. In addition, the paper analyzes the problem covering several countries that differ in terms of economic, institutional and social development. That makes it possible to analyze the potential factors of social inflation that make certain insurance markets fertile ground for the development of social inflation.

Finally, the paper also provides recommendations for policy makers in the insurance domain.

The paper is organized in the following order. First, a definition of the phenomenon of social inflation and a review of the literature related to it is presented. In the following section, we explain the data collected, the sample, and the methods of analysis. In the penultimate section, we present the results of the analysis and potential explanations and discussions. Finally, the last part is reserved for concluding observations and recommendations.

2. LITERATURE REVIEW

The term social inflation is related to the ways in which insurance company costs, i.e. claims, rise faster than economic inflation, including changes in social preferences about who is best placed to absorb risk (Geneva Association, 2020). Alternatively, social inflation has a more specific meaning, that is, it describes the rise in liability risks and costs associated with litigation (Heim, 2022). Similarly, Oh (2021) defines social inflation as “*surges in insurance rates due to societal factors such as the high value of court judgments and the expansion of liability.*”² In contrast to general economic inflation, which insurers can mitigate using different pricing models and loss reserves, social inflation can result from factors that are difficult to predict, such as increased costs from: increases in the number and amount of judgments; legal proceedings taking longer than reasonably expected; annulment of legal limitations for non-material claims, etc.

Although social inflation is an old-new phenomenon, most of the discussion focuses on developed countries, more specifically, the United States of America. Dunsavage (2019) identifies the problem of “litigation funding”³ in Florida where attorneys have no limit on commissions when representing insureds in claims settlement litigation. Additionally, Dunsavage (2020a; 2020b) highlights US claims movement trends according to data from the National Association of Insurance Supervisors and discusses how the Covid-19 crisis is fueling social inflation. Also, Dunsavage (2021) points out that motor third-party liability insurance, professional liability insurance, product liability insurance, and directors' and officers' liability insurance are the most affected insurance classes in terms of social inflation.

Furthermore, Oh (2021) finds abnormal growth in the amount of judgments and settlements in the US for the period 2011-2019 and estimates the significant impact of social inflation on insurance prices in the long run. Meanwhile, Heim (2022) outlines the causes and consequences of social inflation with an emphatic reference to the problematic reform of the tort law framework in the United States. Finally, the Geneva Association (2020) goes a step further and analyzes the problem of “litigation funding” and social inflation outside the US, but again including only a small set of developed and developing countries. The literature ignores the existence of social inflation in less developed countries, although the potential for its development exists, due to low rule of law and higher frequency of claims in motor third-party liability insurance.

² In this context, the term “nuclear verdicts” is known. Nuclear verdicts are court judgments or settlements that exceed a cumulative amount of \$10 million (Oh, 2021). These types of compensations are often much larger than the actual case and have significant effects, not only on the insurance company and policyholders, but often on the insurance industry as a whole in terms of risk-taking philosophy and approach to risk-taking.

³ Litigation funding is the practice of third parties financing litigation in order to receive a certain percentage of the funds that the plaintiff would receive.

A theoretical model of social inflation is studied by Oh (2021) and shows that a shock to the insurer's loss distribution has a "double kick" effect on insurance supply through higher effective marginal cost and interaction of increased uncertainty with the capital requirement. It is more important to examine the impact of social inflation on insurance supply. Firstly, the basis is to identify and to compare commercial and personal auto insurance prices before and after the famous Tracy Morgan settlement in 2015. This is widely known as the watershed moment for social inflation. After the comparison between commercial and personal auto lines was made it was concluded that corporate defendants are more exposed to social inflation risk than individual defendants (Haran et al., 2016). Heim (2022) noticed that social inflation seems to be a key driver of increased claims costs. With increased claims cost, come increased insurance prices. The newer phenomenon in insurance is social inflation, that revolves around the idea that insurance claims costs are rising faster than the normal rate of inflation.

Social inflation is a newer phenomenon in insurance that revolves around the idea that insurance claims costs are rising faster than the normal rate of inflation. Possible drivers of this are expanded liability and evolving litigation strategies. According to this there is a variety of puzzling issues (Oh, 2021).

3. DATA AND METHODOLOGY

In order to answer the main question of this paper, that is, whether social inflation is a reality or a myth in the region and in the Republic of North Macedonia, we use data on the amount of gross premiums collected and the amount of claims paid in MTPL insurance in 11 countries from the Balkans for the period 2011-2020 using XPRIMM's insurance industry databases and reports,⁴ and data on inflation movements for the same period and the same set of countries using the World Bank database.⁵ We expect claims growth to exceed average growth in the general price level if social inflation is a problem in the region. In addition, in order to analyze the potential drivers of social inflation, we extract data from the World Bank database on the death rate caused by traffic accidents (per 100,000 inhabitants) and the rule of law index. Higher traffic accident mortality should be correlated with abnormal growth in MTPL insurance claims, and that effect potentially depends on the country's institutional development.

We only have data on the total amount of claims, the amount of which may decrease/increase due to a decrease/increase in the number of claims or a decrease/increase in the amount of individual claims. In that context, the increased amount of claims may be caused by a higher number of policies sold resulting in a higher number of claims, rather than by abnormal growth in the amount of claims. Due to this shortcoming, first of all, we normalize the amount of claims with the amount of premiums and calculate the indicator, amount of claims paid per unit of premium in MTPL insurance. In addition, we calculate the annual growth of the same indicator for two equal periods, 2011-2015 and 2016-2020, and compare it with the average inflation for the same periods per individual country. If this indicator is significantly higher than the average inflation, then the problem of social inflation potentially exists.

⁴ Data on premiums and claims are expressed in euros according to the current exchange rate. More about the data source at <https://www.xprimm.com/About-us-42.htm>

⁵ We use the platform DataBank (<https://databank.worldbank.org/>) from the World Bank for extracting data for the selected indicators.

Aggregate claims analysis at the country level can overlook individual movements within each insurance industry. Therefore, we analyze the movements of the amount of claims at the company level in the Republic of North Macedonia for the period 2018-2021. We extract the data from the reports on the insurance industry of the Insurance Supervision Agency of the Republic of North Macedonia. We normalize the amount of liquidated claims by the number of concluded MTPL insurance contracts for the current year. We compare the newly created indicator, amount of liquidated claims per insurance contract, with the predicted amount of liquidated claims per insurance contract under the assumption that the growth of claims follows the inflation rate in the Republic of North Macedonia (starting from 2018). If the real indicator exceeds the forecast, then this indicates that the company is facing social inflation, that is, the amount of claims per insurance contract is growing faster than the growth of the general level of prices.

4. ANALYSIS

Figure 1 shows the average amount of claims paid out per unit of premium and the death rate caused by a traffic accident in the eleven countries of the Balkans ordered by the rule of law index. It is expected that average claim payout would be higher where the death

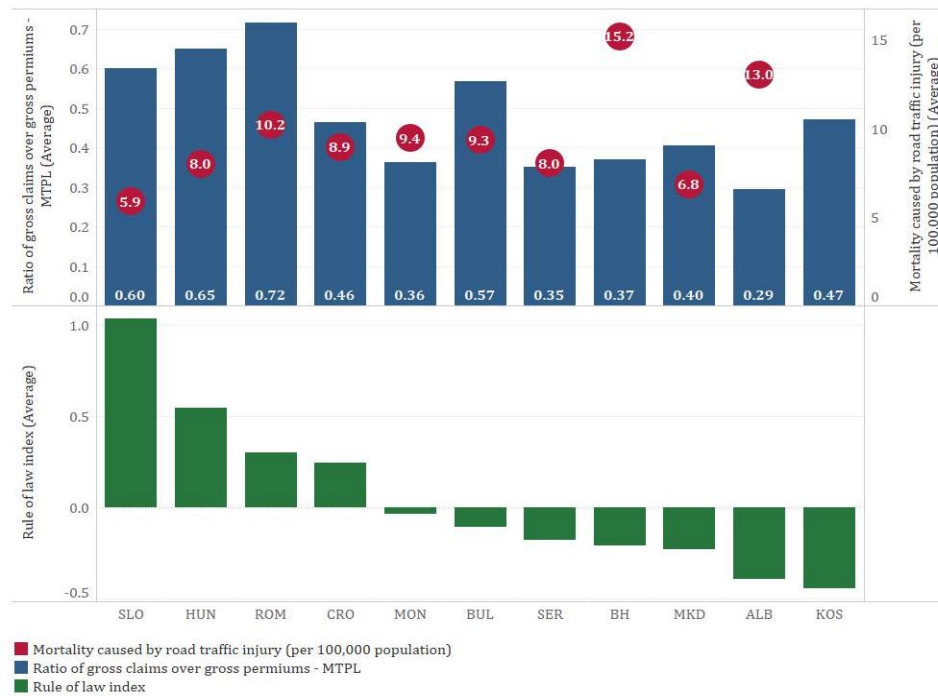


Fig. 1 Average amount of claims paid per unit premium, average rule of law index and average mortality caused by traffic accidents (per 100,000 inhabitants) for the period 2011-2020⁶

Source: Authors' calculations based on data from XPRIMM and the World Bank

⁶ Data on the death rate from traffic accidents is not available for Kosovo 1244.

rate is higher. According to the data, the mortality rate is not too high in Slovenia, Hungary and Romania, and yet the payment of claims per unit of premium is significant. For example, in Slovenia, on premiums of €100,000, as much as €60,000 is paid for claims, although the death rate from traffic accidents is the lowest. In countries with a better rule of law, the payment of claims per unit of premium corresponds to the death rate from traffic accidents. On the other hand, in Bosnia and Herzegovina and Albania there are no large claims payments per unit premium, while the mortality rate is significantly higher. The situation is similar with all non-EU countries in the sample, i.e. in countries with worse rule of law there is no significant relationship between the payment of claims per unit premium and the death rate from traffic accidents. Based on these data, we can say that large payments of claims and the problem of social inflation are most likely present in more developed countries, that is, EU member states where there is a better rule of law.

Figure 2 shows the average annual growth of the amount of claims paid per unit premium in MTPL insurance for two equal periods, 2011-2015 and 2016-2020, which is compared with the average inflation for each of the countries examined, individually. From what is shown, we can notice that this indicator is significantly higher than the average inflation in Romania (for the period 2016-2020), Croatia (for the period 2011-2015) and Slovenia (for the period 2011-2015). For the rest of the countries, the indicator is at the level of the growth of the general level of prices or a significant annual decline is observed

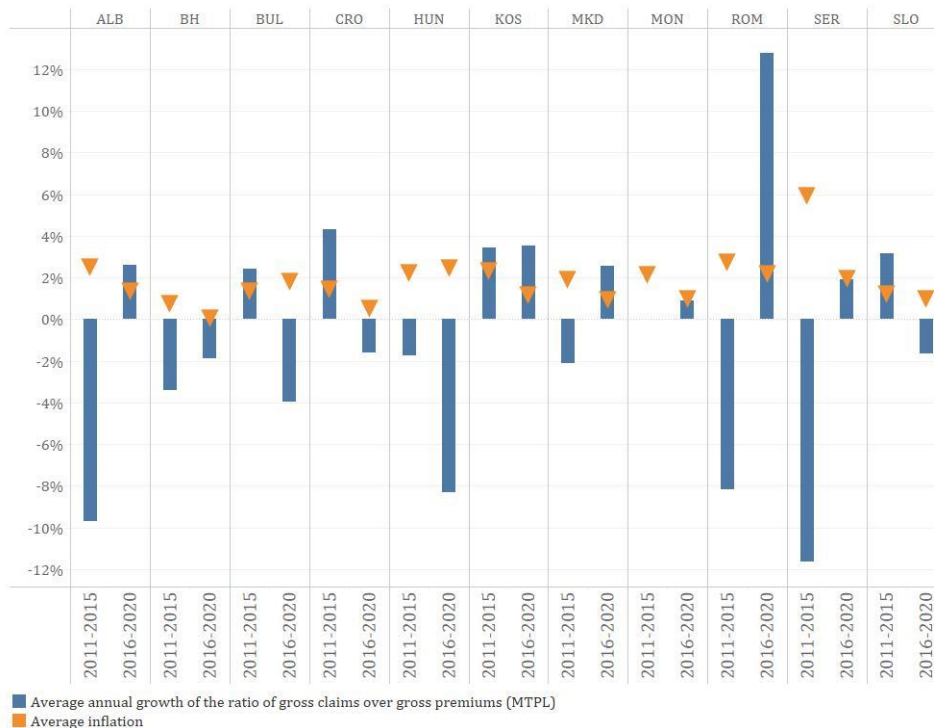


Fig. 2 Average annual growth of the amount of claims paid per unit premium and average inflation for two five-year periods (2011-2015 and 2016-2020)

Source: Authors' calculations based on data from XPRIMM and the World Bank

for certain countries. If we look at the section on the Republic of North Macedonia, we will notice that for the first examined period (2011-2015) the average annual growth of the amount of claims paid per premium is decreasing instead of increasing according to the average inflation, while for the second period (2016-2020) that indicator is slightly higher than average inflation. From the graph, we can conclude that in general the EU countries where the examined indicator is significantly higher than the average inflation (Romania, Croatia and Slovenia) are potentially facing the problem of social inflation, unlike the rest of the countries, mainly non-EU countries, where a lower growth rate of the amount of claims paid per unit premium can be observed compared to average inflation.

Lastly, Figure 3 shows the indicator – the average amount of liquidated claims per MTPL insurance contract, for the last four years, at the level of companies in the Republic of North Macedonia (colored rectangles). We compare it with the predicted amount of liquidated claims per insurance contract, assuming that the growth of claims follows the inflation rate in the Republic of North Macedonia (red dots), in order to determine whether there is social inflation. As we can see from the graph itself, the insurance industry in the Republic of North Macedonia does not face such situation, when the amount of claims per insurance contract grows faster than the growth of the general level of prices, which

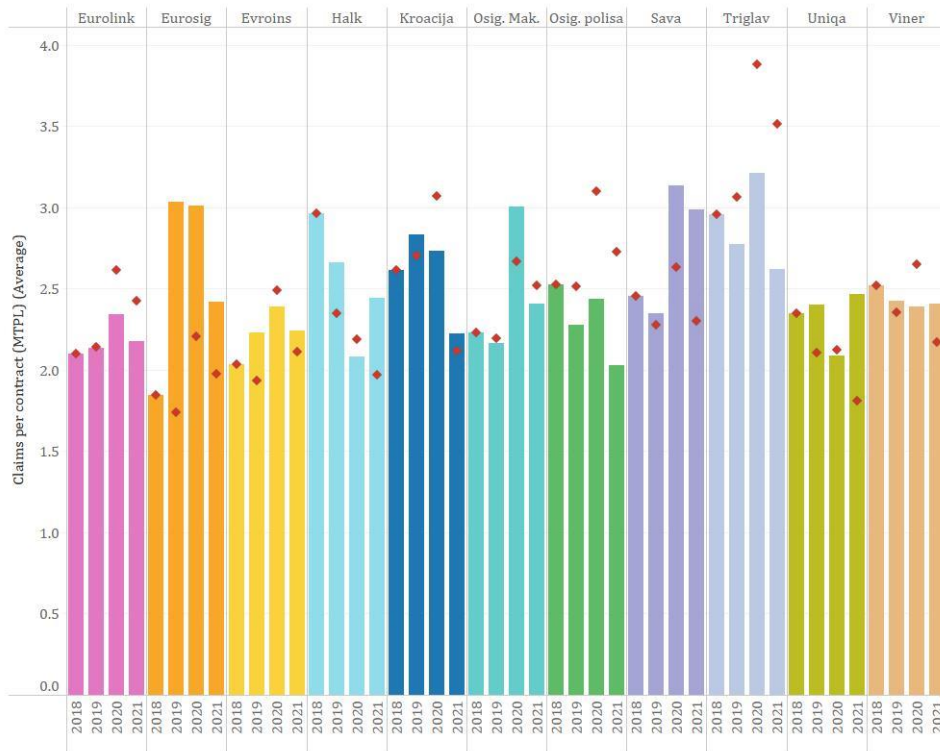


Fig. 3 Amount of liquidated claims per insurance contract (rectangle) and simulated amount of liquidated claims per insurance contract (point) by companies in the Republic of North Macedonia (in 000 denars)

Source: Authors' calculations based on data from the Insurance Supervision Agency of the Republic of North Macedonia

indicates that there is no social inflation. The only exception are the insurance companies, Eurosig and Sava, which in the last two or three years have been facing an abnormal growth in the amount of claims. But despite that, we cannot say with certainty that there is a systematic occurrence of social inflation.

In summary, the results show that the emergence of the phenomenon of social inflation depends on the regional and temporal context. Countries that belong to the European Union and that have a better rule of law potentially face abnormal growth in MTPL insurance claims depending on the death rate from traffic accidents. However, social inflation in these countries can occur in certain periods of time and is not a long-term phenomenon. On the other hand, countries that do not belong to the European Union and that have a worse rule of law do not face the problem of social inflation. Although the above may represent good news for insurance companies in these countries, the results may indicate a bigger problem in terms of citizens' trust in institutions and the education of policyholders related to the process, rights and obligations after the occurrence of damage from MTPL insurance. Furthermore, non-EU countries have less competitive insurance markets with a concentration of market power in just a few companies. Low institutional development supplemented by concentration of power in the insurance industry can prevent the proper functioning of the system and the fair fulfillment of the rights and obligations of policyholders and insurance companies.

5. CONCLUSION AND RECOMMENDATIONS

Insurance companies are not immune to the negative effects of inflation in the post-pandemic period. In addition, companies face an old-new type of inflation, so-called social inflation. Social inflation includes all the influences through which the amount of insurance companies' claims grows faster than the general economic inflation - the average rise in prices. This phenomenon in the long run may increase existing insurance prices, cause reduced supply and demand for insurance, as well as reduced capacity by increasing the number of exclusions in insurance contracts. The literature so far, analyzes this phenomenon in the USA and in some of the developed countries, but a similar analysis is missing for the Balkan region where the insurance markets are relatively undeveloped and where the dominant share is taken by MTPL insurance, as the class of insurance most affected by social inflation.

The purpose of this paper is to find out whether the insurance companies in the Republic of North Macedonia and in the countries of the Balkans face the problem of social inflation and abnormal growth in the amount of claims. The results show that the emergence of the phenomenon of social inflation depends on the regional and temporal context. Countries that belong to the European Union and that have a better rule of law potentially face abnormal growth in motor third-party liability insurance claims depending on the death rate from traffic accidents. However, social inflation in these countries can occur in certain periods of time and is not a long-term phenomenon. On the other hand, countries that do not belong to the European Union and that have a worse rule of law do not face the problem of social inflation. Analyzing the Macedonian motor liability insurance market, we do not find systematic evidence of the existence of social inflation and abnormal growth in the amount of claims.

This paper presents the first analysis of the phenomenon of social inflation for the countries of the Balkans. In addition, we analyze the problem of social inflation in a specific and international context where there are differences in the institutional development of the selected countries. We discuss that social inflation is a problem of developed countries where there is a better rule of law and there is more trust in the institutions by the citizens. On the other hand, in less developed countries such as the Republic of North Macedonia, there is no solid evidence of the existence of an abnormal increase in claims. In that context, low institutional development and low trust in institutions potentially prevent the development of social inflation. In addition, highly concentrated insurance markets may prevent the development of social inflation. Although the absence of social inflation in the region should be understood in a positive context, it can nevertheless hide a significant problem in terms of citizens' trust in institutions and the education of policyholders related to the process, rights and obligations after the occurrence of damage from MTPL insurance. Based on the conclusions, we recommend to the regulatory bodies in the region to increase their efforts in educating the population about the rights and obligations of the insured persons after the occurrence of damages in MTPL insurance. In addition, we recommend that insurance companies and institutions should work towards protecting the interests of consumers in order to restore citizens' trust in institutions and the insurance industry as a whole.

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SOCIJALNA INFLACIJA U OSIGURANJU OD AUTOODGOVORNOSTI

Industrija osiguranja se suočava sa negativnim efektima inflacije u postpandemijskom periodu. Pored ekonomske inflacije, industrija osiguranja se suočava i sa fenomenom socijalne inflacije, odnosno abnormalnog rasta šteta uzrokovanih različitim društvenim faktorima. U ovom radu ispitujeemo da li se osiguravajuća društva na Balkanu suočavaju sa socijalnom inflacijom. Analiziramo stopu rasta šteta od autoodgovornosti u 11 zemalja regiona za period 2011-2020, uključujući i detaljniju analizu tržišta

osiguranja u Republici Severnoj Makedoniji. Rezultati pokazuju da ne postoji sistematsko postojanje socijalne inflacije, ali su uočljivi povremeni abnormalni pomaci za pojedine zemlje u regionu, posebno zemlje EU, odnosno pojedine kompanije u Republici Severnoj Makedoniji. Pored toga, nalazimo da se socijalna inflacija javlja u zemljama sa višim indeksom vladavine prava, što ukazuje da niska institucionalna razvijenost i nisko poverenje u institucije potencijalno sprečavaju razvoj socijalne inflacije. Rad doprinosi aktuelnoj literaturi analizirajući problem u međunarodnom kontekstu iu novom regionu, kao i dajući preporuke za kreatore politike.

Ključne reči: *Socijalna inflacija, Balkan, Osiguranje od autoodgovornost*