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CHARACTERISTICS OF AGRICULTURAL INSURANCE: THE CASE OF COUNTRIES OF FORMER YUGOSLAVIA REGION

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Summary

Agricultural production is of great importance in the economies of region of former Yugoslavia, in relative terms significantly more than the global average. This production is carried out in the open air conditions and also is exposed to the effects of a large number of risks in relation to other activities. The research presented in this paper is the provision of agricultural insurance as a mechanism of risk management in the agricultural industry. The aim of the research is to show the key importance of this type of insurance and the determination of comparative differences in the effectiveness of its implementation in Serbia and other countries of the former common state in order to identify problems and propose potential solutions. The paper points out the importance and general characteristics of agriculture insurance and then to the common features of these types of insurance in all countries of the former Yugoslavia and then we analyze the effectiveness of this type of insurance in these countries. The results of the study are important for insurance companies in the region and may be useful to farmers and the state authorities concerned for a successful and sustainable agricultural production.

***Key words**: agriculture, risk, insurance, region of former Yugoslavia.*

JEL: *G22, Q01, Q14*

Introduction

Agricultural production is very important business in the world and especially in the countries of former Yugoslavia. The share of gross domestic product (GDP) in developed countries is less than 3%, but in developing countries, on average, about 9% (Baez, Wong, 2007). However, a smaller share of agricultural production in GDP in developed countries is more a result of good management and high yields with a large development and other sectors on the other. For example, the average U.S. farm household has five times the net

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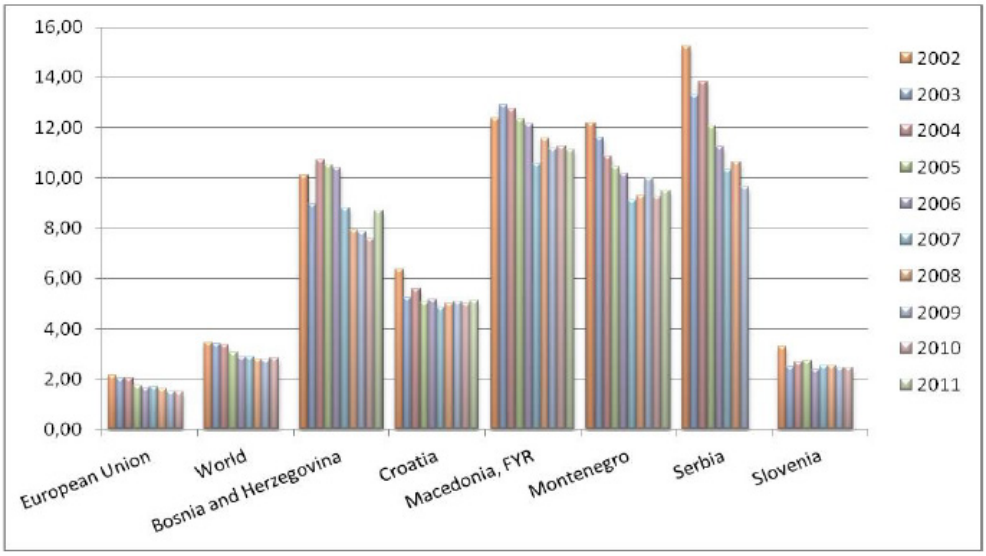
worth of the average household (Time Magazine, 2007). Figure 1 shows the relatively greater importance of agriculture in all countries of the former Yugoslavia, except Slovenia, compared to the European Union in relation to the average in the world.

Figure 1. Agriculture value added as a percent of GDP in countries of former Yugoslavia, European Union and World during the period 2002-2011.



Source: World Bank (2013).

Climate change, trade liberalization, genetically engineered and organic food production, which is an essential element of agro analysis (Pejanović et al., 2009), result in the appearance of new risks that threaten not only individual farmers, but all participants in the value chain of agribusiness, including input suppliers, processors and consumers. The importance of understanding the risks the farming exposed and form of risk management that are available to farmers is crucial given the importance of agriculture and the fact that a healthy agricultural sector can mitigate the adverse economic consequences of the crisis (FAO, 2009). Starting from the premise that the risk in agriculture is a function of the variability of input prices and output, grain yields and size of land and/or the number of cattle, the most acceptable distribution of risk in agriculture division to consider: the regulatory and institutional (resulting from possible changes in agricultural policies and regulations), market or price (derived from fluctuations in pricing of inputs and outputs of agricultural production) and production risk (due to the fact carrying out the production and management of outdoor living organisms, plants and animals, as this production makes it dependent on weather conditions, pests and diseases), (Pejanović, Njegomir, 2011).

Insurance of agricultural production suffer low penetration and frequent underwriting losses due to factors ranging from high administration costs to adverse selection in emerging economies (Baez, Wong, 2007). This type of insurance is insufficient in both scope and types of insurance protection (Žarković, 2000) although it is one of the most common mechanisms

of risk management in agricultural production in the region of former Yugoslavia. Based on the fact of underdevelopment of agriculture insurance in Serbia (Njegomir, Pejanović, 2011) the aim of study is determined by reference to the key importance of this type of insurance and the determination of comparative differences in the effectiveness of its implementation in Serbia and other countries of the former common state in order to identify problems and propose potential solutions. The paper points out the importance of insurance and general characteristics of agriculture and then to the common features of these types of insurance in all the countries of the former Yugoslavia, then to analyze the effectiveness of implementing this type of insurance in these countries.

The importance and general characteristics of agricultural insurance

Modern insurance as a form of risk management of growth and development appeared with the development of private property and the development of mathematics and statistics, although the basic characteristics of insurance, risk pooling and still, meets the original human community when people are joining together in groups, tribal communities, sought to share risk with each other. From the perspective of a farmer, in return for a small amount of fixed cost in the form of premiums, insurance as a form of risk management provides significantly greater protection against damages from the occurrence of prescribed uncertain conditions of the insurance contract. Insurance enabled combination of agricultural production risks such as damage to crops due to the city or fire, theft of farm property, death or animal disease and death or health of agricultural producers.

The key role of insurance in agriculture and society is the indirect economic protection of life and property from the effects of natural forces and accidents. Insurance promotes agricultural production by farmer's entrepreneurial activity which seems more stable and more certain. Insurance reduces the uncertainty of farmers and the need to create individual savings accounts or funds, given that the need for cash reserves reduced (Raulston et al., 2010). By releasing the need for accumulation of surplus funds due to which insurance can profitably engage, securing further promote development of agriculture. In addition, except as provided indirect economic protection for the destructive action of natural forces and human activities, and insurance is a form of collateral (collateral) that allows farmers more easily obtain capital through loans at lower costs. The World Bank suggests that lack of access to agricultural insurance, which is one of the ten key factors in solving the crisis of food insurance, is a serious barrier to productivity, investment and efficiency in agriculture marketing system (World Bank, 2008).

Insurance is one of the key forms the risk management, but in order to the risks to agricultural production could be transferred to the insurance companies, certain conditions must be met. Insurability conditions that must be met are: 1) the risk must be random ,in other words, its implementation must be beyond the control of the insured, 2) the risk must be determinable and measurable in the sense that there must be a possibility of determining the probability of occurrence and intensity of adverse effects and the possibility of determining the measurements of actual damages, 3) there must be a large number of insured objects or people exposed to the same kind of danger that could apply the law of large numbers, 4) risk by its realization

must cause economic damage.Also, in the literature, economic availability of insurance premiums (eg, Skees, Barnett, 1999; Reidy, 2005) cited as an additional condition. However, it implies that the economic availability of premium is already contained in these conditions since it would not be economically affordable premiums impossible to attract a sufficient number of contributors to be able to apply the law of large numbers. Finally, it is necessary to strive for the creation of risk portfolio which will have little potential for the realization of the catastrophic damage that is possible to achieve the aspiration that the risks involved in the portfolio are as little as possible correlated with each other.

Agricultural insurance represents a special insurance that falls in property insurance. We separate agricultural insurance because of the specific features. Main feature of agriculture insurance is reduced diversification due to the high possibility of correlation between the risks. Under the correlated risks is understood risk as a negative influence exercised simultaneously in a large number of farmers.

In the risk management insurers apply model that by quantification of exposure to certain risks allows the determination of insurance premiums. For example, the ERA model by Guy Carpenter Insurance Companies provides hail risk management in Italy. This model enables comparison of exposures of the insurance portfolio for many years, simulation of possible future damage, assess the level of risk in different geographical areas and limit the exposure assessment (Guy Carpenter, 2006). Despite the existence of modeling, owing to informational asymmetry that occurs in relations insured - the insurance company, there are adverse selection in the insurance of agriculture, moral hazard and fraud, the conduct of the insured which causes an additional increase in transaction costs.

Common characteristics of agricultural insurance in the region of former Yugoslavia

At agricultural insurance market in the region of former Yugoslavia traditionally are offered products of indemnifying character that finds its application mainly in the form of crop insurance, livestock insurance and lately index-based flood and drought insurance. Although bound to agricultural production and mechanization, statutory civil liability of owners, farm families, belongings and buildings insurance, agricultural insurance, the term we focus in our paper are the above three types of insurance specific solely for agricultural production.

Characteristics of crop insurance and animal insurance are virtually identical for all insurance companies. Crop insurance protects the crop production and yield losses that may arise as a result of achieving the insured risk. The insurance provides cover for crops, industrial crops, vegetables, crops and fruits in greenhouses, herbs, ornamental plants, orchards, vineyards, orchards and vineyards before ripening period, fruit, vine and forest seedlings, young forests by the age of six years, plaiting willows and reeds. The insurance covers the parts of plants that determine the purpose of breeding, such as grain (seeds), roots, tubers, fruit, coils, stems, seedlings, cuttings and forage mass. Risks typically covered include basic risks (hail, lightning and fire) and if additional premium is paid it is possible

to insure additional risks such as floods, storms, spring frost, autumn frost, loss of seed quality and loss of quality of the fruit and table grapes). The insurance premium depends on: 1) the characteristics of insurance cases or classes of sensitivity crops which ensures, 2) the number and types of insured risk covered, 3) hazard classes territorial areas where the culture process, 4) deduction (determined by the percentage amount damages or the sum insured), 5) technical result (loss ratio can be determined for the whole of the insurance or the insured), 6) contractual discounts (for the collective, for many years, and for crop insurance on the same surface) and 7) the sum insurance. The sum insured is determined on the basis of the expected yield per acre and the expected market price per kilogram or contracted or guaranteed prices for a specific culture. The sum insured as well is affected by the premium rate that is calculated by multiplying the specified sum insured per unit area and the total area. When an insured event occurs insurance benefits are usually determined on the sum insured, the actual values of crop and the amount of damage and if there is a deduction then it affects the size of the claims.

When livestock is object of insurance it can be applied on domestic, some wild and exotic livestock in zoos (e.g., equine, cattle, buffalo, sheep, goats, pigs, bees, trout, poultry, etc.). Insurance may cover only healthy livestock for less than one year, a period of one year or longer than one year. Risks covered are divided into primary (death, emergency slaughter or killing because of illness or accident) and supplemental (medical costs and other contractual risks such as insurance animal exhibitions on, loss of calves at birth, loss of breeding ability of heifers, cows or male breeding throat, etc.). The insurance premium depends on the type of animal, group risk, scope of coverage, the insured value of the livestock, the economic purpose and age of the livestock, discounts (e.g. for insurance on a certain number of years, to ensure all livestock, the premium payment terms, etc.). And technical results (determined by the types and categories of livestock for individual policyholders or individual fields). The sum insured is expressed per animal based on its weight and price per pound or per head value and may be the most equal to the actual value of the livestock at the time of conclusion of the contract and for the young and fattening livestock the value that will be achieved by the end of fattening, or life insurance. Finally, the basic obligation of the insured to ensure all areas under crops and fruits of the same kind, or in securing livestock all livestock of the same species, to take all measures to prevent the occurrence of the insured event, the insured event occurs when you take all measures in order to limit its adverse effects in a timely manner and on the terms of insurance, notify the insurer.

New products are continuously developing and world trends of the development of new insurance products in cooperation with farmers are followed. One of the key innovations is the appearance of index-based insurance for flood and drought in Serbia. For now the insurance coverage is provided only for 1) corn, 2) soya and 3) sugar beet. Flood and drought are based on data provided by Republic Hidrometeorological Service of Serbia. Drought is a reduction of crop yield caused by smaller amount of rainfall in the reference period in relation to a multi-year average.

Government subsidies for agricultural insurance in countries of ex-Yugoslavia region

It is well known that agricultural insurance is constrained with risks that are highly correlated. Quoted specific agricultural insurance comes from the specific agricultural activities related to the production and management of outdoor living organisms, plants and animals, which makes it dependent on weather conditions, pests and diseases (Pejanović, Njegomir, 2011). Spatially correlated weather events tend to induce correlation in production losses thus violating the standard insurability conditions that can be a reason for agricultural insurance market failure, as insurance companies could restrict the supply of insurance or stop offering insurance at all (e.g. Froot, 2001; Cummins, 2006). This leads to disproportionally large losses in relation to other types of insurance, some ten times larger than in auto hull or fire insurance (Miranda, Glauber, 1997). Considering importance of agricultural prduction in general and particularly in the countries of the region (Figure 1) governments is trying to influence the reduction of the negative impact of risk on farmers. These measures may vary from direct *ad hoc* payments from the budget, the role of government as a direct insurer or reinsurer quasi, as is the case in China, the *ex ante* measures of support to the implementation of preventive measures, such as the construction of irrigation systems and support for the conclusion of private insurance (Pejanović and Njegomir, 2011). In some countries such as India and Brazil ‚state has an extremely important role and its influence is present, but to a much lesser extent in all the countries of Eastern Europe as there are examples of countries such as Argentina and South Africa, where government intervention is not present (Baez, Wong , 2007). In principle, as governments tend to be ineffective as direct providers of insurance (e.g. Cummins, 2006; Michel-Kerjan, Kousky, 2010) and more importantly their direct involvement in loss indemnifications without prior premium payments leads to low participation rates (e.g. Kriesel, Landry, 2004).

The most frequent form of government intervention occurs in the form of insurance premium subsidies. Since the research shows that in most countries the private insurance of agricultural production can hardly survive without government subsidies (Skees, Hazell, Miranda, 1999) they are still continuously increasing.

In the period to 2007, the globally subsidies for agricultural insurance premiums reached nearly $ 12 billion (Mahul, Stutley, 2010) in 2011 and in the U.S. they reached U.S. $7.4 billion, or 62% of total agricultural insurance premiums (GAO, 2012).

In all countries of the region there are subsidies for crop insurance and insurance of animals. There's a specific case In Bosnia and Herzegovina emphasizing that regulation differs in the two of the entities, the Federation of Bosnia and Herzegovina and Republika Srpska. The Federation law (Zakon o novčanim podrškama u poljoprivredi i ruralnom razvoju,''Službene novine FBiH'', br. 42/10) provided co-funding insurance premiums from possible damage in agricultural production and regulation (Pravilnik o uvjetima i načinu ostvarenja novčanih potpora po modelu ostalih vrsta novčanih potpora u poljoprivredi, ‘'Službene novine FBiH'', br. 56/12) provides that the amount of incentives paid in the amount of 50% of the amount of insurance for the current year except that in one year per

farmer can be 30000KM paid maximum (15.339 EUR on 12.29.2012). In the Republic of Serbian ordinance (Pravilnik o uslovima i načinu ostvarivanja novčanih podsticaja za razvoj poljoprivrede i sela, „Službeni glasnik Republike Srpske", br. 18/12) provides that the amount of incentive pay of up to 50% of premiums, with upper limit of 25000KM (12.782 EUR on 29.12.2012) per agricultural producer.

In Serbia, the reimbursement is provided by law (Zakon o poljoprivredi i ruralnom razvoju, „Službeni glasnik Republike Srbije", br. 41/09) while the funding specified in Regulation (Uredba o uslovima i načinu korišćenja sredstava za regresiranje osiguranja životinja, useva, plodova, rasadnika i mladih višegodišnjih zasada u 2012. godini, „Službeni glasnik Republike Srbije", br. 38/12) where the state subsidizes certain that 40% of insurance premiums with the possibility that some local government further subsidized, which resulted in the majority of cases the funding an additional 10% premium. In the period from 2006 to 2011 increasing number of requests (from 2.594 to 9.020) and the number of paid premiums for reimbursement of funds has increased from 12.085.524 to 171.270.834 (Petrovic, 2012).

In Croatia, the law (Zakon o potpori poljoprivredi i ruralnom razvoju, „Narodne novine", br. 120/12) has given the opportunity to subsidize and regulations each year determine a specific amount. Regulations for 2012 (Pravilnik o ostvarivanju prava na potporu osiguranja od mogućih šteta proizvodnji u poljoprivredi, „Narodne novine", br. 33/12) provides that the Ministry of Agriculture, Fisheries and Rural Development subsidies paid at 25% of the insurance premium, the maximum amount 500.000HRK (66.264 EUR at 29/12/2012). In addition to state subsidizing the same exists at the level of districts (counties) that varies at best, as for example in Zagreb, reaching an additional 25% premium and the maximum 10.000HRK (1.325 EUR at 29/12/2012) per farmer.

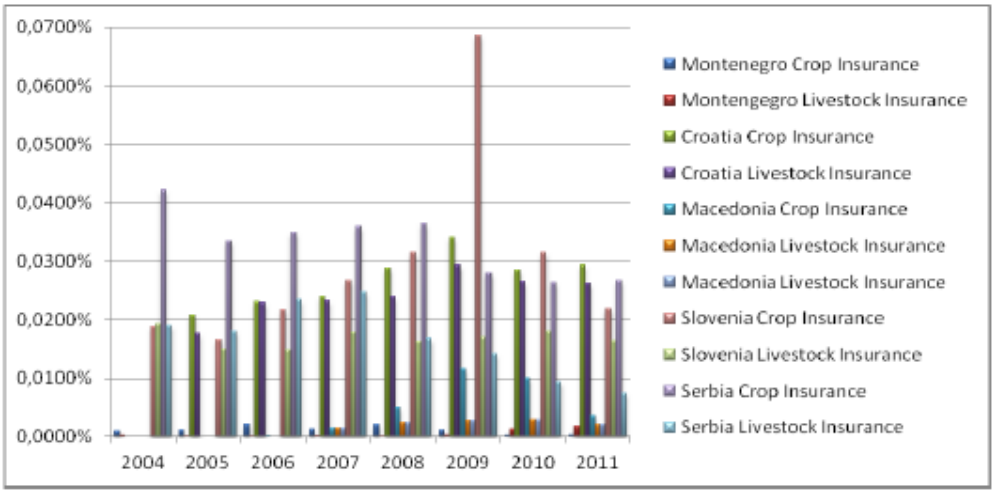
In Montenegro, the budget for agriculture in 2012 year includes funding provided to the state co-insurance premium for agricultural production and 50% of the value.

In Macedonia, the law (Zakon za zemjodelstvo i ruralen razvoj, „Službeni Vesnik na R. Makedonija", br. 49/10) provided the highest amount of the premium subsidy amount in the region of 60%. However, the situation is different when is taken into account in closed ranks; maximum amount of funding is determined by the level of 200.000MKD (3252 EUR at 29/12/2012) per farm. In Slovenia, the law (Zakon o kmetijstvu, „Uradni list Republike Slovenije, br. 45/2008) gives the opportunity to subsidize insurance premiums and is regulated by specific regulations on an annual basis. Based on the Decree of 2008 (Uredba o sofinanciranju zavarovalnih premij za zavarovanje kmetijske proizvodnje in ribištva za leto 2008, „Uradni list Republike Slovenije", br. 110/07) stipulates that the state subsidizes up to 40% of insurance for crops and fruits and to 30% of animals in which the municipalities is given the possibility for additional subsidies while the total sum of co-financing may not exceed 50% of the insurance premium.

The analysis of the relative importance in national economies and profitability of agricultural insurance in the region of former Yugoslavia

Insurance has many benefits for individual insureds and for the entire national economies (see for e.g. Marović, 2001; Njegomir, 2011). The measures of its relative importance within national economies that are usually used are insurance penetration and insurance density. Insurance penetration is the ratio of annual premiums written within national economy to gross domestic product (GDP) of that national economy. This ratio roughly presents the importance of insurance in terms of certain percentage of GDP. Although it has limitations such as negligence of differences in insurance price levels and GDP structure among countries, because it is unaffected by currency fluctuations among countries it is a useful tool usually used for cross country comparisons of insurance market development. Using analogy for the whole insurance market, Figure 2 presents agricultural insurance penetration in countries of the region of former Yugoslavia during the period 2004-2011.

Figure 2. Agricultural insurance penetration in ex-Yugoslavia countries during the period 2004-2011.



Source: authors' calculations. Data on premiums are obtained from individual countries' regulatory bodies – insurance agencies and National bank of Serbia and insurance associations. GDP data are obtained from World Bank. Exchange rate data at the end of each year are used. Data for Bosnia and Herzegovina are not available.

Figure 2 indicates very low participation of agricultural insurance premium in GDP in the region. That is in line with other emerging countries. Agricultural industries are generally under-serviced from an insurance standpoint, particularly in developing economies where agricultural insurance penetrations are lower despite their greater reliance on agricultural production than industrialized economies (Baez, Wong, 2007). According to FAO (2005) the total global agricultural insurance premiums is concentrated in developed farming and forestry regions, i.e. in North America (55%) and Western Europe (29%) while the rest stems from Australia and New Zealand (3%), Latin America (4%), Asia (4%), Central/Eastern Europe (3%) and Africa (2%).

Such indicators for agricultural insurance are somewhat understandable if we know that penetration of total insurance premium is very low in regional countries with average of 2.67% participation in GDP but vary from 1.53% of GDP in Macedonia to 5.88% in Slovenia.

From Figure 2 is also obvious that the dominant type of agricultural insurance in the region is crop insurance. The fact that crop insurance is the predominant type of agricultural insurance in the region is also in accordance with worldwide trends. On a global level, the crop insurance makes around 90% of overall agricultural insurance premium (Iturrioz, 2009).

Insurance density refers to average annual per capita premium within a national economy. It is a good indication of the average annual spending on insurance per capita in a national economy. Although it could have limitations regarding currency fluctuations impact on cross country comparisons, especially if is used over time, it is still a useful measure for the approximation of average annual insurance purchases within an economy. Figure 3 shows cross country comparison of agricultural insurance density in the region of former Yugoslavia in 2011. Despite the fact that the calculation of agricultural insurance density is based on analogy for the whole insurance market, instead of the number of citizens in a country, which is used for the calculation of total insurance premium density, we use the number of agricultural holdings in each country.

Figure 3. Agricultural insurance density in ex-Yugoslavia countries in 2011

Country	Agricultural insurance premium/ Total insurance premium (in %)	Agricultural insurance premium/ Number of agricultural holdings (in EUR)
Montenegro	0,11%	1,42
Croatia	2,25%	117,83
Macedonia	0,40%	2,30
Slovenia	10,25%	195,87
Serbia	2,16%	15,19
		26,14

Source: authors' calculations. Data on premiums and number of policies are obtained from individual countries' regulatory bodies – insurance agencies and National Bank of Serbia and insurance associations. Data on number of agricultural holding are obtained from individual countries 'statistical offices' agricultural censuses. All monetary values have been denominated to the 30th Dec 2011 Euro value. Data for Bosnia and Herzegovina are not available.

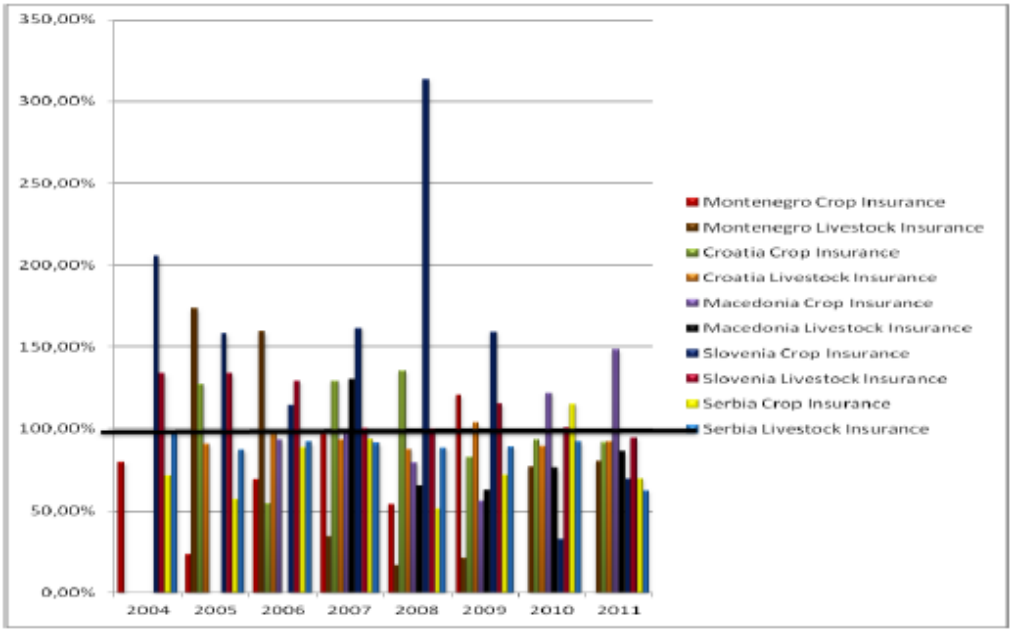
As we can see from the Figure 3 the agricultural insurance uptake is low in the region. This low agricultural insurance density is especially emphasized in Montenegro, Macedonia and Serbia where only a small fraction of agricultural holdings is insured. The data for Serbia differs because of the number of agricultural holdings taken into account. In the first case we use the total number of agricultural holdings determined by agricultural census in 2002 (778.891) and in the other we use number of registered agricultural holdings in 2011 (452.606).

Insurance density for the total insurance premium, despite some cross country differences, shows that all countries of former Yugoslavia are lagging behind European peers as average insurance per capita in the region in 2010 was in a range between 1808.27 EUR in Slovenia and 92.47 EUR in Macedonia. Thus, it would be unusually to expect agricultural insurance density to be greater. Even in the case that total insurance premium is larger the small share of agricultural insurance premium in total insurance premium is a useful indicator of agricultural insurance importance. When agricultural insurance density is compared with total insurance density we can conclude that agricultural insurance is relatively neglected in comparison to other types of insurance.

The basic aim of business activities of insurance companies is to achieve profit. Profitability of insurance companies can be determined similarly to how it is determined for companies in other industries, as the difference between revenues and expenditures. However, insurance companies' profitability is usually determined separately for insurance underwriting and investments. The main revenue from underwriting activities is insurance premiums that have to be sufficient to cover costs of loss payments, operating expenses, reserves and profit. Sometimes investment earnings can be used to offset insufficient premium for claims payments but such practice should be rather extraordinary than normal as lower available investment returns, such as in current investment environment, could cause net losses in both activities.

The most important factor that affects insurance profitability is the underlying risk. This risk essentially depends on insurer's experience regarding loss payments. The most important indicator of insurance company profitability is loss ratio, which measures the proportion of incurred losses to earned premiums. Essentially, loss ratio shows the amount of the insurance premium that is used for coverage of loss payments to insureds. If this ratio is less than 1 (or 100%) the insurance premiums cover the costs of claims and related expenses, if it is equal to 1, insurance premiums are equal to costs of claims and if it is greater than 1 premiums are not sufficient to cover the costs of losses. In business practice of insurance companies in countries of the region loss ratio is usually referred to as technical result of insurance companies. Figure 4 shows the development of loss ratios in crop and livestock insurance in countries of former Yugoslavia during the period 2004-2011.

Figure 4. The development of loss ratios in crop and livestock insurance in ex-Yugoslavia countries during the period 2004-2011



Source: authors' calculations. Data on premiums and losses are obtained from individual countries' regulatory bodies – insurance agencies and National bank of Serbia and insurance associations. Data for Bosnia and Herzegovina are not available.

Figure 4 clearly indicates that agricultural insurance, including both crop and livestock insurance, are generally very problematic for insurance companies as loss ratios are very often above 100% and almost always above 50%. In each year when loss ratio is above 100% insurance companies in regional countries has suffered underwriting loss. Sometimes it is so extreme, as it was with Slovenian crop insurance in 2008, that losses are two or three times larger than premiums. It must be emphasized that European average loss ratios in agricultural insurance ranges from 60% to 70% and are still considered unprofitable. Thus, even loss ratios below 100%, such as those in Serbia, does not guarantee underwriting profit because insurance companies should cover operating expenses and achieve profit.

Conclusion

Insurance markets work function best when risks are uncorrelated; occur with high frequency and when there are a large number of insureds. The agricultural insurance is characterized with risks that are highly correlated, which violates the standard insurability conditions. This coupled with the need to determine risk exposures of each individual farm, which are often geographically dispersed, causes relatively high costs for insurers when compared with other types of insurance. As we indicated in the paper, loss ratios in the agricultural insurance are very poor, especially for livestock insurance in some markets of ex-Yugoslavia region such as Serbia. In addition to above mentioned features of risk

of agricultural production, specific problem in local agricultural insurance markets is insufficient number of insureds.

The logical reaction of insurers is to restrict the supply of capacity of insurance with risks where loss ratios are high. When private markets fail, as the macroeconomic practice after the Great Depression of 1930s thought us, governments will to intervene. The direct intervention of the state in financing the damage is not justified, as indicated, but the indirect role of the state as the instigator of the application of risk management measures, including insurance, is needed. In all the countries in the region in recent years, there are subsidies that vary in the range from 30% to 60% depending on the country but still are underutilized opportunities for the development of agricultural insurance which clearly indicates the movement of the insurance premium. To exploit the potential development opportunities subsidy is necessary to ensure continuous policy with incentives for the sustainable management of risks in the agricultural shift from manufacturing regulatory requirements must be continuous and transparent and farmers are fully aware of the responsibility of carrying the entire risk of their work activities.

At the supply side, insurance companies should decrease possible negative consequences of loss accumulations with more efficient use of reinsurance involving international reinsurers. In order to encourage the demand for agricultural insurance, governments together with insurance companies should model forms of public-private partnerships in risk financing, such as the development of government backed reinsurance for catastrophic losses that could provide more affordable premiums for agricultural producers. Because of insufficient demand, in addition to government subsidies and other forms of public private partnerships in risk financing, in countries of the region of ex-Yugoslavia the broader education of all stakeholders about the benefits of agricultural insurance, especially individual farmers with relatively small farms, is needed to be provided in cooperation between governments and insurance companies.

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KARAKTERISTIKE OSIGURANJA POLJOPRIVREDNE PROIZVODNJE: SLUČAJ ZEMALJA REGIONA BIVŠE JUGOSLAVIJE

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Rezime

Poljoprivredna proizvodnja ima izuzetan značaj u ekonomijama svih zemalja bivše Jugoslavije, relativno posmatrano znatno više od svetskog proseka. Ova proizvodnja ostvaruje se na otvorenom i izložena je dejstvu znatno većeg broja rizika u odnosu na druge delatnosti. Predmet istraživanja u radu jeste osiguranje poljoprivredne proizvodnje kao jedan od mehanizama upravljanja rizicima u ovoj delatnosti. Cilj istraživanja u radu jeste ukazivanje na ključni značaj ove vrste osiguranja i determinisanje komparativnih razlika u efikasnosti njegovog sprovođenja u Srbiji sa drugim zemljama bivše zajedničke države kako bi se identifikovali problemi i predložile potencijalne solucije. U radu prvo ukazujemo na značaj i opšte karakteristike osiguranja poljoprivrede a potom na zajedničke karakteristike ove vrste osiguranja u svim zemljama bivše Jugoslavije a potom analiziramo uspešnost sprovođenja ove vrste osiguranja u navedenim zemljama. Rezultati sprovedenih istraživanja značajni su za osiguravajuća društva u zemljama regiona a mogu biti korisni i poljoprivrednim proizvođačima kao i državnim organima zainteresovanim za uspešnu i održivu poljoprivrednu proizvodnju.

***Ključne reči**: poljoprivreda, rizik, osiguranje, region bivše Jugoslavije.*

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