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Rajko M. Bukvić¹

KONCENTRACIJA U SEKTORU OSIGURANJA U SRBIJI: PROMENE U PERIODU 2011–2020. I NJIHOVA DEKOMPOZICIJA

ORIGINALNI NAUČNI RAD

Apstrakt

U radu se analizira koncentracija u sektoru osiguranja i uticaj strukture tržišta (rasporeda tržišnih udela) i broja osiguravajućih društava na stepen koncentracije (i konkurencije) u sektoru osiguranja u Srbiji (bez Kosova i Metohije) u desetogodišnjem periodu od 2011. do 2020. godine. Kao osnov za analizu poslužio je obračun većeg broja odgovarajućih koeficijenata koncentracije, na osnovu ukupne premije osiguranja, koji su pokazali relativno visok stepen koncentracije, ali bez jasne tendencije u njegovom kretanju. Razgraničenje uticaja navedenih faktora izvršeno je na osnovu dekompozicije indeksa Hana-Keja na dve komponente, u kojima figurišu navedeni faktori. Dekompozicijom je objašnjen najveći deo varijacija u stepenu koncentracije u svim posmatranim godinama (iznad 87,5% kao minimuma), a koje su prevashodno bile pod uticajem tržišne strukture (promena tržišnih udela) s kojom postoji pozitivna iako i umerena korelacija, ali ne i što se tiče broja osiguravajućih društava, s kojim su ostvarena divergentna i gotovo potpuno nekorelisana kretanja.

Ključne reči: koncentracija, konkurencija, osiguranje, Srbija, pokazatelji, dekompozicija, tržišni udeli, broj kompanija.

JEL C38, D43, G22, L11, L84

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I. Uvod

Tokom poslednjih nekoliko decenija izuzetno je poraslo interesovanje za analize razvoja konkurencije, i pritom ne samo u takozvanom realnom sektoru ekonomije. U savremenoj ekonomskoj misli odnos prema konkurenciji gotovo je jedinstven: ona se smatra faktorom koji obezbeđuje efikasnost tržišne privrede. Ali ne samo to. Konceptcija konkurencije stekla je status univerzalnog modela, primenljivog ne samo u ekonomiji već i u sociologiji, antropologiji, teoriji igara i mnogim drugim disciplinama.

Za vreme gotovo dvoipovekovne tradicije² istraženi su mnogi aspekti i karakteristike konkurencije. Ipak, i pored toga, teorijska misao ni do danas nije uspela da izgradi jedinstvenu i opšteprihvaćenu definiciju konkurencije. Sledstveno tome, i mnogi drugi aspekti, pojave i činjenice povezane s konkurencijom nisu rešeni na zadovoljavajući način. Jedno od takvih pitanja jeste i merenje konkurencije, kao jedna od centralnih tačaka cele teorije, a što je od posebne važnosti u praktičnoj primeni rezultata (na primer, u sprovođenju antimonopolske politike, odnosno politike zaštite konkurencije).

Nepostojanje zadovoljavajućeg, tj. opšteprihvaćenog odgovora na gornje pitanje po pravilu rezultuje primenom relativnih ocena na nekvantitativnoj skali, kao što su jaka, umerena, slaba konkurencija i sl, gde su osnov za ocene takvog tipa ekspertske procene, sociološke ankete, ili pak u nešto strožem pristupu rezultati, tj. posledice konkurencije. Takvi rezultati su broj učesnika (firmi) na tržištu, njihovi prihodi (dohoci) i profiti, odnosno stečena imovina i kapital. Na osnovu tih podataka, obračunavaju se udeli učesnika na tržištu u odgovarajućim veličinama, ostvareni upravo u procesu konkurencije.

Neposredno u vezi s prethodnim jeste identifikovanje i (eventualno) kvantifikovanje faktora koji dovode do promena u stepenu koncentracije, kako generalno, tako i na pojedinim tržištima. Za taj stepen koncentracije se u okvirima paradigme „struktura – ponašanje – rezultati“ (SCP, prema Structure – Conduct – Performance) smatra da je neposredno povezan s monopolskom vlašću.³ Teorijski i empirijski radovi ukazali su na veći broj takvih faktora, kao što su, na primer, barijere ulasku na tržište (pravne, ekonomske, tj. tehnološke i dr.), i o njima se u kompleksnijim analizama

² Osnivačem teorije konkurencije smatra se A. Smit, mada su se sličnim problemima bavili i drugi ekonomisti i filozofi pre njega. Imaju se u vidu, pre svega, merkantilisti (T. Man, A. Monkretjen, V. Staford i dr.), koji su značajnu pažnju posvećivali ograničavanju konkurencije inostranih robnih proizvođača posredstvom državnog protekcionizma.

³ SCP paradigma predstavlja jedno od područja u teoriji konkurencije koje izaziva dosta kontroverzi. Pregled literature o tom pitanju videti na primer u: V. Njegomir et al., Liberalisation, Market Concentration and Performance in the Non-Life Insurance Industry of Ex-Yugoslavia, *Ekonomska misao i praksa*, 2011, 20(1).

tržišta svakako mora voditi računa.⁴ Sve to važi ne samo za realni sektor, već i za sektor finansija, kome se u poslednje vreme posvećuje sve veća pažnja, pored ostalog i u domenu konkurencije, odnosno politike zaštite konkurencije.

Naredno istraživanje posvećeno je problemima koncentracije u sektoru osiguranja u Srbiji (bez Kosova i Metohije). Ono je podeljeno u dve celine. U prvoj se kvantifikuje nivo koncentracije u sektoru osiguranja u Srbiji (bez Kosova i Metohije) u poslednjoj deceniji (period 2011–2020), uz primenu nekoliko relevantnih pokazatelja koji osvetljavaju više aspekata ove karakteristike tržišta. U drugoj celini izvršeno je razgraničenje uticaja dvaju faktora čije promene utiču na promene i dinamiku koncentracije: strukture tržišta (tj. promena u kompoziciji tržišnih udela) i broja osiguravajućih društava. Osnov za istraživanje postavili smo u prethodnim radovima, u kojima je obračunato više različitih mera koncentracije u ovom sektoru,⁵ i data dekompozicija faktora njihovih promena na osnovu Hiršman-Herfindalovog indeksa, jednog od najčešće korišćenih pokazatelja koncentracije.⁶ U ovom radu uopšteni su i dopunjeni prethodni nalazi, i data je dekompozicija pokazatelja koncentracije na osnovu indeksa koncentracije Hana-Kej, odnosno opšte klase indeksa čiji je Hiršman-Herfindalov indeks samo jedan specijalan slučaj.

II. Metodološke napomene

Ishodište jednog od najčešće korišćenih pristupa u ocenjivanju stepena konkurencije na tržištu predstavljaju ostvareni udeli tržišnih učesnika, na osnovu čijih se rasporeda među tržišnim akterima konkurencija i ocenjuje. U osnovi tog pristupa jednostavno je rezonovanje: što je manja koncentracija udela, tim manje vlasti (moći) na tržištu imaju pojedini učesnici, i tim je veća mogućnost za razvoj konkurencije. Takva veza može se predstaviti jednostavnim linearnim modelom

$$L=1-C \tag{1}$$

koji pokazuje inverzan odnos između konkurencije (L) i koncentracije (C). Pretpostavka o linearnom karakteru odnosa (1) krajnje je pojednostavljena, a u osnovi verovatno

⁴ U sveobuhvatnoj i do sada jedinoj studiji takve vrste u savremenoj Srbiji (tj. tadašnjoj SR Jugoslaviji), posebna pažnja posvećena je upravo analizi barijera. Videti: B. Begović i dr., *Antimonopolska politika u SR Jugoslaviji*, Beograd: Centar za liberalno-demokratske studije, 2002.

⁵ R. Bukvić, Novi pristupi ocenjivanju stepena koncentracije i konkurencije: primer sektora osiguranja u Srbiji, *XLVIII International Symposium on Operational Research, SYM-OP-IS 2021*, Beograd: Univerzitet u Beogradu, Matematički fakultet, 2021, str. 93–98.

⁶ R. Bukvić, Dekompozicija promena u koncentraciji u sektoru osiguranja u Srbiji 2011–2020: uticaj promena u strukturi tržišta i broju društava za osiguranje, *Ekonomski vidici*, 2022, 27(1–2), str. 35–52.

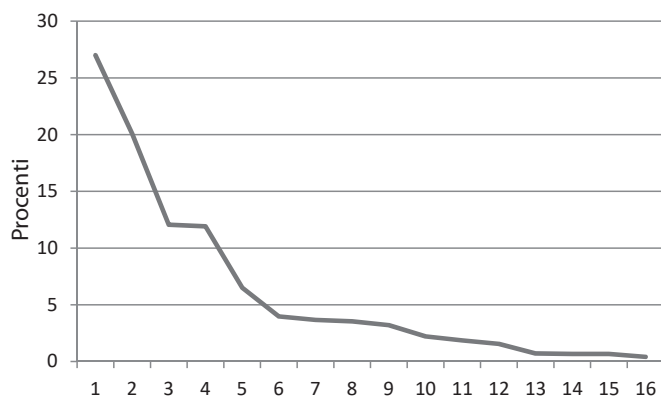
i ne potpuno tačna, budući da su neka istraživanja pokazala da je taj odnos drugačiji.⁷ Doprinos ispitivanju te veze u našoj literaturi dali su Lončar i koautori,⁸ analizirajući bankovna tržišta Srbije, Hrvatske, Rumunije i Češke. Za potrebe našeg istraživanja razmatranje tog odnosa nije relevantno.

Nivo, odnosno stepen koncentracije C u (1) ocenjuje se preko udela pojedinačnih učesnika na tržištu

$$s_i = \frac{Q_i}{Q} = \frac{Q_i}{\sum_{j=1}^N Q_j} \quad (2)$$

gde je sa N označen broj učesnika na tržištu, ili nekom njegovom delu (grani, recimo), Q_i je obim proizvodnje (fizički ili novčano izražen, ili pak neka druga veličina – ukupna sredstva, tj. aktiva, kapital, broj zaposlenih) i-tog učesnika na tržištu. Slika 1 pokazuje uređeni niz (po opadajućoj vrednosti, tj. $s_i \geq s_{i+1}$) udela firmi s_i na tržištu u opštem slučaju, tj. kada su te vrednosti nejednake (kada firme nisu jednake snage). Kriva (izlomljena linija) koju formiraju udeli, predstavljeni na vertikalnoj osi, konkavna je u odnosu na horizontalnu osu, a njen konkretan oblik zavisi od udela pojedinih firmi, tj. od strukture tržišta. Primetimo da se nagib te krive linije menja od jedne tačke (od jedne firme) do druge, ali ostajući negativan (tačnije, nepozitivan) duž cele krive.

Slika 1. Opadajući niz tržišnih udela osiguravajućih društava u Srbiji (bez Kosova i Metohije) u 2020. na osnovu ukupne premije osiguranja



⁷ П. Ф. Воробьев и С. Г. Светульников. Новый подход к оценке уровня конкуренции, *Современная конкуренция*, 2016, 10(6).

⁸ Lončar et al., Interplay Between Market Concentration and Competitive Dynamics in the Banking Sector: Evidence from Serbia, Croatia, Romania and the Czech Republic, *Ekonomika preduzeća*, 2016, 64(5–6).

Ako se udeli urede u opadajući niz, kao na Slici 1, što je inače uobičajen postupak, onda se radi ocenjivanja stepena koncentracije pristupa kumuliranju udela, čime se, nadalje, dobija rastuća kriva (izlomljena) linija, konveksna prema horizontalnoj osi, s nagibom koji je celom dužinom pozitivan, ali čija se vrednost smanjuje udalžavanjem od koordinatnog početka (Slika 2).⁹ Stepen koncentracije (1), određen kumuliranjem pojedinačnih udela, imaće, u opštem slučaju, vrednosti u intervalu između 1 (kada na tržištu postoji samo jedan učesnik, pa je i celokupna proizvodnja, prodaja i sl, a time i tržišna vlast, koncentrisana kod njega) i 1/N, kada na tržištu postoji N učesnika, koji su svi (pod)jednake snage. Kada je N dovoljno veliko, koncentracija se približava nuli ($C=1/N$, $C \rightarrow 0$ kada $N \rightarrow \infty$).

Za ocenu stepena koncentracije razvijen je i korišćen veći broj metoda, odnosno pokazatelja. Na početku su najviše primenjivana dva, u izvesnom smislu inverzna pokazatelja: broj firmi koje pokrivaju određeni procenat (najčešće 80%) razmatrane veličine (prodaje, prihoda, sredstava itd.)

$$S_{m^*} = \sum_{j=1}^{m^*} s_j = 80\% \quad (3)$$

gde je m^* traženi broj firmi, i zbirni udeo nekoliko najvećih firmi na tržištu

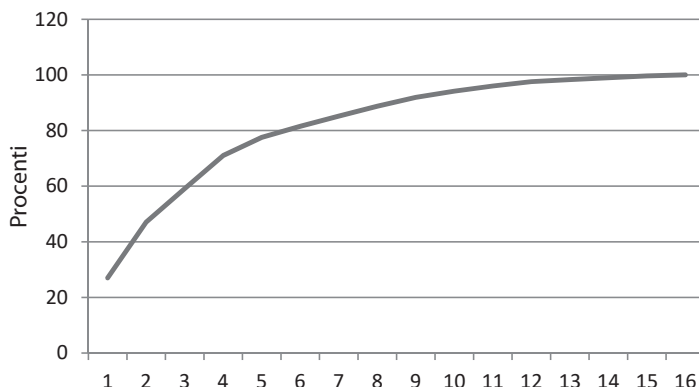
$$CR_n = \sum_{j=1}^n s_j, \quad (4)$$

pri čemu se kod ovog drugog za n u empirijskim analizama najčešće uzimalo 4, iako za takav, ili neki drugi izbor, po pravilu nije davano obrazloženje.¹⁰ Bez obzira na to koliko se učesnika (udela) uzima u obračun koeficijenta (4), očito je da je ovaj pokazatelj (kao prost zbir udela prvih n , dakle najkрупnijih, učesnika na tržištu) usmeren na ono što se uobičajeno naziva „jezgro“ tržišta, a da zanemaruje njegovu „periferiju“, pri čemu granica između ovih dvaju delova tržišta nije jasno određena.

⁹ Ova kriva poznata je kao „kriva koncentracije“ iz studija Federalne trgovinske komisije iz 1940-ih godina.

¹⁰ Zapravo, najčešće je nekritički preuziman broj 4 po ugledu na monografije Privremenog nacionalnog ekonomskog komiteta (TNEC), u kojima je međutim taj broj izabran iz praktičnih razloga, bez teorijskih objašnjenja. Videti: M. A. Adelman, *The Measurement of Industrial Concentration*, *The Review of Economics and Statistics*, 1951, 33(4).

Slika 2. Kumulativni udela: uređeni niz udela osiguravajućih društava Srbije (bez Kosova i Metohije) u 2020. na osnovu ukupne premije osiguranja



Od navedenih pokazatelja (3) i (4) u praktičnoj primeni zadržao se potonji, poznat jednostavno kao koeficijent koncentracije (CRn). On je s vremenom stekao najveću popularnost, uz Hiršman-Herfindalov koeficijent (HH),¹¹ i zajedno s njim najčešće je sve do danas korišćen pokazatelj koncentracije.¹²

Za razliku od koeficijenta koncentracije CRn, Hiršman-Herfindalov koeficijent određuje se uzimanjem u obzir udela svih učesnika na tržištu. Pošto je zbir udela svih učesnika po definiciji jednak jedinici, u konstrukciji ovog koeficijenta uzimaju se kvadrati odgovarajućih udela

$$HH = \sum_{j=1}^N s_j^2 \quad (5)$$

što u stvari znači da se tržišni udeli učesnika ponderišu samim tim udelima.

Koeficijent koncentracije (4) obračunava se jednostavno, potrebno je imati svega nekoliko podataka. On, međutim, ima ozbiljne nedostatke (uz ostalo, on

¹¹ Ovaj koeficijent u literaturi se često može naći pod imenom Herfindalov koeficijent (indeks), iako primat svakako pripada Albertu Hiršmanu, koji ga je koristio još 1945, a Oris Herfindal tek 1950. godine. Ovo je svakako jedan od najpoznatijih primera tzv. Stiglerovog zakona (ili Stiglerovog zakona o eponimiji, prema istoimenom radu iz 1980. godine), prema kome „nijedno naučno otkriće nije nazvano imenom svog pronalazača“. Sam Stigler smatrao je da je ovaj zakon otkrio Robert Merton (koji ga je nazvao Matejevim efektom), tako da je sam zakon primenljiv i na njegovog formalnog autora!

¹² Ovakve ocene karakterišu i istorijat istraživanja u našim uslovima, gde je od početaka u kasnim 1950-im pa sve do kraja postojanja SFR Jugoslavije u analizama korišćen isključivo indeks koncentracije CRn. Videti: R. Bukvić, Istraživanja tržišnih struktura u privredi druge Jugoslavije, *Ekonomika*, 1999, 35(1–2). Hiršman-Herfindalov koeficijent prvi put je primenjen tek u studiji Begović i dr, *Antimonopolska politika u SR Jugoslaviji*, Beograd: Centar za liberalno-demokratske studije, 2002.

može imati istu vrednost za različit raspored udela u okviru „jezgra“), a to značajno ograničava njegovu upotrebljivost. Često se ističe da kod koeficijenta (5) takav nedostatak ne postoji, a to ga navodno čini znatno prihvatljivijim. Ipak, pošto se njegove vrednosti kreću u intervalu

$$\frac{1}{N} \leq HH \leq 1 \quad (6)$$

sledi da njegova minimalna vrednost zavisi od broja učesnika na tržištu, tako da je interpretacija koeficijenta (5) u značajnoj meri otežana. To, naravno, važi utoliko pre i za koeficijent (4). S druge strane, očito je da HH koeficijent veći značaj pridaje učesnicima s većim udelom (ponder svakog udela, kao što je već istaknuto, zapravo je sam taj udeo). Međutim, važnije od svega toga je što HH ne obezbeđuje jednoznačnu vezu između rasporeda udela i stepena koncentracije, tako da on može imati istu vrednost za različite konfiguracije tržišnih udela.¹³

U praktičnom sprovođenju politike zaštite konkurencije prilikom primene oba navedena indeksa (4) i (5) pojavljuju se i problemi indentifikovanja tipova (oblika) konkurencije na osnovu njihovih utvrđenih vrednosti. Oni se (u praksi, ne i u teoriji) rešavaju arbitrarnim postavljanjem granica (na primer, kod Hiršman-Herfindalovog koeficijenta uobičajene granice bile su 0,10 i 0,18 za tri tipa tržišta: nekoncentrisana, umereno koncentrisana i visokokcentrisana tržišta¹⁴), da bi se na osnovu vrednosti koeficijenta (5) u odgovarajućem segmentu odredio i tip konkurencije na datom tržištu.

U ovom radu mi ćemo se najpre zadržati na pomenutim koeficijentima i rezultatima dobijenim njihovom primenom, pre svega na HH koeficijentu. Detaljniji pregled ostalih koeficijenata i rezultata dali smo u nedavnom saopštenju,¹⁵ uključujući i drugačije pristupe u odnosu na logiku agregiranja tržišnih udela u jedan broj, koju prate i neki drugi, manje popularni i korišćeni koeficijenti (Đinijev, Rozenblatov, Tajdman-Holov i sl.). Razlog za ovakvu redukciju krije se u težnji da se na osnovu rezultata dobijenih u prethodnom radu utvrde faktori koji su doveli do promena u stepenu koncentracije, odnosno da se razgraniče uticaji promena broja osiguravajućih kompanija i raspodele tržišta među njima na tu koncentraciju.

¹³ И. А. Смарагдов и В. Н. Сидорейко, Индексы рыночной концентрации: неоднозначная информативность, *Концепт*, 2015, 9.

¹⁴ Ova podela uspostavljena je u SAD, u Vodiču za horizontalna spajanja 1997, da bi 2010. bila zamenjena granicama od 0,15 i 0,25, videti Horizontal Merger Guidelines (1997) i Horizontal Merger Guidelines (2019). U drugim zemljama u kojima se za ove potrebe koristi Hiršman-Herfindalov indeks mogu se sresti drugačije postavljene granice, ali su svakako i one arbitrarne.

¹⁵ R. Bukvić, Novi pristupi ocenjivanju stepena koncentracije i konkurencije: primer sektora osiguranja u Srbiji, *XLVIII International Symposium on Operational Research, SYM-OP-IS 2021*, Beograd: Univerzitet u Beogradu, Matematički fakultet, 2021, str. 93–98.

Naime, kako je već mnogo puta istaknuto,¹⁶ a što se može potvrditi i elementarnim transformacijama koeficijenta (5), Hiršman-Herfindalov koeficijent može biti predstavljen u sledećem obliku:

$$HH = N\sigma^2 + \frac{1}{N} \quad (7)$$

gde je σ^2 varijansa tržišnih udela s_i a N broj firmi na tržištu. Ova činjenica ima dve, međusobno suprotstavljene, posledice. S jedne strane, pokazuje se da to vodi nejednoznačnosti u tumačenju vrednosti koeficijenta, što se nikako ne bi smelo zanemariti.¹⁷ Druga posledica odnosi se na okolnost da izraz (7) pruža mogućnost da se razgraniče uticaj varijanse tržišnih udela (dakle, promene u strukturi tržišta) i broja učesnika na tržištu na promene stepena koncentracije.¹⁸ Poslednja okolnost poslužila je za istraživanje čiji su rezultati izloženi u našem prethodnom radu,¹⁹ da bismo u ovom radu proširili ova istraživanja primenom drugačijeg postupka.

III. Koncentracija u sektoru osiguranja u Srbiji 2011–2020.

Na tržištu osiguranja u Srbiji u protekloj deceniji dešavale su se relativno značajne promene, koje se izražavaju pre svega u broju osiguravajućih društava.²⁰ On se kretao između 27 (u 2011), odnosno 28 (u 2012. i 2013) i 20 (u poslednje tri godine), s jasnom tendencijom smanjivanja, koja je pri tome u procentualnom iznosu više nego značajna. Među tim društvima četiri se bave isključivo reosiguranjem. U analizama koje slede zadržali smo se na društvima za osiguranje, shodno podacima Narodne banke Srbije, prezentovanim u izveštajima *Ukupna premija i raspored premije društava za osiguranje* za posmatrane godine, kao što je bio slučaj i u našim prethodnim istraživanjima.²¹

¹⁶ С. Б. Авдашева и Н. М. Розанова, *Теория организации отраслевых рынков*, Москва: Издательство Магистр, 1998; И. А. Смарагдов и В. Н. Сидорейко, Индексы рыночной концентрации: неоднозначная информативность, *Концепт*, 2015, 9.

¹⁷ Prema hipotetičkom primeru koji navode Смарагдов и Сидорейко (Индексы рыночной концентрации: неоднозначная информативность, *Концепт*, 2015, 9), čak u slučaju jednakih kompetencija (tržišnih udela) svih učesnika na tržištu, vrednost koeficijenta HH iznosiće za pet tržišnih aktera 0,2 a za 10 aktera 0,1. U prvom slučaju, dakle, prema gorenavedenim granicama tržište bi bilo klasifikovano kao visokokoncentrisano, a u drugom kao nekoncentrisano!

¹⁸ С. Б. Авдашева и Н. М. Розанова, *Теория организации отраслевых рынков*, Москва: Издательство Магистр, 1998.

¹⁹ R. Bukvić, Dekompozicija promena u koncentraciji u sektoru osiguranja u Srbiji 2011–2020: uticaj promena u strukturi tržišta i broju društava za osiguranje, *Ekonomski vidici*, 2022, 27 (1–22).

²⁰ Sektor osiguranja posmatra se bez podataka za Kosovo i Metohiju, koji nisu dostupni u podacima Narodne banke Srbije.

²¹ R. Bukvić, Novi pristupi ocenjivanju stepena koncentracije i konkurencije: primer sektora osiguranja u Srbiji, *XLVIII International Symposium on Operational Research, SYM-OP-IS 2021*, Beograd: Univerzitet

Zbog specifičnosti konkurencije u ovom sektoru, kako smo u navedenim radovima već istakli, neadekvatno je koristiti kao kriterijum ostvareni prihod, kako je uobičajeno u realnom sektoru (uz fizički obim proizvodnje, koji ovde nema pandana), tako da je najpre potrebno izabrati promenljivu prema kojoj će se određivati koncentracija i konkurencija. Prema važećim propisima (Zakon o zaštiti konkurencije, čl. 7), za ocenu stepena koncentracije u ovom sektoru koristi se ukupna premija po svim oblicima osiguranja.²² I mi smo se ovom prilikom opredelili za tu promenljivu, iako bi za određene svrhe, naravno, bilo poželjno koristiti i druge promenljive (ukupna premija neživotnog osiguranja i ukupna premija životnog osiguranja), kao što je to, recimo, učinila Maja Dimić.²³ Ukupnu premiju koristili su i drugi autori, na primer Maksimović i Kostić.²⁴

Tabela 1. Vrednosti indeksa koncentracije CR3, CR4, CR5 i CR8 i Hiršman-Herfindalovog indeksa u sektoru osiguranja u Srbiji* 2011–2020

Godina	CR3	CR4	CR5	CR8	HH	Godina	CR3	CR4	CR5	CR8	HH
2011.	63,1	72,1	77,4	88,6	1551	2016.	59,5	70,2	74,9	86,2	1496
2012.	62,4	71,6	77,3	87,5	1596	2017.	59,8	71,5	77,2	88,6	1543
2013.	59,8	70,3	75,8	85,6	1495	2018.	61,0	72,6	78,4	89,7	1597
2014.	60,6	70,8	76,5	87,7	1495	2019.	59,7	71,4	77,8	89,3	1545
2015.	61,2	70,9	76,1	87,5	1558	2020.	59,1	71,0	77,6	88,7	1526

* Bez Kosova i Metohije.

Izvor: preračunato na osnovu podataka Narodne banke Srbije u publikacijama *Ukupna premija i raspored premije društava za osiguranje*, za odgovarajuće godine

U ovom delu rada ukazaćemo na neke od relevantnih rezultata, od kojih smo jedan deo izložili u prethodnom radu.²⁵ Zadržaćemo se uglavnom na pomenutim

u Beogradu, Matematički fakultet, 2021, str. 93–98. i R. Bukvić, Dekompozicija promena u koncentraciji u sektoru osiguranja u Srbiji 2011–2020: uticaj promena u strukturi tržišta i broju društava za osiguranje, *Ekonomski vidici*, 2022, 27(1–2).

²² Drugi argumenti za korišćenje ove promenljive dati su u: M. Kostić, Analiza koncentracije ponude u sektoru osiguranja Srbije, *Industrija*, 2009, 37(2).

²³ M. Dimić, *Analiza nivoa koncentracije u bankarskom sektoru i u sektoru osiguranja u zemljama centralne i istočne Evrope*, doktorska disertacija, Beograd: Univerzitet Singidunum, 2015.

²⁴ Lj. Maksimović and M. Kostić, Limitations in the Application of Concentration Indicators, *Ekonomika preduzeća*, 2012, 60(3–4); M. Kostić et al., The limitations of competition in the insurance markets of Slovenia, Croatia and Serbia, *Economic Research - Ekonomska Istraživanja*, 2016, 29(1).

²⁵ R. Bukvić, Novi pristupi ocenjivanju stepena koncentracije i konkurencije: primer sektora osiguranja u Srbiji, *XLVIII International Symposium on Operational Research*, SYM-OP-IS 2021, Beograd: Univerzitet u Beogradu, Matematički fakultet, 2021, str. 93–98.

indeksima – koeficijentu koncentracije i Hiršman-Herfindalovom koeficijentu, ali će oni biti dopunjeni i drugim pokazateljima. U Tabeli 1 prikazane su vrednosti indeksa koncentracije CRn u četiri varijante i Hiršman-Herfindalovog indeksa u posmatranom desetogodišnjem periodu. Sve vrednosti date su u procentima, dakle udeli (2) pomnoženi su sa 100. To naravno ništa ne menja na dobijenim rezultatima i njihovom tumačenju.

Prezentovani indeksi ukazuju na (relativno) visok nivo koncentracije, bez obzira na to što već istaknut problem određivanja granica između niske, srednje i visoke koncentracije (odnosno bilo koje druge klasifikacije) zapravo i ne dozvoljava precizno određenje tog stepena. Vrednosti indeksa CR3 kreću se, uz manje oscilacije, oko 60%, indeksi koncentracije CR4 pokrivaju nešto preko 70% ukupnog iznosa premije, a CR5 preko $\frac{3}{4}$, tako da se može smatrati da se u tim okvirima nalazi ono što se uobičajeno naziva „jezgro“. To će potvrditi rezultati iz Tabele 4, dobijeni drugim metodološkim postupkom. U okviru tako određenog jezgra izdvajaju se dve kompanije, s udelima u 2020. od 27%, odnosno 20%. S druge strane, u potpunosti u skladu s tim očigledno je da indeks CR8 ima za naše potrebe malu informativnu vrednost (praktično u svim godinama blizu 90), a što je normalno očekivati, s obzirom na relativno mali broj učesnika (osiguravajućih društava) i značajne tržišne udele vodećih (videti Sliku 1). Ono što se još može zapaziti, i što treba podvući, jeste činjenica da u celom posmatranom periodu nema jasne tendencije u kretanju vrednosti tih koeficijenata.

Donekle drugačiju sliku pružaju vrednosti Hiršman-Herfindalovog indeksa. Ako bismo kao granicu između umereno i visoko koncentrisanog tržišta prihvatili vrednost ovog indeksa od 1800, tržište u sektoru osiguranja u Srbiji u protekloj deceniji bilo bi klasifikovano kao umereno koncentrisano. To je, očito, u određenoj meri u suprotnosti s utiskom koji daju vrednosti indeksa CRn.²⁶ Na osnovu toga, nameće se ideja da je za klasifikaciju tržišta nedovoljno korišćenje jednog indikatora (indeksa), već je potrebno kombinovati više podataka. Tako se, recimo, u antimonopolskoj praksi Federalne antimonopolske službe u Rusiji koriste uporedo dva pokazatelja, naime indeksi CR3 i HH (videti Tabelu 2). Kao što je moguće videti, granice koje su tamo postavljene omogućile bi jednoznačno klasifikovanje našeg tržišta osiguranja kao umereno koncentrisanog.

²⁶ Treba naglasiti da su ovde prezentovane vrednosti Hiršman-Herfindalovog indeksa značajno niže nego u godinama koje su prethodile analiziranom periodu (preko 2.000 u 2006, 2007. i 2008, nešto iznad 1.800 u 2009. i iznad 1.600 u 2010), a što nije obuhvaćeno vremenskim okvirom naše analize. Preračun autora na osnovu istog izvora Narodne banke Srbije.

Tabela 2. Klasifikacija tržišta po nivou koncentracije u Ruskoj Federaciji

Klasifikacija tržišta	Vrednost indeksa CR3	Vrednost indeksa Hiršmana-Herfindala (HH)
Nisko koncentrisano tržište	CR3 ≤ 45	HH ≤ 1000
Umereno koncentrisano tržište	45 < CR3 < 70	1000 < HH < 2000
Visoko koncentrisano tržište	CR3 > 70	HH > 2000

Izvor: Федеральная антимонопольная служба, Об утверждении Порядка проведения анализа состояния конкуренции на товарном рынке (с изменениями на 20 июля 2016 года) от 28 апреля 2010 года N 220, 2016

Za potrebe analize u narednom odeljku biće potrebno izračunati vrednosti generalizovanog indeksa entropije²⁷

$$GEI = \frac{1}{N} \frac{1}{\alpha(\alpha-1)} \sum_{i=1}^N \left[\left(\frac{S_i}{\bar{S}} \right)^\alpha - 1 \right], \quad \forall \alpha \neq 0, 1 \quad (8)$$

$$GEI = \frac{1}{N} \sum_{i=1}^N \ln \left(\frac{\bar{S}}{S_i} \right), \quad \alpha = 0 \quad (9)$$

$$GEI = \frac{1}{N} \sum_{i=1}^N \left[\left(\frac{S_i}{\bar{S}} \right) \ln \left(\frac{S_i}{\bar{S}} \right) \right], \quad \alpha = 1 \quad (10)$$

koji će, očito, uzimati različite vrednosti za razne vrednosti parametra α . Pri tome, veće vrednosti parametra daju veći značaj (ponder) većim vrednostima promenljive, i obrnuto. Dalje u tekstu mi smo se opredelili za pet karakterističnih vrednosti ovog parametra (0,5; 1; 1,5; 2; 2,5).

Tabela 3. Generalizovani indeks entropije, varijansa tržišnih udela i broj kompanija u sektoru osiguranja u Srbiji* 2011–2020.

Godina	Vrednosti generalizovanog indeksa entropije					Varijansa udela	Broj društava
	α						
	0,5	1	1,5	2	2,5		
2011.	1,012	0,930	1,024	1,284	1,786	48,543	23
2012.	0,984	0,952	1,085	1,415	2,062	49,119	24
2013.	0,910	0,890	1,009	1,294	1,843	44,942	24
2014.	0,850	0,805	0,878	1,070	1,430	48,535	21
2015.	0,825	0,783	0,860	1,058	1,428	52,907	20
2016.	0,731	0,699	0,763	0,921	1,209	51,010	19

²⁷ F. A. Cowell, *Measuring Inequality: techniques for the social sciences*, New York: Wiley, 1977.

Godina	Vrednosti generalizovanog indeksa entropije					Varijansa udela	Broj društava
	α						
	0,5	1	1,5	2	2,5		
2017.	0,693	0,651	0,693	0,812	1,029	56,169	17
2018.	0,671	0,632	0,670	0,778	0,976	60,776	16
2019.	0,644	0,606	0,639	0,736	0,912	57,481	16
2020.	0,606	0,585	0,623	0,721	0,896	56,316	16

* Bez Kosova i Metohije.

Izvor: preračunato na osnovu podataka Narodne banke Srbije u publikacijama *Ukupna premija i raspored premije društava za osiguranje*, za odgovarajuće godine

Kao što pokazuje Tabela 3, u kretanju vrednosti ovog indeksa, za sve odabrane vrednosti parametra α, postoji jasna tendencija pada, što ukazuje na smanjivanje nejednakosti u raspodeli tržišnih udela. Smanjenje vrednosti indeksa gotovo na polovinu vrednosti iz početne 2011. godine vrlo je indikativno, bez obzira na to što su vrednosti u 2020. još uvek dosta udaljene od teorijski minimalnih vrednosti (=0), kao što bi to bilo u slučaju potpune jednakosti svih tržišnih učesnika.

S druge strane, vrednosti koeficijenata u Tabeli 1 ukazuju na mogućnost postojanja oligopolske strukture, s grupisanjem visokih tržišnih udela u okviru manje grupe firmi. Radi provere te pretpostavke, primenićemo drugačiji metodološki postupak, kako je to uobičajeno u praksi odgovarajućeg tela u Evropskoj uniji. U pitanju je indeks (tačnije rečeno, sistem indeksa) Linda, nazvan po svom autoru, saradniku Komisije EU u Briselu Remu Lindi.²⁸ Opšti obrazac za obračun ovih indeksa

$$IL_m = \frac{1}{m(m-1)} \sum_{i=1}^{m-1} \frac{m-i}{i} \cdot \frac{CR_i}{CR_m - CR_i} \quad (11)$$

razvija se i daje poseban izraz za svaku vrednost m. Indeksi Linda upravo su namenjeni za proveru postojanja oligopolskih struktura, pri čemu se za to ne koriste nikakve apriorno, znači – arbitrarno uspostavljene granice. Umesto toga, same vrednosti indeksa ukazuju na to postoji li na datom tržištu oligopol ili ne. U slučaju tržišta savršene (potpune) konkurencije, vrednosti tog indeksa konstantno opadaju ($IL_{m+1} > IL_m$ za sve m). Ako je takva zakonitost narušena, to ukazuje da na datom tržištu postoji oligopol. Prema teorijskim razmatranjima on može biti čvrst (3 do 5) ili labav (7 do 8 firmi).

Kao što se vidi u Tabeli 4, vrednosti indeksa Linda pokazuju postojanje čvrstog oligopola, praktično u svim godinama posmatranog perioda, bez obzira na određene razlike u pojedinim godinama. Niz tih vrednosti, naime, prekida se u najvećem broju slučajeva kod petog po redu indeksa ($IL_5 > IL_4$), a u nekim godinama i ranije, što

²⁸ R. Linda, *Methodology of concentration analysis applied to the study of industries and markets*, Commission of the European Communities, Brussels, 1976.

navodi na pomenuti zaključak, pri čemu oligopol u najvećem broju godina formiraju četiri firme, dok se u dvema godinama (2015. i 2016) struktura približava duopolnoj.

Tabela 4. Vrednosti indeksa Linda u sektoru osiguranja u Srbiji* 2011–2020.

IL	2011.	2012.	2013.	2014.	2015.	2016.	2017.	2018.	2019.	2020.
IL2	0,7089	0,7272	0,7011	0,5840	0,5759	0,5772	0,6302	0,6434	0,6150	0,6723
IL3	0,4703	0,5966	0,5828	0,5240	0,6102	0,5977	0,6107	0,6175	0,6042	0,6056
IL4	0,4911	0,5403	0,4840	0,4692			0,4620	0,4718	0,4586	0,4548
IL5		0,5488	0,5189	0,4997			0,5009	0,5066	0,4736	0,4661

* Bez Kosova i Metohije.

Izvor: preračunato na osnovu podataka Narodne banke Srbije u publikacijama *Ukupna premija i raspored premije društava za osiguranje*, za odgovarajuće godine

Primenom metoda razbijanja na jezgra, kao novog postupka,²⁹ dobijeno je da prvo, osnovno jezgro čine dve vodeće kompanije.³⁰ Kao što se vidi, taj postupak daje još strože rezultate, izdvajajući samo dve kompanije; što je rezultat posebno upečatljiv u poslednjim godinama, u kojima se, prema rezultatima u Tabeli 2, ustalila čvrsta oligopolska struktura koju čine četiri firme.

IV. Dekompozicija faktora promena u koncentraciji

Kao što je istaknuto, u narednom delu rada bavimo se problemima dekompozicije promena u koncentraciji u posmatranom periodu. Najpre će biti date neophodne teorijsko-metodološke napomene, a zatim i empirijska analiza koja će pokazati odgovarajući uticaj dveju bitnih komponenata (faktora), naime strukture tržišta i broj učesnika na tržištu, na promene u koncentraciji. U teorijskom domenu oslanjamo se na radove Hane i Keja i Enkoe i Žakmena.³¹ Polazište za naredna razmatranja predstavljaju, s jedne strane, činjenica da se HH indeks može dekomponovati u dva dela, kako je već istaknuto i predstavljeno izrazom (7), a s druge strane, okolnost da je HH indeks zapravo specijalan slučaj opšte klase indeksa koncentracije (Hana-Kej indeksi).

²⁹ Videti, na primer: И. А. Смарагдов и Е. И. Нестерова, Структура российского страхового рынка и конкуренция на нём, *Концепт*, 2015, 4.

³⁰ R. Bukvić, Novi pristupi ocenjivanju stepena koncentracije i konkurencije: primer sektora osiguranja u Srbiji, *XLVIII International Symposium on Operational Research, SYM-OP-IS 2021*, Beograd: Univerzitet u Beogradu, Matematički fakultet, 2021, str. 93–98.

³¹ L. Hannah & J. A. Kay, *Concentration in Modern Industry. Theory, measurement and the U. K. experience*, London – Basingstoke: The Macmillan Press Ltd., 1977; D. Encaoua and A. Jacquemin, Degree of Monopoly, Indices of Concentration and Threat of Entry, *International Economic Review*, 1980, 21(1), 87–105.

Polazeći od izraza (7), u našem prethodnom radu³² analizirali smo dinamiku (stope) promena HH indeksa i njegovih odgovarajućih komponenata: strukture tržišnih udela i broja osiguravajućih društava. Rezultati su pokazali da se smerovi promena u vrednosti koeficijenta HH i varijanse tržišnih udela poklapaju u celom periodu, bez i jednog izuzetka, dok se s druge strane između promena u broju osiguravajućih društava i ovog koeficijenta takva zavisnost ne može uspostaviti. Na osnovu toga, moglo bi se zaključiti da je smer kretanja Hiršman-Herfindalovog koeficijenta u osnovi bio uzrokovan promenama u strukturi tržišta, odnosno da promene broja osiguravajućih kompanija nisu jednoznačno uticale na promene vrednosti koeficijenta koncentracije. Ovaj nalaz potvrdili su i koeficijenti korelacije: korelacija između vrednosti HH indeksa i varijanse tržišnih udela u posmatranom desetogodišnjem periodu iznosi 0,476, a između vrednosti HH indeksa i broja firmi -0,110. Iako je uzorak (tj. serija) mali, može se smatrati da su ti rezultati vrlo ilustrativni, te da potvrđuju iznetu konstataciju.

Imajući u vidu navedena divergentna kretanja (negativna korelacija) broja firmi i vrednosti indeksa koncentracije, pokušaj da se kvantifikuju obe komponente promena HH indeksa i da se odredi stepen objašnjenja njegovih promena, analogno postupku koji su primenili Baho-Rubio i Salas³³ dekomponujući Hana-Kej indekse koncentracije za privredne delatnosti Španije, nije mogao dati u potpunosti zadovoljavajuće rezultate. U ovom radu smo stoga delimično modifikovali pristup, odlučivši se za postupak dekompozicije upravo na osnovu Hana-Kej indeksa.

Opšta klasa Hana-Kej indeksa koncentracije može se predstaviti, polazeći od izraza za ekvivalentni broj,³⁴ u obliku (9) i (10)

$$HKI = \left(\sum_{i=1}^N s_i^\alpha \right)^{\frac{1}{\alpha-1}}, \quad \alpha > 0; \alpha \neq 1 \quad (12)$$

$$HKI = \exp[s_i \ln s_i], \quad \alpha = 1 \quad (13)$$

gde α može uzimati različite pozitivne vrednosti. Iz (12) se lako može videti da se za $\alpha=2$ indeks Hana-Kej preobraća u poznati Hiršman-Herfindalov indeks (5).

Indeksi Hana-Kej obračunati su i prikazani u Tabeli 5, za iste vrednosti parametra α kao i u Tabeli 2. Naravno, i ovde veće vrednosti parametra dovode do isticanja većih vrednosti tržišnih udela, koji su u osnovi izračunavanja koeficijenata. Kao što se može videti u tabeli, ovde ne postoje jasne tendencije u kretanju indeksa, pa se i ne može ništa zaključiti o kretanju koncentracije u posmatranom periodu.

³² R. Bukvić, Dekompozicija promena u koncentraciji u sektoru osiguranja u Srbiji 2011–2020: uticaj promena u strukturi tržišta i broju društava za osiguranje, *Ekonomski vidici*, 2022, 27(1–2).

³³ O. Bajo & R. Salas, Inequality foundations of concentration measures: An application to the Hannah-Kay indices, *Spanish Economic Review*, 2002, 4(4). Takođe: O. Bajo-Rubio & R. Salas, Decomposing Change in Industry Concentration, *The Empirical Economics Letters*, 2004, 3(6).

³⁴ L. Hannah & J. A. Kay, *Concentration in Modern Industry. Theory, measurement and the U. K. experience*, London – Basingstoke: The Macmillan Press Ltd., 1977, str. 55.

Tabela 5. Vrednosti indeksa Hana-Kej u sektoru osiguranja u Srbiji* 2011–2020.

Godina	α				
	0,5	1	1,5	2	2,5
2011.	0,078	0,110	0,136	0,155	0,169
2012.	0,073	0,108	0,137	0,160	0,177
2013.	0,070	0,101	0,129	0,150	0,165
2014.	0,077	0,107	0,131	0,150	0,164
2015.	0,079	0,109	0,135	0,156	0,172
2016.	0,079	0,106	0,130	0,150	0,165
2017.	0,086	0,113	0,136	0,154	0,169
2018.	0,090	0,118	0,141	0,160	0,174
2019.	0,089	0,115	0,137	0,154	0,168
2020.	0,087	0,112	0,135	0,153	0,167

* Bez Kosova i Metohije.

Izvor: preračunato na osnovu podataka Narodne banke Srbije u publikacijama *Ukupna premija i raspored premije društava za osiguranje*, za odgovarajuće godine

Kako su pokazali Baho i Salas, indeksi Hana-Kej (12) i (13) mogu se predstaviti i preko generalizovanog indeksa entropije u vidu izraza (14) i (15)

$$HKI = \frac{[1+\alpha(\alpha-1)GEI]^{1/\alpha-1}}{N}, \quad \alpha > 0; \alpha \neq 1 \quad (14)$$

$$HKI = \frac{\exp GEI}{N} \quad (15)$$

gde je GEI generalizovani indeks entropije, definisan izrazima (8) – (10), odnosno, kao opšti slučaj

$$HKI(\alpha) = \frac{\varphi[GEI(\alpha)]}{N}, \quad \forall \alpha > 0 \quad (16)$$

gde je $\varphi[GEI(\alpha)]$ komponenta nejednakosti u (14) odnosno (15), koja je rastuća funkcija opšteg indeksa entropije.

Iz (16) promena u koncentraciji može se dekomponovati u dva dela³⁵

$$\frac{\Delta HKI(\alpha)}{HKI(\alpha)} \approx \frac{\Delta \varphi[GEI(\alpha)]}{\varphi[GEI(\alpha)]} - \frac{\Delta N}{N} \quad (17)$$

³⁵ O. Bajo & R. Salas, Inequality foundations of concentration measures: An application to the Hannah-Kay indices, *Spanish Economic Review*, 2002, 4(4). Takođe: O. Bajo-Rubio & R. Salas, Decomposing Change in Industry Concentration, *The Empirical Economics Letters*, 2004, 3(6)

Tabela 6. Dekompozicija promena u koncentraciji u sektoru osiguranja u Srbiji* 2011–2020.

Godina	HK(0,5)						HK(1)						HK(1,5)					
	Relative promene			Objašnjeno			Relative promene			Objašnjeno			Relative promene			Objašnjeno		
	HKI	$\varphi(GE)$	N	Svega	%		HKI	$\varphi(GE)$	N	Svega	%		HKI	$\varphi(GE)$	N	Svega	%	
	1	2	3	4=2-3	5=4/1		1	2	3	4=2-3	5=4/1	1	2	3	4=2-3	5=4/1		
2011.	-0,008	0,037	0,045	-0,009	104,5	0,013	0,059	0,045	0,013	104,5	0,019	0,065	0,045	0,019	104,5			
2012.	-0,06	-0,019	0,043	-0,062	104,3	-0,02	0,022	0,043	-0,021	104,3	0,009	0,053	0,043	0,009	104,3			
2013.	-0,047	-0,047	0	-0,047	100	-0,06	-0,06	0	-0,06	100	-0,06	-0,062	0	-0,062	100			
2014.	0,1	-0,038	-0,125	0,087	87,5	0,05	-0,081	-0,125	0,044	87,5	0,018	-0,109	-0,125	0,016	87,5			
2015.	0,033	-0,016	-0,048	0,032	95,2	0,027	-0,022	-0,048	0,026	95,2	0,033	-0,016	-0,048	0,032	95,2			
2016.	-0,007	-0,057	-0,05	-0,007	95	-0,032	-0,081	-0,05	-0,031	95	-0,039	-0,087	-0,05	-0,037	95			
2017.	0,092	-0,023	-0,105	0,082	89,5	0,065	-0,047	-0,105	0,058	89,5	0,044	-0,065	-0,105	0,04	89,5			
2018.	0,048	-0,013	-0,059	0,046	94,1	0,043	-0,019	-0,059	0,04	94,1	0,038	-0,023	-0,059	0,036	94,1			
2019.	-0,016	-0,016	0	-0,016	100	-0,025	-0,025	0	-0,025	100	-0,03	-0,03	0	-0,03	100			
2020.	-0,022	-0,022	0	-0,022	100	-0,021	-0,021	0	-0,021	100	-0,016	-0,016	0	-0,016	100			
	HK(2)						HK(2,5)											
	Relative promene			Objašnjeno			Relative promene			Objašnjeno			Relative promene			Objašnjeno		
Godina	HKI	$\varphi(GE)$	N	Svega	%		HKI	$\varphi(GE)$	N	Svega	%		HKI	$\varphi(GE)$	N	Svega	%	
	1	2	3	4=2-3	5=4/1		1	2	3	4=2-3	5=4/1							

R. Bukvić: Koncentracija u sektoru osiguranja u Srbiji: promene u periodu 2011–2020. i njihova dekompozicija

2011.	0,02	0,066	0,045	0,021	104,5	0,021	104,5	0,021	0,068	0,045	0,022	104,5						
2012.	0,029	0,073	0,043	0,03	104,3	0,03	104,3	0,042	0,088	0,043	0,044	104,3						
2013.	-0,063	-0,063	0	-0,063	100	-0,063	100	-0,064	-0,064	0	-0,064	100						
2014.	0	-0,125	-0,125	0	87,5	-0,125	87,5	-0,125	-0,135	-0,125	-0,01	87,5						
2015.	0,042	-0,008	-0,048	0,04	95,2	-0,048	95,2	0,049	-0,001	-0,048	0,047	95,2						
2016.	-0,04	-0,088	-0,05	-0,038	95	-0,038	95	-0,04	-0,088	-0,05	-0,038	95						
2017.	0,032	-0,077	-0,105	0,028	89,5	0,028	89,5	0,025	-0,083	-0,105	0,022	89,5						
2018.	0,035	-0,026	-0,059	0,033	94,1	0,033	94,1	0,033	-0,027	-0,059	0,031	94,1						
2019.	-0,033	-0,033	0	-0,033	100	-0,033	100	-0,034	-0,034	0	-0,034	100						
2020.	-0,012	-0,012	0	-0,012	100	-0,012	100	-0,009	-0,009	0	-0,009	100						

* Bez Kosova i Metohije.

Izvor: preračunato na osnovu podataka Narodne banke Srbije u publikacijama *Ukupna premija i raspored premije društava za osiguranje, za odgovarajuće godine*

Izraz (16) omogućava konačno dekompoziciju promena u koncentraciji koja je predstavljena u narednoj tabeli (Tabela 6). Kao što se može videti, promene u vrednostima indeksa Hana-Kej objašnjene su navedenim raščlanjavanjem više nego uspešno: minimalan procenat objašnjenih relativnih promena je 87,5%. Naravno, približno tačan izraz (17) doveo je u nekim slučajevima do odstupanja naviše, ali se i ona kreću u praktično minimalnim iznosima. Može se primetiti i da se najveći deo promena u stepenu koncentracije objašnjava promenama u tržišnoj strukturi (strukturi tržišnih udela), dok su promene stepena koncentracije i promene broja kompanija divergentne.

U celini, možemo konstatovati da je dekomponovanjem indeksa Hana-Kej po opisanom postupku učinjen dalji korak u objašnjavanju faktora koji su doveli do promena u koncentraciji u sektoru osiguranja u odnosu na naš prethodni rad u kome je dekomponovanjem indeksa (5) prema izvedenoj formuli (7) pokazano da je na promene stepena koncentracije u sektoru osiguranja u Srbiji u protekloj deceniji uticala struktura rasporeda tržišnih udela, dok broj kompanija nije imao izraženiji uticaj.

V. Zaključak

Savremena ekonomska teorija smatra konkurenciju za neizostavan faktor povećanja efikasnosti poslovanja, i to kako u realnom sektoru privrede tako i u infrastrukturi, konkretno u finansijskom sektoru, a u okviru njega i u sektoru osiguranja. Takav tretman dobija sve više finansijski sektor i u radovima naših istraživača, u kojima se primenom standardnih, ali i novijih metoda analiziraju koncentracija i konkurencija. Broj takvih istraživanja, kao i primenjenih metodoloških postupaka, do sada je nešto veći u bankovnom sektoru nego u sektoru osiguranja, ali se i tu postepeno situacija menja.

U ovom radu analizirani su stepen i promene u koncentraciji, a zatim je izvršena dekompozicija stepena koncentracije u sektoru osiguranja u Srbiji u poslednjoj deceniji. Iskorišćeni su, pored rezultata dobijenih u prethodnom istraživanju³⁶ primenom standardnih koeficijenata, odnosno metoda (pre svega koeficijenta koncentracije i Hiršman-Herfindalovog indeksa, ali i nekih drugačijih pristupa), i rezultati dobijeni obračunavanjem indeksa Hana-Kej i generalizovanog indeksa entropije. S jedne strane, ti rezultati ukazali su na (relativno) visok nivo koncentracije, i sugerisali da postoji oligopolska tržišna struktura, pri tome struktura tipa „čvrsti“ oligopol. Tokom posmatranog perioda nije došlo do značajnijih promena u stepenu koncentracije (i konkurencije), ali se zapaža određena fluktuacija obračunatih pokazatelja.

³⁶ R. M. Bukvić, Novi pristupi ocenjivanju stepena koncentracije i konkurencije: primer sektora osiguranja u Srbiji, *XLVIII International Symposium on Operational Research, SYM-OP-IS 2021* Beograd: Univerzitet u Beogradu, Matematički fakultet, 2021, str. 93–98.

U drugom delu rada izvršena je dekompozicija indeksa Hana-Kej. Treba naglasiti da je tokom protekle decenije broj osiguravajućih društava znatno opadao (sa 23 u 2011, odnosno 24 u 2012. i 2013, do 16 u poslednje tri godine), što se po definiciji ne bi moglo smatrati pozitivnim pokazateljem kada je u pitanju konkurencija. Međutim, dekomponovanjem vrednosti indeksa Hana-Kej, prema poznatoj izvedenoj formuli ovog pokazatelja na komponente nejednakosti i broja kompanija, pokazalo se da promene broja kompanija nisu imale značajnijeg uticaj na stepen koncentracije, već da je na njegovu veličinu primarno uticala struktura, tj. raspored tržišnih udela aktivnih kompanija. Zbog toga i ističemo da relativno značajno smanjenje broja osiguravajućih društava nije kao rezultat imalo (značajnije) povećanje stepena koncentracije u ovom sektoru.

Najzad, s obzirom na relativno mali broj istraživanja koncentracije i konkurencije u sektoru osiguranja u našim uslovima, neophodno je preporučiti dalja istraživanja, naravno uz poželjnu primenu i drugih pristupa.

Literatura

- Авдашева Светлана Борисовна и Розанова Надежда Михайловна. *Теория организации отраслевых рынков*, Москва: Издательство Магистр, 1998.
- Begović, Boris, Rajko Bukvić, Boško Mijatović, Marko Paunović, Robert Sepi i Dragor Hiber. *Antimonopolska politika u SR Jugoslaviji*, Beograd: Centar za liberalno-demokratske studije, 2002.
- Bukvić, Rajko M. Dekompozicija promena u koncentraciji u sektoru osiguranja u Srbiji 2011–2020: uticaj promena u strukturi tržišta i broju društava za osiguranje, *Ekonomski vidici*, 2022, 27(1–2), str. 35–52.
- Bukvić, Rajko M. Novi pristupi ocenjivanju stepena koncentracije i konkurencije: primer sektora osiguranja u Srbiji, *XLVIII International Symposium on Operational Research, SYM-OP-IS 2021* Banja Koviljača, 20–23. septembar 2021, Zbornik radova, ur. Dragan Urošević, Milan Dražić, Zorica Stanimirović, Beograd: Univerzitet u Beogradu, Matematički fakultet, 2021, str. 93–98.
- Воробьёв, Павел Фёдорович и Сергей Геннадьевич Светульников. Новый подход к оценке уровня конкуренции, *Современная конкуренция*, 2016, 10(6), 5–19.
- Смарагдов, Игорь Андреевич и Екатерина Игоревна Нестерова. Структура российского страхового рынка и конкуренция на нём, *Концепт*, 2015, 4, 1–7.
- Смарагдов, Игорь Андреевич и Вера Николаевна Сидорейко. Индексы рыночной концентрации: неоднозначная информативность, *Концепт*, 2015, 9, 1–8.

- Федеральная антимонопольная служба. Об утверждении Порядка проведения анализа состояния конкуренции на товарном рынке (с изменениями на 20 июля 2016 года) от 28 апреля 2010 года N 220, <http://docs.cntd.ru/document/902215421>
- Adelman, Morris Albert. The Measurement of Industrial Concentration, *The Review of Economics and Statistics*, 1951, 33(4), 269–296.
- Bajo, Oscar & Rafael Salas. Inequality foundations of concentration measures: An application to the Hannah-Kay indices, *Spanish Economic Review*, 2002, 4(4), 311–316.
- Bajo-Rubio, Oscar & Rafael Salas. Decomposing Change in Industry Concentration, *The Empirical Economics Letters*, 2004, 3(6), 311–319.
- Bukvić, Rajko. Istraživanja tržišnih struktura u privredi druge Jugoslavije, *Ekonomika*, 1999, 35(1–2), 4–16.
- Cowell, Frank A. *Measuring Inequality: techniques for the social sciences*, New York: Wiley, 1977.
- Dimić, Maja. *Analiza nivoa koncentracije u bankarskom sektoru i u sektoru osiguranja u zemljama centralne i istočne Evrope*, doktorska disertacija, Beograd: Univerzitet Singidunum, 2015.
- Encaoua, David and Alexis Jacquemin. Degree of Monopoly, Indices of Concentration and Threat of Entry, *International Economic Review*, 1980, 21(1), 87–105.
- Hannah, Leslie & John A. Kay. *Concentration in Modern Industry. Theory, measurement and the U. K. experience*, London – Basingstoke: The Macmillan Press Ltd., 1977.
- Horizontal Merger Guidelines, U.S. Department of Justice and the Federal Trade Commission, Issued: April 2, 1992, Revised: April 8, 1997. www.justice.gov/atr/public/guidelines/hmg.pdf
- Horizontal Merger Guidelines, U.S. Department of Justice and the Federal Trade Commission, Issued: August 19, 2010. www.justice.gov/atr/public/guidelines/hmg-2010.pdf
- Kostić, Milan. Analiza koncentracije ponude u sektoru osiguranja Srbije, *Industrija*, 2009, 37(2), 59–77.
- Kostić, Milan; Ljiljana Maksimović, Boban Stojanović. The limitations of competition in the insurance markets of Slovenia, Croatia and Serbia, *Economic Research - Ekonomska Istraživanja*, 2016, 29(1), 395–418.
- Linda, Rémo. Methodology of concentration analysis applied to the study of industries and markets, Commission of the European Communities, Brussels, 1976.
- Lončar, Dragan; Aleksandra Đorđević, Milena Lazić, Siniša Milošević, Vesna Rajić. Interplay Between Market Concentration and Competitive Dynamics

in the Banking Sector: Evidence from Serbia, Croatia, Romania and the Czech Republic, *Ekonomika preduzeća*, 2016, 64(5–6), 332–346.

- Maksimović, Ljiljana and Milan Kostić. Limitations in the Application of Concentration Indicators, *Ekonomika preduzeća*, 2012, 60(3–4), 199–205.
- Njegomir, Vladimir; Dragan Stojić, Dragan Marković. Liberalisation, Market Concentration and Performance in the Non-Life Insurance Industry of Ex-Yugoslavia, *Ekonomika misao i praksa*, 2011, 20(1), 21–39.

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CONCENTRATION IN SERBIAN INSURANCE SECTOR: 2011–2020 CHANGES AND THEIR DECOMPOSITION

SCIENTIFIC PAPER

Abstract

This paper analyses the concentration in the insurance sector and the impact of the market structure (distribution of market shares) and the number of insurance companies on the level of concentration (and competition) in the insurance sector in Serbia (excluding Kosovo and Metohija) in the ten-year period, from 2011 to 2020. The analysis relies upon a stated number of relevant concentration coefficients, based on the total insurance premium, showing a relatively high degree of concentration but without clear fluctuation tendencies. The differentiation of the impact of the mentioned factors was done on the basis of the decomposition of the Hannah-Kay index into two components, figuring the mentioned factors. Decomposition explained most of the degree variations concentration in all observed years (above 87.5%, at a minimum), primarily affected by market structure (changed market share) with a positive, though moderate, correlation; the result was quite different when it came to the number of insurance companies, where divergent and almost completely uncorrelated fluctuations were recorded.

Key words: *concentration, competition, insurance, Serbia, indicators, decomposition, market shares, number of companies.*

JEL C38, D43, G22, L11, L84

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I. Introduction

During a past few decades, the interest in the analysis of the development of competition has grown tremendously, not only in the so-called real sector of the economy. In modern economic considerations, the attitude towards competition is almost unique: it is deemed a factor that ensures the efficiency of the market economy. Moreover, the concept of competition has acquired a status of a universal model, applicable not only in economics but also in sociology, anthropology, game theory and many other disciplines.

During almost two centuries of tradition², many aspects and characteristics of competition have been explored. Nevertheless, the theoretical thought has still not managed to build a unique and generally accepted definition of competition. Consequently, many other aspects, phenomena and facts related to competition have not been resolved satisfactorily. One of such issues is the measurement of competition, as one of the central points of the entire theory, which is of a special importance in the practical application of results (for example, in the implementation of antitrust policy and/or the competition protection policy).

The lack of satisfactory and/or generally accepted answer to the above question usually results in the application of relative assessments on a non-quantitative scale - such as strong, moderate, weak competition and the like - the basis for assessments of this type being expert assessments, sociological surveys or in a somewhat stricter approach, the results and/or consequences of competition. Such results include a number of market participants (companies), their revenues (incomes) and profits i.e. acquired assets and capital. Based on such data, the shares achieved precisely in the process of competition of market participants are stated in adequate sizes.

Directly related to the above is the identification and (possible) quantification of factors that lead to changes in the degree of concentration, both in general and in individual markets. This degree of concentration is considered to be directly related to monopoly power within the structure-conduct-performance (SCP) paradigm.³ The theoretical and empirical work has pointed to a number of such factors, like barriers to market entry (legal, economic and/or technological, etc.) that must be taken into

² A. Smith is considered to be the founder of competition theory, although other economists and philosophers before him dealt with similar problems. We have in mind, first of all, mercantilists (T. Mann, A. Moncretien, V. Stafford, etc.), who paid significant attention to restricting the competition of foreign goods producers through state protectionism.

³ The SCP paradigm represents one of the areas in competition theory that is causing a lot of controversy. For a review of the literature on this issue, see for example V. Njegomir et al., *Liberalization, Market Concentration and Performance in the Non-Life Insurance Industry of Ex-Yugoslavia*, *Ekonomiska misao i praksa*, 2011, 20 (1).

account in more complex market analyses.⁴ All this applies not only to the real sector, but to the financial as well, to which greater attention has been dedicated recently, among other things in the field of competition, i.e. the competition protection policy.

The next research is dedicated to the problems of concentration in the insurance sector in Serbia (excluding Kosovo and Metohija). It is divided into two parts. The first part quantifies the level of concentration in the insurance sector in Serbia (excluding Kosovo and Metohija) in the last decade (2011–2020), using a few relevant indicators that shed light on several aspects of this market characteristic. In the second part, a demarcation is made between the influence of two factors whose changes affect the changes and dynamics of concentration: market structure (i.e. the changes in the composition of market shares) and the number of insurance companies. We have set the foundation for the research in the previous papers, where we have calculated a few different concentration measures in this sector,⁵ and provided for the decomposition of the factors of their changes based on the Hirschman-Herfindahl index, one of the most commonly used indicators of concentration.⁶ In this paper, the previous findings have been generalized and completed, and the decomposition has been provided of the indicators of concentration based on the Hannah-Kay concentration index and/or the general class index, of which the Hirschman-Herfindahl index is just one special case.

II. Methodological Notes

The starting point of one of the most frequently used approaches in assessing the degree of competition in the market are the achieved shares of market participants, based on which the competition distribution among market players is defined. The basis of this approach is simple reasoning: the lower the concentration of shares, the less power (authority) of individual market participants and the greater opportunity for competition development. Such a connection can be presented in a simple linear model

$$L=1-C \quad (1)$$

Showing the inverse relation amongst the competition (L) and concentration (C). The assumption about the linear character of the relationship (1) is extremely simplified, and, in its essence, probably not completely correct, since some research

⁴ In the overall and (up to now) the only study of its kind in modern Serbia (i.e. the then Yugoslavia), a special attention was dedicated to the barrier analysis itself. See: B. Begović et al., *Antimonopolska politika u SR Jugoslaviji*, Belgrade: Center for Liberal-Democratic Studies, 2002.

⁵ R. Bukvić, Novi pristupi ocenjivanju stepena koncentracije i konkurencije: primer sektora osiguranja u Srbiji, *XLVIII International Symposium on Operational Research, SYM-OP-IS 2021*, Belgrade: University of Belgrade, Faculty of Mathematics, 2021, p. 93–98.

⁶ R. Bukvić, Dekompozicija promena u koncentraciji u sektoru osiguranja u Srbiji 2011–2020: uticaj promena u strukturi tržišta i broju društava za osiguranje, *Ekonomski vidici*, 2022, 27(1–2), p. 35–52.

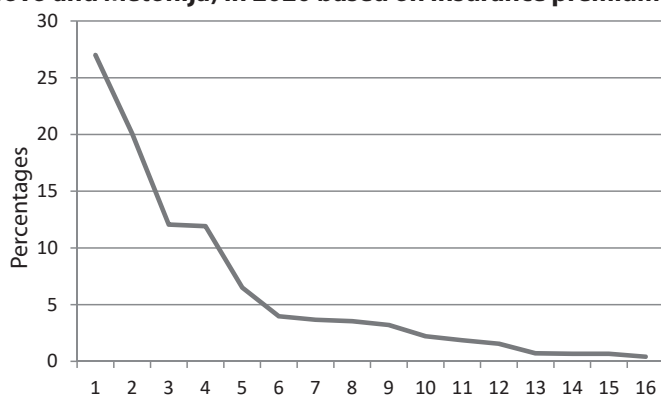
has shown that this relationship is different.⁷ Lončar and co-authors,⁸ contributed to the examination of this connection in our literature, analysing the banking markets of Serbia, Croatia, Romania and the Czech Republic. Consideration of this relationship is not relevant for the purposes of our research.

The level, i.e. the degree of concentration C in (1) is assessed through the share of individual market participants

$$s_i = \frac{Q_i}{Q} = \frac{Q_i}{\sum_{j=1}^N Q_j} \quad (2)$$

Where N means a number of participants on the market or a part of the market (branch, for example), Q_i is the scope of production (physical or monetary, or some other scope - total property i.e. assets, equity, number of employees) of the i -th market participant. Figure 1 shows the ordered sequence (in descending value, i.e. $s_i \geq s_{i+1}$) of the share of s_i firms in the market in the general case, i.e. when those values are unequal (when firms are not of equal strength). The curve (broken line) formed by the shares, presented on the vertical axis is concave to the horizontal axis and its specific shape depends on the share of individual companies, i.e. on the market structure. Note that the slope of this curved line changes from one point (from one firm) to another but remains negative (more precisely, non-positive) along the entire curve.

Figure 1. Declining market shares of Serbian insurance companies (excluding Kosovo and Metohija) in 2020 based on insurance premium total



⁷ П. Ф. Воробьев и С. Г. Светульников. Новый подход к оценке уровня конкуренции, *Современная конкуренция*, 2016, 10(6)

⁸ Lončar et al., Interplay Between Market Concentration and Competitive Dynamics in the Banking Sector: Evidence from Serbia, Croatia, Romania and the Czech Republic, *Ekonomika preduzeća*, 2016, 64(5–6).

If the shares are arranged in descending order, as in Figure 1 (which is a usual procedure), accumulation of shares is triggered so as to assess the degree of concentration, obtaining a growing curved (broken) line, convex to the horizontal axis, with a positive slope along its entire length, but with a value decreasing with distance from the coordinate origin (Figure 2).⁹ The values of the degree of concentration (1), determined by the accumulation of individual shares, will range from 1 (when there is only one participant in the market, so the entire production, sales, etc. and market power is concentrated with it) and $1/N$, when there are N participants in the market, who are all equally strong. When N is large enough, the concentration approaches zero ($C = 1 / N, C \rightarrow 0$ when $N \rightarrow \infty$).

A number of methods and indicators have been developed and used to assess the degree of concentration. At the beginning, two, somewhat inverse indicators, were most often used: the number of companies that cover a particular percentage (usually 80%) of the observed size (sales, revenues, assets, etc.)

$$S_{m^*} = \sum_{j=1}^{m^*} s_j = 80\% \quad (3)$$

Where m^* is the requested number of companies, and the aggregate share of a few major companies in the market

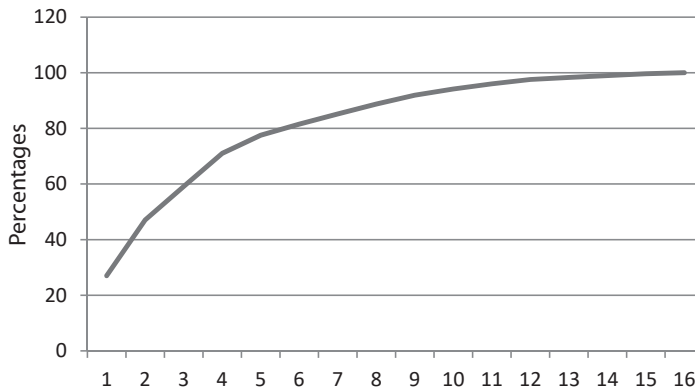
$$CR_n = \sum_{j=1}^n s_j, \quad (4)$$

Whereat, in the case of the latter, 4 was most often taken as n in empirical analyses, although for such, or some other choice, as a rule, no explanation was given.¹⁰ Regardless of how many participants (shares) are taken into account in the calculation of the coefficient (4), it is obvious that this indicator (as a simple sum of the shares of the first n , i.e. the largest, market participants) focuses on what is commonly called market “core”, while neglecting its “periphery” where the boundary between these two parts of the market is not clearly defined.

⁹ This curve is known as the “concentration curve” from the 1940’s studies by the Federal Trade Commission.

¹⁰ In fact, number 4 is most often uncritically taken, patterned on the example of the monograph of the Provisional National Economic Committee (TNEC), in which, however, this number was selected for practical reasons, without theoretical explanations. See: M. A. Adelman, The Measurement of Industrial Concentration, *The Review of Economics and Statistics*, 1951, 33 (4).

Figure 2. Cumulative shares: regulated sequence of shares of Serbian insurance companies (excluding Kosovo and Metohija) in 2020 based on the insurance premium total



Of the above indicators (3) and (4), the latter, known simply as the concentration coefficient (CRn), has remained in practical application. It has gained the greatest popularity over time, together with the Hirschman-Herfindahl coefficient (HH),¹¹ and has been most often used concentration indicator to this day.¹²

Unlike the CRn concentration coefficient, the Hirschman-Herfindahl coefficient is determined by taking into account the market share of all market participants. Since the sum of the shares of all participants by definition equals one, the squares of the corresponding shares are taken in the modelling of this coefficient

$$HH = \sum_{j=1}^N s_j^2 \quad (5)$$

which actually means that the market shares of the participants are weighted by the shares themselves.

¹¹ This coefficient can often be found in literature under the name Herfindahl coefficient (index), although the primacy certainly belongs to Albert Hirschman, who used it in 1945, whereas Orris Herfindahl used it only in 1950. This is certainly one of the most famous examples of the so-called Stigler's law (or Stigler's law of eponymy, according to the paper of the same title from 1980), according to which "no scientific discovery is named after its inventor". Stigler himself believed that this law was discovered by Robert Merton (who called it the Matthew effect), so the law itself is also applicable to its formal author!

¹² Such estimates characterize the history of research in our local environment as well, where, from its very beginning in the late 1950s until the end of the existence of SFR Yugoslavia, exclusively the CRn concentration index was used to make an analysis. See: R. Bukvić, *Istraživanja tržišnih struktura u privredi druge Jugoslavije, Ekonomika*, 1999, 35 (1–2). The Hirschman-Herfindahl coefficient was first applied in the study of Begović et al., *Antimonopolska politika u SR Jugoslaviji*, Belgrade: Center for Liberal-Democratic Studies, 2002.

The concentration coefficient (4) is calculated simply and requires only a few pieces information. However, it has serious shortcomings (among other things, it can have the same value for a different distribution of shares within the “core”), which significantly limit its usability. It is often pointed out that the coefficient (5) does not have such shortcomings, which allegedly makes it much more acceptable. However, since its values fluctuate in the interval

$$\frac{1}{N} \leq HH \leq 1 \quad (6)$$

it ensues that its minimum value depends on the number of market participants, so that the interpretation of the coefficient (5) is made significantly more difficult. This, of course, applies all the more to the coefficient (4). On the other hand, it is obvious that the HH coefficient attaches greater importance to participants with a larger share (the weight of each share, as already pointed out, is actually the share itself). However, of utmost importance is that the HH does not provide for a clear link between the distribution of shares and the degree of concentration, so it can have the same value for different market share configurations.¹³

In the practical implementation of the competition protection policy, when applying both of these indices (4) and (5), there are also problems of identifying types (forms) of competition based on their established values. They are (in practice, not in theory) resolved by arbitrary setting of limits (for example, in the Hirschman-Herfindahl coefficient, the usual limits were 0.10 and 0.18 for three types of markets: non-concentrated, moderately concentrated and highly concentrated markets¹⁴), in order to define the type of competition in the given market based on the value of the coefficient (5), in the relevant segment.

In this paper, we will first focus on the mentioned coefficients and the results obtained by their application, primarily the HH coefficient. We presented a more detailed overview of other coefficients and results in a recent announcement,¹⁵ including different approaches to the logic of aggregating market shares into one issue, followed by some other, less popular and used coefficients (Giniyev,

¹³ И. А. Смарагдов и В. Н. Сидорейко, Индексы рыночной концентрации: неоднозначная информативность, *Концепт*, 2015, 9.

¹⁴ This division was established in the United States, in the 1997 Guide to Horizontal Mergers, to be replaced by the 0.15 and 0.25 limits in 2010, see Horizontal Merger Guidelines (1997) and Horizontal Merger Guidelines (2019). In other countries where the Hirschman-Herfindahl index is used for these purposes, different limits can be found, but they are certainly arbitrary.

¹⁵ R. Bukvić, Novi pristupi ocenjivanju stepena koncentracije i konkurencije: primer sektora osiguranja u Srbiji, XLVIII International Symposium on Operational Research, SYM-OP-IS 2021, Belgrade: University of Belgrade, Faculty of Mathematics, 2021, p. 93–98

Rosenbluthov, Taidman-Hollow, etc.). The reason for this reduction lies in the desire to determine the factors that led to changes in the degree of concentration based on the results obtained in the previous paper, i.e. to differentiate the impact of changes in the number of insurance companies and market distribution among them on the concentration.

Namely, as has been pointed out many times¹⁶ and can be confirmed by elementary transformations of the coefficient (5), the Hirschman-Herfindahl coefficient can be represented by the following formula:

$$HH = N\sigma^2 + \frac{1}{N} \quad (7)$$

Where σ^2 is a variance of market shares s_i and N is the number of companies in the market. This fact has two contradictory consequences. On the one hand, it turns out that this leads to ambiguities in the interpretation of the value of the coefficient, which should not be ignored¹⁷ The second consequence relates to the fact that expression (7) provides for an opportunity to differentiate between the impact of the market share variance (i.e. changes in market structure) and the number of market participants on the changes in the degree of concentration¹⁸. The last circumstance was used for the research the results of which are presented in our previous paper¹⁹ so that, in this paper, we expand the research by applying a different procedure.

III. Concentration in Serbian Insurance Sector 2011–2020

The insurance market in Serbia has undergone relatively significant changes in the past decade, which primarily reflect in the number of insurance companies.²⁰ It ranged between 27 (in 2011), i.e. 28 (in 2012 and 2013) and 20 (in the last three

¹⁶ С. Б. Авдашева и Н. М. Розанова, *Теория организации отраслевых рынков*, Moscow: Издательство Магистр, 1998; И. А. Смарагдов и В. Н. Сидорейко, *Индексы рыночной концентрации: неоднозначная информативность*, *Концепт*, 2015, 9.

¹⁷ According to the hypothetical example given by Смарагдов and Сидорейко (*Индексы рыночной концентрации: неоднозначная информативность*, *Концепт*, 2015, 9), even in the case of equal competencies (market shares) of all participants in the market, the coefficient value HH shall be 0.2 for five market players and 0.1 for 10 players. In the first case, so, according to the above mentioned limits, market would be classified as highly concentrated and in the second – non-concentrated!

¹⁸ С. Б. Авдашева и Н. М. Розанова. *Теория организации отраслевых рынков*, Moscow: Издательство Магистр, 1998.

¹⁹ R. Bukvić, *Dekompozicija promena u koncentraciji u sektoru osiguranja u Srbiji 2011–2020: uticaj promena u strukturi tržišta i broju društava za osiguranje*, *Ekonomski vidici*, 2022, 27(1–2).

²⁰ The insurance sector is observed without data for Kosovo and Metohija, which are not available in the data of the National Bank of Serbia.

years), with a clear tendency to decrease, which is more than significant in percentage terms. Among these companies, four deal exclusively with reinsurance. In the following analyses, we focused on insurance companies, according to the data of the National Bank of Serbia, presented in the reports on *total premium and premium allocation of insurance companies* for the observed years, as was the case in our previous researches.²¹

Due to the specifics of competition in this sector, as we have already pointed out in the previous works, it is inadequate to use the earned income as a criterion, as is usual in the real sector (with physical volume of production which has no counterpart here), so that it is necessary to first select a variable according to which the concentration and competition will be determined. According to the current regulations (Law on Protection of Competition, Art. 7), the total premium for all lines of insurance applies to assess the degree of concentration in this sector.²² On this occasion, we also opted for this variable, although for certain purposes, of course, it would be desirable to use other variables as well (total non-life insurance premium and total life insurance premium), as was, for example, done by Maja Dimić.²³ Total premium was applied by other authors as well. For example Maksimović and Kostić.²⁴

Table 1. Values of concentration index CR3, CR4, CR5 and CR8 and Hirschman-Herfindahl index in Serbian insurance sector* 2011–2020

Year	CR3	CR4	CR5	CR8	HH	Year	CR3	CR4	CR5	CR8	HH
2011	63.1	72.1	77.4	88.6	1551	2016	59.5	70.2	74.9	86.2	1496
2012	62.4	71.6	77.3	87.5	1596	2017	59.8	71.5	77.2	88.6	1543
2013	59.8	70.3	75.8	85.6	1495	2018	61.0	72.6	78.4	89.7	1597
2014	60.6	70.8	76.5	87.7	1495	2019	59.7	71.4	77.8	89.3	1545
2015	61.2	70.9	76.1	87.5	1558	2020	59.1	71.0	77.6	88.7	1526

* Without Kosovo and Metohija.

Source: calculated on the basis of data from the National Bank of Serbia in the publications of *Total premium and premium allocation of insurance companies*, for the respective years

²¹ R. Bukvić, Novi pristupi ocenjivanju stepena koncentracije i konkurencije: primer sektora osiguranja u Srbiji, XLVIII International Symposium on Operational Research, SYM-OP-IS 2021, Belgrade: University of Belgrade, Faculty of Mathematics, 2021, p. 93–98.

²² Other arguments for using this variable are given in: M. Kostić, Analysis of supply concentration in the insurance sector of Serbia, *Industrija*, 2009, 37(2).

²³ M. Dimić. *Analiza nivoa koncentracije u bankarskom sektoru i u sektoru osiguranja u zemljama centralne i istočne Evrope*, doctoral dissertation, Belgrade: Singidunum University, 2015.

²⁴ Lj. Maksimović and M. Kostić. Limitations in the Application of Concentration Indicators, *Ekonomika preduzeća*, 2012, 60(3–4); M. Kostić et al., The limitations of competition in the insurance markets of Slovenia, Croatia and Serbia, *Economic Research - Ekonomska Istraživanja*, 2016, 29(1).

In this part of the paper, we will point out at some of the relevant results, only one of which we presented in a previous paper.²⁵ We will keep the focus mainly on the mentioned indices - the concentration coefficient and the Hirschman-Herfindahl coefficient, but they will be supplemented by other indicators. Table 1 shows the values of the CRn concentration index in four variants and the Hirschman-Herfindahl index in the observed ten-year period. All values are given in percentages, so the shares (2) are multiplied by 100. This of course changes nothing when it comes to obtained results and their construing.

The presented indices indicate a (relatively) high level of concentration, regardless of the fact that the already highlighted problem of determining the boundaries between low, medium and high concentration (or any other classification) does not actually allow the precise determination of this level. The values of the CR3 index are, with minor oscillations, around 60%, the CR4 concentration indices cover just over 70% of the total premium, and CR5 over $\frac{3}{4}$, so it can be considered the commonly called "the core" lies within these limits. This will be confirmed by the results from Table 4, obtained by another methodological procedure. Within such a specific core, two companies stand out, with shares in 2020 of 27% and 20%, respectively. On the other hand, in full accordance with this, it is obvious that the CR8 index has low informative value for our needs (practically, in all years, close to 90), which we normally expect, given the relatively small number of participants (insurance companies) and significant market shares of the leaders (see Figure 1). What can still be noticed and should be underlined is the fact that, in the entire observed period, there is no clear tendency in the fluctuations of the values of these coefficients.

The values of the Hirschman-Herfindahl index provide a somewhat different picture. If we accept the value of this index of 1800 as the border between moderate and highly concentrated market, the market in the Serbian insurance sector in the past decade would be classified as moderately concentrated. This is, obviously, to some extent contrary to the impression given by the values of the CRn index.²⁶ Based on that, the idea arises that the use of one indicator (index) is insufficient for market classification, but it is necessary to combine several data. Thus, for example, in the antitrust practice of the Federal Antimonopoly Service in Russia, two indicators are used in parallel, namely the CR3 and HX indices (see Table 2). As can be seen, the boundaries set there would allow for an unambiguous classification of our insurance market as moderately concentrated.

²⁵ R. Bukvić, Novi pristupi ocenjivanju stepena koncentracije i konkurencije: primer sektora osiguranja u Srbiji, XLVIII International Symposium on Operational Research, SYM-OP-IS 2021, Belgrade: University of Belgrade, Faculty of Mathematics, 2021, p. 93–98.

²⁶ It should be emphasized that the values of the Hirschman-Herfindahl index presented here are significantly lower than in the years preceding the analyzed period (over 2,000 in 2006, 2007 and 2008, slightly above 1,800 in 2009 and above 1,600 in 2010), which is not included in time within the framework of our analysis. Author's recalculation based on the same source of the National Bank of Serbia.

Table 2. Market classification by level of concentration in the Russian Federation

Market classification	Value of the CR3 index	Value of the Hirschman-Herfindal index (HH)
Low concentrated market	CR3≤45	HH≤1000
Moderately concentrated market	45<CR3<70	1000<HH<2000
High concentrated market	CR3>70	HH>2000

Source: Федеральная антимонопольная служба, Об утверждении Порядка проведения анализа состояния конкуренции на товарном рынке (с изменениями на 20 июля 2016 года) от 28 апреля 2010 года N 220, 2016

For the purposes of the analysis in the next section, it will be necessary to calculate the values of the generalized entropy index²⁷

$$GEI = \frac{1}{N} \frac{1}{\alpha(\alpha-1)} \sum_{i=1}^N \left[\left(\frac{S_i}{\bar{S}} \right)^\alpha - 1 \right], \quad \forall \alpha \neq 0, 1 \quad (8)$$

$$GEI = \frac{1}{N} \sum_{i=1}^N \ln \left(\frac{\bar{S}}{S_i} \right), \quad \alpha = 0 \quad (9)$$

$$GEI = \frac{1}{N} \sum_{i=1}^N \left[\left(\frac{S_i}{\bar{S}} \right) \ln \left(\frac{S_i}{\bar{S}} \right) \right], \quad \alpha = 1 \quad (10)$$

which will, obviously, take different values for different figures of the parameter α . In this case, higher values of the parameter give greater importance (weight) to higher value of the variable, and vice versa. Later in the text, we decided on five characteristic values of this parameter (0.5; 1; 1.5; 2; 2.5).

Table 3. Generalized entropy index, variance of market shares and number of companies in Serbian insurance sector * 2011–2020

Year	Value of the generalized entropy index					Variance of market shares	Number of companies
	α						
	0.5	1	1.5	2	2.5		
2011	1.012	0.930	1.024	1.284	1.786	48.543	23
2012	0.984	0.952	1.085	1.415	2.062	49.119	24
2013	0.910	0.890	1.009	1.294	1.843	44.942	24
2014	0.850	0.805	0.878	1.070	1.430	48.535	21
2015	0.825	0.783	0.860	1.058	1.428	52.907	20

²⁷ F. A. Cowell, *Measuring Inequality: techniques for the social sciences*, New York: Wiley, 1977.

Year	Value of the generalized entropy index					Variance of market shares	Number of companies
	α						
	0.5	1	1.5	2	2.5		
2016	0.731	0.699	0.763	0.921	1.209	51.010	19
2017	0.693	0.651	0.693	0.812	1.029	56.169	17
2018	0.671	0.632	0.670	0.778	0.976	60.776	16
2019	0.644	0.606	0.639	0.736	0.912	57.481	16
2020	0.606	0.585	0.623	0.721	0.896	56.316	16

* Without Kosovo and Metohija.

Source: calculated on the basis of data of the National Bank of Serbia in the publications of *Total premium and premium allocation of insurance companies*, for respective years

As presented in the Table 3, the index value tendencies for all selected values of the parameter α show a clear downward trend, indicating a reduction in inequality in the market shares distribution. Reducing the value of the index by almost half from the beginning of 2011 is very indicative, regardless of the fact that the values in 2020 are still quite far from the theoretical minimum (= 0), as would be the case if all market participants were fully equal.

On the other hand, the values of the coefficients in the Table 1 indicate the possibility of the existence of an oligopolistic structure, with grouping high market shares within smaller groups of companies. In order to verify this assumption, we will apply a different methodological procedure, as is usual in the practice of the relevant body in the European Union. This is the Linda index (more precisely, the index system), named after its author, Remó Linda, an associate of the EU Commission in Brussels.²⁸ The general formula for the calculation of these indexes

$$IL_m = \frac{1}{m(m-1)} \sum_{i=1}^{m-1} \frac{m-i}{i} \cdot \frac{CR_i}{CR_m - CR_i} \quad (11)$$

has been developed and gives a separate expression for any one m value. Linda indexes are intended precisely to check the existence of oligopolistic structures, using no *a priori*, i.e. arbitrarily established limits. Instead, the values of the index themselves indicate whether or not there is an oligopoly in a given market. In the case of a market of perfect (full) competition, the values of this index are constantly declining ($IL_{m+1} > IL_m$ for all m). If such pattern is breached, this is a signal that there is an oligopoly on the given market. According to theoretical considerations, it can be solid (3 to 5) or loose (7 to 8 companies).

²⁸ R. Linda, *Methodology of concentration analysis applied to the study of industries and markets*, Commission of the European Communities, Brussels, 1976.

As can be seen in the Table 4, the values of the Linda index show the existence of a tight oligopoly, practically in all years of the observed period, regardless of particular variations over the years. Many of these values, namely, are interrupted in most cases in the fifth index (IL5 > IL4), in some years even earlier, which leads to the above conclusion, where the oligopoly has in most years been formed by four companies, while in the two years (2015 and 2016) the structure has been approaching duopoly.

Table 4. Values of Linda index in Serbian insurance sector * 2011–2020.

IL	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
IL2	0.7089	0.7272	0.7011	0.5840	0.5759	0.5772	0.6302	0.6434	0.6150	0.6723
IL3	0.4703	0.5966	0.5828	0.5240	0.6102	0.5977	0.6107	0.6175	0.6042	0.6056
IL4	0.4911	0.5403	0.4840	0.4692			0.4620	0.4718	0.4586	0.4548
IL5		0.5488	0.5189	0.4997			0.5009	0.5066	0.4736	0.4661

* Without Kosovo and Metohija.

Source: calculated on the basis of data of the National Bank of Serbia in the publications of *Total premium and premium allocation of insurance companies*, for respective years

By applying the method of breaking down into cores, as a new procedure,²⁹ the first, basic core comprised two leading companies.³⁰ As can be seen, this procedure gives even stricter results, setting out only two companies; which is a particularly striking result in recent years, when, according to the results referred to under the Table 2, a solid oligopolistic structure consisting of four companies was established.

IV. Decomposition of Factors of Change in Concentration

As pointed out below, we are dealing with the problems of decomposition of changes in concentration during the observed period. First, the necessary theoretical and methodological notes will be given, followed by an empirical analysis that will show the appropriate influence of two relevant components (factors) – namely the market structure and number of market participants – on concentration changes. In the theoretical domain, we will rely on the works of Hannah and Kay and Encaoua and Jacquemin.³¹ The starting point for the following considerations

²⁹ See, for example: И. А. Смарагдов и Е. И. Нестерова, Структура российского страхового рынка и конкуренция на нём, *Концепт*, 2015, 4.

³⁰ R. Bukvić, Novi pristupi ocenjivanju stepena koncentracije i konkurencije: primer sektora osiguranja u Srbiji, *XLVIII International Symposium on Operational Research, SYM-OP-IS 2021*, Belgrade: University of Belgrade, Faculty of Mathematics, 2021, p. 93–98.

³¹ L. Hannah & J. A. Kay, *Concentration in Modern Industry. Theory, measurement and the U. K. experience*, London – Basingstoke: The Macmillan Press Ltd., 1977; D. Encaoua and A. Jacquemin, Degree of Monopoly, Indices of Concentration and Threat of Entry, *International Economic Review*, 1980, 21(1), 87–105.

is, on the one hand, the fact that the HH index can be decomposed into two parts, as already pointed out and presented by expression (7), and on the other hand, the fact that the HH index is actually a special case of general class concentration index (Hannah-Kay indexes).

In our previous paper³², we started from expression (7) and analysed the dynamics (rates) of changes in the HH index and its corresponding components: the structure of market shares and the number of insurance companies. The results showed that the directions of changes in the value of the coefficients HH and the variance of market shares coincide throughout the entire period, without exceptions, while, on the other hand, such dependence cannot be established between the changes in the number of insurance companies and this coefficient. Based on this fact, it could be concluded that the direction of the Hirschman-Herfindahl coefficient was mainly caused by changes in the market structure, i.e. that changes in the number of insurance companies did not unambiguously affect changes in the value of the concentration coefficient. This finding was confirmed by the correlation coefficients: the correlation between the value of the HH index and the variance of market shares in the observed ten-year period was 0.476, whereas between the value of the HH index and the number of companies -0.110. Although the sample (i.e. the series) is small, it can be deemed that these results are very illustrative and confirm the above statement.

Having in mind the mentioned divergent tendencies (negative correlation) of the number of firms and the value of the concentration index, an attempt to quantify both components of changes in the HH index and determine the degree of explanation of the changes thereof, analogous to the procedure applied by Bajo & R. Salas³³ concentration for the economic activities of Spain, could not give fully satisfactory results. In this paper, we have therefore partially modified the approach, opting for the decomposition procedure based on the Hannah-Kay index.

The general class of the Hannah-Kay concentration index can be represented, starting from the expression for the equivalent number,³⁴ in the form (9) and (10).

$$HKI = \left(\sum_{i=1}^N s_i^\alpha \right)^{\frac{1}{\alpha-1}}, \quad \alpha > 0; \alpha \neq 1 \quad (12)$$

³² R. Bukvić, Dekompozicija promena u koncentraciji u sektoru osiguranja u Srbiji 2011–2020: uticaj promena u strukturi tržišta i broju društava za osiguranje, *Ekonomski vidici*, 2022, 27(1–2).

³³ O. Bajo & R. Salas, Inequality foundations of concentration measures: An application to the Hannah-Kay indices, *Spanish Economic Review*, 2002, 4(4). Also: O. Bajo-Rubio & R. Salas, Decomposing Change in Industry Concentration, *The Empirical Economics Letters*, 2004, 3(6).

³⁴ L. Hannah & J. A. Kay, *Concentration in Modern Industry. Theory, measurement and the U. K. experience*, London – Basingstoke: The Macmillan Press Ltd., 1977, pp. 55.

$$HKI = \exp[s_i \ln s_i], \quad \alpha = 1 \quad (13)$$

where α may take various positive values. From (12) one can easily see that, for $\alpha=2$, the Hannah-Kay index is turned into the well-known Hirschman-Herfindahl index (5).

Hannah-Kay indices are calculated and presented in Table 5, for the same values of the parameter α as in Table 2. Of course, higher values of the parameter lead to higher values of market shares as well, and these form the basis for calculation of the coefficients. As can be seen in the table, there are no clear index tendencies, so nothing can be concluded about the concentration fluctuations in the observed period.

**Table 5. Values of the Hannah-Kay index in the Serbian insurance sector*
2011–2020**

Year	A				
	0.5	1	1.5	2	2.5
2011	0.078	0.110	0.136	0.155	0.169
2012	0.073	0.108	0.137	0.160	0.177
2013	0.070	0.101	0.129	0.150	0.165
2014	0.077	0.107	0.131	0.150	0.164
2015	0.079	0.109	0.135	0.156	0.172
2016	0.079	0.106	0.130	0.150	0.165
2017	0.086	0.113	0.136	0.154	0.169
2018	0.090	0.118	0.141	0.160	0.174
2019	0.089	0.115	0.137	0.154	0.168
2020	0.087	0.112	0.135	0.153	0.167

* Without Kosovo and Metohija.

Source: calculated on the basis of data of the National Bank of Serbia in the publications of *Total premium and premium allocation of insurance companies*, for respective years

As Bajo and Salas have shown, the Hannah-Kay indexes (12) and (13) may also be presented through a generalized index of entropy in the form of expressions (14) and (15).

$$HKI = \frac{[1 + \alpha(\alpha - 1)GEl]^{1/\alpha - 1}}{N}, \quad \alpha > 0; \alpha \neq 1 \quad (14)$$

$$HKI = \frac{\exp GEl}{N} \quad (15)$$

where GEI is a generalized entropy index, defined by expressions (8) – (10), i.e. as a general case

$$HKI(\alpha) = \frac{\varphi[GEI(\alpha)]}{N}, \forall \alpha > 0 \quad (16)$$

where $\varphi[GEI(\alpha)]$ is a component of inequality in (14) and/or (15), which is a growing function of a general entropy index.

From (16), the change in concentration can be decomposed in two parts³⁵

$$\frac{\Delta HKI(\alpha)}{HKI(\alpha)} \approx \frac{\Delta \varphi[GEI(\alpha)]}{\varphi[GEI(\alpha)]} - \frac{\Delta N}{N} \quad (17)$$

³⁵ O. Bajo & R. Salas, Inequality foundations of concentration measures: An application to the Hannah-Kay indices, *Spanish Economic Review*, 2002, 4(4). Also: O. Bajo-Rubio & R. Salas, Decomposing Change in Industry Concentration, *The Empirical Economics Letters*, 2004, 3(6)

Table 6. Decomposition of changes in concentration in Serbian insurance sector * 2011–2020.

Year	HK(0.5)						HK(1)						HK(1.5)					
	Relative changes			Explained			Relative changes			Explained			Relative changes			Explained		
	HKI	$\varphi(GE)$	N	Total	%		HKI	$\varphi(GE)$	N	Total	%		HKI	$\varphi(GE)$	N	Total	%	
	1	2	3	4=2-3	5=4/1		1	2	3	4=2-3	5=4/1		1	2	3	4=2-3	5=4/1	
2011	-0.008	0.037	0.045	-0.009	104.5		0.013	0.059	0.045	0.013	104.5		0.019	0.065	0.045	0.019	104.5	
2012	-0.06	-0.019	0.043	-0.062	104.3		-0.02	0.022	0.043	-0.021	104.3		0.009	0.053	0.043	0.009	104.3	
2013	-0.047	-0.047	0	-0.047	100		-0.06	-0.06	0	-0.06	100		-0.062	-0.062	0	-0.062	100	
2014	0.1	-0.038	-0.125	0.087	87.5		0.05	-0.081	-0.125	0.044	87.5		0.018	-0.109	-0.125	0.016	87.5	
2015	0.033	-0.016	-0.048	0.032	95.2		0.027	-0.022	-0.048	0.026	95.2		0.033	-0.016	-0.048	0.032	95.2	
2016	-0.007	-0.057	-0.05	-0.007	95		-0.032	-0.081	-0.05	-0.031	95		-0.039	-0.087	-0.05	-0.037	95	
2017	0.092	-0.023	-0.105	0.082	89.5		0.065	-0.047	-0.105	0.058	89.5		0.044	-0.065	-0.105	0.04	89.5	
2018	0.048	-0.013	-0.059	0.046	94.1		0.043	-0.019	-0.059	0.04	94.1		0.038	-0.023	-0.059	0.036	94.1	
2019	-0.016	-0.016	0	-0.016	100		-0.025	-0.025	0	-0.025	100		-0.03	-0.03	0	-0.03	100	
2020	-0.022	-0.022	0	-0.022	100		-0.021	-0.021	0	-0.021	100		-0.016	-0.016	0	-0.016	100	
	HK(2)						HK(2.5)											
Year	Relative changes			Explained			Relative changes			Explained			Relative changes			Explained		
	HKI	$\varphi(GE)$	N	Total	%		HKI	$\varphi(GE)$	N	Total	%		HKI	$\varphi(GE)$	N	Total	%	
	1	2	3	4=2-3	5=4/1		1	2	3	4=2-3	5=4/1		1	2	3	4=2-3	5=4/1	
2011	0.02	0.066	0.045	0.021	104.5		0.021	0.068	0.045	0.022	104.5							

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2012	0.029	0.073	0.043	0.03	104.3	0.042	0.088	0.043	0.044	104.3									
2013	-0.063	-0.063	0	-0.063	100	-0.064	-0.064	0	-0.064	100									
2014	0	-0.125	-0.125	0	87.5	-0.012	-0.135	-0.125	-0.01	87.5									
2015	0.042	-0.008	-0.048	0.04	95.2	0.049	-0.001	-0.048	0.047	95.2									
2016	-0.04	-0.088	-0.05	-0.038	95	-0.04	-0.088	-0.05	-0.038	95									
2017	0.032	-0.077	-0.105	0.028	89.5	0.025	-0.083	-0.105	0.022	89.5									
2018	0.035	-0.026	-0.059	0.033	94.1	0.033	-0.027	-0.059	0.031	94.1									
2019	-0.033	-0.033	0	-0.033	100	-0.034	-0.034	0	-0.034	100									
2020	-0.012	-0.012	0	-0.012	100	-0.009	-0.009	0	-0.009	100									

* Without Kosovo and Metohija.

Source: calculated on the basis of data of the National Bank of Serbia in the publications of *Total premium and premium allocation of insurance companies*, for respective years

The expression (16) allows for the final decomposition of changes in concentration presented in the following table (Table 6). As can be seen, the changes in the values of the Hannah-Kay index were more than successfully explained by the above analysis: the minimum percentage of explained relative changes amounts to 87.5%. Of course, the approximately correct expression (17) led in some cases to deviations upwards, but they also range within practically minimal amounts. It can be noticed that most of the changes in the degree of concentration are explained by changes in the market structure (structure of market shares), while changes in the degree of concentration and changes in the number of companies are divergent.

On the whole, we can state that the decomposition of the Hannah-Kay index according to the described procedure is a further step in explaining the factors that led to changes in concentration in the insurance sector compared to our previous paper in which the decomposition of the index (5) as per the developed formula (7) showed that changes in the degree of concentration in the insurance sector in Serbia in the past decade were affected by the structure of the distribution of market shares, while a number of companies sustained no significant impact.

V. Conclusion

Modern economic theory considers competition an indispensable factor in increasing business efficiency, both in the real sector of the economy and in infrastructure, in particular in the financial sector, and within it, in the insurance sector. The financial sector is more and more treated as such in the papers of local researchers, where the concentration and competition are analysed by both standard and more recent methods. A number of such researches, as well as the applied methodological procedures the banking sector, by now exceeds the one of the insurance sector. This situation, nevertheless, is gradually changing.

In this paper, we analysed the degree and changes in concentration and decomposed the degree of concentration in the insurance sector in Serbia in the last decade. In addition to the results obtained in the previous research³⁶ by applying the standard coefficients, i.e. methods (primarily the concentration coefficient and the Hirschman-Herfindahl index, but also some other approaches), we used the results obtained by calculating the Hannah-Kay index and the generalized entropy index. On the one hand, these results indicated a (relatively) high level of concentration and suggested that there was an oligopolistic market structure, with a "solid" oligopoly structure. During the period observed, significant changes occurred in the degree of concentration (and competition), but there is a certain fluctuation of the calculated indicators.

³⁶ R. M. Bukvić, Bukvić, Novi pristupi ocenjivanju stepena koncentracije i konkurencije: primer sektora osiguranja u Srbiji, *XLVIII International Symposium on Operational Research, SYM-OP-IS 2021*, Belgrade: University of Belgrade, Faculty of Mathematics, 2021, p. 93–98.

In the second part of the paper, the Hannah-Kay index was decomposed. It should be underlined that during the past decade, a number of insurance companies decreased significantly (from 23 in 2011, and/or 24 in 2012 and 2013, to 16 in the last three years), which by definition could not be considered a positive indicator when it comes to competition. However, by decomposing the value of the Hannah-Kay index, according to the well-known derived formula of this indicator on the components of inequality and the number of companies, the changes in the number of companies revealed not to have any significant impact on the degree of concentration, but its value was mostly affected by the distribution of market shares of active companies. Therefore, we emphasize that the relatively significant reduction in the number of insurance companies did not result in a (significant) increased degree of concentration in this sector.

Finally, given the relatively small number of studies of concentration and competition in the insurance sector in local environment, it is necessary to recommend further research and recommend, of course, the application of other approaches as well.

Literature

- Авдашева Светлана Борисовна и Розанова Надежда Михайловна. *Теория организации отраслевых рынков*, Moscow: Издательство Магистр, 1998.
- Begovic, Boris, Rajko Bukvić, Boško Mijatović, Marko Paunović, Robert Sepi and Dragor Hiber. *Antimonopolska politika u SR Jugoslaviji*, Belgrade: Center for Liberal-Democratic Studies, 2002.
- Bukvic, Rajko M. Dekompozicija promena u koncentraciji u sektoru osiguranja u Srbiji 2011–2020: uticaj promena u strukturi tržišta i broju društava za osiguranje, *Ekonomski vidici*, 2022, 27(1–2), p. 35–52.
- Bukvic, Rajko M. Нови приступи оцењивању степена концентрације и конкуренције: пример сектора осигурања у Србији, *XLVIII International Symposium on Operational Research, SYM-OP-IS 2021 Banja Koviljača*, 20–23 September 2021, Proceedings, ed. Dragan Urošević, Milan Dražić, Zorica Stanimirović, Belgrade: University of Belgrade, Faculty of Mathematics, 2021, p. 93–98.
- Воробъев, Павел Фёдорович и Сергей Геннадьевич Светульников. Новый подход к оценке уровня конкуренции, *Современная конкуренция*, 2016, 10(6), 5–19.
- Смарагдов, Игорь Андреевич и Екатерина Игоревна Нестерова. Структура российского страхового рынка и конкуренция на нём, *Концепт*, 2015, 4, 1–7.

- Смарагдов, Игорь Андреевич и Вера Николаевна Сидорейко. Индексы рыночной концентрации: неоднозначная информативность, *Концепт*, 2015, 9, 1–8.
- Федеральная антимонопольная служба. Об утверждении Порядка проведения анализа состояния конкуренции на товарном рынке (с изменениями на 20 июля 2016 года) от 28 апреля 2010 года N 220, <http://docs.cntd.ru/document/902215421>
- Adelman, Morris Albert. The Measurement of Industrial Concentration, *The Review of Economics and Statistics*, 1951, 33(4), 269–296.
- Bajo, Oscar & Rafael Salas. Inequality foundations of concentration measures: An application to the Hannah-Kay indices, *Spanish Economic Review*, 2002, 4(4), 311–316.
- Bajo-Rubio, Oscar & Rafael Salas. Decomposing Change in Industry Concentration, *The Empirical Economics Letters*, 2004, 3(6), 311–319.
- Bukvić, Rajko. Istraživanja tržišnih struktura u privredi druge Jugoslavije, *Ekonomika*, 1999, 35(1–2), 4–16.
- Cowell, Frank A. *Measuring Inequality: techniques for the social sciences*, New York: Wiley, 1977.
- Dimić, Maja. *Analiza nivoa koncentracije u bankarskom sektoru i u sektoru osiguranja u zemljama centralne i istočne Evrope*, doctoral dissertation, Belgrade: Singidunum University, 2015.
- Encaoua, David and Alexis Jacquemin. Degree of Monopoly, Indices of Concentration and Threat of Entry, *International Economic Review*, 1980, 21(1), 87–105.
- Hannah, Leslie & John A. Kay. *Concentration in Modern Industry. Theory, measurement and the U. K. experience*, London – Basingstoke: The Macmillan Press Ltd., 1977.
- Horizontal Merger Guidelines, U.S. Department of Justice and the Federal Trade Commission, Issued: April 2, 1992, Revised: April 8, 1997. www.justice.gov/atr/public/guidelines/hmg.pdf
- Horizontal Merger Guidelines, U.S. Department of Justice and the Federal Trade Commission, Issued: August 19, 2010. www.justice.gov/atr/public/guidelines/hmg-2010.pdf
- Kostić, Milan. Analysis of supply concentration in the insurance sector of Serbia, *Industrija*, 2009, 37(2), 59–77.
- Kostić, Milan; Ljiljana Maksimović, Boban Stojanović. The limitations of competition in the insurance markets of Slovenia, Croatia and Serbia, *Economic Research - Ekonomska Istraživanja*, 2016, 29(1), 395–418.

- Linda, Rémo. Methodology of concentration analysis applied to the study of industries and markets, Commission of the European Communities, Brussels, 1976.
- Lončar, Dragan; Aleksandra Đorđević, Milena Lazić, Siniša Milošević, Vesna Rajić. Interplay Between Market Concentration and Competitive Dynamics in the Banking Sector: Evidence from Serbia, Croatia, Romania and the Czech Republic, *Ekonomika preduzeća*, 2016, 64(5–6), 332–346.
- Maksimović, Ljiljana and Milan Kostić. Limitations in the Application of Concentration Indicators, *Ekonomika preduzeća*, 2012, 60(3–4), 199–205.
- Njegomir, Vladimir; Dragan Stojić, Dragan Marković. Liberalisation, Market Concentration and Performance in the Non-Life Insurance Industry of Ex-Yugoslavia, *Ekonomika misao i praksa*, 2011, 20(1), 21–39.

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VAŽNOST ODLOŽENOG POREZA NA DOBITAK U OSIGURAVAJUĆIM DRUŠTVIMA: SLUČAJ REPUBLIKE SRBIJE

ORIGINALNI NAUČNI RAD

Apstrakt

Osiguravajuća društva u Republici Srbiji (RS) dužna su da izveštavaju o odloženom porezu na dobitak, u skladu s Međunarodnim računovodstvenim standardom (MRS) 12 – Porezi na dobitak. Ona priznaju odložena poreska sredstva i odložene poreske obaveze u bilansu stanja, odnosno odloženi poreski rashod i odloženi poreski prihod u bilansu uspeha. U ovom radu ispitana je materijalnost odloženog poreza na dobitak u osiguravajućim društvima u RS, kao i njegov uticaj na procenu profitabilnosti i opterećenja porezom na dobitak društava. Istraživanjem je obuhvaćeno šesnaest osiguravajućih društava u periodu od 2017. do 2020. godine. Istraživanje je pokazalo da su efektivne poreske stope u prosečnom osiguravajućem društvu u RS niže u odnosu na propisanu stopu poreza na dobitak. Rezultati istraživanja pokazuju da odloženi porez obično ne predstavlja materijalno značajnu poziciju finansijskih izveštaja osiguravajućih društava. Takođe, odloženi porez na dobitak nije značajna bilansna pozicija prilikom procene profitabilnosti i opterećenja porezom na dobitak osiguravajućih društava.

Ključne reči: porez na dobitak, odloženi porez, MRS 12, materijalnost, profitabilnost, osiguranje.

JEL klasifikacija: G22, H25, M41.

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I. Uvod

Oporezivanje osiguravajućih društava ima određene specifičnosti u odnosu na oporezivanje preduzeća iz realnog sektora. Verovatno najznačajnija specifičnost odnosi se na porez na premije neživotnih osiguranja, koji se u Republici Srbiji (RS) plaća po stopi od 5%. Takođe, usluge osiguranja i reosiguranja u RS oslobođene su poreza na dodatu vrednost. Ipak, poput preduzeća iz realnog sektora, osiguravajuća društva su dužna da podnesu poreski bilans i poresku prijavu za porez na dobitak, nezavisno od toga da li su poslovala s dobitkom ili gubitkom.

Dobitak pre oporezivanja utvrđen u bilansu uspeha obično se razlikuje od oporezivog dobitka utvrđenog u poreskom bilansu. Ta razlika predstavlja posledicu različitih propisa koji se koriste za utvrđivanje dobitka pre oporezivanja i oporezivog dobitka.² Dobitak pre oporezivanja utvrđuje se prema računovodstvenim standardima, dok se oporezivi dobitak utvrđuje prema poreskim zakonima. Privremene razlike između dobitka pre oporezivanja i oporezivog dobitka dovode do pojave odloženog poreza na dobitak.

Odloženi porez na dobitak može biti od izuzetnog značaja u osiguravajućim društvima. Na primer, odloženi porez često je predmet interesovanja revizora, odnosno uzrok modifikovanog revizorskog mišljenja.³ Međutim, odloženi porez na dobitak često se smatra kontroverznim pitanjem,⁴ koje je teško primeniti u praksi. Takođe, i dalje postoje brojni problemi i dileme u vezi s primenom koncepta odloženog poreza.⁵

U poslednjih deset godina u RS beleži se smanjenje broja osiguravajućih društava i povećanje broja društava u stranom vlasništvu. Takođe, finansijski pokazatelji osiguravajuće delatnosti dostigli su zadovoljavajuće vrednosti,⁶ koje su povoljnije u odnosu na brojne države centralne i istočne Evrope.⁷ Ipak, uprkos konsolidaciji sektora osiguranja u RS u poslednjoj deceniji, i dalje postoji značajan prostor za unapređenje njegove efikasnosti.⁸ Neki od načina unapređenja efikasnosti mogu se pronaći u legalnom umanjenju tekućeg rashoda za porez na dobitak ili adekvatnom

² N. Wong, Accounting for Deferred Taxes under NZ IAS 12, *University of Auckland Business Review*, 8(1), 2006, str. 55.

³ S. Vučković-Milutinović, Analysis of Modifications to Auditor's Opinion on Financial Statements of Listed Companies in Serbia, *Ekonomika preduzeća*, 67(3-4), 2019, str. 212.

⁴ N. Wong, str. 55.

⁵ R. Colley, J. Rue, A. Valencia, A. Volkan, Accounting for Deferred Taxes: Time for a Change, *Journal of Business & Economics Research*, 10(3), 2012, str. 149.

⁶ M. Sokić, Analiza CARMEL pokazatelja sektora osiguranja u Republici Srbiji, *Tokovi osiguranja*, 35(2), 2019, str. 7.

⁷ M. Cerović, Rezultati osiguranja u Srbiji u 2016. godini, *Tokovi osiguranja*, 33(3), 2017, str. 72.

⁸ Z. Đurić, M. Jakšić, A. Krstić, DEA Window Analysis of Insurance Sector Efficiency in the Republic of Serbia, *Economic Themes*, 58(3), 2020, str. 291.

upravljanju odloženim rashodom za porez na dobitak.⁹ Stoga je predmet ovog istraživanja značaj odloženog poreza na dobitak u osiguravajućim društvima u RS.

Rad ima dva osnovna cilja. Prvi cilj jeste ispitivanje materijalnosti (značajnosti) odloženog poreza na dobitak u finansijskim izveštajima osiguravajućih društava u RS. Drugi cilj rada jeste ispitivanje uticaja odloženog poreza na dobitak na procenu profitabilnosti i opterećenja porezom na dobitak osiguravajućih društava u RS.

Porez na dobitak predstavlja nedovoljno istraženo područje u osiguravajućim društvima. Nekada se čak porez na dobitak ne uzima u obzir prilikom analize njihove profitabilnosti,¹⁰ već se u analizi koriste rezultati pre oporezivanja. Stoga se doprinos istraživanja ogleda u dopuni rezultata prethodnih istraživanja o ulozi odloženog poreza na dobitak. Dodatno, prema autorovim najboljim saznanjima, ovo je prvo istraživanje o odloženom porezu na dobitak u osiguravajućim društvima u RS.

Izuzev uvoda i zaključka, rad je sačinjen od četiri dela. U prvom su razvijene istraživačke hipoteze na bazi pregleda prethodnih istraživanja. U drugom delu prikazana je analiza konteksta, kroz specifičnosti poreskog okruženja u kojima osiguravajuća društva u RS posluju. Treći deo objašnjava metodologiju istraživanja i istraživački uzorak. U četvrtom delu predstavljeni su rezultati istraživanja i diskusija o rezultatima.

II. Razvoj istraživačkih hipoteza

Iako računovođe u RS obračun odloženog poreza na dobitak percipiraju kao kompleksan,¹¹ algoritam obračuna je relativno jednostavan. Prema Međunarodnom računovodstvenom standardu (MRS) 12 – Porezi na dobitak, odložena poreska sredstva i odložene poreske obaveze utvrđuju se za privremene razlike između knjigovodstvene i poreske vrednosti sredstava i obaveza, u skladu s algoritmom prikazanim na Slici 1.

Osiguravajuće društvo će iskazati odložena poreska sredstva kada je poreska vrednost sredstva (obaveze) veća (manja) od njegove knjigovodstvene vrednosti. Razlika te dve vrednosti predstavlja odbitnu privremenu razliku, koja se množi propisanom stopom poreza na dobitak. S druge strane, odložene poreske obaveze iskazuju se kada je knjigovodstvena vrednost sredstva (obaveze) veća (manja) od njegove poreske vrednosti. Razlika te dve vrednosti predstavlja oporezivu privremenu razliku, koja se, takođe, množi propisanom stopom. Dodatno, odložena poreska

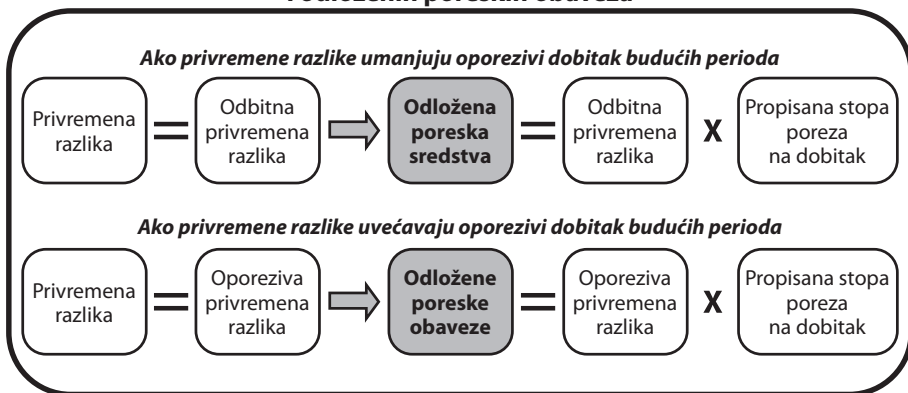
⁹ K. Holland, R. Jackson, Earnings Management and Deferred Tax, *Accounting and Business Research*, 34(2), 2004, str. 101.

¹⁰ R. Zainudin, N. Mahdzan, E. Leong, Firm-Specific Internal Determinants of Profitability Performance: An Exploratory Study of Selected Life Insurance Firms in Asia, *Journal of Asia Business Studies*, 12(4), 2018, str. 533.

¹¹ V. Obradović, M. Čupić, D. Dimitrijević, Application of International Financial Reporting Standards in the Transition Economy of Serbia, *Australian Accounting Review*, 28(1), 2018, str. 48.

sredstva i obaveze obično dovode do pojave odloženog poreskog rashoda i prihoda u bilansu uspeha osiguravajućih društava.

Slika 1. Algoritam utvrđivanja odloženih poreskih sredstava i odloženih poreskih obaveza



Izvor: autor, prema H. Sozibilir, V. Kula, E. Baykut, *A Research on Deferred Taxes: A Case Study on BIST Listed Banks in Turkey*. *European Journal of Business and Management*, 7(2), 2015, str. 2.

U teoriji i praksi razvijeni su brojni kriterijumi za određivanje materijalnosti, pri čemu se najčešće koriste ukupna imovina i ukupni prihodi.¹² S tim u vezi, prag materijalnosti obično se postavlja na nivou od 0,5% do 2% ukupne imovine ili ukupnih prihoda. Često se kao kriterijumi materijalnosti koriste i rezultat pre oporezivanja, neto imovina ili EBITDA. Iako se obično iskazuje u neto iznosu (u visini razlike između odloženih poreskih sredstava i odloženih poreskih obaveza), odloženi porez može biti materijalno značajna pozicija bilansa stanja i bilansa uspeha.¹³ Habanec i Bohusova¹⁴ pokazuju da odloženi porez na dobitak postaje naročito značajan nakon prelaska sa nacionalnih računovodstvenih standarda na Međunarodne standarde finansijskog izveštavanja. Kyriazopoulos i saradnici¹⁵ zaključuju da je odloženi porez

¹² A. Eilifsen, W. Messier, Materiality Guidance of the Major Public Accounting Firms, *Auditing: A Journal of Practice & Theory*, 34(2), 2015, str. 3.

¹³ H. Bohusova, P. Svoboda, L. Semeradova, Deferred Tax for Tax Planning in the Czech Agricultural Companies, *Agricultural Economics*, 65(8), 2019, str. 349.

¹⁴ P. Habanec, H. Bohusova, Comparison of Deferred Tax Materiality Reporting in Accordance with Continental and Anglo-Saxon Reporting System, *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 65(6), 2017, str. 1917.

¹⁵ G. Kyriazopoulos, G. Makriyiannis, M. Logotheti, The Impact of Deferred Taxation on Banking Profitability and Capital Adequacy. Evidence from the Greek Banking System, *International Journal of Applied Economics, Finance and Accounting*, 5(1), 2019, str. 1.

od naročitog značaja u grčkom bankarskom sektoru i da utiče na njihovu poslovnu aktivnost i razvojni potencijal.

Poterba i saradnici¹⁶ zaključuju da se značaj odloženih poreskih sredstava uvećao u mnogim preduzećima, koja su prebrodila negativne efekte ekonomske krize. Ta preduzeća priznaju rastuće iznose odloženih poreskih sredstava po osnovu neiskorišćenih poreskih gubitaka iz kriznog perioda. Takođe, ovi autori nalaze da učešće neto odloženih poreskih sredstava ili obaveza u američkim preduzećima obično ne prelazi 3%.

Porez na dobitak se tradicionalno posmatrao kao egzogena kategorija, na koju menadžment preduzeća ne može uticati. Stoga se prilikom ocene rada menadžmenta često koriste rezultati pre oporezivanja.¹⁷ S razvojem strategija poreskog planiranja i izbegavanja poreza, porez na dobitak zauzima značajno mesto u oceni rada menadžera. Ipak, nekada se prilikom analize performansi koristi isključivo tekući rashod za porez na dobitak, jer odloženi rashod predstavlja bezgotovinsku poziciju (koja ne izaziva odliv u izveštajnom periodu) bilansa uspeha.¹⁸ Ipak, osiguravajuća društva su dužna da obračunaju i tekući i odloženi poreski rashod, pa se mogu javiti značajne razlike u oceni profitabilnosti bazirane samo na tekućem poreskom rashodu i profitabilnosti zasnovane na oba poreska rashoda. S druge strane, Al-Jafari i Al Samman¹⁹ nalaze da porez na dobitak nema značajan uticaj na profitabilnost osiguravajućih društava kada je propisana stopa poreza na dobitak relativno niska.

Vučković-Milutinović i Lukić²⁰ nalaze različite prakse u srpskim kompanijama u smislu odloženog poreza na dobitak. Tako neke kompanije eliminišu odložene poreske obaveze prilikom obračuna zaduženosti. Neke kompanije tretiraju odložene poreske obaveze kao deo sopstvenog kapitala. Takođe, neke kompanije ignorišu odložena poreska sredstva prilikom analize solventnosti, dok ih neke kompanije posmatraju kao deo obrtne imovine prilikom analize likvidnosti.

Odloženi porez na dobitak može značajno uticati na ukupno opterećenje porezom na dobitak, koje se sastoji od tekućeg i odloženog rashoda za porez na dobitak. S tim u vezi, poresko opterećenje najčešće se meri različitim efektivnim poreskim stopama.²¹ Tako, za razliku od računovodstvene efektivne poreske stope,

¹⁶ J. Poterba, N. Rao, J. Seidman, Deferred Tax Positions and Incentives for Corporate Behavior around Corporate Tax Changes, *National Tax Journal*, 64(1), 2011, str. 27.

¹⁷ G. Porter, C. Norton, *Financial Accounting: The Impact on Decision Makers*, 6th edition, Mason, OH: South-Western Cengage Learning, 2009, str. 431.

¹⁸ S. Bolton, Cash Flow Based Business Valuations, *Business Valuation Review*, 10(4), 1991, str. 172.

¹⁹ M. Al-Jafari, H. Al Samman, Determinants of Profitability: Evidence from Industrial Companies Listed on Muscat Securities Market, *Review of European Studies*, 7(11), 2015, str. 303.

²⁰ S. Vučković-Milutinović, R. Lukić, Analysis of Deferred Taxes in the Business Environment in Serbia, *Economia. Seria Management*, 16(1), 2013, str. 25.

²¹ B. Lee, A. Dobijski, S. Minton, Theories and Empirical Proxies for Corporate Tax Avoidance, *Journal of Applied Business and Economics*, 17(3), 2015, str. 21.

tekuća efektivna poreska stopa ne sadrži odloženi poreski rashod. Stoga su između efektivnih poreskih stopa moguće znatne razlike, kako u realnom sektoru,²² tako i u finansijskom sektoru.²³ Na primeru čeških osiguravajućih društava, Bohusova i Vavrova²⁴ nalaze značajan uticaj odloženog poreza na dobitak na efektivnu poresku stopu društava. Fernandez-Rodriguez i saradnici²⁵ prezentuju različite rezultate istraživanja na španskim preduzećima u zavisnosti od efektivne poreske stope koja se koristi.

Racionalno je pretpostaviti da odloženi porez na dobitak dovodi do veće razlike između efektivnih poreskih stopa u kompanijama koje se oslanjaju na privremene razlike između dobitka pre oporezivanja i oporezivog dobitka. Tada je tekući rashod za porez na dobitak manji, ali se javlja odloženi rashod za porez na dobitak, pa postoji razlika između efektivne poreske stope koja sadrži odloženi rashod i efektivne poreske stope koja ne sadrži odloženi rashod. S druge strane, trajne razlike dovode do smanjenja tekućeg poreskog rashoda, ali ne i do povećanja odloženog poreskog rashoda, pa razlika između efektivnih poreskih stopa ne postoji.

Istraživanja odloženog poreza na dobitak u osiguravajućim društvima u RS gotovo da i nema. Ipak, vodeći se nalazima prethodnih istraživanja, u radu je pretpostavljeno da je odloženi porez na dobitak materijalno značajna pozicija, odnosno da ima značajan uticaj na procenu profitabilnosti i opterećenja porezom na dobitak osiguravajućih društava. Stoga su formulisane sledeće istraživačke hipoteze:

- H₁: Odloženi porez na dobitak je materijalno značajna bilansna pozicija u osiguravajućim društvima u Republici Srbiji.
- H₂: Odloženi porez na dobitak ima statistički značajan uticaj na procenu profitabilnosti osiguravajućih društava u Republici Srbiji.
- H₃: Odloženi porez na dobitak ima statistički značajan uticaj na procenu opterećenja porezom na dobitak osiguravajućih društava u Republici Srbiji.

III. Analiza konteksta

Generalno, osiguravajuća društva u RS podležu istoj regulativi u smislu obračuna opterećenja porezom na dobitak kao i preduzeća iz realnog sektora. Postupak oporezivanja njihovog dobitka propisan je Zakonom o porezu na dobit pravnih lica (*Službeni glasnik RS*, 153/2020) i pratećim podzakonskim aktima. Za razliku od nekih

²² I. Salihi, S. Sheikh Obid, H. Annuar, Measures of Corporate Tax Avoidance: Empirical Evidence from an Emerging Economy, *International Journal of Business and Society*, 14(3), 2013, str. 412.

²³ S. Vržina, Alternativni pristupi merenju efektivne stope poreza na dobitak u bankama, *Finansije*, 73(1-6), 2018, str. 45.

²⁴ H. Bohusova, E. Vavrova, The Structure of the Deferred Income Tax and Its Influence on Indicators Describing the Economic Performance of Commercial Insurance Companies, *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 55(3), 2007, str. 143.

²⁵ E. Fernandez-Rodriguez, R. Garcia-Fernandez, A. Martinez-Arias, Influence of Ownership Structure on the Determinants of Effective Tax Rates of Spanish Companies, *Sustainability*, 11(5), 2019, str. 1441.

država u kojima se primenjuje viša poreska stopa na finansijske institucije (na primer Belorusija), na osiguravajuća društva u RS primenjuje se ista propisana stopa poreza na dobitak (15%) kao na preduzeća iz realnog sektora. Osiguravajuća društva dužna su da prate i paragrafe MRS 12 – Porezi na dobitak.

Ipak, specifičnosti osiguravajuće delatnosti čine obračun tekućeg i odloženog poreza na dobitak unekoliko različitim u odnosu na preduzeća iz realnog sektora. Osiguravajuća društva su važni institucionalni investitori, a značajan deo sredstava ulažu u državne hartije od vrednosti.²⁶ Prinosi na takve hartije oslobođeni su poreza na dobitak, što osiguravajućim društvima omogućava umanjeње rashoda za porez na dobitak. Na taj način umanjuje se i efektivna poreska stopa osiguravajućih društava.

U vezi sa odloženim porezom na dobitak, u literaturi se kao najčešći izvor odloženog poreza navodi razlika između knjigovodstvene i poreske vrednosti stalne imovine,²⁷ odnosno razlika između knjigovodstvene i poreske amortizacije. Ipak, stalna imovina ima manji značaj u osiguravajućim društvima u odnosu na preduzeća iz realnog sektora, pa je važno razmotriti i neke druge izvore odloženog poreza u delatnosti osiguranja.

Značajan deo odloženog poreza u finansijskim institucijama potiče od svođenja hartija od vrednosti, koje institucije drže u portfoliju, na njihovu fer vrednost.²⁸ Na primer, povećanje fer vrednosti tih hartija dovodi do povećanja nerealizovanih dobitaka od ulaganja u hartije od vrednosti. Nerealizovani dobitci povećavaju odložene poreske obaveze, koje će se realizovati u momentu otuđenja hartije. Promena odloženog poreza po ovom osnovu nema uticaj na bilans uspeha osiguravajućeg društva, već na izveštaj o ostalom rezultatu društva.

Ipak, promena većine drugih izvora odloženog poreza koji se javljaju u RS ima uticaj na bilans uspeha osiguravajućih društava. Neki od najčešćih takvih izvora jesu amortizacija stalne imovine, dugoročna rezervisanja, neiskorišćeni poreski gubici, neiskorišćeni poreski podsticaji i obezvređenje imovine.²⁹ Ti izvori izazivaju sledeće pozicije u bilansu uspeha osiguravajućih društava:

- odloženi poreski rashod (gubitak od smanjenja odloženih poreskih sredstava i povećanja odloženih poreskih obaveza) i
- odloženi poreski prihod (dobitak od povećanja odloženih poreskih sredstava i smanjenja odloženih poreskih obaveza).

²⁶ M. Sokić, Osiguravajuće kuće kao institucionalni investitori u Republici Srbiji, *Tokovi osiguranja*, 31(4), 2015, str. 49.

²⁷ J. Poterba, N. Rao, J. Seidman, str. 27.

²⁸ S. Vučković-Milutinović, R. Lukić, str. 25.

²⁹ S. Vržina, V. Obradović, J. Bogičević, Financial Reporting on Income Tax in Serbia and Croatia: An Empirical Analysis, *Ekonomika preduzeća*, 68(5-6), 2020, str. 330.

IV. Metodologija istraživanja i razvoj istraživačkog uzorka

Istraživanje u ovom radu zasniva se na ideji Bohusove i saradnika,³⁰ koji su merili materijalnost odloženog poreza, ali i poredili pozicije preduzeća sa odloženim porezom i bez njega. Stoga su u radu korišćeni statistički testovi za poređenje grupa. Cilj testova jeste da ispituju postojanje statistički značajne razlike između dve grupe. Pri tome je moguće koristiti parametarske i neparametarske testove. Primena parametarskih testova zasniva se na aritmetičkim sredinama grupa, uz zahtevano postojanje normalnosti distribucije korišćenih varijabli. S druge strane, primena neparametarskih testova zasniva se na medijanama grupa, ali se postojanje normalnosti distribucije korišćenih varijabli ne zahteva.

Normalnost distribucije ispitana je korišćenjem Žark-Bera testa. U slučaju normalne distribucije, korišćen je test zasnovan na aritmetičkoj sredini (t-test), dok je u slučaju odsustva normalne distribucije korišćen test zasnovan na medijani (Vilkokson/Man-Vitni metod). Statistička obrada podataka izvršena je u ekonometrijskom softveru EViews. Korišćeni su nivoi poverenja od 10%, 5% i 1%.

Materijalnost odloženog poreza na dobitak merena je dvema varijablama – materijalnošću odloženog poreza u bilansu stanja (*MAT1*) i materijalnošću odloženog poreza u bilansu uspeha (*MAT2*). U ovom radu su korišćena dva kriterijuma materijalnosti – ukupna imovina i poslovni (funkcionalni) prihodi društva, uz upotrebu pragova materijalnosti od 1% i 0,5%. Profitabilnost osiguravajućih društava je merena, takođe, dvema varijablama – *ROA1*, koje obuhvata efekte odloženog poreza, i *ROA2*, koje ne obuhvata te efekte. Korišćena su i dva merila opterećenja porezom na dobitak – tekuća efektivna poreska stopa (*ETR1*) i računovodstvena efektivna poreska stopa (*ETR2*). Definicije korišćenih varijabli date su u Tabeli 1.

Tabela 1. Definicije varijabli

Oznaka	Formula
<i>MAT1</i>	(Odložena poreska sredstva – Odložene poreske obaveze) : Ukupna imovina
<i>MAT2</i>	Gubitak (dobitak) od odloženog poreza : Poslovni prihodi
<i>ROA1</i>	(Dobitak pre oporezivanja – Tekući poreski rashod ± Gubitak (dobitak) od odloženog poreza) : Ukupna imovina
<i>ROA2</i>	(Dobitak pre oporezivanja – Tekući poreski rashod) : Ukupna imovina
<i>ETR1</i>	Tekući poreski rashod : Dobitak pre oporezivanja
<i>ETR2</i>	(Tekući poreski rashod ± Gubitak (dobitak) od odloženog poreza) : Dobitak pre oporezivanja

³⁰ H. Bohusova, P. Svoboda, L. Semeradova, str. 349.

Prva istraživačka hipoteza je testirana poređenjem *MAT1* i *MAT2* sa pragovima materijalnosti od 1% i 0,5%. Druga istraživačka hipoteza testirana je poređenjem *ROA1* i *ROA2*, dok je treća istraživačka hipoteza testirana poređenjem *ETR1* i *ETR2*.

Istraživanjem su obuhvaćena sva osiguravajuća društva u RS, aktivna na kraju 2020. godine. Delatnost osiguranja u RS na kraju 2020. godine obavljalo je šesnaest osiguravajućih društava. S tim u vezi, četiri osiguravajuća društva se bave životnim osiguranjem, šest društava neživotnim osiguranjem, dok se šest društava bavi i životnim i neživotnim osiguranjem. Spisak osiguravajućih društava prikazan je u Tabeli 2.

Tabela 2. Spisak osiguravajućih društava u RS na kraju 2020. godine

Naziv društva	Bilansna suma (u 000 din)	Naziv društva	Bilansna suma (u 000 din)
Generali	72.701.091	Uniqa neživotno	6.939.005
Dunav	57.254.667	Milenijum	6.526.511
Wiener Stadtische	45.101.871	Merkur	5.018.486
Grawe	35.007.876	Sava neživotno	4.227.816
DDOR	22.480.125	Globos	2.493.177
Uniqa životno	11.114.805	OTP	2.256.428
Triglav	9.778.678	Sogaz	1.999.931
AMS	7.084.415	Sava životno	1.457.542

Istraživanje se zasniva na podacima iz pojedinačnih finansijskih izveštaja osiguravajućih društava, objavljenih na zvaničnom sajtu Agencije za privredne registre (www.apr.gov.rs). Osiguravajuća društva su dužna da izvrše reviziju svojih finansijskih izveštaja, što povećava pouzdanost pri njihovom korišćenju.³¹ U radu je uzorkovan period od 2017. do 2020. godine, jer su finansijski izveštaji na sajtu Agencije za privredne registre dostupni za taj vremenski raspon. U tom periodu, propisana stopa poreza na dobitak bila je na konstantnom nivou od 15%.

Koristeći četvorogodišnji period za šesnaest osiguravajućih društava, istraživački uzorak obuhvata šezdeset četiri opservacije. Ta veličina uzorka korišćena je prilikom izračunavanja *MAT1*, *MAT2*, *ROA1* i *ROA2*. S druge strane, pedeset devet opservacija korišćeno je prilikom izračunavanja *ETR1* i *ETR2*. Pet opservacija je eliminisano usled gubitka pre oporezivanja, jer efektivne poreske stope nemaju jasno ekonomsko značenje u uslovima negativnog rezultata pre oporezivanja.³²

³¹ B. Jovković, The Analysis of Auditor's Reports of Insurance Companies in the Republic of Serbia, *Temе*, 42(4), 2018, str. 1277.

³² M. Hanlon, S. Heitzman, A Review of Tax Research, *Journal of Accounting and Economics*, 50(2-3), 2010, str. 127.

V. Rezultati istraživanja i diskusija

1. Deskriptivna analiza

U Tabeli 3 predstavljeni su rezultati deskriptivne statistike korišćenih varijabli. Podaci iz tabele ukazuju na to da je materijalnost odloženog poreza na dobitak u prosečnom osiguravajućem društvu u RS niža u odnosu na uobičajene pragove od 1% i 0,5%. Samo četiri opservacije imaju *MAT1* veće od 1%, dok šesnaest opservacija ima *MAT1* veće od 0,5%. Dodatno, tri osiguravajuća društva su imala *MAT1* veće od 0,5% u sve četiri godine. S druge strane, samo dve opservacije imaju *MAT2* veće od 1%, dok tri opservacije imaju *MAT2* veće od 0,5%.

Tabela 3. Deskriptivna statistika

	<i>MAT1</i>	<i>MAT2</i>	<i>ROA1</i>	<i>ROA2</i>	<i>ETR1</i>	<i>ETR2</i>
Aritmetička sredina (u %)	0,351	0,113	2,514	2,506	5,546	4,194
Minimum (u %)	0,000	0,000	-12,613	-12,613	0,000	-77,192
Medijana (u %)	0,094	0,024	2,531	2,531	4,498	5,432
Maksimum (u %)	2,638	2,219	9,522	9,526	23,079	22,486
Standardna devijacija (u %)	0,544	0,312	3,597	3,584	6,106	12,728
Koeficijent varijacije	1,550	2,761	1,431	1,430	1,101	3,035
Opservacija	64	64	64	64	59	59

Iako je velika većina opservacija poslovala s pozitivnim rezultatom pre oporezivanja, značajan deo njih zabeležio je samo niske ili umerene nivoe profitabilnosti. Ipak, javljaju se i opservacije sa nešto višom profitabilnosti. Tako, dvadeset dve opservacije imaju *ROA1* između 0% i 2%, premda četrnaest opservacija ima *ROA1* više od 5%. S druge strane, dvadeset jedna opservacija ima *ROA2* između 0% i 2%, mada četrnaest opservacija ima *ROA2* više od 5%.

Efektivne poreske stope u prosečnom osiguravajućem društvu u RS niže su od propisane stope. Zapravo, samo četiri opservacije imaju *ETR1* veću od 15%, dok čak dvadeset četiri opservacije imaju *ETR1* jednaku 0%. Dodatno, šest osiguravajućih društava ima *ETR1* jednaku 0% u sve četiri godine. S druge strane, samo tri opservacije imaju *ETR2* veću od 15%, dok devetnaest opservacija ima *ETR2* jednaku 0%. Pet opservacija ima negativnu *ETR2*. Takođe, četiri osiguravajuća društva imaju i *ETR1* i *ETR2* jednaku 0% u sve četiri godine.

Tokom istraživanja primećene su neke zanimljive prakse osiguravajućih društava u smislu odloženog poreza na dobitak. Prvo, dva osiguravajuća društva nisu iskazala ni odložena poreska sredstva ni odložene poreske obaveze tokom četiri uzorkovane godine, iako su imala pravo da priznaju odložena poreska sredstva. Takođe,

nisu iskazala ni dinar tekućeg ili odloženog poreskog rashoda. Uprkos ostvarenom dobitku pre oporezivanja, ta društva su imala poreski gubitak u poreskom bilansu, usled činjenice da su prihodi od državnih hartija od vrednosti oslobođeni poreza. S obzirom na to da poreske gubitke očekuju i u budućnosti, odlučila su da ne priznaju odložena poreska sredstva.

Drugo, dva osiguravajuća društva su u sve četiri uzorkovane godine iskazala isti iznos neto odloženih poreskih sredstava. U bilansu uspeha nisu iskazala odloženi porez na dobitak. Ta društva nisu priznala odložena poreska sredstva u maksimalno raspoloživom iznosu, već samo u iznosu u kojem je verovatno da će odložena poreska sredstva biti realizovana na teret budućih oporezivih dobitaka. Interesantno je da se procena tih društava o mogućnosti za realizaciju odloženih poreskih sredstava nije menjala tokom perioda od četiri godine, pa je iznos odloženih poreskih sredstava bio nepromenjen.

Treće, jedno osiguravajuće društvo iskazalo je neto odložena poreska sredstva ili obaveze u sve četiri uzorkovane godine, ali nije iskazalo odloženi porez na dobitak u bilansu uspeha ni u jednoj godini. To društvo je odlučilo da prizna odloženi porez jedino po osnovu procene fer vrednosti hartija od vrednosti raspoloživih za prodaju, pri čemu ovaj izvor odloženog poreza nema uticaja na bilans uspeha društva.

2. Rezultati statističkih testova

Kako bi se utvrdilo koji će statistički testovi (parametarski ili neparametarski) biti korišćeni, ispitana je normalnost distribucije korišćenih varijabli, korišćenjem Žark-Bera testa. Rezultati testa prikazani su u Tabeli 4. S obzirom na to da je za pet od šest korišćenih varijabli verovatnoća jednaka nuli, normalna distribucija ovih varijabli ne može biti pretpostavljena. Stoga je pogodnije koristiti neparametarske statističke testove. Slični rezultati se dobijaju ukoliko se koriste neki drugi testovi normalnosti distribucije. Prema Šapiro-Vilk i Kolmogorov-Smirnov testovima, nijedna korišćena varijabla nema normalnu distribuciju.

Tabela 4. Testiranje normalnosti distribucije korišćenih varijabli

	<i>MAT1</i>	<i>MAT2</i>	<i>ROA1</i>	<i>ROA2</i>	<i>ETR1</i>	<i>ETR2</i>
Žark-Bera statistika	165,257	2.992,052	101,972	105,865	5,905	1.927,466
Verovatnoća	0,000	0,000	0,000	0,000	0,052	0,000
Opservacija	64	64	64	64	59	59

U Tabeli 5 predstavljeni su rezultati statističkih testova, kojima je testirana materijalnost odloženog poreza na dobitak u osiguravajućim društvima u RS. Rezultati pokazuju da postoji statistički značajna razlika na nivou od 1% između *MAT1* i korišćenih pragova materijalnosti. Slični zaključci mogu se primeniti i za varijablu

S. Vržina: Važnost odloženog poreza na dobitak u osiguravajućim društvima: slučaj Republike Srbije

MAT2. Drugim rečima, rezultati pokazuju da su MAT1 i MAT2 statistički znatno niži od korišćenih pragova materijalnosti. Generalno, rezultati ukazuju na to da odloženi porez na dobitak ne predstavlja materijalno značajnu poziciju u finansijskim izveštajima osiguravajućih društava u RS. Stoga se *prva istraživačka hipoteza odbacuje*.

Tabela 5. Rezultati statističkih testova – materijalnost odloženog poreza na dobitak

Varijabla 1	Varijabla 2	Vrednost testa	p-vrednost
MAT1	1%	9,128145	***0,000
MAT1	0,5%	5,214991	***0,000
MAT2	1%	9,811516	***0,000
MAT2	0,5%	9,484380	***0,000

Napomena: statistički značajno na nivou 10% (*), 5% (**) i 1% (***).

Razlika između korišćenih merila profitabilnosti ispitana je na osnovu statističkog testa, čiji su rezultati prikazani u Tabeli 6. Rezultati testa ukazuju na to da između ROA1 i ROA2 ne postoji statistički značajna razlika. Takvi rezultati ne iznenađuju – iako ROA1 ima veću aritmetičku sredinu od ROA2, ova merila profitabilnosti imaju jednake medijalne vrednosti. Ovi rezultati ukazuju na to da uključivanje odloženog rashoda za porez na dobitak u obračun profitabilnosti ne dovodi do statistički značajne promene u proceni zarađivačke sposobnosti osiguravajućih društava u RS. Stoga se *druga istraživačka hipoteza odbacuje*.

Tabela 6. Rezultati statističkih testova – razlika između merila profitabilnosti

Varijabla 1	Varijabla 2	Vrednost testa	p-vrednost
ROA1	ROA2	0,014297	0,989

Rezultati statističkog testa, kojima se testira razlika između korišćenih efektivnih poreskih stopa prikazana je u Tabeli 7. Iako ETR1 ima višu aritmetičku sredinu od ETR2, a ETR2 višu medijanu od ETR1, razlika između ove dve efektivne poreske stope nije statistički značajna. To znači da uključivanje odloženog rashoda za porez na dobitak u obračun efektivne poreske stope ne dovodi do statistički značajne promene u proceni opterećenja porezom na dobitak osiguravajućih društava u RS. Ti rezultati, takođe, ukazuju na to da izbor veličina koje se koriste u brojiocu efektivnih poreskih stopa nije od presudne važnosti za procenu poreskog opterećenja društava. Stoga se *treća istraživačka hipoteza odbacuje*.

Tabela 7. Rezultati statističkih testova – razlika između efektivnih poreskih stopa

Varijabla 1	Varijabla 2	Vrednost testa	p-vrednost
<i>ETR1</i>	<i>ETR2</i>	0,096554	0,923

Više razloga može objasniti nisku materijalnost odloženog poreza na dobitak, odnosno njegov mali uticaj na procenu profitabilnosti i opterećenja porezom na dobitak osiguravajućih društava u RS. Prvo, u svetu postoje brojne države u kojima je propisana stopa poreza na dobitak viša od 30% (neke države za određene delatnosti nameću i stope više od 50%). Stoga se propisana stopa poreza na dobitak u RS od 15% može smatrati relativno niskom. S obzirom na to da se odložena poreska sredstva i obaveze izračunavaju multiplikovanjem privremenih razlika i propisane stope, jasno je da niska stopa rezultuje nižim iznosom odloženog poreza.

Drugo, odložena poreska sredstva i obaveze obično se iskazuju u neto iznosu. MRS 12 propisuje da se odloženi porez na dobitak u bilansu stanja iskazuje u neto iznosu kada kompanija ima pravo da tekuća poreska sredstva i obaveze iskazuje u neto iznosu, i kada se odložena poreska sredstva i obaveze odnose na porez na dobitak koji je nametnula ista poreska vlast. U korišćenom istraživačkom uzorku, samo tri opservacije nisu iskazale neto iznos, pa su iskazale i odložena poreska sredstva i odložene poreske obaveze. Stoga je moguće da bi materijalnost odloženog poreza na dobitak bila znatno viša kada se odložena poreska sredstva i obaveze ne bi iskazivali u neto iznosu.

Treće, moguće je da mali značaj odloženog poreskog rashoda i prihoda potiče od odredaba MRS 12. Taj računovodstveni standard zagovara upotrebu metoda obaveze. Saglasno tom metodu, prednost se daje bilansu stanja, odnosno utvrđivanju odloženih poreskih sredstava i obaveza. S druge strane, odloženi porez u bilansu uspeha može se posmatrati kao rezidual. Drugim rečima, odloženi poreski rashod i prihod predstavlja isključivo posledicu promena odloženih poreskih sredstava i obaveza.

Četvrto, specifičan način priznavanja odloženih poreskih sredstava (i povezanih odloženih poreskih prihoda) može uticati na materijalnost odloženog poreza. Odložena poreska sredstva priznaju se po osnovu odbitnih privremenih razlika, neiskorišćenih poreskih kredita i neiskorišćenih poreskih gubitaka, ali samo u meri u kojoj je verovatno da će postojati oporezivi dobitci za realizaciju tih sredstava.

Peto, RS se može tretirati kao država sa relativno malim razlikama između dobitka pre oporezivanja i oporezivog dobitka. Mnoge evropske države s kontinentalnim pravnim sistemom imaju relativno slične propise za utvrđivanje dobitka pre oporezivanja i oporezivog dobitka. Tako dobitak pre oporezivanja predstavlja polaznu tačku za utvrđivanje oporezivog dobitka. Tada su privremene razlike manje, pa je i iznos odloženih poreskih sredstava i obaveza manji.

3. Provera robustnosti rezultata

U radu je, takođe, ispitana robustnost prezentovanih rezultata. Drugim rečima, ispitano je da li bi se i u kojoj meri rezultati istraživanja promenili na promene određenih pretpostavki istraživanja. Tako je inicijalni istraživački uzorak podeljen u dve grupe. Prva grupa sastoji se od polovine opservacija s najvećim vrednostima ukupne imovine, dok se druga grupa sastoji od polovine opservacija s najmanjim vrednostima ukupne imovine. Na taj način ispitano je da li veličina osiguravajućeg društva utiče na važnost odloženog poreza na dobitak, odnosno da li je važnost odloženog poreza na dobitak drugačija u većim i manjim osiguravajućim društvima.

Veličina preduzeća izabrana je kao kriterijum za ispitivanje robustnosti iz više razloga. Prvo, usled veće diverzifikovanosti, u većim organizacijama je manja verovatnoća pojave gubitaka.³³ To znači da je pojava odloženih poreskih sredstava po osnovu neiskorišćenih poreskih gubitaka manje verovatna u većim osiguravajućim društvima. Suprotno tome, veća osiguravajuća društva mogu iskazati odložena poreska sredstva u većem stepenu, s obzirom na to da mogu očekivati više buduće oporezive dobitke za realizaciju odloženih poreskih sredstava.

Drugo, veličina može biti značajna determinanta profitabilnosti osiguravajućih društava. Obično se ističe da veća osiguravajuća društva u RS imaju višu profitabilnost.³⁴ Treće, veličina preduzeća može uticati na efektivne poreske stope osiguravajućih društava. Prema hipotezi političke moći, veća društva imaju niže efektivne poreske stope, dok prema hipotezi političkih troškova, veća društva imaju više efektivne poreske stope.³⁵

U Tabeli 8 prikazani su rezultati analize robustnosti za procenu materijalnosti odloženog poreza na dobitak. Rezultati pokazuju da odloženi porez nije materijalno značajna pozicija u finansijskim izveštajima ni većih ni manjih osiguravajućih društava. Drugim rečima, veličina društva nije determinanta materijalnosti odloženog poreza na dobitak. Stoga su zaključci o prvoj istraživačkoj hipotezi robustni na podelu istraživačkog uzorka.

³³ J. Zimmerman, Taxes and Firm Size, *Journal of Accounting and Economics*, 5(1), 1983, str. 119.

³⁴ J. Kočović, B. Paunović, M. Jovović, Determinants of Business Performance of Non-Life Insurance Companies in Serbia, *Ekonomika preduzeća*, 62(7-8), 2014, str. 367; M. Pjanić, N. Milenković, B. Kalaš, V. Mirović, Profitability Determinants of Non-Life Insurance Companies in Serbia, *Ekonomika preduzeća*, 66(5-6), 2018, str. 333.

³⁵ A. Kraft, What Really Affects German Firms' Effective Tax Rate? *International Journal of Financial Research*, 5(3), 2014, str. 1.

Tabela 8. Analiza robustnosti rezultata – materijalnost odloženog poreza na dobitak

Varijabla 1	Varijabla 2	Vrednost testa	p-vrednost
Panel A. Polovina opservacija s najvećom ukupnom imovinom			
MAT1	1%	6,883394	***0,000
MAT1	0,5%	2,749051	***0,006
MAT2	1%	6,971426	***0,000
MAT2	0,5%	6,506179	***0,000
Panel B. Polovina opservacija s najmanjom ukupnom imovinom			
MAT1	1%	5,964651	***0,000
MAT1	0,5%	4,586537	***0,000
MAT2	1%	6,884295	***0,000
MAT2	0,5%	6,884295	***0,000

Napomena: statistički značajno na nivou 10% (*), 5% (**) i 1% (***).

Tabela 9 prikazuje rezultate analize robustnosti za procenu razlike između korišćenih merila profitabilnosti. Rezultati pokazuju da između korišćenih merila profitabilnosti ne postoji statistički značajna razlika ni u većim ni u manjim osiguravajućim društvima. To znači da veličina društva ne utiče na zaključak o uticaju odloženog poreza na dobitak na procenu profitabilnosti. Stoga su zaključci o drugoj istraživačkoj hipotezi robustni na podelu istraživačkog uzorka.

Tabela 9. Analiza robustnosti rezultata – razlika između merila profitabilnosti

Varijabla 1	Varijabla 2	Vrednost testa	p-vrednost
Panel A. Polovina opservacija s najvećom ukupnom imovinom			
ROA1	ROA2	0,087294	0,930
Panel B. Polovina opservacija s najmanjom ukupnom imovinom			
ROA1	ROA2	0,147707	0,883

U Tabeli 10 prikazani su rezultati analize robustnosti za procenu razlike između korišćenih efektivnih poreskih stopa. Može se zaključiti da između korišćenih efektivnih poreskih stopa ne postoji statistički značajna razlika ni u većim ni u manjim osiguravajućim društvima. Veličina društva ne utiče na zaključak o uticaju odloženog poreza na dobitak na procenu opterećenja porezom na dobitak. Stoga su zaključci o trećoj istraživačkoj hipotezi robustni na podelu istraživačkog uzorka.

Tabela 10. Analiza robustnosti rezultata – razlika između efektivnih poreskih stopa

Varijabla 1	Varijabla 2	Vrednost testa	p-vrednost
Panel A. Polovina opservacija s najvećom ukupnom imovinom			
<i>ETR1</i>	<i>ETR2</i>	0,494974	0,621
Panel B. Polovina opservacija s najmanjom ukupnom imovinom			
<i>ETR1</i>	<i>ETR2</i>	0,620473	0,535

VI. Zaključak

Osiguravajuća društva u RS obavezna su da u finansijskim izveštajima iskazuju odloženi porez na dobitak, u skladu sa MRS 12. Stoga je u radu ispitana materijalnost odloženog poreza i njegov uticaj na procenu profitabilnosti i opterećenja porezom na dobitak osiguravajućih društava. Istraživanje je sprovedeno na uzorku od šesnaest osiguravajućih društava za period od 2017. do 2020. godine.

Rezultati istraživanja pokazuju da odloženi porez na dobitak nije materijalno značajna pozicija u finansijskim izveštajima u osiguravajućim društvima u RS. Njegovo učešće u bilansu stanja i bilansu uspeha znatno je niže od uobičajenih pragova materijalnosti. Takvi rezultati su primarno posledica iskazivanja odloženih poreskih sredstava i obaveza u neto iznosu, kao i sličnosti u obračunu dobitka pre oporezivanja i oporezivog dobitka.

Istraživanje je, takođe, pokazalo da odloženi porez na dobitak nema statistički značajan uticaj na procenu profitabilnosti i opterećenja porezom na dobitak osiguravajućih društava. Drugim rečima, ne postoji značajna razlika između merila profitabilnosti, odnosno merila opterećenja porezom na dobitak, koja sadrže odloženi porez i onih koja ne sadrže odloženi porez na dobitak. Takvi rezultati su primarno posledica niske materijalnosti odloženog poreza, ali i činjenice da odloženi porez na dobitak u bilansu uspeha predstavlja samo rezidual obračuna odloženih poreskih sredstava i obaveza iz bilansa stanja.

Prezentovani rezultati istraživanja mogu biti od koristi brojnim interesnim grupama. Prvo, revizorima finansijskih izveštaja može koristiti informacija o materijalnosti odloženog poreza na dobitak, prilikom odabira pozicija koje će biti revidirane. Drugo, menadžerima osiguravajućih društava može koristiti informacija da odloženi porez na dobitak nema značajan uticaj na profitabilnost, prilikom sagledavanja načina za upravljanje performansama društva. Treće, nacionalnim poreskim vlastima može koristiti informacija o opterećenju porezom na dobitak osiguravajućih društava prilikom sagledavanja poreskog opterećenja različitih sektora ekonomije.

Ipak, rezultati istraživanja imaju i određena ograničenja. Istraživanje je zasnovano na metodi uzorkovanja, pa je moguće da bi se rezultati razlikovali kada

bi period uzorkovanja ili broj osiguravajućih društava bio drugačiji. Moguće je i da bi promena metodologije istraživanja dovela do promene rezultata istraživanja. Takođe, istraživanje je sprovedeno na osiguravajućim društvima iz samo jedne države.

Posebno ograničenje istraživanja može se pronaći u činjenici da osiguravajuća društva, u skladu sa MRS 12, iskazuju odložena poreska sredstva i obaveze u neto iznosu. Stoga u istraživanju nisu mogli biti korišćeni zasebni iznosi odloženih poreskih sredstava i obaveza. Takve zasebne iznose samo mali broj društava obelodanjuje u napomenama uz finansijske izveštaje.

Buduća istraživanja mogla bi obuhvatiti duži vremenski raspon u cilju obuhvatanja perioda pre 2013. godine, kada je propisana stopa poreza na dobitak u RS bila 10%. Korisna bi mogla biti i zasebna analiza za životna i neživotna osiguranja. Takođe, istraživanje bi moglo obuhvatiti i ostale države u cilju poređenja rezultata.

Literatura

- Al-Jafari, M. & Al Samman, H. (2015). Determinants of Profitability: Evidence from Industrial Companies Listed on Muscat Securities Market. *Review of European Studies*, 7(11), 303-311.
- Bohusova, H. & Vavrova, E. (2007). The Structure of the Deferred Income Tax and Its Influence on Indicators Describing the Economic Performance of Commercial Insurance Companies. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 55(3), 143-156.
- Bohusova, H., Svoboda, P. & Semeradova, L. (2019). Deferred Tax for Tax Planning in the Czech Agricultural Companies. *Agricultural Economics*, 65(8), 349-358.
- Bolton, S. (1991). Cash Flow Based Business Valuations. *Business Valuation Review*, 10(4), 172-174.
- Cerović, M. (2017). Rezultati osiguranja u Srbiji u 2016. godini. *Tokovi osiguranja*, 33(3), 72-92.
- Colley, R., Rue, J., Valencia, A. & Volkan, A. (2012). Accounting for Deferred Taxes: Time for a Change. *Journal of Business & Economics Research*, 10(3), 149-156.
- Đurić, Z., Jakšić, M. & Krstić, A. (2020). DEA Window Analysis of Insurance Sector Efficiency in the Republic of Serbia. *Economic Themes*, 58(3), 291-310.
- Eilifsen, A. & Messier, W. (2015). Materiality Guidance of the Major Public Accounting Firms. *Auditing: A Journal of Practice & Theory*, 34(2), 3-26.
- Fernandez-Rodriguez, E., Garcia-Fernandez, R. & Martinez-Arias, A. (2019). Influence of Ownership Structure on the Determinants of Effective Tax Rates of Spanish Companies. *Sustainability*, 11(5), 1441-1459.

- Habanec, P. & Bohusova, H. (2017). Comparison of Deferred Tax Materiality Reporting in Accordance with Continental and Anglo-Saxon Reporting System. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 65(6), 1917-1924.
- Hanlon, M. & Heitzman, S. (2010). A Review of Tax Research. *Journal of Accounting and Economics*, 50(2-3), 127-178.
- Holland, K. & Jackson, R. (2004). Earnings Management and Deferred Tax. *Accounting and Business Research*, 34(2), 101-123.
- Jovković, B. (2018). The Analysis of Auditor's Reports of Insurance Companies in the Republic of Serbia. *Teme*, 42(4), 1277-1295.
- Kočović, J., Paunović, B. & Jovović, M. (2014). Determinants of Business Performance of Non-Life Insurance Companies in Serbia. *Ekonomika preduzeća*, 62(7-8), 367-381.
- Kraft, A. (2014). What Really Affects German Firms' Effective Tax Rate? *International Journal of Financial Research*, 5(3), 1-19.
- Kyriazopoulos, G., Makryiannis, G. & Logotheti, M. (2019). The Impact of Deferred Taxation on Banking Profitability and Capital Adequacy. Evidence from the Greek Banking System. *International Journal of Applied Economics, Finance and Accounting*, 5(1), 1-13.
- Lee, B., Dobiyanski, A. & Minton, S. (2015). Theories and Empirical Proxies for Corporate Tax Avoidance. *Journal of Applied Business and Economics*, 17(3), 21-34.
- Obradović, V., Čupić, M. & Dimitrijević, D. (2018). Application of International Financial Reporting Standards in the Transition Economy of Serbia. *Australian Accounting Review*, 28(1), 48-60.
- Pjanić, M., Milenković, N., Kalaš, B. & Mirović, V. (2018). Profitability Determinants of Non-Life Insurance Companies in Serbia. *Ekonomika preduzeća*, 66(5-6), 333-345.
- Porter, G. & Norton, C. (2009). *Financial Accounting: The Impact on Decision Makers*, 6th edition. Mason, OH: South-Western Cengage Learning.
- Poterba, J., Rao, N. & Seidman, J. (2011). Deferred Tax Positions and Incentives for Corporate Behavior around Corporate Tax Changes. *National Tax Journal*, 64(1), 27-58.
- Salihu, I., Sheikh Obid, S. & Annuar, H. (2013). Measures of Corporate Tax Avoidance: Empirical Evidence from an Emerging Economy. *International Journal of Business and Society*, 14(3), 412-427.
- Sokić, M. (2015). Osiguravajuće kuće kao institucionalni investitori u Republici Srbiji. *Tokovi osiguranja*, 31(4), 49-70.
- Sokić, M. (2019). Analiza CARMEL pokazatelja sektora osiguranja u Republici Srbiji. *Tokovi osiguranja*, 35(2), 7-16.

- Sozibilir, H., Kula, V. & Baykut, E. (2015). A Research on Deferred Taxes: A Case Study on BIST Listed Banks in Turkey. *European Journal of Business and Management*, 7(2), 1-9.
- Vržina, S. (2018). Alternativni pristupi merenju efektivne stope poreza na dobitak u bankama. *Finansije*, 73(1-6), 45-65.
- Vržina, S., Obradović, V. & Bogićević, J. (2020). Financial Reporting on Income Tax in Serbia and Croatia: An Empirical Analysis. *Ekonomika preduzeća*, 68(5-6), 330-340.
- Vučković-Milutinović, S. (2019). Analysis of Modifications to Auditor's Opinion on Financial Statements of Listed Companies in Serbia. *Ekonomika preduzeća*, 67(3-4), 212-223.
- Vučković-Milutinović, S. & Lukić, R. (2013). Analysis of Deferred Taxes in the Business Environment in Serbia. *Economia. Seria Management*, 16(1), 25-37.
- Wong, N. (2006). Accounting for Deferred Taxes under NZ IAS 12. *University of Auckland Business Review*, 8(1), 55-59.
- Zainudin, R., Mahdzan, N. & Leong, E. (2018). Firm-Specific Internal Determinants of Profitability Performance: An Exploratory Study of Selected Life Insurance Firms in Asia. *Journal of Asia Business Studies*, 12(4), 533-550.
- Zimmerman, J. (1983). Taxes and Firm Size. *Journal of Accounting and Economics*, 5(1), 119-149.

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Stefan Ž. Vržina¹

IMPORTANCE OF DEFERRED INCOME TAX IN INSURANCE COMPANIES: CASE OF THE REPUBLIC OF SERBIA

SCIENTIFIC PAPER

Abstract

Insurance companies in the Republic of Serbia (RS) are required to report deferred income tax in accordance with the International Accounting Standards (IAS) 12 – Income Taxes. They recognize deferred tax assets and deferred tax liabilities on the balance sheet or deferred tax expenses and deferred tax income on the income statement. This paper examines the materiality of the deferred income tax in Serbian insurance companies, as well as its impact on assessing profitability and corporate income tax burden. The research conducted from 2017 to 2020 covered 16 insurance companies, and has shown that the effective tax rates in an average Serbian insurance company are lower than the prescribed rate of income tax. The research results have shown that typically, deferred tax does not materially represent a significant item in a statement of financial position of insurance companies. In addition, when assessing profitability and corporate income tax burden of insurance companies, deferred income tax is not a significant item on a balance sheet.

Keywords: *income tax, deferred tax, IAS 12, materiality, profitability, insurance.*

JEL classification: *G22, H25, M41.*

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I. Introduction

Taxation of insurance companies has certain specificities in relation to the taxation of real-sector companies. Perhaps the most significant specificity relates to the tax on non-life insurance premiums payable in the Republic of Serbia (RS) at a rate of 5%. Additionally, insurance and reinsurance services in RS are exempt from value added tax. However, just like real-sector businesses, insurance companies are required to submit a tax balance and file income tax return, regardless of whether the result of a business year is gain or loss.

The earnings before tax on the income statement are usually different from the taxable profit reported in the tax balance. This is because of different regulations which determine earnings before tax and taxable income.² Earnings before tax are determined by the accounting standards, while taxable profit is stipulated in the tax laws. Temporary differences between the earnings before tax and taxable profit lead to the deferred income tax.

Deferred income tax can be extremely important in insurance companies. For example, auditors are often interested in deferred tax which causes modified audit opinion.³ However, deferred income tax is often seen as a controversial issue⁴ that is difficult to apply in practice. In addition, there are still numerous problems and dilemmas as to the application of the deferred tax concept.⁵

The last ten years in RS have seen a decrease in the number of insurance companies and an increase in the number of foreign-owned companies. Additionally, financial indicators of this industry have reached satisfactory values,⁶ which are more favorable than those of numerous Central and Eastern European countries.⁷ Nevertheless, despite the consolidation of the insurance sector in RS over the last decade, there is still significant room for improvement of its efficiency.⁸ Some of the methods used to improve efficiency can be found in the legal approach which seeks to reduce current tax expenses or introduce adequate management of deferred income tax expenditures.⁹

² N. Wong, Accounting for Deferred Taxes under NZ IAS 12, *University of Auckland Business Review*, 8(1), 2006, p. 55.

³ S. Vučković-Milutinović, Analysis of Modifications to Auditor's Opinion on Financial Statements of Listed Companies in Serbia, *Ekonomika preduzeća*, 67(3-4), 2019, p. 212.

⁴ N. Wong, p. 55.

⁵ R. Colley, J. Rue, A. Valencia, A. Volkan, Accounting for Deferred Taxes: Time for a Change, *Journal of Business & Economics Research*, 10(3), 2012, p. 149.

⁶ M. Sokić, Analysis of Insurance Industry CARMEL Indicators in Republic of Serbia, *Insurance Trends*, 35(2), 2019, p. 7.

⁷ M. Cerović, Underwriting Results in Serbia in 2016, *Insurance Trends*, 33(3), 2017, p. 72.

⁸ Z. Đurić, M. Jakšić, A. Krstić, DEA Window Analysis of Insurance Sector Efficiency in the Republic of Serbia, *Economic Themes*, 58(3), 2020, p. 291.

⁹ K. Holland, R. Jackson, Earnings Management and Deferred Tax, *Accounting and Business Research*, 34(2), 2004, p. 101.

Therefore, the subject of this research is the significance of deferred income tax in Serbian insurance companies.

This paper has two main goals. The first goal is to examine the materiality (significance) of the deferred income tax in the financial statements of insurance companies in RS. The second goal is to explore the impact of the deferred income tax on the profitability on the assessment of profitability and corporate income tax burden of insurance companies in RS.

Income tax is an under-researched area in insurance companies. At times, when analyzing their profitability, these companies do not even take into account the income tax,¹⁰ but use the results before tax. Therefore, this research contributes with supplementary results to those of previous researches of the deferred income tax role. Additionally, according to the author's best knowledge, this is the first research on deferred income tax in RS.

With the exception of the introduction and conclusion, this paper is comprised of four parts. In the first part, research hypotheses were developed based on the analyses of previous researches. The second part shows context analysis, through the specifics of the tax environment in which RS insurance companies operate. The third part explains the methodology of the research and the research sample. The fourth part presents the research results and discussion.

II. Development of Research Hypotheses

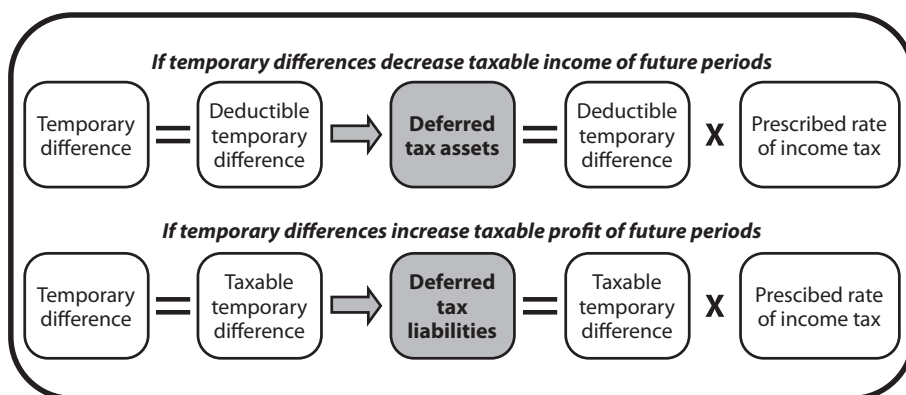
Although accountants in RS perceive the calculation of deferred income tax as complex,¹¹ the calculation algorithm is relatively simple. According to the International Accounting Standard (IAS) 12 – Income Taxes, deferred tax assets and deferred tax liabilities are determined for temporary imbalances between the carrying amount and tax basis of assets and liabilities, according to the algorithm shown in Figure 1.

The insurance company will present deferred tax assets when the tax base of the asset (liability) is greater (lower) than its carrying amount. The difference between the two values is a deductible temporary difference, multiplied by the prescribed rate of income tax. On the other hand, deferred tax liabilities are expressed when the carrying amount of the asset (liability) is greater (lower) than its tax amount. The difference between the two values is a taxable temporary difference, which is also multiplied by the prescribed rate. Additionally, deferred tax assets and liabilities typically result in deferred tax expenses and income in the insurance company's income statement.

¹⁰ R. Zainudin, N. Mahdzan, E. Leong, Firm-Specific Internal Determinants of Profitability Performance: An Exploratory Study of Selected Life Insurance Firms in Asia, *Journal of Asia Business Studies*, 12(4), 2018, p. 533.

¹¹ V. Obradović, M. Čupić, D. Dimitrijević, Application of International Financial Reporting Standards in the Transition Economy of Serbia, *Australian Accounting Review*, 28(1), 2018, p. 48.

Figure 1. Algorithm for determining deferred tax assets and deferred tax liabilities



Source: author, according to H. Sozbilir, V. Kula, E. Baykut, A Research on Deferred Taxes: A Case Study on BIST Listed Banks in Turkey. *European Journal of Business and Management*, 7(2), 2015, p. 2.

In theory and practice, a number of criteria for determining materiality have been developed, where total assets and total revenues are most commonly used.¹² In this regard, the materiality threshold is usually set at a level of 0.5% to 2% of the total assets or total revenue. Materiality criteria often used are also income before tax, net assets, or EBITDA. Although usually expressed in the net amount (the difference between deferred tax assets and deferred tax liabilities), deferred tax may be materially significant item of the balance sheet and income statement.¹³ Habanec and Bohusova¹⁴ show that deferred income tax becomes particularly significant after switching from national accounting standards to International Financial Reporting Standards. Kyriazopoulos et al.¹⁵ conclude that the deferred tax is of particular importance in the Greek banking sector and influences their business activity and development potential.

¹² A. Eilifsen, W. Messier, Materiality Guidance of the Major Public Accounting Firms, *Auditing: A Journal of Practice & Theory*, 34(2), 2015, p. 3.

¹³ H. Bohusova, P. Svoboda, L. Semeradova, Deferred Tax for Tax Planning in the Czech Agricultural Companies, *Agricultural Economics*, 65(8), 2019, p. 349.

¹⁴ P. Habanec, H. Bohusova, Comparison of Deferred Tax Materiality Reporting in Accordance with Continental and Anglo-Saxon Reporting System, *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 65(6), 2017, p. 1917.

¹⁵ G. Kyriazopoulos, G. Makriyiannis, M. Logotheti, The Impact of Deferred Taxation on Banking Profitability and Capital Adequacy. Evidence from the Greek Banking System, *International Journal of Applied Economics, Finance and Accounting*, 5(1), 2019, p. 1.

Poterba et al.¹⁶ conclude that the deferred tax assets have gained in importance in many companies that have weathered the economic crisis and its negative effects. These companies recognize the rising amounts of deferred tax assets based on unused tax losses from the crisis period. In addition, these authors find that the share of net deferred tax assets or liabilities in U.S. businesses typically does not exceed 3%.

Traditionally, income tax was perceived as an exogenous category that corporate management cannot influence. Consequently, earnings before tax are often used when evaluating management's work.¹⁷ With the development of tax planning and tax avoidance strategies, income tax takes a significant place in the assessment of managers' work. However, sometimes when analyzing performance, only current tax expense is used, because deferred expense is a non-cash item (which does not cause outflows in the reporting period) of the income statement.¹⁸ Nevertheless, insurance companies are obliged to calculate both current and deferred tax expenses, so there may be significant differences in the profitability assessment based only on current tax expense and that based on both tax expenses. On the other hand, Al-Jafari and Al Samman¹⁹ find that the income tax has no significant impact on the profitability of insurance companies when the prescribed rate of income tax is relatively low.

Vučković-Milutinović and Lukić²⁰ identified different practices in Serbian companies in terms of deferred income tax. Thus, some companies eliminate deferred tax liabilities when calculating the level of indebtedness. Some companies treat deferred tax liabilities as part of equity. In addition, some companies ignore deferred tax assets when analyzing solvency, while others view them as part of working capital when analyzing liquidity.

Deferred income tax can have a significant impact on the overall income tax burden, which consists of current and deferred income tax expense. In this regard, the tax burden is usually measured by different effective tax rates.²¹ Thus, unlike the effective tax rate in accounting, the current effective tax rate does not contain deferred tax expense. Therefore, significant differences are possible between effective

¹⁶ J. Poterba, N. Rao, J. Seidman, Deferred Tax Positions and Incentives for Corporate Behavior around Corporate Tax Changes, *National Tax Journal*, 64(1), 2011, p. 27.

¹⁷ G. Porter, C. Norton, *Financial Accounting: The Impact on Decision Makers*, 6th edition, Mason, OH: South-Western Cengage Learning, 2009, p. 431.

¹⁸ S. Bolton, Cash Flow Based Business Valuations, *Business Valuation Review*, 10(4), 1991, p. 172.

¹⁹ M. Al-Jafari, H. Al Samman, Determinants of Profitability: Evidence from Industrial Companies Listed on Muscat Securities Market, *Review of European Studies*, 7(11), 2015, p. 303.

²⁰ S. Vučković-Milutinović, R. Lukić, Analysis of Deferred Taxes in the Business Environment in Serbia, *Economia. Seria Management*, 16(1), 2013, p. 25.

²¹ B. Lee, A. Dobiyski, S. Minton, Theories and Empirical Proxies for Corporate Tax Avoidance, *Journal of Applied Business and Economics*, 17(3), 2015, p. 21.

tax rates, both in the real sector,²² and in the financial sector.²³ Taking Czech insurance companies as an example, Bohusova and Vavrova²⁴ find a significant impact of the deferred income tax on the effective corporate tax rate. Fernandez-Rodriguez et al.²⁵ present different results of research conducted on Spanish companies, depending on the effective tax rate used.

One can rationally assume that deferred income tax leads to a greater difference between effective tax rates in companies that rely on temporary differences between earnings before tax and taxable profit. In such case, the current income tax expense is lower, but deferred income tax expense emerges, so there is a difference between an effective tax rate that contains deferred expense and an effective tax rate that does not contain deferred expense. On the other hand, lasting differences lead to a reduction in the current tax expense, but do not cause increase in deferred tax expense and thus, the difference between effective tax rates does not exist.

Research into deferred income tax in RS insurance companies is almost non-existent. Nevertheless, drawing on the findings of previous researches, the author of the paper assumed that deferred income tax is a materially significant item, namely, that it has a significant impact on assessing profitability and the corporate income tax burden on insurance companies. Therefore, the following hypotheses are formulated:

- H₁: Deferred income tax is a materially significant balance sheet item in insurance companies operating in the Republic of Serbia.
- H₂: Deferred income tax has a statistically significant effect on the profitability assessment of insurance companies in the Republic of Serbia.
- H₃: Deferred income tax has a statistically significant effect on the assessment of corporate income tax burden on insurance companies in the Republic of Serbia.

III. Context Analysis

In general, in the calculation of the income tax burden, insurance companies in RS are subject to the same regulations as real-sector businesses. The procedure of taxing their earnings is prescribed by the Law on Corporate Income Tax (*Official*

²² I. Salihi, S. Sheikh Obid, H. Annuar, Measures of Corporate Tax Avoidance: Empirical Evidence from an Emerging Economy, *International Journal of Business and Society*, 14(3), 2013, p. 412.

²³ S. Vržina, Alternativni pristupi merenju efektivne stope poreza na dobitak u bankama, *Finansije*, 73(1-6), 2018, p. 45.

²⁴ H. Bohusova, E. Vavrova, The Structure of the Deferred Income Tax and Its Influence on Indicators Describing the Economic Performance of Commercial Insurance Companies, *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 55(3), 2007, p. 143.

²⁵ E. Fernandez-Rodriguez, R. Garcia-Fernandez, A. Martinez-Arias, Influence of Ownership Structure on the Determinants of Effective Tax Rates of Spanish Companies, *Sustainability*, 11(5), 2019, p. 1441.

Gazette of RS, 153/2020) and accompanying bylaws. Unlike some countries where the higher tax rate is applied to financial institutions (for example Belarus), Serbian insurance companies are subject to the same prescribed rate of income tax (15%) as real sector companies. Insurance companies are obliged to follow the paragraphs IAS 12 – Income Taxes.

Nevertheless, the specifics of the insurance industry make the accounting of the current and deferred income tax somewhat different from that of real-sector companies. Insurance companies are important institutional investors, and a significant portion of the funds are invested in government securities.²⁶ Returns on such securities are exempt from income tax, which allows insurance companies to reduce expenses on profit taxes. This also reduces the effective tax rate of insurance companies.

In relation to deferred income tax, the literature lists the difference between the carrying value and tax basis of fixed assets,²⁷ i.e. the difference between accounting and tax depreciation. Nevertheless, fixed assets have less significance in insurance companies than in real sector companies, so it is important to consider some other sources of deferred tax in the insurance industry.

A significant portion of the deferred tax in financial institutions comes from the translation of securities, which institutions keep in the portfolio, to their fair value.²⁸ For example, the increase in the fair value of these securities leads to an increase in unrealized gain from investment in securities. Unrealized gains increase deferred tax liabilities, which will be realized when the securities are sold. The change in deferred tax on this basis has no impact on the insurance company's income statement, but on the report on the other results of the company.

Nevertheless, change in most other sources of deferred tax that occur in RS has an impact on the balance sheet of insurance companies. Some of the most common sources are depreciation of fixed assets, long-term provisions, unused tax losses, unused tax incentives, and impairment of assets.²⁹ These sources lead to the following items in the income statement of insurance companies:

- deferred tax expense (loss from decrease in deferred tax assets and increase in deferred tax liabilities) and
- deferred tax income (profit from increase in deferred tax assets and decrease in deferred tax liabilities).

²⁶ M. Sokić, Insurance Companies as Institutional Investors in the Republic of Serbia, *Insurance Trends*, 31(4), 2015, p. 49.

²⁷ J. Poterba, N. Rao, J. Seidman, p. 27.

²⁸ S. Vučković-Milutinović, R. Lukić, p. 25.

²⁹ S. Vržina, V. Obradović, J. Bogičević, Financial Reporting on Income Tax in Serbia and Croatia: An Empirical Analysis, *Ekonomika preduzeća*, 68(5-6), 2020, p. 330.

IV. Research Methodology and Development of Research Sample

The research in this paper is based on the idea of Bohusova et al.³⁰, who measured the materiality of the deferred tax, but also compared the company's items with and without deferred tax. Therefore, statistical tests were used to compare groups. The aim of the tests is to examine the existence of a statistically significant difference between the two groups. Additionally, it is possible to use parametric and nonparametric tests. The application of parametric tests is based on the group arithmetic means, with the required normal distribution of used variables. On the other hand, the application of nonparametric tests is based on group median, but distribution normality of used variables is not required.

The normality of distribution was tested using the Jarque-Bera test. In the case of normal distribution, the test is based on arithmetic mean (t-test), while in the absence of normal distribution, a median-based test was used (Wilcoxon/Mann-Whitney method). Statistical processing of data was performed in EViews econometric software. Confidence levels were 10%, 5% and 1%.

The materiality of the deferred income tax was measured by two variables – the materiality of deferred tax on the balance sheet (*MAT1*) and the materiality of deferred tax on income statement (*MAT2*). This paper used two materiality criteria – total assets and operating (functional) income of the company, using materiality thresholds of 1% and 0.5%. The profitability of insurance companies was also measured by two variables – *ROA1*, which includes the effects of deferred tax, and *ROA2*, which does not include these effects. Two measures of income tax burden were also used - current effective tax rate (*ETR1*) and the accounting effective tax rate (*ETR2*). Definitions of used variables are provided in Table 1.

Table 1 Variable definitions

Mark	Formula
<i>MAT1</i>	(Deferred tax assets – Deferred tax liabilities) : Total assets
<i>MAT2</i>	Loss (profit) from deferred tax : Operating income
<i>ROA1</i>	(Profit before tax – Current tax expenditure ± Loss (gain) from deferred tax) : Total assets
<i>ROA2</i>	(Profit before tax – Current tax expense : Total assets
<i>ETR1</i>	Current tax expense : Profit before tax
<i>ETR2</i>	(Current tax expense ± Loss (gain) from deferred tax) : Profit before tax

³⁰ H. Bohusova, P. Svoboda, L. Semeradova, p. 349.

The first research hypothesis was tested comparing *MAT1* and *MAT2* with materiality thresholds of 1% and 0.5%. The second research hypothesis was tested by comparison of *ROA1* and *ROA2*, while the third research hypothesis was tested comparing *ETR1* and *ETR2*.

The research covered all insurance companies in RS, active at the end of 2020. At the end of 2020, insurance activities in RS were carried on by sixteen insurance companies. In this regard, there were four insurance companies dealing with life insurance, six non-life insurance companies, while six companies carried out both life and non-life insurance. The list of insurance companies is shown in Table 2.

Table 2 List of insurance companies in RS at the end of 2020

Company name	Balance Sum (in 000 Din)	Company name	Balance Sum (in 000 Din)
Generali	72,701,091	Uniqa non-life	6,939,005
Dunav	57,254,667	Milenijum	6,526,511
Wiener Stadtische	45,101,871	Merkur	5,018,486
Grawe	35,007,876	Sava non-life	4,227,816
DDOR	22,480,125	Globos	2,493,177
Uniqa life	11,114,805	OTP	2,256,428
Triglav	9,778,678	Sogaz	1,999,931
AMS	7,084,415	Sava life	1,457,542

The research is based on the data taken from individual financial statements of insurance companies, published on the official website of the Business Registers Agency (www.apr.gov.rs). Insurance companies are obliged to audit their financial statements, which increases reliability in their use.³¹ The paper presents a sampled period from 2017 to 2020, because financial statements on the website of the Business Registers Agency are available for that time span. During that period, the prescribed rate of income tax was at a constant level of 15%.

Using a four-year period for sixteen insurance companies, the research sample included 64 observations. This sample size was used to calculate *MAT1*, *MAT2*, *ROA1* and *ROA2*. On the other hand, fifty-nine observations were used to calculate *ETR1* and *ETR2*. Five observations were eliminated due to loss before tax, because effective tax rates have no clear economic meaning in negative pre-tax result.³²

³¹ B. Jovković, The Analysis of Auditor's Reports of Insurance Companies in the Republic of Serbia, *Teme*, 42(4), 2018, p. 1277.

³² M. Hanlon, S. Heitzman, A Review of Tax Research, *Journal of Accounting and Economics*, 50(2-3), 2010, p. 127.

V. Research Results and Discussion

1. Descriptive Analysis

Table 3 presents the results of descriptive statistics of used variables. The data from the table indicate that the materiality of the deferred income tax in the average Serbian insurance company is lower than the usual thresholds of 1% and 0.5%. Only four observations have *MAT1* greater than 1%, while sixteen observations have *MAT1* greater than 0.5%. In addition, the three insurance companies have *MAT1* greater than 0.5% in all four years. On the other hand, only two observations have *MAT2* greater than 1%, while the three observations have *MAT2* greater than 0.5%.

Table 3. Descriptive statistics

	<i>MAT1</i>	<i>MAT2</i>	<i>ROA1</i>	<i>ROA2</i>	<i>ETR1</i>	<i>ETR2</i>
Arithmetic mean (in %)	0.351	0.113	2.514	2.506	5.546	4.194
Minimum (in %)	0.000	0.000	-12.613	-12.613	0.000	-77.192
Median (in %)	0.094	0.024	2.531	2.531	4.498	5.432
Maximum (in %)	2.638	2.219	9.522	9.526	23.079	22.486
Standard deviation (in %)	0.544	0.312	3.597	3.584	6.106	12.728
Variation coefficient	1.550	2.761	1.431	1.430	1.101	3.035
Observations	64	64	64	64	59	59

Although the vast majority of observations performed with a positive result before tax, a significant proportion of them recorded only low or moderate levels of profitability. However, there are observations with slightly higher profitability. Thus, 22 observations had *ROA1* between 0% and 2%, although fourteen observations had *ROA1* of more than 5%. On the other hand, 21 observations had *ROA2* between 0% and 2%, although fourteen observations had *ROA2* of more than 5%.

Effective tax rates in an average Serbian insurance company are lower than the prescribed rate. In fact, only four observations had *ETR1* higher than 15%, while as many as 24 observations had *ETR1* equal to 0%. In addition, six insurance companies had *ETR1* equal to 0% in all four years. On the other hand, only three observations had an *ETR2* greater than 15%, while 19 observations had *ETR2* equal to 0%. Five observations had a negative *ETR2*. In addition, in all four years, four insurance companies had both *ETR1* and *ETR2* equal to 0%.

In the course of the research, some interesting practices in terms of deferred income tax of insurance companies were identified. Firstly, the two insurance companies failed to show either deferred tax assets or deferred tax liabilities in four years taken as a sample, despite the fact that they were right to recognize deferred tax assets. They also did not state any amount of current or deferred tax expenses.

Despite earnings before tax, these companies had a tax loss on their tax balance, due to the fact that income from government securities was tax-free. With tax losses expected in the future, they decided not to recognize deferred tax assets.

Secondly, in all four sampled years, the two insurance companies disclosed the same net amount of deferred tax assets. In the income statement, they did not show a deferred income tax. These companies did not recognize deferred tax assets in the maximum amount available, but only in the amount in which deferred tax assets are likely to be realized at the expense of future taxable profit. Interestingly, these companies did not change their assessment of the possibility to realize deferred tax assets over a period of four years, so the amount of deferred tax assets remained unchanged.

Thirdly, one insurance company expressed net deferred tax assets or liabilities in all four sampled years, but did not disclose a deferred income tax on the income statement in any year. That company decided to recognize the deferred tax only based on the fair value measurement of the securities available for sale, where this source of deferred tax had no effect on the company's balance sheet.

2. Statistical Test Results

To determine which statistical tests (parametric or nonparametric) would be used, the normality of distribution of used variables was examined, using the Jarque-Berra test. The test results are shown in Table 4. Given that for five out of six variables probability equals zero, normal distribution of these variables cannot be assumed. Therefore, it is more convenient to use nonparametric statistical tests. Similar results will be obtained if other tests for distribution normality are used. According to Shapiro-Wilk and Kolmogorov-Smirnov tests, none of the used variables has normal distribution.

Table 4 Testing for normality distribution of used variables

	<i>MAT1</i>	<i>MAT2</i>	<i>ROA1</i>	<i>ROA2</i>	<i>ETR1</i>	<i>ETR2</i>
Jarque-Bera statistics	165.257	2,992.052	101.972	105.865	5.905	1,927.466
Probability	0.000	0.000	0.000	0.000	0.052	0.000
Observation	64	64	64	64	59	59

Table 5 presents the results of statistical tests for materiality of the deferred income tax in the Serbian insurance companies. The results show that there is a statistically significant difference at the level of 1% between *MAT1* and the used materiality thresholds. Similar conclusions can be drawn about *MAT2* variable. In other words, the results show that *MAT1* and *MAT2* are significantly lower than the materiality thresholds used. In general, the results indicate that the deferred income

tax does not represent a materially significant item in the financial statements of insurance companies in RS. Therefore, *the first hypothesis is rejected*.

Table 5 Statistical test results – materiality of deferred income tax

Variable 1	Variable 2	Test Value	p-value
MAT1	1%	9.128145	***0.000
MAT1	0.5%	5.214991	***0.000
MAT2	1%	9.811516	***0.000
MAT2	0.5%	9.484380	***0.000

Note: Statistically significant at 10% (*), 5% (**) and 1% (***).

The difference between used profitability measures was analyzed based on the statistical test, the results of which are shown in Table 6. Test results indicate that there is no statistically significant difference between *ROA1* and *ROA2*. Such results are not surprising. Although *ROA1* has a higher arithmetic mean than *ROA2*, these measures of profitability have equal median values. The results indicate that the inclusion of deferred tax expense in the calculation of profitability does not lead to a statistically significant change in the assessment of earning capacity of insurance companies in RS. Therefore, *the second hypothesis is rejected*.

Table 6 Statistical test results – difference between profitability measures

Variable 1	Variable 2	Test Value	p-value
<i>ROA1</i>	<i>ROA2</i>	0.014297	0.989

The results of the statistical test for the difference between effective tax rates used are shown in Table 7. Although *ETR1* has a higher arithmetic mean than *ETR2*, whereas *ETR2* has a higher median than *ETR1*, the difference between these two effective tax rates is not statistically significant. This means that the inclusion of deferred expense on income tax in the calculation of the effective tax rate does not lead to a statistically significant change in the assessment of the income tax burden on Serbian insurance companies. These results also indicate that choosing the values used in the effective tax rate numerator is not crucial to assessing the corporate tax burden. Therefore, *the third hypothesis is rejected*.

Table 7 Statistical test results – difference between effective tax rates

Variable 1	Variable 2	Test Value	p-value
<i>ETR1</i>	<i>ETR2</i>	0.096554	0.923

A number of reasons can explain low materiality of the deferred income tax, i.e. its small impact on assessing profitability and the income tax burden on the insurance companies in RS. Firstly, there are a number of countries in the world where the rate of income tax is higher than 30% (some countries impose rates on certain industries of more than 50%). Therefore, the prescribed profit tax rate in RS of 15% can be considered relatively low. Given that deferred tax assets and liabilities are calculated by multiplying temporary differences and the prescribed rate, it is clear that a low rate results in a lower amount of deferred tax.

Secondly, deferred tax assets and liabilities are usually expressed in the net amount. IAS 12 stipulates that the deferred income tax on the balance sheet is expressed in the net amount when the company has the right to express the current tax assets and liabilities in the net amount, and when the deferred tax assets and liabilities relate to the profit tax imposed by the same tax authorities. In the research sample used, only three observations did not show a net amount, so they also displayed deferred tax assets and deferred tax liabilities. Therefore, it is possible that the materiality of the deferred income tax would be significantly higher if deferred tax assets and liabilities were not expressed in the net amount.

Thirdly, it is possible that a low significance of deferred tax expense and income comes from the IAS 12 provisions. This accounting standard advocates the use of liability method. According to this method, the advantage is given to the balance sheet, i.e. determining of deferred tax assets and liabilities. On the other hand, deferred income tax can be seen as a residual. In other words, deferred tax expense and income are the sole consequence of changes in deferred tax assets and liabilities.

Fourthly, a specific method of recognizing deferred tax assets (and associated deferred tax revenues) may affect the materiality of deferred tax. Deferred tax assets are recognized on the basis of deductible temporary differences, unused tax credits, and unused tax losses, but only to the extent that taxable earnings are likely to exist for the realization of these funds.

The fifth point is that RS can be treated as a state with relatively small differences between earnings before tax and taxable income. Many European states with continental legal systems have relatively similar regulations for determining earnings before tax and taxable income. Thus, earnings before tax are the starting point for determining taxable income. In such case, the temporary differences are smaller, and thus the amount of deferred tax assets and liabilities is lower.

3. Robustness Assessment

The paper also analyzes the robustness of the presented results. In other words, it examined whether and to what extent the research results would change if certain research assumptions were changed. Thus, the initial research sample was

divided into two groups. The first group consists of half of the observations with the highest values of total assets, while the second group consists of half of the observations with the lowest values of total assets. This enabled to analyze whether the size of the insurance company affects the significance of deferred income tax, or whether the importance of deferred income tax differs between larger and smaller insurance companies.

There are several reasons why the size of the company was selected as a criterion for examining robustness. Firstly, due to greater diversification, larger organizations are less likely to express losses.³³ This means that the emergence of deferred tax assets based on unused tax losses is less likely in larger insurance companies. In contrast, larger insurers may show deferred tax assets to a greater degree, as they can expect higher future taxable earnings for the realization of deferred tax assets.

Secondly, the size can be a significant determinant of the profitability of insurance companies. It is usually pointed out that larger insurance companies in RS have higher profitability.³⁴ Thirdly, the company size may influence the effective tax rates of insurance companies. Under the political power hypothesis, larger companies have lower effective tax rates, whereas under the political cost hypothesis, larger companies have higher effective tax rates.³⁵

Table 8 shows the results of the robustness analysis for the materiality assessment of the deferred income tax. The results show that deferred tax is not materially significant item in the financial statements of either larger or smaller insurance companies. In other words, the company size is not a determinant of the materiality of the deferred income tax. Therefore, the conclusions of the first research hypothesis are robust in connection with dividing the research sample.

Table 8 Analysis of results robustness – materiality of deferred income tax

Variable 1	Variable 2	Test Value	p-value
Panel A. Half of the observations with the largest total assets			
MAT1	1%	6.883394	***0.000
MAT1	0.5%	2.749051	***0.006
MAT2	1%	6.971426	***0.000
MAT2	0.5%	6.506179	***0.000

³³ J. Zimmerman, Taxes and Firm Size, *Journal of Accounting and Economics*, 5(1), 1983, p. 119.

³⁴ J. Kočović, B. Paunović, M. Jovović, Determinants of Business Performance of Non-Life Insurance Companies in Serbia, *Ekonomika preduzeća*, 62(7-8), 2014, p. 367; M. Pjanić, N. Milenković, B. Kalaš, V. Mirović, Profitability Determinants of Non-Life Insurance Companies in Serbia, *Ekonomika preduzeća*, 66(5-6), 2018, p. 333.

³⁵ A. Kraft, What Really Affects German Firms' Effective Tax Rate? *International Journal of Financial Research*, 5(3), 2014, p. 1.

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Variable 1	Variable 2	Test Value	p-value
Panel B. Half of the observations with the lowest total assets			
MAT1	1%	5.964651	***0.000
MAT1	0.5%	4.586537	***0.000
MAT2	1%	6.884295	***0.000
MAT2	0.5%	6.884295	***0.000

Note: Statistically significant at 10% (*), 5% (**) and 1% (***).

Table 9 presents the results of the robustness analysis for the assessment of the difference between the used profitability measures. The results show that there is no statistically significant difference between the measures of profitability used in either larger or smaller insurance companies. This means that the size of the company does not influence the conclusion on the effects of deferred profit tax on profitability estimates. Therefore, the conclusions of another research hypothesis are robust in connection with dividing the research sample.

Table 9 Analysis of results robustness – difference between measures of profitability

Variable 1	Variable 2	Test Value	p-value
Panel A. Half of the observations with the largest total assets			
ROA1	ROA2	0.087294	0.930
Panel B. Half of the observations with the lowest total assets			
ROA1	ROA2	0.147707	0.883

Table 10 shows the results robustness analysis for the assessment of the difference between effective tax rates used. It can be concluded that there is no statistically significant difference between effective tax rates in larger or smaller insurance companies. The size of the company does not affect the conclusion of the deferred income tax regarding the assessment of the income tax burden. Therefore, the conclusions of the third research hypothesis are robust in dividing the research sample.

Table 10 Analysis of the robustness of results – the difference between effective tax rates

Variable 1	Variable 2	Test Value	p-value
Panel A. Half of the observations with the largest total assets			
ETR1	ETR2	0.494974	0.621
Panel B. Half of the observations with the lowest total assets			
ETR1	ETR2	0.620473	0.535

VI. Conclusion

Insurance companies in RS are obliged to present deferred income tax in financial statements, in accordance with IAS 12. Therefore, the paper examined the materiality of the deferred tax and its impact on assessing profitability and corporate income tax burden of insurance companies. The research was conducted on a sample of 16 insurance companies in the period from 2017 to 2020.

The research results show that deferred income tax is not materially significant item in the financial statements of the Serbian insurance companies. Its participation in the balance sheet and income statement is significantly lower than the usual materiality thresholds. Such results are primarily due to the presentation of deferred tax assets and liabilities in the net amount and the similar methods of calculating earnings before tax and taxable profit.

The research also found that deferred income tax has no statistically significant impact on assessing profitability and the corporate income tax burden. In other words, there is no significant difference between the measure of financial performance, i.e. the measure of the corporate income tax burden that contain deferred tax and those that do not contain deferred income tax. Such results are primarily due to the low materiality of deferred tax items, but also the fact that the deferred income tax on the income statement is only a calculation residual of deferred tax assets and balance sheet liabilities.

A number of involved persons may find the presented research results useful. Firstly, the auditors of financial statements may use the information about the deferred income tax materiality when choosing the subject of their attention. Secondly, when considering the methods of managing company performance, the managers of insurance companies may benefit from the information that deferred income tax has no significant effect on profitability. Thirdly, when looking at the tax burden on different economy sectors, national tax authorities can use the information about the corporate income tax burden on insurance companies.

Nevertheless, the research results also have certain limitations. The research is based on a sampling method, so the results may differ in a different sampling period or a different number of insurance companies. It is also possible that the change of the research methodology would lead to a change in the results of the research. Additionally, the research was conducted on insurance companies operating in only one country.

A particular limitation of research can be found in the fact that insurance companies, in accordance with IAS 12, present deferred tax assets and liabilities in the net amount. Therefore, separate amounts of deferred tax assets and liabilities could not be used in the research. Such separate amounts are disclosed in the notes to the financial statements only by a small number of companies.

Future research could include a longer time span to cover the pre-2013 period when the prescribed rate of income tax in RS was 10%. A separate analysis of life and non-life insurance could also be useful. In addition, for the purposes of comparison, the research could also include other countries.

Literature

- Al-Jafari, M. & Al Samman, H. (2015). Determinants of Profitability: Evidence from Industrial Companies Listed on Muscat Securities Market. *Review of European Studies*, 7(11), 303-311.
- Bohusova, H. & Vavrova, E. (2007). The Structure of the Deferred Income Tax and Its Influence on Indicators Describing the Economic Performance of Commercial Insurance Companies. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 55(3), 143-156.
- Bohusova, H., Svoboda, P. & Semeradova, L. (2019). Deferred Tax for Tax Planning in the Czech Agricultural Companies. *Agricultural Economics*, 65(8), 349-358.
- Bolton, S. (1991). Cash Flow Based Business Valuations. *Business Valuation Review*, 10(4), 172-174.
- Cerović, M. (2017). Underwriting Results in Serbia in 2016. *Insurance Trends*, 33(3), 72-92.
- Colley, R., Rue, J., Valencia, A. & Volkan, A. (2012). Accounting for Deferred Taxes: Time for a Change. *Journal of Business & Economics Research*, 10(3), 149-156.
- Đurić, Z., Jakšić, M. & Krstić, A. (2020). DEA Window Analysis of Insurance Sector Efficiency in the Republic of Serbia. *Economic Themes*, 58(3), 291-310.
- Eilifsen, A. & Messier, W. (2015). Materiality Guidance of the Major Public Accounting Firms. *Auditing: A Journal of Practice & Theory*, 34(2), 3-26.
- Fernandez-Rodriguez, E., Garcia-Fernandez, R. & Martinez-Arias, A. (2019). Influence of Ownership Structure on the Determinants of Effective Tax Rates of Spanish Companies. *Sustainability*, 11(5), 1441-1459.
- Habanec, P. & Bohusova, H. (2017). Comparison of Deferred Tax Materiality Reporting in Accordance with Continental and Anglo-Saxon Reporting System. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 65(6), 1917-1924.
- Hanlon, M. & Heitzman, S. (2010). A Review of Tax Research. *Journal of Accounting and Economics*, 50(2-3), 127-178.
- Holland, K. & Jackson, R. (2004). Earnings Management and Deferred Tax. *Accounting and Business Research*, 34(2), 101-123.

- Jovković, B. (2018). The Analysis of Auditor's Reports of Insurance Companies in the Republic of Serbia. *Teme*, 42(4), 1277-1295.
- Kočović, J., Paunović, B. & Jovović, M. (2014). Determinants of Business Performance of Non-Life Insurance Companies in Serbia. *Ekonomika preduzeća*, 62(7-8), 367-381.
- Kraft, A. (2014). What Really Affects German Firms' Effective Tax Rate? *International Journal of Financial Research*, 5(3), 1-19.
- Kyriazopoulos, G., Makriyiannis, G. & Logotheti, M. (2019). The Impact of Deferred Taxation on Banking Profitability and Capital Adequacy. Evidence from the Greek Banking System. *International Journal of Applied Economics, Finance and Accounting*, 5(1), 1-13.
- Lee, B., Dobiyski, A. & Minton, S. (2015). Theories and Empirical Proxies for Corporate Tax Avoidance. *Journal of Applied Business and Economics*, 17(3), 21-34.
- Obradović, V., Čupić, M. & Dimitrijević, D. (2018). Application of International Financial Reporting Standards in the Transition Economy of Serbia. *Australian Accounting Review*, 28(1), 48-60.
- Pjanić, M., Milenković, N., Kalaš, B. & Mirović, V. (2018). Profitability Determinants of Non-Life Insurance Companies in Serbia. *Ekonomika preduzeća*, 66(5-6), 333-345.
- Porter, G. & Norton, C. (2009). *Financial Accounting: The Impact on Decision Makers*, 6th edition. Mason, OH: South-Western Cengage Learning.
- Poterba, J., Rao, N. & Seidman, J. (2011). Deferred Tax Positions and Incentives for Corporate Behavior around Corporate Tax Changes. *National Tax Journal*, 64(1), 27-58.
- Salihu, I., Sheikh Obid, S. & Anuar, H. (2013). Measures of Corporate Tax Avoidance: Empirical Evidence from an Emerging Economy. *International Journal of Business and Society*, 14(3), 412-427.
- Sokić, M. (2015). Insurance Companies as Institutional Investors in the Republic of Serbia. *Insurance Trends*, 31(4), 49-70.
- Sokić, M. (2019). Analysis of Insurance Industry CARMEL Indicators in Republic of Serbia. *Insurance Trends*, 35(2), 7-16.
- Sozibilir, H., Kula, V. & Baykut, E. (2015). A Research on Deferred Taxes: A Case Study on BIST Listed Banks in Turkey. *European Journal of Business and Management*, 7(2), 1-9.
- Vržina, S. (2018). Alternativni pristupi merenju efektivne stope poreza na dobitak u bankama. *Finansije*, 73(1-6), 45-65.
- Vržina, S., Obradović, V. & Bogičević, J. (2020). Financial Reporting on Income Tax in Serbia and Croatia: An Empirical Analysis. *Ekonomika preduzeća*, 68(5-6), 330-340.

- Vučković-Milutinović, S. (2019). Analysis of Modifications to Auditor's Opinion on Financial Statements of Listed Companies in Serbia. *Ekonomika preduzeća*, 67(3-4), 212-223.
- Vučković-Milutinović, S. & Lukić, R. (2013). Analysis of Deferred Taxes in the Business Environment in Serbia. *Economia. Seria Management*, 16(1), 25-37.
- Wong, N. (2006). Accounting for Deferred Taxes under NZ IAS 12. *University of Auckland Business Review*, 8(1), 55-59.
- Zainudin, R., Mahdzan, N. & Leong, E. (2018). Firm-Specific Internal Determinants of Profitability Performance: An Exploratory Study of Selected Life Insurance Firms in Asia. *Journal of Asia Business Studies*, 12(4), 533-550.
- Zimmerman, J. (1983). Taxes and Firm Size. *Journal of Accounting and Economics*, 5(1), 119-149.

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POLITIČKI I EKONOMSKI RIZICI I OSIGURANJE

PREGLEDNI RAD

Apstrakt

Imajući u vidu pojačano uključivanje domena političkih rizika u različite propise i strategije, autor nastoji da bliže pojasni različite manifestacije te vrste rizika u oblastima poput osiguravajuće delatnosti. Autor navodi da aspekt političkih rizika postaje sve relevantniji faktor pri razmatranju investicionih ulaganja, pogotovo u zemljama u razvoju. Rad sadrži pojmovno određenje političkih rizika, njihove osnovne aktere i činioce, osvrt na situacije iz osiguravajuće delatnosti, kao i prikaz Fičove metodologije analize rizika. Zaključci rada podržavaju stanovište da osiguranje od političkih rizika treba tumačiti prvenstveno kao pomoćno sredstvo u prevazilaženju državnih i društvenih kriza, a ne kao krajnju instancu za nadoknadu svega onoga što je možda pre posledica manjka državnih odnosno institucionalnih kapaciteta.

Ključne reči: politički rizik, zemlje u razvoju, osiguravajuće pokriće, kriza, demokratske institucije, EU.

Uvod

Osiguranje od političkih rizika predstavlja finansijsku tekovinu koja ugovaraču polise omogućuje da se zaštiti od mogućnosti ekonomskih gubitaka nastalih kao posledica nepovoljnih političkih događaja.² Ipak, značaj tog tipa osiguranja

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² Atradius, What is political risk insurance?, 2021, <https://atradius.com/hk/en/faq/what-is-political-risk-insurance.html>, pristupljeno 3. 12. 2021.

prevazilazi domen puke ekonomske kompenzacije. Ugovarači tih polisa neretko su multinacionalne kompanije, ali i drugi akteri poput državnih institucija, međunarodnih organizacija itd. Ugovaranjem te vrste osiguranja investitori nastoje da obezbede određeni stepen izvesnosti ostvarivanja svojih planiranih ciljeva. S tim u vezi, osim prava na finansijsku kompenzaciju u slučaju gubitka, osiguranje od političkih rizika predstavlja i neku vrstu garantne sheme da će određeni poslovni projekat biti realizovan u skladu s određenim minimumom standarda u različitim oblastima (npr. radnog zakonodavstva, ali i brojnih drugih oblasti).³

U zavisnosti od osiguravajuće ponude i pojedinačnih preferencija osiguranika, pokriće u domenu političkih rizika može se odnositi na sledeće vrste situacija: građanske nemire (koji za posledicu imaju štetu po imovinu ili njenu krađu, ili npr. fizičko ometanje plovila da napuste luke); eksproprijaciju (konfiskovanje imovine, novca ili poslovanja od strane vlasti); izmene kursa (naglo osciliranje vrednosti valute); carine i porezi (neočekivane izmene pravila uvoza ili izvoza); prevrati, pučevi ili revolucije (nasilnog ili nenasilnog tipa), kao i terorizam i ratni sukobi (koji onemogućavaju ili otežavaju trgovinu s predmetnom zemljom).⁴ Pored navedenih, političkim rizicima za ulagače se u širem smislu mogu smatrati i aspekti poput pooštavanja odredaba radnog zakonodavstva i ekoloških propisa.⁵ Potonji aspekt je sve bitniji uzme li se u obzir to da je borba protiv klimatskih promena faktički postala univerzalna međunarodna obaveza počevši od 2015. godine.⁶ Primera radi, u pojedinim zapadnim zemljama osiguravači se aktivno odvrćaju od učešća u projektima koji imaju bilo kakve veze sa fosilnim gorivima, jednim od najvećih zagađivača životne sredine.⁷

U tom smislu, politički rizici dovode se u vezu sa sve širim opsegom propisa i oblasti, a sve to se odražava i na ekspanziju osiguravajuće delatnosti prema novim oblastima, poput prethodno spomenute ekologije i borbe protiv klimatskih promena (kao visokorangiranih prioriteta Evropske komisije).⁸ S druge strane, tržišni akteri identifikovali su i određene slabosti takve vrste osiguranja, poput visokih cena polisa, ali i pravnih praznina koje doprinose neizvesnosti u pogledu ostvarivanja prava na naknadu štete, kao i praktičnu „neosigurljivost“ investicija u slučaju nastupanja određenih situacija.⁹ Takvi aspekti opterećuju dalji razvoj te usluge, premda osigu-

³ Violeta Iftinchi, Gheorghe Hurduzeu, "The place of Political Risk Insurance in the political risk management strategy of multinational corporations", *The Romanian Economic Journal*, XIX(60), 2016, p. 205.

⁴ Atradius, What is political risk insurance?, 2021, <https://atradius.com.hk/en/faq/what-is-political-risk-insurance.html>, pristupljeno 3.12.2021.

⁵ Ibid.

⁶ UNFCCC, The Paris Agreement, 2015, <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>, pristupljeno 20.11.2021.

⁷ Miloš Petrović, "Climate Change – Aggravated Risks and Necessity to Adjust", *Tokovi osiguranja (Insurance Trends)*, 1/2020, str. 63.

⁸ Ibid, str. 65.

⁹ Kausar Hamdani, Elise Liebers, George Zanjani, An Overview of Political Risk Insurance (Executive Summary for the Federal Reserve Bank of New York), 2005, <https://www.bis.org/publ/cgfs22fedny3.pdf>, pristupljeno: 18. 11. 2021, str. 1–2.

ravači pronalaze načine da svoju ponudu učine što kompletnijom i privlačnijom za ugovarače polisa.

Domen političkih rizika predstavlja sve relevantniji aspekt u osiguravajućoj delatnosti, naročito ako se u vidu imaju globalni integrativni procesi koji podstiču sve bliže poslovne i druge kontakte. U nastojanju da se bliže predstavi kako se politički rizici razumeju i manifestuju, pre svega iz perspektive osiguravajuće delatnosti, ovaj rad koncipiran je u više tematskih celina. U predstojećem delu rada analiziraćemo pojmovno određenje političkih rizika u relevantnoj literaturi, kao i njihove manifestacije i tretiranje u praksi osiguranja. Složene metode i modeli izračunavanja nivoa rizika (bilo da se radi o starijim privrednim formulama ili novijim tehnološkim obrascima koji se oslanjaju na veštačku inteligenciju i obradu tzv. metapodataka) biće ukratko analizirane s kvalitativnog aspekta.¹⁰ U trećem delu rada biće predstavljeni i elementi Fičove metodologije obračunavanja političkih rizika.

Politički rizik poslovanja u zemljama u razvoju

Domen političkih rizika u osiguravajućoj praksi prvenstveno se vezuje za verovatnoću nastupanja neželjene situacije, na osnovu koje se obračunava nivo premije osiguranja. S druge strane, u akademskoj literaturi javljaju se pojedini predlozi za promenu pristupa, odnosno za valorizovanje političkog rizika kroz investitorovu perspektivu rizika koja može da odudara od kvantitativnih pokazatelja koji počivaju na verovatnoći.¹¹ Procenu rizika pojedinih investitora, pored same strategije investiranja, pa i vrste investitora (da li se npr. radi o državnoj ili privatnoj kompaniji), oblikuju i iskustveni parametri poput poznavanja društveno-političkog konteksta i kulture poslovanja, prethodnog rada u sličnim okolnostima i brojne druge stavke. Takođe treba napomenuti i da je domen političkih rizika dugo godina bio ukalupljen u ekonomskoj politici. Međutim, oblast političkih rizika postepeno se širila ka drugim domenima, a uporedo su se razvijali i različiti pristupi. U savremenoj praksi politički rizici se analiziraju putem naprednih računarskih tehnika (npr. metod predviđanja Delfi), ali se, s druge strane, takođe razmatraju i kroz psihološke aspekte koji nisu vezani za strukturu (npr. intuicija rukovodilaca).¹² U savremenoj praksi, Fičova metodologija koristi nekoliko pokazatelja političkih rizika: dugoročni i kratkoročni

¹⁰ Prema definiciji kalifornijskog univerziteta Santa Kruz, metapodaci se najčešće definišu kao „podaci o podacima“, dok se malo konkretnije određuju kao pažljivo i namerno strukturisani podaci koji se odnose na analizu drugih informacija. Videti: UC Santa Cruz University Library, What are metadata? 2022, <https://guides.library.ucsc.edu/c.php?g=618773>, pristupljeno: 17.2.2022.

¹¹ Nathan Jensen, Daniel Young, "A Violent Future? Political Risk Insurance Markets and Violence Forecasts", *The Journal of Conflict Resolution*, 52/4, 2008, str. 528.

¹² Ivona Lađevac, Nenad Stekić, "Assessing the Political Risks in Eurasia in the Wake of the Fifth China's "Grand Strategy", *The Review of International Affairs*, LXXII/1183, 2021, str. 52.

politički rizici, dugoročni i kratkoročni ekonomski rizici, te operativni rizici, o čemu će više reći biti u narednom segmentu rada.¹³ Ipak, najpre je potrebno vratiti se nekoliko decenija unazad.

Vagner definiše politički rizik kao „proizvoljne ili diskriminatorne aktivnosti preduzete od strane domaće ili inostrane vlade, političkih grupa ili pojedinaca, koje imaju negativan uticaj na međunarodnu trgovinu ili investicije“.¹⁴ Radi se o prilično širokoj definiciji koja naizgled odražava generalno opsežnu prirodu političkih rizika. S druge strane, jedna popularna međunarodna finansijska enciklopedija upotrebljava nešto širu sintagmu „geopolitički rizik“ kako bi se uključile i spoljnopolitičke manifestacije pojedinih događaja i njihova povezanost s domenom bezbednosti, što je naročito značajno u višegodišnjim poslovnim projektima koji zahtevaju određeni nivo stabilnosti i predvidivosti.¹⁵ Po mišljenju autora ovog rada, takva terminologija je adekvatna ako se u vidu imaju sve globalizovaniji procesi koji sve intenzivnije oblikuju brojne oblasti i razvojne pravce, uključujući i osiguravajuću delatnost.

Ko su ponuđači usluga u domenu osiguranja od političkih rizika? Radi se o: privatnim osiguravačima (koji su orijentisani na ostvarenje profita); javnim ponuđačima (koji su prvenstveno usmereni na podršku vladinim aktivnostima ili strategijama drugih institucija) i reosiguravačima; navedeni osiguravači pokrivaju sledeće kategorije političkih rizika: političko nasilje, eksproprijaciju, nekonvertibilnost valute i kršenje ugovornih odredaba i arbitražnih odluka.¹⁶ Dok javni osiguravači poseduju određeni nivo povezanosti s nacionalnim telima ili s multilateralnim institucijama (od kreditnih agencija koje su organski povezane sa vladinim institucijama do onih koje su „podizvođači“ u ime vladinih ili međunarodnih ustanova), privatnih osiguravača u domenu osiguranja od političkih rizika nema toliko i oni uglavnom potiču iz nekoliko globalnih finansijskih centara iz anglosaksonskog područja, dok se i jedni i drugi mogu baviti i poslovima reosiguranja.¹⁷ Pored navedenog, Radović navodi da pravila Evropske unije (koja su relevantna i za našu zemlju) nalažu striktno razdvajanje osiguranja od komercijalnih rizika od osiguranja od političkih rizika, naročito u smislu toga da osiguravajuća društva koja nude obe vrste osiguranja, a imaju podršku države, neće smeti da konkurišu društvima koja nemaju takvu institucionalnu podršku.¹⁸

¹³ Fitch Solutions, Country Risk Index, 2021, <https://www.fitchsolutions.com/sites/default/files/2021-04/FS-Country-Risk-Index-Methodology.pdf>, pristupljeno: 25.11.2021.

¹⁴ Violeta Iftinchi, Gheorghe Hurduzeu, „The place of Political Risk Insurance in the political risk management strategy of multinational corporations“, *The Romanian Economic Journal*, XIX/60, 2016, str. 202.

¹⁵ James Chen, Investopedia: What is Political Risk?, 2020, <https://www.investopedia.com/terms/p/politicalrisk.asp>, pristupljeno: 25. 11. 2021.

¹⁶ Violeta Iftinchi, Gheorghe Hurduzeu, „The place of Political Risk Insurance in the political risk management strategy of multinational corporations“, *The Romanian Economic Journal*, XIX/60, 2016, str. 202-204.

¹⁷ Dietrich Stiller, „Political risks: How to effectively mitigate political risks, deal structure, financing and political risk insurance“, *Airport Management*, 9/2, 2014, str. 137.

¹⁸ Zoran Radović, „Osiguranje izvoznih kredita u Evropskoj uniji i našoj zemlji“, *Tokovi osiguranja* 4/2015, str. 40.

Razlike između javnih i privatnih osiguravača političkih rizika očigledne su i u drugim oblastima; dugoročnost investiranja više je na strani javnih, dok je fleksibilnost više na strani privatnih koje ne moraju da uzimaju u obzir spoljnopolitičke i druge strateške aspekte; premijske stope više variraju u slučaju privatnih osiguravača, dok se odštetni zahtevi znatno duže obrađuju u slučaju javnih osiguravajućih društava.¹⁹ U tom smislu, odabir osiguravajućeg paketa u znatnoj mjeri zavisi od očekivanog perioda trajanja projekta (a samim tim i pokriva), od uklopljenosti projekta u strategiju osiguravača, sklonosti ka preuzimanju većih rizika u slučaju nefiksne kamate, kao i procene potrebe da li je potrebna dodatna državna podrška u realizaciji aktivnosti ili nije. Primera radi, u slučaju nekih kapitalnih investicija koje mogu imati značajan uticaj na društvo a koje su dugog trajanja, investitori mogu biti pre naklonjeni uspostavljanju saradnje u domenu osiguranja od političkih rizika sa onim preduzećima koja imaju podršku države, kao dodatni vid garancije da će projekat biti sproveden (mada su, naravno, tu od podjednake važnosti i uslovi osiguranja).

Već nekoliko decenija u predmetnoj literaturi se kao činioци u osiguranju od političkih rizika izdvajaju domeni poput političke nestabilnosti (vrste režima, održivosti suvereniteta, snage institucija), ekonomske dinamike, kao i jačine bilateralnih veza između ugovornih strana.²⁰ U prilog „geopolitičkom“ razumevanju mogu se navesti brojni primeri značajnih zaokreta u spoljnoj politici koji ne moraju biti povezani sa sukobima ili nasiljem, ali koji imaju potencijal da se negativno odraze na uslove poslovanja u nekoj zemlji (npr. u slučaju velikih izmena u trgovinskoj politici, bezbednosnom domenu ili kao deo neke druge strateške preorijentacije). Pored toga, postoje i ekstremniji vidovi događaja, poput građanskih sukoba (koji u pojedinim delovima sveta mogu dosta brzo da se preliju izvan granica i značajno utiču na regionalno društveno-političko, poslovno i drugo okruženje; teroristički napadi neretko imaju i međunarodnu pozadinu, i tako dalje. Primera je mnogo i mogu se pronaći u bezmalo svim delovima sveta, s tim da su npr. visokorazvijene zemlje Evropske unije ili Severne Amerike manje sklone takvom tipu rizika zbog efikasnijih političkih, ekonomskih i sistemskih performansi.

Premda pojedini od ovih aspekata nisu inherentni samo ekonomski siromašnijim zemljama, višestruko ukrštanje tih primera najevidentnije je u regionima u razvoju, u kojima se zapravo nalazi velika većina globalnog stanovništva (preko 150 država i teritorija od manje od 200 članica Ujedinjenih nacija).²¹ Drugim rečima, radi se o zemljama koje ne samo da su u ekonomskom pogledu pozicionirane

¹⁹ Ibid.

²⁰ Ivona Lađevac, Nenad Stekić, „Assessing the Political Risks in Eurasia in the Wake of the Fifth China's „Grand Strategy“, *The Review of International Affairs*, LXXII/1183, 2021, str. 55.

²¹ Uključujući i zapadnobalkanske države: Albaniju, Bosnu i Hercegovinu, Crnu Goru, Severnu Makedoniju i Srbiju, kao i članice Evropske unije Bugarsku, Hrvatsku, Mađarsku, Poljsku i Rumuniju. Izvori: IMF, World Economic Outlook (April 2020), 2020, <https://www.imf.org/external/pubs/ft/weo/2020/01/weodata/>

ispotprosečno u odnosu na standarde transatlantskog jezgra (koje čine SAD i Kanada, s jedne strane, i Evropska unija, s druge strane, s dodatkom pojedinih zemalja u različitim delovima sveta), već su i sklonije političkoj nestabilnosti, koja predstavlja važan činilac u međunarodnom planiranju i poslovanju u osiguravajućoj delatnosti. Renomirani međunarodni osiguravač sa sedištem u Holandiji koji se primarno bavi osiguranjem trgovinskih kredita pojašnjava potrebu za osiguranjem od političkih rizika kao uobičajenu stavku koja vlasnika polise štiti od rizika nemogućnosti naplaćivanja.²² Imajući u vidu da najveći deo sveta sačinjavaju zemlje u razvoju, politički rizik nesumnjivo predstavlja značajan aspekt pri planiranju i realizaciji međunarodnih poslovnih planova, poput onih koji se tiču investicija.

Pa ipak, da strane direktne investicije nisu proporcionalno prisutne u različitim delovima sveta ilustruje podatak da je 2005. godine od ukupno 916 milijardi dolara stranih neposrednih ulaganja svega 36% realizovano u zemljama koje ne pripadaju privilegovanom klubu Organizacije za ekonomsku saradnju i razvoj (OECD), i to prvenstveno u Kini (koja je, s obzirom na svoju veličinu i snagu, država koja se ne može adekvatno porediti s drugim državama u razvoju).²³ Drugim rečima, 67% stranih direktnih investicija realizovano je u tadašnje 33 članice OECD-a.²⁴ Radi se o ekonomski visokorazvijenim državama iz različitih delova sveta, koje se smatraju politički manje rizičnima u odnosu na zemlje u razvoju. To govori u prilog tvrdnji da procena političkog rizika značajno umanjuje atraktivnost ulaganja i uvećava predstavu o mogućoj štetnosti poslovanja investitora, bilo da se radi o strahovima zbog nacionalizacije i konfiskacije (Kuba, Iran), otkazivanja ugovora (Filipini, Indija), političkog nasilja i rata (Sijera Leone, Liberija) ili drugih situacija.²⁵

Stiler (Stiller) izdvaja primere koncesija i javno-privatnih partnerstva aerodroma kao naročito ranjive kategorije zbog njihove izloženosti otkazivanjima ugovora, eksproprijacijama i drugim nepovoljnim situacijama povezanim s političkim rizicima.²⁶ Autor ovog rada dodaje da i kapitalna, pa i strateška priroda takvih projekata, u kombinaciji s povišenim nivoom drugih tipova rizika (terorističke pretnje, pandemijske

groups.htm, pristupljeno: 1.12.2021; takođe: UN, Member states, 2021, <https://www.un.org/en/about-us/member-states>, pristupljeno: 1.12.2021.

²² Atradius, What is political risk insurance?, 2021, <https://atradius.com.hk/en/faq/what-is-political-risk-insurance.html>, pristupljeno 3.12.2021.

²³ Nathan Jensen, Daniel Young, "A Violent Future? Political Risk Insurance Markets and Violence Forecasts", *The Journal of Conflict Resolution*, 52/4, 2008, str. 529.

²⁴ OECD je 2005. godine brojao 33 članice, u poređenju sa 38 koliko ih je bilo 2021. godine. Za više informacija konsultovati: OECD, List of OECD Member countries - Ratification of the Convention on the OECD, 2021, <https://www.oecd.org/about/document/ratification-oecd-convention.htm>, pristupljeno: 18.11.2021.

²⁵ Nathan Jensen, Daniel Young, "A Violent Future? Political Risk Insurance Markets and Violence Forecasts", *The Journal of Conflict Resolution*, 52/4, 2008, str. 528–529.

²⁶ Dietrich Stiller, "Political risks: How to effectively mitigate political risks, deal structure, financing and political risk insurance", *Airport Management*, 9/2, 2014, str. 133.

okolnosti), doprinosi dodatnom uslozljavanju ovakvog tipa investiranja. Pozivajući se na Agenciju za multilateralne investicione garancije (MIGA), Stiler potvrđuje mišljenja da politički rizici predstavljaju jednu od najvećih prepreka u realizaciji stranih direktnih investicija u zemljama u razvoju, a procena rizika je sledeća: veći na ispitanika pre svega se pribojava nepovoljnih regulatornih izmena (58%), preko 40% zazire od kršenja ugovornih odredaba i ograničenja raspolaganja sredstvima, preko 30% strahuje od građanskih nemira i nepridržavanja finansijskih obaveza, 24% identifikuje rizike od eksproprijacije, a 20% navodi situacije poput terorizma i rata.²⁷ Ti podaci potvrđuju da postoji sve viši nivo osvešćenosti o političkim rizicima, kao o pretnji za realizaciju investiranja. Takođe, u cilju što obuhvatnije procene rizika, autor ovog rada napominje i posebnu važnost upoznavanja sa situacijom u pogledu investicionog ambijenta, ali i šireg sociopolitičkog konteksta, o čemu će više reći biti u poglavlju koje sledi.

Parametri Fičove procene političkog rizika²⁸

U ovom delu rada biće predstavljena i analizirana Fičova metodologija (*Fitch Solutions*) iz 2021. godine na osnovu koje su pojedinačne zemlje rangirane prema indeksu političkih rizika.²⁹ Svi podaci izneti u okviru ovog poglavlja preneti su i interpretirani iz navedenog izvora (osim tamo gde eksplicitno nije naveden drugi izvor).

Premda ovaj koncept nije posebno namenjen za oblast osiguranja već predstavlja svojevrsan uopšteni prikaz rizika po zemljama i teritorijama, njegov sistemski karakter, u kombinaciji s obuhvatnom prirodom političkih rizika, čine ga barem posredno relevantnim i za delatnost osiguranja (kao i za druge oblasti). U okviru pet indikatora – dugoročni politički rizici, kratkoročni politički rizici, dugoročni ekonomski rizici, kratkoročni ekonomski rizici i operativni rizici – numerički se iskazuje izglednost nastupanja nepovoljnih situacija poput ekonomskih kriza ili naglih izmena političke sredine (koje se značajno odražavaju na poslovanje, kao i na druge segmente). Indeks se generiše na osnovu uprosečene vrednosti političkih, ekonomskih i operativnih indikatora, koji imaju i svoje potkategorije (videti tabele u nastavku).

²⁷ Ibid, str. 134.

²⁸ U ovom poglavlju biće predstavljena metodologija političkih rizika kompanije *Fitch Solutions*. Svi podaci potiču iz sledećeg izvora i stoga neće biti pojedinačno navođeni: *Fitch Solutions, Country Risk Index, 2021*, <https://www.fitchsolutions.com/sites/default/files/2021-04/FS-Country-Risk-Index-Methodology.pdf>, pristupljeno: 25. 11. 2021.

^{**}U slučaju korišćenja drugih izvora, oni će biti pojedinačno navođeni u fusnotama.

^{***}Autorove opservacije biće posebno izdvajane na način da bude jasno da se radi o njegovom stavu.

²⁹ Fič Grupu sačinjavaju: kreditna agencija Ratings (Rejtings) i kompanija Solutions (Solušns), koja je fokusirana na istraživanja analitike i specijalizovane usluge u skladu s finansijskim i drugim instrumentima matične grupacije.

Tabela 1. Prikaz dugoročnih i kratkoročnih političkih rizika³⁰

POLITIČKI RIZIK (INDEKS) – 100%	
DUGOROČNI POLITIČKI RIZIK (50%)	KRA TKOROČNI POLITIČKI RIZIK (50%)
Karakteristike vladavine (30%)	Proces kreiranja politika (25%) ³¹
Karakteristike društva (30%)	Društvena stabilnost (25%)
Državni obuhvat (20%)	Bezbednost i spoljno okruženje (25%)
Kontinuitet politika (20%)	Kontinuitet politika (25%)

Dugoročne političke rizike sačinjavaju četiri komponente: (1) karakteristike vladavine (uklopljenost institucija unutar modela liberalne demokratije koji podrazumeva striktnu odvojenost grana vlasti i zaštitu manjinskih prava); (2) karakteristike društva (bazirano na nacionalnoj distribuciji prihoda, etničkom sastavu i stopi siromaštva); (3) državni obuhvat (sposobnost vladinih institucija da suvereno delaju, na unutrašnjem i spoljnom planu) i (4) kontinuitet politika (političko usmerenje tokom dugoročnijeg tj. decenijskog perioda, tokom kojeg se u većini zemalja realizuje smena vlasti, te je potrebno pratiti zaokrete i promene). Po mišljenju autora ovog rada, sve ove stavke su posredno ili neposredno povezane sa stabilnošću, kao i sa održivošću takvog stanja, na osnovu čega se, uostalom, i prave prognoze i projekcije, kako u osiguravajućoj tako i u drugim delatnostima.

Projekcije dugoročnih političkih rizika suštinski su važne kako za strategije investitora, tako i za prognoze osiguravača (pored toga što se direktno tiču i zemlje ili oblasti gde se investicija planira i sprovodi). Imajući to u vidu, taj aspekt političkog rizika biće nešto detaljnije pojašnjen. Što se tiče karakteristika vladavine, prema Fičovoj metodologiji, njegove potkomponente su:

- *sistem vlasti* (gde se demokratski sistemi smatraju stabilnijima na duge staze, budući da okviri političkog sistema ne sprečavaju promenu vlasti, npr. kao rezultat izbornih ishoda);
- *ustavni okviri* (ustavni poredak koji propisuje podelu vlasti, omogućava mehanizme koji ograničavaju dominaciju bilo elite ili većine nad drugima, nudi i bolje okruženje za poštovanje građanskih sloboda, što umanjuje i težnje za nasilnim i drugim prevratima), i
- *vladavina prava* (preduslov za uspešnu i održivu vladavinu jeste sposobnost države da obezbedi zaštitu građana od kršenja zakona i drugih normi, uz pridržavanje načela jednakosti spram svih).

³⁰ Originalna tabela na engleskom jeziku nalazi se u dokumentu navedenom u okviru fusnote br. 28.

³¹ Pod „politikama“ u ovom segmentu rada misli se na razvojne politike i strateško planiranje koje sprovode organi vlasti. Termin „politika“ upotrebljava se u tom kontekstu imajući u vidu terminologiju Fičove metodologije u tom pogledu.

Što se tiče druge komponente – karakteristika društva, njegovi elementi su:

- *distribucija prihoda* (veća jednakost umanjuje mogućnost polarizacije društva, a samim tim i nezadovoljstva);
- *siromaštvo* (nizak stepen siromaštva pokazatelj je uspešne vladavine, za razliku od visokog nivoa siromaštva);
- *manjinske zajednice* (visok udeo etničkih i religijskih manjina poseduje potencijal da izazove nestabilnost, pogotovo u društvima koja imaju istoriju tenzija i nasilja, a samim tim i određenog nivoa međuetničkog nepoverenja).

U pogledu državnog obuhvata, postoje *domaća ograničenja* (posebna karakteristika jake vladavine jeste sposobnost sprovođenja razvojnih aktivnosti na sopstvenoj teritoriji), te *spoljna ograničenja* (procena eksternih pretnji po suvereno odlučivanje vladinih institucija). Četvrta komponenta – *kontinuitet politika* – pokazatelj je održivosti i stabilnosti političkog sistema i poželjan je aspekt za investitore.

Poput dugoročnih rizika, i kratkoročni politički rizici takođe su sastavljeni od četiri komponente: (1) *proces kreiranja politika* (sposobnost vladinih institucija da predlažu i osiguraju usvajanje i primenu propisa, imajući u vidu i potrebu za razdvajanjem različitih grana vlasti); (2) *društvena stabilnost* (evaluiranje sistemskih uticaja poput nezaposlenosti, inflacije i nemira); (3) *bezbednost i spoljno okruženje* (ispitivanje vladinih kapaciteta da reaguje u slučajevima direktnih izazova poput terorističkih pretnji, secesionističkih pokušaja, regionalnih tenzija i ograničavanja usled spoljnih pritisaka) i (4) *kontinuitet politika* (povezan s pandanom u okviru dugoročnih rizika – izvesnost kontinuiteta politike kroz izborne cikluse i praćenje mogućnosti za neustavne ili nezakonite smene vlasti (npr. kroz pobune i prevrate)). Imajući u vidu navedeno, autor logično smatra da se na osnovu praćenja kratkoročnih rizika mogu uočiti određene dugoročne pravilnosti ili pak anomalije, što pomaže i u eventualnom prilagođavanju strategija i projekcija u okviru različitih međunarodnih poduhvata.

Tabela 2. Prikaz dugoročnih i kratkoročnih ekonomskih rizika³²

EKONOMSKI RIZIK (INDEKS) – 100%	
DUGOROČNI EKONOMSKI RIZIK (50%)	KRA TKOROČNI EKONOMSKI RIZIK (50%)
Struktura privrede (33%)	Ekonomska aktivnost (25%)
Ekonomska aktivnost (17%)	Monetarni aspekt (12,5%)
Monetarni aspekt (8%)	Fiskalni aspekt (12,5%)
Fiskalni aspekt (8%)	Spoljni aspekt (25%)
Spoljni aspekt (17%)	Finansijski aspekt (25%)
Finansijski aspekt (17%)	

³² Originalna tabela na engleskom jeziku nalazi se u dokumentu navedenom u okviru fusnote 28.

Dugoročni ekonomski rizici proističu iz strukturne prirode ekonomskog rasta, tržišta rada, stabilnosti cena i kursa, kao i izgleda u pogledu spoljnog duga i fiskalne održivosti, pri čemu se rizik obračunava na osnovu podataka iz prethodnog petogodišnjeg razdoblja za period od narednih pet godina. S druge strane, kratkoročni ekonomski rizici identifikuju aktuelne slabosti u pogledu rasta bruto društvenog proizvoda, inflacije, nezaposlenosti, variranja kursa, dinamike plaćanja i podataka o spoljnom dugu, pri čemu se aktuelna godina koristi kao referentna tačka za projektovanje kretanja u naredne dve godine.

Najzad, *nivo operativnog rizika* se obračunava na osnovu procene rizika u domenima tržišta rada (25%), trgovine i investicija (25%), logističkih rizika (25%) i kriminalnih i bezbednosnih rizika (25%).

Zaključak

Premda osiguranje od političkih rizika evoluirala i biva sve zastupljenije u regionima u razvoju, u ovom radu se polemički smatra da je ta usluga oduvek bila opterećena nejasnoćama, pogotovo u pogledu tumačenja pravnih odredaba i sivih zona. Takva nerazumevanja neretko su dovodila i do sporova kod osiguravajućih društava, i to učestalije kod onih u nedržavnom vlasništvu. Uprkos tome što osiguranici tragaju za što obuhvatnijim i povoljnijim paketom, dok osiguravači poručuju da još uvek nije pronađeno održivo i potpuno rešenje za takav tip rizika, ono što može da se izvede kao zaključak jeste da osiguranje od političkih rizika ne može predstavljati zamenu za dubinske ekonomske, političke i pravne reforme koje su potrebne kako bi se privukle strane direktne investicije na tržišta u razvoju.

Pravila Evropske unije, naročito u tom pogledu, veoma su važna za kandidate za članstvo poput Srbije. Posmatrano iz ugla osiguravača, ključna poruka je ta da je dejstvo polise u značajnoj meri povezano s granicama pravne, ekonomske i političke sigurnosti i stabilnosti, koje po svojoj samoj prirodi usmeravaju procese na način da ograničavaju opus neželjenih događaja. Budući da se radi o sistemskom, kompleksnom karakteru rizika koji se proteže kroz više nivoa, to otežava predviđanje pojedinih situacija. Osiguranje od političkih rizika treba shvatiti u okviru njegove izvorne namene: kao sigurnosnu mrežu i pomoćno sredstvo, a ne kao rešenje koje će osiguranike zaštititi od svih nedostataka državnih kapaciteta.

Pored navedenog, autor je ukratko predstavio i Fičov indeks rizika koji rangira države na osnovu parametara u domenima političkih, ekonomskih i operativnih rizika. U radu je posebno izdvojena komponenta dugoročnih političkih rizika, koji je od strateškog značaja za projekcije kako ulagača, tako i osiguravača. Dugoročni politički rizici u Fičovoj metodologiji odražavaju uverenje da su demokratski sistemi, koji se baziraju na vladavini prava, poštovanju manjina, jednakosti i nediskriminaciji, manje rizični u političkom pogledu nego entiteti koji to nisu. U srži te metodologije su uverenja da sistemi nižeg političkog rizika jesu oni koji obezbeđuju što manju

ekonomsku polarizaciju, što niži stepen siromaštva, ali i neometano sprovode vlastite aktivnosti i strategije, i to na kontinuiran i predvidljiv način. Reč je ne samo o stabilnosti i predvidivosti, već i o održivosti politika i strategija, za šta su garant efikasne institucije i osiguranje određenog nivoa društvenog zadovoljstva.

Literatura

- Atradius, What is political risk insurance?, 2021, <https://atradius.com.hk/en/faq/what-is-political-risk-insurance.html>, pristupljeno 3.12.2021.
- Chen, J. "Investopedia: What is Political Risk?", 2020, <https://www.investopedia.com/terms/p/politicalrisk.asp>, pristupljeno: 25.11.2021.
- Fitch Solutions, "Country Risk Index", 2021, <https://www.fitchsolutions.com/sites/default/files/2021-04/FS-Country-Risk-Index-Methodology.pdf>, pristupljeno: 25.11.2021.
- Hamdani K, Liebers, E, Zanjani G. An Overview of Political Risk Insurance (Executive Summary for the Federal Reserve Bank of New York), 2005, <https://www.bis.org/publ/cgfs22fedny3.pdf>, pristupljeno: 18.11.2021.
- Iftinchi, V, Hurduzeu, G. "The place of Political Risk Insurance in the political risk management strategy of multinational corporations", *The Romanian Economic Journal*, XIX(60), 2016, pp. 201-212.
- IMF, "World Economic Outlook" (April 2020), 2020, <https://www.imf.org/external/pubs/ft/weo/2020/01/weodata/groups.htm>, pristupljeno: 1.12.2021.
- Jensen N, Young D. "A Violent Future? Political Risk Insurance Markets and Violence Forecasts", *The Journal of Conflict Resolution*, 52/4, 2008, pp. 527-547.
- Lađevac I, Stekić N. "Assessing the Political Risks in Eurasia in the Wake of the Fifth China's "Grand Strategy", *The Review of International Affairs*, LXXII/1183, 2021, pp. 47-66.
- OECD, List of OECD Member countries - Ratification of the Convention on the OECD, 2021, <https://www.oecd.org/about/document/ratification-oecd-convention.htm>, pristupljeno: 18.11.2021.
- Petrović M. "Climate Change – Aggravated Risks and Necessity to Adjust", *Tokovi osiguranja (Insurance Flows)*, 1/2020, pp. 57-66.
- Radović Z. "Osiguranje izvoznih kredita u Evropskoj uniji i našoj zemlji", *Tokovi osiguranja*, 4/2015, str. 33-40.
- Stiller D. "Political risks: How to effectively mitigate political risks, deal structure, financing and political risk insurance", *Airport Management*, 9/2, 2014, pp. 133-143.
- UN, Member states, 2021, <https://www.un.org/en/about-us/member-states>, pristupljeno: 1.12.2021.
- UNFCCC, The Paris Agreement, 2015, <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>, pristupljeno 20.11.2021.

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POLITICAL AND ECONOMIC RISKS AND INSURANCE

REVIEW ARTICLE

Abstract

Having in mind that different regulations and strategies increasingly incorporate the areas concerning political risks, the author seeks to clarify more closely the different ways in which this kind of risk manifests itself in insurance industry. The author reveals that the aspect of political risks is increasingly becoming a relevant factor in considering investments, especially in developing countries. The paper contains conceptual definition of political risks, their underlying actors and factors, reviews the circumstances prevalent in the insurance industry, and shows Fitch's analytical approach to risk. The findings support the view that the insurance of political risks should be interpreted primarily as an auxiliary tool for overcoming state and social crises, rather than as the last resort used to make up for possible consequences of a lack of state or institutional capacity.

Keywords: *political risk, developing countries, insurance coverage, crisis, democratic institutions, EU.*

Introduction

Political risk insurance protects the policyholder against the threat of financial loss caused by adverse political events.² Nevertheless, the importance of this type of

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² Atradius, What is political risk insurance?, 2021, <https://atradius.com.hk/en/faq/what-is-political-risk-insurance.html>, accessed on 3- 12- 2021.

insurance goes beyond the realm of mere financial compensation. The policyholders are often multinational companies, but also other actors such as state institutions, international organisations, etc. By arranging this type of insurance, investors seek to ensure a certainty of achieving their planned goals. In this regard, in addition to the right to financial compensation in case of a loss, political risk insurance is also a kind of guarantee scheme that a particular business project will be implemented in accordance with a certain minimum standard effective in different areas (e.g. labour legislation, as well as numerous other areas).³

Depending on the insurance offer and individual preferences of the insurer, coverage in the field of political risks may refer to the following: civil unrest (causing property damage or theft or e.g. physical prevention of vessels to leave harbours); expropriation (confiscation of money, property or a business by a government); currency changes (sudden change of a currency value); customs and tariffs (an unexpected change in import/export rules); revolution or coup d'état (violent or non-violent), and terrorism and war (making trade with a country unsafe or unviable).⁴ In addition to these, political risks for investors can be considered in a broader sense, such as tightening provisions of labour legislation and environmental regulations.⁵ The latter aspect becomes increasingly important when had in mind that in 2015, fighting climate change has effectively become a universal international commitment.⁶ For example, in some western countries, insurers are actively discouraged from participating in the projects that have anything to do with fossil fuels, one of the world's biggest environmental polluters.⁷

To that extent, political risks are linked to a wider range of regulations and areas, all of which are reflected in the expansion of insurance activities towards new areas, such as the aforementioned environment and fighting climate change (as top priorities of the European Commission).⁸ On the other hand, market players have identified certain weaknesses of this type of insurance, such as highly priced policies, but also legal gaps that increase uncertainty regarding the right to indemnity, as well as the practical "uninsurability" of investments in certain occurrences.⁹ Such

³ Violeta Iftinchi, Gheorghe Hurduzeu, "The place of Political Risk Insurance in the political risk management strategy of multinational corporations", *The Romanian Economic Journal*, XIX (60), 2016, pp. 205.

⁴ Atradius, What is political risk insurance?, 2021, <https://atradius.com.hk/en/faq/what-is-political-risk-insurance.html>, accessed on 3-12-2021.

⁵ Ibid.

⁶ UNFCCC, The Paris Agreement, 2015, <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>, accessed on 20-11-2021.

⁷ Miloš Petrović, "Climate Change – Aggravated Risks and Necessity to Adjust", *Insurance Trends*, 1/2020, pp. 63.

⁸ Ibid, pp. 65.

⁹ Kausar Hamdani, Elise Liebers, George Zanjani, An Overview of Political Risk Insurance (Executive Summary for the Federal Reserve Bank of New York), 2005, <https://www.bis.org/publ/cgfs22fedny3.pdf>, accessed on: 18- 11- 2021, pp. 1–2.

aspects put a strain on further development of this service, although insurers find ways to make their offer as complete and attractive as possible for the policyholders.

The area of political risks is an increasingly relevant aspect in the insurance industry, especially given the global integrative processes that encourage ever closer business and other contacts. In an effort to present a closer view of how political risks are understood and manifested, notably from the perspective of the insurance industry, this paper is structured in several thematic units. In the upcoming part of the paper, we will analyse the conceptual definition of political risks in the relevant literature, as well as how they manifest themselves, and how they are treated in insurance practices. Complex methods and models for calculating the risk level (whether older economic formulas or newer technological patterns that rely on artificial intelligence and processing of so-called metadata) will be briefly analysed from a qualitative point of view.¹⁰ The third part of the paper will also present the elements of Fitch methodology for calculating political risks.

Political Operating Risk in the Developing Countries

The area of political risks in insurance practice primarily relates to the likelihood of an adverse occurrence whereon insurance premium level is calculated. On the other hand, in academic literature, there are certain proposals for the changed approach i.e. valuation of political risks through an investor's risk perspective that may deviate from quantitative indicators that rest on probability.¹¹ The risk assessment of individual investors, in addition to the investment strategy itself, including the type of investor (whether it is a state-owned or private company), is shaped by experiential parameters such as knowledge of the socio-political context and culture of business, previous work in similar circumstances, and much more. It should also be noted that the domain of political risks has been slotted into economic policy for many years. However, the area of political risk has gradually expanded towards other domains and simultaneously, different approaches have evolved. In modern practice, political risks are analysed through advanced computer techniques (e.g. Delphi prediction method), but on the other hand, they are also considered through psychological aspects that are not related to the structure (e.g. intuition of managers).¹² In modern

¹⁰ According to the definition of the California Santa Cruz University, metadata are most commonly defined as „data about data“, whereas their more detailed definition is that they are deliberate, structure data relating to the analysis of other information. See: UC Santa Cruz University Library, What are metadata? 2022, <https://guides.library.ucsc.edu/c.php?g=618773>, accessed on: 17-2-2022.

¹¹ Nathan Jensen, Daniel Young, „A Violent Future? Political Risk Insurance Markets and Violence Forecasts“, *The Journal of Conflict Resolution*, 52/4, 2008, pp. 528.

¹² Ivona Lađevac, Nenad Stekić, „Assessing the Political Risks in Eurasia in the Wake of the Fifth China's „Grand Strategy“, *The Review of International Affairs*, LXXII/1183, 2021, pp. 52.

practice, Fitch methodology uses several indicators of political risks: long-term and short-term political risks, long-term and short-term economic risks, and long-term and short-term operational risks, which will be more extensively discussed in the following section of the paper.¹³ However, we should first go several decades back.

Wagner defines political risk as „arbitrary or discriminatory actions taken by home or host governments, political groups, or individuals that have an adverse impact on trade or investment transactions.“¹⁴ This is a fairly broad definition that seemingly reflects generally comprehensive nature of political risks. On the other hand, a popular international financial encyclopaedia uses a slightly broader syntagma “geopolitical risk” to include foreign policy manifestations of certain events and their connection to the security domain, which is especially important in multi-year business projects that require a certain level of stability and predictability.¹⁵ According to the author of this paper, such terminology is adequate given the increasingly globalised processes that ever so intensely shape numerous areas and paths of development, including insurance business.

Who are the providers of political risk insurance? These are: private insurers (profit-oriented); public providers (notably focused on support to government activities and strategies of other institutions) and reinsurers; the said insurers cover the following types of political risks: political violence, expropriation, currency inconvertibility, and breach of contract and arbitration award default.¹⁶ While public insurers have a certain level of affiliation with national bodies or multilateral institutions (from credit agencies that are organically linked to government institutions to those that are “subcontractors” on behalf of government or international institutions), there are not as many private insurers in the field of political risk insurance and they mainly come from several global Anglo-Saxon financial centres, while both can also carry on reinsurance.¹⁷ In addition to the aforementioned, Radović argues that EU rules (also relevant for Serbia) require strict separation of commercial risk insurance from insurance against political risks, particularly when had in mind that insurance companies that provide both types of insurance, with the support from the state, will not be allowed to compete with insurance companies that do not have such institutional support.¹⁸

¹³ Fitch Solutions, Country Risk Index, 2021, <https://www.fitchsolutions.com/sites/default/files/2021-04/FS-Country-Risk-Index-Methodology.pdf>, accessed on: 25-11- 2021.

¹⁴ Violeta Iftinchi, Gheorghe Hurduzeu, “The place of Political Risk Insurance in the political risk management strategy of multinational corporations”, *The Romanian Economic Journal*, XIX/60, 2016, pp. 202.

¹⁵ James Chen, Investopedia: What is Political Risk?, 2020, <https://www.investopedia.com/terms/p/politicalrisk.asp>, accessed on: 25- 11- 2021.

¹⁶ Violeta Iftinchi, Gheorghe Hurduzeu, “The place of Political Risk Insurance in the political risk management strategy of multinational corporations”, *The Romanian Economic Journal*, XIX/60, 2016, pp. 202-204.

¹⁷ Dietrich Stiller, “Political risks: How to effectively mitigate political risks, deal structure, financing and political risk insurance”, *Airport Management*, 9/2, 2014, pp. 137.

¹⁸ Zoran Radović, „Export Credit Insurance in the European Union and Our Country”, *Insurance Trends* 4/2015, pp. 40.

Differences between public and private political risk insurers are also evident in other areas; long-term investments are more suitable for public, while flexibility is more on the side of private insurers who do not have to take into account foreign policy and other strategic aspects; premium rates vary more with private insurers, while claims are handled much longer by public insurance companies.¹⁹ In that sense, the choice of insurance package largely depends on the expected duration of the project (and thus coverage), the integration of the project into the strategy of insurers, the tendency to take greater risks in case of non-fixed interest rates, and on the assessment whether or not the additional government support in the implementation of activities is needed. For example, in the case of some long-term capital investments that may have a significant impact on society, investors may be more inclined to establish cooperation in the field of political risk insurance with government-supported companies, as an additional guarantee that the project will be implemented (although, naturally, insurance terms and conditions are equally important here).

For several decades, the subject literature on political risks highlights the elements such as political instabilities (regime types, sovereignty and sustainability, institutional capacity), economic dynamics, and bilateral ties between contracting parties.²⁰ Numerous examples of significant shifts in foreign policy that may not be related to a conflict or violence, but that have the potential to negatively affect conditions for doing business in a country (e.g. in the case of major changes in trade policy, security, or as part of some other strategic reorientation), can support the “geopolitical” understanding. In addition, there are more extreme developments, such as civil conflicts (which in some parts of the world can spill over quickly and significantly affect the regional socio-political, business, and other environment; terrorist acts often have an international background, and so on. There are many examples and they can be found in almost all parts of the world, however, highly developed countries of the European Union or North America are less susceptible to this type of risk due to more efficient political, economic and systemic performance.

Although some of these aspects are not inherent only to economically poorer countries, the multiple intersections of these examples are most evident in developing economies, where the vast majority of the global population is actually located (more than 150 states and territories of less than 200 UN members).²¹ In other words, these are countries that are not only economically positioned below

¹⁹ Ibid.

²⁰ Ivona Lađevac, Nenad Stekić, “Assessing the Political Risks in Eurasia in the Wake of the Fifth China’s “Grand Strategy”, *The Review of International Affairs*, LXXII/1183, 2021, pp. 55.

²¹ Including the Western Balkan Countries: Albania, Bosnia and Herzegovina, Montenegro, Macedonia and Serbia, and the EU members Bulgaria, Croatia, Hungary, Poland and Romania. Source: IMF, World Economic Outlook (April 2020), 2020, <https://www.imf.org/external/pubs/ft/weo/2020/01/weodata/groups>.

average in relation to the standards of the Transatlantic Core (consisting of the United States and Canada, on the one hand, and the European Union, on the other, with the addition of individual countries in different parts of the world), but are also more prone to political instability, which is an important factor in international planning and business in the insurance industry. A renowned Netherlands-based international insurer that primarily deals with trade credit insurance, clarifies the need for insurance against political risks as a common item that protects the policyholder from the risk of non-payment of invoices.²² Given that developing countries are majority in the world, political risk is undoubtedly an important aspect of planning and implementing international business plans, such as those investment-related.

However, foreign direct investments are not proportionally present in different parts of the world, which is illustrated by the fact that in 2005, out of a total of 916 billion dollars of foreign direct investments, only 36% were realized in countries that do not belong to the privileged club of the Organization for Economic Co-operation and Development (OECD), notably in China (which, given its size and strength, is a country that cannot be adequately compared to other developing countries).²³ In other words, 67% of foreign direct investments were made in the then 33 OECD members.²⁴ These are highly developed economies from different parts of the world, which are considered as a lower political risk compared to that of developing countries. This supports the argument that political risk assessment significantly reduces the attractiveness of investments and encourages the perception of possible harmful business operations of investors, whether it is about fears of nationalization and confiscation (Cuba, Iran), contract cancellations (Philippines, India), political violence and war (Sierra Leone, Liberia), or other situations.²⁵

Stiller highlights the examples of airport concessions and public-private partnerships as a particularly vulnerable categories due to their exposure to contract cancellations, expropriations, and other adverse situations related to political risks.²⁶ The author of this paper adds that the capital and strategic nature of such projects, combined with the increased level of other types of risk (terrorist threats, pandemic

htm, accessed on: 1-12-2021; additionally: UN, Member states, 2021, <https://www.un.org/en/about-us/member-states>, accessed on: 1-12-2021.

²² Atradius, What is political risk insurance?, 2021, <https://atradius.com.hk/en/faq/what-is-political-risk-insurance.html>, accessed on 3-12-2021

²³ Nathan Jensen, Daniel Young, "A Violent Future? Political Risk Insurance Markets and Violence Forecasts", *The Journal of Conflict Resolution*, 52/4, 2008, pp. 529.

²⁴ The OECD had 33 members in 2005, compared to 38 in 2021. For more information, refer to: OECD, List of OECD Member countries - Ratification of the Convention on the OECD, 2021, <https://www.oecd.org/about/document/ratification-oecd-convention.htm>, accessed on: 18-11-2021.

²⁵ Nathan Jensen, Daniel Young, "A Violent Future? Political Risk Insurance Markets and Violence Forecasts", *The Journal of Conflict Resolution*, 52/4, 2008, pp. 528–529.

²⁶ Dietrich Stiller, "Political risks: How to effectively mitigate political risks, deal structure, financing and political risk insurance", *Airport Management*, 9/2, 2014, pp. 133.

circumstances), contributes to further complexity of this type of investment. Referring to the Multilateral Investment Guarantee Agency (MIGA), Stiller confirms the arguments that political risks are among the most important constraints to foreign direct investment in developing countries, whereas the risk assessment is as follows: majority of respondents notably fear adverse regulatory changes (58%), more than 40% is apprehensive about breach of contract provisions and transfer and convertibility restrictions, over 30% expressed fears from civil disturbances and non-honouring financial obligations, 24% identifies expropriation risks, and 20% mentions situations such as terrorism and war.²⁷ These data confirm that there is an increasing level of awareness of political risks as a threat to the return on investments. Additionally, to assess the risk more comprehensively, the author of this paper notes the special importance of getting acquainted with the situation in terms of investment environment, but also the broader socio-political context, which will be discussed in the next chapter.

Parameters of Fitch Political Risk Assessment²⁸

This part of the paper will present and analyse the 2021 Fitch methodology (*Fitch Solutions*) based on which individual countries are ranked according to the political risk index.²⁹ All data presented in this chapter are shown and interpreted from the cited source (unless other source is explicitly cited).

Although this concept is not specifically intended for the insurance sector but represents a kind of general overview of risks by countries and territories, its systemic character, combined with the comprehensive nature of political risks, makes it at least indirectly relevant for insurance (as well as other areas). Five indicators - long-term political risks, short-term political risks, long-term economic risks, short-term economic risks, and operational risks - numerically express the likelihood of adverse situations such as economic crises or sudden changes in the political environment (which significantly affect business and other segments). The index is generated based on the average value of political, economic and operational indicators, which have their own subcategories (see tables below).

²⁷ Ibid, pp. 134.

²⁸ This chapter will present *Fitch Solutions* political risk methodology. All data come from the following source and therefore will not be presented individually: Fitch Solutions, Country Risk Index, 2021, <https://www.fitchsolutions.com/sites/default/files/2021-04/FS-Country-Risk-Index-Methodology.pdf>, accessed on: 25-11-2021.

**If other sources are used, they will be individually presented in footnotes.

*** The author's observations will be singled out in a way that makes it clear that this is his position.

²⁹ The Fitch Group comprises: Fitch Ratings and Fitch Solutions, focused on analytical tools and specialised services in accordance with financial and other instruments of the main group.

Table 1 Overview of long-term and short-term political risks³⁰

POLITICAL RISK (INDEX) – 100%	
LONG-TERM POLITICAL RISK (50%)	SHORT-TERM POLITICAL RISK (50%)
Characteristics of polity (30%)	Policymaking process (25%) ³¹
Characteristics of society (30%)	Social stability (25%)
Scope of state (20%)	Security and external environment (25%)
Policy continuity (20%)	Policy continuity (25%)

Long-term political risks are comprised of four components: (1) characteristics of polity (how well the institutions of the state cohere with a liberal democratic state with strong, formally separate institutions and safeguards to protect minority rights); (2) characteristics of society (based on the state's income distribution, poverty levels, and ethnic characteristics); (3) scope of state (the government's ability to act as sovereign, i.e., both on a domestic and external basis) and (4) policy continuity (policy direction over a long-term i.e. decade-long period, which for most states will encompass a change of government, so it is necessary to monitor shifts and changes). According to the author of this paper, all these items are directly or indirectly related to stability, as well as the sustainability of such a situation, on the basis of which forecasts and projections are made, both in insurance and other business activities.

Projections of long-term political risks are essential for both investors' strategies and insurers' forecasts (in addition to directly affecting the countries or areas where the investment is planned and implemented). With that in mind, this aspect of political risk will be clarified in more detail. In terms of polity characteristics, according to Fitch methodology, its sub-components are:

- *system of government* (where democracies are considered more stable over the long term, since the framework of the political system does not prevent governments to be removed e.g. as a result of electoral results);
- *constitutional framework* (constitutional system which formally enshrines the separation of powers and safeguard against elite/majority dominance, offers better protection for civil liberties, which reduces the appeal of revolutionary change), and
- *rule of law* (the state's ability to protect its citizenry – and to do so without discrimination – is the cornerstone of a successful polity).

³⁰ The original table in English can be found in the document cited in footnote no. 28.

³¹ "Policies" in this segment of work refer to development policies and strategic planning carried out by the authorities. The term "policies" is used in this context, having in mind the terminology of Fitch's methodology in that regard.

As regard the second component – characteristics of society, its elements are:

- *income distribution* (income equality reduces the risk of social polarisation and thus reduces the level of dissatisfaction);
- *poverty* (low poverty rates are a sign of a successful polity as opposed to high poverty);
- *minorities* (a high proportion of ethnic and religious minorities has potential to generate instability, especially if there is a history of tension or violence, and thus a particular level of inter-ethnic distrust).

In the scope of state there are *domestic constraints* (the government’s ability to enforce policy within its territory is a major characteristic of a strong polity), *external constraints* (evaluation of external threats to a government’s sovereign power). The fourth component – *policy continuity* – is the indicator of viability and stability of a political system and is a benefit for investors.

Like long-term risks, short-term risks are also comprised of four components: (1) *policy-making process* (government’s ability to propose, pass and implement regulations, having in mind the need to separate different branches of power); (2) *social stability* (this evaluates systemic impacts such as unemployment, inflation and public unrest); (3) *security and external environment* (this evaluates the government’s ability to act in cases of direct challenges such as terrorism and armed secessionism, regional tensions; and constraints on its actions by external pressures) and (4) *policy continuity* (linked to the corresponding elements within long-term political risks – likely policy continuity and make explicit reference to the electoral cycle, and the risks of an unconstitutional transfer of power (e.g., coup or popular uprising)). In view of the aforementioned, the author logically believes that based on monitoring short-term risks, certain long-term patterns or anomalies can be observed, which also helps to adjust strategies and projections within various international ventures.

Table 2 Overview of long-term and short-term economic risks³²

ECONOMIC RISK (INDEX) – 100%	
LONG-TERM ECONOMIC RISK (50%)	SHORT-TERM ECONOMIC RISK (50%)
Structure of economy (33%)	Economic activity (25%)
Economic activity (17%)	Monetary indicators (12.5%)
Monetary indicators (8%)	Fiscal indicators (12.5%)
Fiscal indicators (8%)	External indicators (25%)
External indicators (17%)	Financial indicators (25%)
Financial indicators (17%)	

³² Original table in the English language can be found in the document cited in footnote 28.

The long-term economic risks take into account the structural characteristics of economic growth, the labour market, price stability, exchange rate stability, as well as fiscal and external debt outlooks, where the risk is calculated by looking at the previous five years of economic data and forecasts for the next five years. On the other hand, the short-term economic risks seek to define current vulnerabilities and assess real GDP growth, inflation, unemployment, exchange rate fluctuation, balance of payments dynamics, as well as fiscal and external debt credentials over the coming two years, using the current year as a reference point.

Finally, *the level of operational risk* is calculated based on the evaluation in the areas of labour market (25%), trade and investments (25%), logistics (25%) and crime and security (25%).

Conclusion

Although political risk insurance is evolving and becoming more prevalent in developing regions, this paper argues that this service has always been fraught with ambiguities, especially with regard to the interpretation of legal provisions and grey areas. Such misunderstandings have often led to disputes with insurance companies, more often with ones not owned by the state. Despite the fact that insured persons are looking for the most comprehensive and favourable package, while insurers say that a sustainable and complete solution to this type of risk has not yet been found, it can be concluded that insurance against political risks cannot be a substitute for deep economic, political, and legal reforms necessary to attract foreign direct investments to emerging markets.

The rules of the European Union, especially in this regard, are very important for candidate countries like Serbia. From the insurers' point of view, the key message is that the effect of the policy is significantly related to the boundaries of legal, economic, and political security and stability, which inherently direct processes toward limiting the scope of adverse events. Since such nature of risk is systemic, complex, and extends across multiple levels, it is difficult to predict single situations. Insurance against political risks should be understood within the meaning of its original purpose: as a safety net and an aid, and not as a solution that will protect policyholders from all state deficiencies.

In addition to the above, the author briefly presented the Fitch risk index, which ranks countries based on parameters in the areas of political, economic and operational risks. The paper particularly highlights the component of long-term political risks, which is of strategic importance for the projections of both investors and insurers. Long-term political risks in Fitch methodology reflect the belief that democratic systems, based on the rule of law, respect for minorities, equality and non-discrimination, are less exposed to political risks than entities that do not possess

these characteristics. At the core of this methodology is the belief that systems of lower political risk are those that provide the least possible economic polarization, the lowest possible level of poverty, but also carry out their own activities and strategies in a continuous and predictable manner. It is not only about stability and predictability, but also about the sustainability of policies and strategies, which are guaranteed by efficient institutions and ensure a certain level of social satisfaction.

Literature

- Atradius, What is political risk insurance?, 2021, <https://atradius.com.hk/en/faq/what-is-political-risk-insurance.html>, accessed on 03-12-2021.
- Chen, J. "Investopedia: What is Political Risk?", 2020, <https://www.investopedia.com/terms/p/politicalrisk.asp>, accessed on: 25-11-2021.
- Fitch Solutions, "Country Risk Index", 2021, <https://www.fitchsolutions.com/sites/default/files/2021-04/FS-Country-Risk-Index-Methodology.pdf>, accessed on: 25-11-2021.
- Hamdani K, Liebers, E, Zanjani G. An Overview of Political Risk Insurance (Executive Summary for the Federal Reserve Bank of New York), 2005, <https://www.bis.org/publ/cgfs22fedny3.pdf>, accessed on: 18-11-2021.
- Iftinchi, V, Hurduzeu, G. "The place of Political Risk Insurance in the political risk management strategy of multinational corporations", *The Romanian Economic Journal*, XIX (60), 2016, pp. 201-212.
- IMF, "World Economic Outlook" (April 2020), 2020, <https://www.imf.org/external/pubs/ft/weo/2020/01/weodata/groups.htm>, accessed on: 01-12-2021.
- Jensen N, Young D. "A Violent Future? Political Risk Insurance Markets and Violence Forecasts", *The Journal of Conflict Resolution*, 52/4, 2008, pp. 527-547.
- Lađevac I, Stekić N. "Assessing the Political Risks in Eurasia in the Wake of the Fifth China's "Grand Strategy", *The Review of International Affairs*, LXXII/1183, 2021, pp. 47-66.
- OECD, List of OECD Member countries - Ratification of the Convention on the OECD, 2021, <https://www.oecd.org/about/document/ratification-oecd-convention.htm>, accessed on: 18-11-2021.
- Petrović M. "Climate Change – Aggravated Risks and Necessity to Adjust", *Insurance Trends*, 1/2020, pp. 57-66.
- Radović Z., "Export Credit Insurance in the European Union and Our Country", *Insurance Trends*, 4/2015, pp. 33-40.
- Stiller D. "Political risks: How to effectively mitigate political risks, deal structure, financing and political risk insurance", *Airport Management*, 9/2, 2014, pp. 133–143.

M. Petrović: Political and Economic Risks and Insurance

- UN, Member States, 2021, <https://www.un.org/en/about-us/member-states>, accessed on: 01-12-2021.
- UNFCCC, The Paris Agreement, 2015, <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>, accessed on 20-11-2021.

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POSLOVANJE SEKTORA OSIGURANJA U REPUBLICI SRBIJI U USLOVIMA PANDEMIJE KOVIDA 19

PREGLEDNI RAD

Apstrakt

Svaka ekonomska ili zdravstvena kriza primorava osiguravajuća društva, zbog osetljivosti njihovih portfelja, na prilagođavanje poslovanja, prvenstveno u pogledu kvalitetnog upravljanja rizicima. U radu su ispitivani uticaji pandemije na dobit i premiju osiguranja osiguravajućih društava, a posebno uticaj promene premije putnog zdravstvenog osiguranja, kao vrste osiguranja čija je premija najviše pogođena pandemijom. Ispitivanje uticaja pandemije na sektor osiguranja sprovedeno je komparativnom analizom premije osiguranja i dobiti pre i posle pandemije. Analiza uticaja varijacije premije putnog zdravstvenog osiguranja na ostvarenu dobit osiguravajućih kuća vršena je primenom panel regresione analize. Dobijeni rezultati pokazuju da ne postoji značajan uticaj pandemije na sektor osiguranja Republike Srbije, kao ni uticaj promene premije putnog zdravstvenog osiguranja na ostvarenu dobit osiguravajućih društava u Republici Srbiji.

Ključne reči: osiguravajuća društva, pandemija, kovid 19, tržište osiguranja, putno zdravstveno osiguranje, zdravstvena kriza

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I. Uvod

Osiguravajuća društva godinama su pod konstantnim pritiskom raznih kriza, od ekonomske, preko političke, do poslednje zdravstvene u vidu pandemije kovida 19. Sektor osiguranja, sa svojom senzitivnošću u vidu upravljanja rizicima i snošenja rizika u ime trećeg lica, ima dodatni pritisak regulatornih tela da s pažnjom upravlja svojim portfeljom i investicijama, kao i sredstvima prikupljenim od svojih osiguranika. Imajući u vidu konstantan rast sektora osiguranja Republike Srbije, od velikog značaja je praćenje uticaja zdravstvene krize na taj kontinuitet, potencijalne promene i rezultate sektora osiguranja.

Istraživanje uticaja krize, bilo ekonomske, zdravstvene ili neke druge, na sektor osiguranja, u poslednjoj deceniji dobilo je na značaju.⁴ Veći rizik plasiranja sredstava ili recesija kao posledica privredne stagnacije usled ekonomske ili zdravstvene i političke krize predmet su mnogih istraživanja, s ciljem testiranja sektora osiguranja i njegove sposobnosti adaptiranja na do sada poznate krize u svetu. Brojni autori bavili su se upravo činjenicom kako osiguravajuća društva uspevaju da odole krizama i da suzbiju posledice recesije u vreme velike ekonomske krize.⁵ Međutim, posledice velikih kriza su manje u sektoru osiguranja nego što je to slučaj sa bankarskim sektorom.

Uticaj navedenih kriza na sektor osiguranje je višedimenzionalan. On se može pokazati kao negativan na pojedinačne kompanije, ali ne na sve. U velikoj meri taj uticaj zavisi od strukture portfelja osiguravajućeg društva, veličine tržišta, konkurencije, startne osnove, nivoa liberalizacije. U prilog tome govori podatak da je finansijska kriza imala najjači negativan uticaj upravo na ona društva koja su specijalizovana za određenu uslugu, ili koja imaju izuzetno slabu diverzifikaciju usluga osiguranja.⁶

Iskustva su pokazala da finansijska kriza ima snažan uticaj na bankarski sektor, stvarajući privid da je solventnost osiguravajućih društava za vreme krize održiva. Međutim, svaka, pa i finansijska kriza ima svoje kako kratkoročne tako i dugoročne posledice na sektor osiguranja.⁷ Osiguravajuća društva suočavaju se s brojnim izazovima nakon navedenih kriza, prilagođavajući se novim nametnutim tržišnim zahtevima u vidu kreiranja novih paketa usluga, ali i u vidu potrebe za

⁴ Baluch, F., Mutenga, S., Parsons, C. "Insurance, Systemic Risk and Financial Crisis", *The Geneva Papers on Risk and Insurance - Issues and Practice*, 2011, 126-163

⁵ Haegali, J. J. „How insurance markets are bucking the global recession trend“, Swiss Re Institute, 2020.

⁶ Vladimir Njegomir, Boris Marović, Rado Maksimović. „The Economic Crisis And The Insurance Industry: The Evidence From The Ex-Yugoslavia Region“, *Economic Annals*, Faculty of Economics, University of Belgrade, 2010. vol. 55(185), pages 129–162.

⁷ Sebastian Schich. „Insurance companies and the financial crisis“, *OECD Journal: Financial Market Trends*, OECD Publishing, vol. 2009(2), pages 123–151.

promenom politike investiranja. Vrednost i struktura imovine društava već su pretrpele odgovarajuću štetu nakon poslednje velike finansijske krize. Veliki izazovi s kojima se osiguravajuća društva danas suočavaju tiču se ulaganja, restrukturiranja i redefinisanja aktuelnih politika i strategija daljeg rasta i razvoja.⁸

Uticaj pandemije na delatnost osiguranja podrazumeva kompleksno ispitivanje više različitih aspekata. U pitanju su mnogi endogeni i egzogeni faktori poput ponašanja potrošača, njihovih odluka, odluka državnih regulatornih institucija itd. Negativni efekti mogu se ogledati u padu premije osiguranja i dobiti, povećanju troškova sprovođenja osiguranja ili isplate šteta u određenim vrstama osiguranja. Pozitivni efekti, s druge strane, dugoročno gledano, jesu povećanje svesti stanovništva o potrebi za osiguranjem.⁹

Predmet istraživanja ovog rada biće uticaj pandemije kovida 19 na sektor osiguranja Republike Srbije. Rezultati ispitivanja takvog uticaja utiču na odluke i pripremu za neke nove krize, s ciljem amortizovanja njihovog uticaja na rezultate poslovanja (dobit, premiju osiguranja, ključne racije profitabilnosti i likvidnosti i slično). Cilj ovog istraživanja je da ispita u kojoj je meri pandemija uticala na rezultate poslovanja osiguravajućih društava u Republici Srbiji. Uporednom analizom premije osiguranja po godinama i po vrstama osiguranja ispitivan je uticaj pandemije na sektor osiguranja, raspored premije osiguranja i ostvarenu dobit, ali i uticaj varijacije premije putnog zdravstvenog osiguranja, kao najosetljivije vrste osiguranja, na neto rezultat osiguravajućih društava.

U analizi uticaja pandemije kovida 19 na sektor osiguranja Republike Srbije (RS) korišćeni su izveštaji Narodne Banke Srbije u pogledu ostvarene premije u desetogodišnjem periodu ukupno i po vrstama osiguranja.

U komparaciju ukupnih rezultata uključena su sva osiguravajuća društva na tržištu RS, dok će uticaj promene premije putnog zdravstvenog osiguranja biti posmatran kod pet osiguravajućih društava, po kriterijumu najviše ugovorene premije (po tržišnom učešću). Period posmatranja je 2011–2020. godina, sa akcentom na rezultate poslovanja u poslednjoj posmatranoj godini.

Osnovne hipoteze koje čine osnov ovog istraživanja su:

1. HIPOTEZA 1: Pandemija kovida 19 dovela je do pada ukupno ostvarene premije osiguranja osiguravajućih društava RS;
2. HIPOTEZA 2: Aktuelna zdravstvena kriza dovela je do negativnog rezultata poslovanja sektora osiguranja RS;
3. HIPOTEZA 3: Premija putnog zdravstvenog osiguranja nema statistički značajan uticaj na ostvarenu dobit osiguravajućih društava RS.

⁸ Kočović, J., Antić, T., Jovović M., „The Impact of the Global Financial Crisis on the Structure of Investment Portfolios of Insurance Companies“, *Ekonomski anali*, Ekonomski fakultet Beograd, 2011, pp 143-161.

⁹ Strupczewski, G., Klonowska, A., „Impact of the COVID-19 pandemic on the global insurance market“. In book: *Strategies, models and technologies of economic systems management in the context of international economic integration*, 2020, pp. 230–238, Publisher: Institute of Economics of the Latvian Academy of Science

Rad se sastoji iz tri zaokružene celine: prvi deo rada, nakon apstrakta i uvođa, usmeren je na pregled literature i ranija teorijsko-empirijska istraživanja; drugi deo rada odnosi se na potvrđivanje postavljenih hipoteza 1 i 2, u smislu ispitivanja uticaja pandemije na rezultate poslovanja osiguravajućih kuća u RS; treći deo rada sadrži dokazivanje uticaja varijacije premije putnog zdravstvenog osiguranja na neto rezultat osiguravajućih društava u RS radi potvrde postavljene hipoteze 3.

Pregled literature

Brojni teoretičari bavili su se analizom uticaja aktuelne zdravstvene krize kako na ukupnu privredu tako i na sektor osiguranja. Rezultati njihovih studija sistematizovani su prema karakteru efekata krize na premiju osiguranja, likvidnost i profitabilnost društava, organizaciju rada, kao i na brojne druge aspekte.

Uticaj na zdravstveno i životno osiguranje

Uticaj pandemije kovida 19 na sektor osiguranja, između ostalog, primećen je i u vidu značajnih promena regulative zdravstvenog osiguranja, kako privatnog tako i državnog obaveznog osiguranja. Naročito se ističe dugoročnost tih izmena koja je izostala u američkoj regulativi.¹⁰ Pandemija kovida 19 uticala je i na osiguravajuća društva u delu inoviranja postojećih i osmišljavanja novih usluga osiguranja. U pitanju su najčešće kratkoročne usluge zdravstvenog osiguranja s fiksnim iznosima naknada iz osiguranja.¹¹ Istraživanje na uzorku od 100 američkih kompanija koje se bave životnim osiguranjem i preko 800.000 polisa osiguranja pokazalo je da su osiguravajuća društva sprovedla minimalna prilagođavanja kao odgovor na povećan rizik od mortaliteta, u smislu neznatnog povećanja iznosa premije osiguranja, pogotovo kod osiguranika starijih od 75 godina koji su pušači.¹²

Osiguravajuća društva u Republici Srbiji brzo su reagovala i prilagodila svoje uslove osiguranja novim rizicima tesno povezanim s pandemijom. Izmene su izvršene u pogledu isključenja iz osiguranja svih onih obaveza koje mogu biti posledica epidemijских i pandemijskih rizika. Čini se da su se kompanije u Republici Srbiji više usredsredile na isključenja i smanjenje potencijalnih budućih šteta nego na inovacije u pogledu novih rizika uključenih kod zdravstvenog i životnog osiguranja, prekida poslovanja kao posledice pandemije i slično.¹³ Primetno je da su izostale nove usluge,

¹⁰ Joshua D. F., Bradley, K., „The COVID-19 Pandemic and Health Insurance Regulation“, *Journal of Insurance Regulation*, 2020, National Association of Insurance Commissioner.

¹¹ Pranali, N., Vinita, A.K., „Impact of COVID-19 on Health Insurance Sector“. *International Journal of Scientific Research in Engineering and Management (IJSREM)*, 2020, 2582-393.

¹² Harris, Timothy F., Yelowitz, Aaron, Courtemanche, Charles, 2020., „Did COVID-19 Change Life Insurance Offerings?“, *IZA Discussion Papers 13912*, Institute of Labor Economics (IZA).

¹³ Jovanović, S. O., „Uticaj pandemije kovida 19 na osiguranje“. *Tokovi osiguranja*, 2021, 37(1), 41–69.

izuzev kovid pokrća kod putnog zdravstvenog i životnog osiguranja. Takođe su izostala pokrća prekida biznisa kao posledice pandemije, osiguranje potraživanja, bolovanja zaposlenih itd. Primer nedovoljnog prilagođavanja osiguravajućih društava može se naći i u epidemiji SARS-a, nakon koje je većina osiguravajućih društava isključila epidemije i pandemije u svim svojim uslovima osiguranja.

Osiguravajuća društva u vremenu pandemije jači akcenat stavljaju na preuzimanje rizika kod međunarodnih putovanja, pogotovo u zemlje s velikim brojem novozaraženih stanovnika. U najavi je primena određenih grejs perioda prilikom sklapanja ugovora o osiguranju. Ono što je očekivano jeste da će ova pandemija i dalje znatno povećavati prodaju polisa zdravstvenog osiguranja (sa uključenim pokrćima hospitalizacije, dnevnih bolničkih beneficija i medicinske pomoći). U Kini se prodaja tih polisa udvostručila tokom epidemije SARS-a.¹⁴

Osiguravajuća društva pretežno ili isključivo usmerena na životno osiguranje dobijaju još jedan zadatak – da pažljivo investiraju sredstva prikupljena od premije životnog osiguranja. Ako se pokaže da je pandemiju i dalje teško kontrolisati, upravo ti osiguravači, koji su znatnije izloženi mortalitetu, mogu imati značajno velike isplate u odnosu na kapital.¹⁵ Dodatna pažnja se mora usmeriti na upravljanje rizikom i diverzifikacijom portfelja osiguravajućih kuća. Diverzifikacija rizika podrazumevala bi širu lepezu usluga, kojom bi se amortizovali potencijalni gubici jedne vrste osiguranja pogođene u ovom slučaju pandemijom.

Pozitivan uticaj zdravstvene krize

Osiguravajuća društva u Severnoj Makedoniji pokazala su izdržljivost i pozitivno poslovanje i pored snažne zdravstvene krize koja je pogodila ceo svet.¹⁶ Primer tržišta osiguranja Severne Makedonije upravo ukazuje da tržišta osiguranja širom sveta nisu isto podnela pritisak pandemije, što je zavisilo od strukture samog, iako nedovoljno razvijenog, tržišta. Uticaj pandemije kovida 19 na tržište osiguranja Severne Makedonije pokazuje pad broja i iznosa prijavljenih šteta u prva dva kvartala 2020. godine za 11,69%, dok je premija osiguranja u istom periodu pala za 11,32%.

Tržište osiguranja Nigerije takođe je osetilo uticaj pandemije, i to naročito u produktivnosti. Međutim, osiguravajuća društva su u ovoj zemlji za vreme pandemije imala povećanje broja klijenata i premije osiguranja, naročito u tzv. ličnim osiguranjima, tj. u dobrovoljnom zdravstvenom osiguranju i osiguranju života s dopunskim rizicima kovid pokrća.¹⁷ Uticaj pandemije na tržišta osiguranja je raznolik i zavisi od

¹⁴ Strupczewski, G., Klonowska, A. 2020, pp. 230-238.

¹⁵ Kirti, D., Shin, M. Y., „Impact of COVID-19 on Insurers“. *International Monetary Fund Research*. 2020, pp. 1–11.

¹⁶ Stojkoski, V., Jolakoski, P., Ivanovski, I., „The short-run impact of COVID-19 on the activity in the insurance industry in the Republic of North Macedonia“, 2020, ArXiv.

¹⁷ Festus, T., Solanke, F., Olugbamiye, O., Olaleye, B., Ekundayo, O.F., „Effects of COVID-19 pandemic on insurance companies' productivity in Nigeria“. *International Journal of Intellectual Discourse (IJID)*, 2020, pp. 180-189.

nivoa razvijenosti, ali i strukture portfelja najvećih osiguravajućih društava. Tako tržišta na prostoru bivše Jugoslavije i dalje imaju dominantno učešće premije obaveznog osiguranja motornih vozila, odnosno odgovornosti vlasnika prema trećim licima. Zbog toga ne mogu imati identičnu osetljivost na pandemiju kao što je to slučaj u nekim drugim državama, gde su u portfelju dominantne druge vrste osiguranja.

Negativan uticaj zdravstvene krize

Određena tržišta u razvoju pokazala su veću osetljivost osiguravajućeg sektora na pandemiju. Tako se na tržištu osiguranja Bangladeša postavlja pitanje likvidnosti, kao jednog od najznačajnijih pokazatelja poslovanja osiguravajućih društava, koji obezbeđuje isplatu šteta osiguranicima. Broj prodatih automobila u 2020. godini, broj zatvorenih preduzeća, svedenost putovanja na minimum, distanca, nepostojanje adekvatne komunikacije u prodajnom procesu doveli su do pada aktivnosti osiguravajućih društava u Bangladešu, kao i do pada premije i izmene strukture portfelja i profita.¹⁸

Pandemija je ipak imala značajan kratkoročan negativan uticaj na kinesko tržište osiguranja, zbog ograničenog marketinga, kanala prodaje i smanjene potražnje za osiguranjem domaćinstava. Međutim, iako je takav uticaj očigledno negativan, on je znatno veći kod imovinskih osiguranja nego kod osiguranja lica u vidu životnog i zdravstvenog osiguranja.¹⁹

Evropski sektor osiguranja takođe je osetio posledice pandemije, što pokazuje i smanjenje prosečnog ROA (*return on assets* – stopa prinosa na imovinu). Primećeno je značajno smanjenje ROA u nemačkim i italijanskim osiguravajućim društvima, kao i smanjenje solventnosti u belgijskom, francuskom i italijanskom sektoru osiguranja, dok poljsko tržište nije osetilo negativne posledice ove zdravstvene krize. Posmatrajući celokupno tržište osiguranja Evrope, može se zaključiti da su osiguravajuća društva ostala solventna i likvidna uprkos pandemiji.²⁰ Osiguravajuća društva na navedenim tržištima moraju kroz značajniji rast premije (što kroz nove usluge, što kroz rast premije po polisi) dovesti do rasta ROA, sa ciljem smanjivanja nastalih gubitaka.

Iznenadni i neočekivani šok osetila je delatnost osiguranja Republike Gane zbog očigledne nespremnosti kompanija na ovom tržištu za ovakav vid krize. Zabeležen je pad profita za 16,6% za period mart–jun 2020. godine, kao i rast potraživanja

¹⁸ Haque, A., Mohona, N. T., Sultana, S., Kulsum, U., „The impact of covid-19 on insurance industry of Bangladesh“, *Indian Journal of Finance and Banking*, 6(1), 2021, 73–85.

¹⁹ Wang, Y., Zhang, D., Xiaoquan, W., Fu, Q., „How does COVID-19 affect China's insurance market?“, *Emerging Markets Finance and Trade*. 2020, 56(10), pp. 2350–2362.

²⁰ Puławska, K., „Financial Stability of European Insurance Companies during the COVID-19 Pandemic“. *Journal of Risk and Financial Management*. 2021, 14(6), pp. 1-18.

za 38,4% u istom periodu. Ukupna premija pala je za 17,01%, a samo mali broj kompanija zadržao je svoje tržišno učešće.²¹

Osiguravajuće kuće sa portfeljom zdravstvenog osiguranja ipak su doživele značajan udarac na isplate šteta bolnicama i klinikama u Sjedinjenim Američkim Državama. Indeks upravljanja zdravstvenom zaštitom pao je na 7%, što ukazuje na to da su investitori osetili buduću značajnu pogođenost sektora zdravstva. Negativni ekonomski izgledi za sektor zdravstva doveli su do uključivanja osiguravajućih društava u savezni paket stimulativnih olakšica Sjedinjenih Američkih Država.²²

Pad broja putovanja ima značajan uticaj i na one kompanije koje su fokusirane na putno zdravstveno osiguranje. Taj pad koji donosi gubitke (preko 1 bilion dolara i preko milijardu međunarodnih dolazaka manje), nedvosmisleno utiče i na pad premije putnog zdravstvenog osiguranja u svetu.²³

Globalna zdravstvena kriza predstavlja šok za indijski sektor osiguranja, koji je znatno doprinio rastu i razvoju privrede ove zemlje (7% učešća u bruto društvenom proizvodu). Ono što se sada zahteva od državnog regulatora jeste pomoć sektoru kako bi se dosadašnji rast vratio na prvobitno stanje pre pandemije.²⁴

Uticaj zdravstvene krize na organizaciju rada osiguravajućih društava

I pored velikog broja zemalja gde zdravstvena kriza 2020. godine nije imala značajnije negativne efekte na poslovanje, neophodna je bolja komunikacija na relaciji osiguravajuće društvo – država (regulator). Zahvaljujući svojim aktivnostima prenošenja rizika i investiranja, osiguravajuća društva mogu značajno doprineti ekonomskom rastu, pa su u skladu s tim potrebne transparentne pretpostavke rizika i kontrole s ciljem obezbeđivanja solventnosti i održivosti poslovanja.²⁵

Identifikovani su ključni trendovi u rastu onlajn prodaje osiguranja (30-40%), kao i u povećanju potražnje za životnim i zdravstvenim osiguranjem. Došlo je i do jačanja svesti o važnosti životnog osiguranja, ali i do uvođenja raznih inovativnih rešenja i dodatnih pokrića u uslugama osiguranja. Negativni efekti ogledaju se u kašnjenju plaćanja premije osiguranja, odnosno rastu potraživanja (koja kroz vremenska razgraničenja imaju uticaj na smanjenje dobiti društva), kao i u manjem

²¹ Babuna P., Xiaohua Y., Gylilbag A., Awudi A.D., Ngmenbelle D., Dehui B. „Impact of COVID-19 on the insurance industry“. *International Journal of Environmental Research and Public Health*. 2020, 17:5766.

²² Ozili, Peterson & Arun, Thankom. „Spillover of COVID-19: Impact on the Global Economy“. *MPRA Paper* 99317. 2020. University Library of Munich, Germany.

²³ Salehnia, N.Zabihi, S., Mohammad, G.; Safarzaei, K. „The impact of COVID-19 Pandemic on Tourism Industry“. *A Statistical Review in European Countries*. 2021. Conference contribution.

²⁴ Parvathi, V., Lalitha, C. „Impact of Covid/19 on the Indian insurance sector“. *Perspectives on Business Management & Economics*. 2021, 60-65.

²⁵ Levantesi, S., Piscopo, G. „Insurance Role for Handling the COVID-19 impact on Business and Society“. *Journal of Applied Management and Investments*. 2021, 9(4), 183–191.

procentu obnove osiguranja i smanjenom broju novih imovinskih osiguranja. Takođe, jedan od negativnih efekata ove krize jeste i smanjenje ulaganja zbog finansijske neizvesnosti.²⁶

Zaključavanje je usmerilo osiguravajuće kuće da više koriste programe automatskog ugovaranja osiguranja, bez ličnog prisustva prodavca. Njih preko 26% proširilo je takav vid prodaje osiguranje. S druge strane, pojedini državni regulatori su od osiguravajućih kuća zatražili produžavanje grejs perioda pri plaćanju premije osiguranja, što je prihvatilo preko 77% kompanija.²⁷

Prilagođavanje novim savremenim informatičkim rešenjima i platformama pokazalo se kao još jedan od izazova. Distanca, nemogućnost oflajn komunikacije, rad od kuće, zatvaranja naterali su osiguravajuća društva da se značajnije posvete komunikaciji s klijentima na način nešto drugačiji od tradicionalnog prodajnog procesa.²⁸

„Deloitte“ izdvaja četiri ključne oblasti uticaja pandemije na rad osiguravajućih društava: 1) poslovni, finansijski rizik i rizik klijenata, 2) percepcija, brend i strategija, 3) operativna otpornost, pružanje usluga i radna snaga, 4) upravljanje, rizik i kontrola.²⁹

Kriza je dovela do premeštanja radnih procesa na rad od kuće, ali i na onlajn prijave šteta, ugovaranja osiguranja i celokupnu komunikaciju putem savremenih platformi. Službe za ljudske resurse imaju poseban zadatak u narednom periodu u vidu merenja efikasnosti zaposlenih koji rade od kuće. Osiguravajuće kuće dodatno prilagođavaju svoj marketing i postprodajni proces novim uslovima poslovanja.

II. Uticaj pandemije kovida 19 na rezultate sektora osiguranja Republike Srbije

Merenje intenziteta uticaja tekuće pandemije na sektor osiguranja RS izvršeno je poređenjem ključnih pokazatelja poslovanja kroz ostvarenu premiju osiguranja i neto rezultat.

Posmatrajući ukupno ugovorenu premiju osiguranja na tržištu RS (Tabela 1), uočavamo smanjenje rasta, ali je tržište ipak zabeležilo rast od 2,3% u 2020. godini u odnosu na 2019. godinu.

²⁶ Babita, Y., Pushpa, S., „Study on the After Effect of Covid-19 Pandemic in Life Insurance Sector in India“. *Journal of Interdisciplinary Cycle Research*. XIII. 2021, 504-510.

²⁷ Society of Actuaries (SOA), „Impact of COVID-19“, *Society of Actuaries Research*. 2020.

²⁸ Xia, Y., Li, S., Meng, K., „The Impact of the COVID-19 on the Insurance Industry in China“. *Frontiers in Economics and Management*. 2020, 1(12), 28.

²⁹ Deloitte., „Impact of COVID-19 on the Insurance Sector“, 2020.

Tabela 1. Premija osiguranja po godinama u RS u 000 rsd

Godina	Premija neživotnog osiguranja	% promene	Premija životnog osiguranja	% promene	Ukupno	% promene
2011	47.321.292,00	0,32	9.992.706,00	6,84	57.313.998,00	1,40
2012	49.608.308,00	4,83	11.855.400,00	18,64	61.463.708,00	7,24
2013	46.976.051,00	-5,31	14.065.458,00	18,64	61.041.509,00	-0,69
2014	53.399.931,00	13,67	16.005.074,00	13,79	69.405.005,00	13,70
2015	61.561.694,00	15,28	19.364.294,00	20,99	80.925.988,00	16,60
2016	66.010.278,00	7,23	23.127.708,00	19,43	89.137.986,00	10,15
2017	70.336.633,00	6,55	22.757.361,00	-1,60	93.093.994,00	4,44
2018	76.121.610,00	8,22	23.788.981,00	4,53	99.910.591,00	7,32
2019	82.385.409,00	8,23	25.064.463,00	5,36	107.449.872,00	7,55
2020	83.753.833,00	1,66	26.162.910,00	4,38	109.916.743,00	2,30
Prosek promena		6,07		11,10		7,00

Izvor: prilagodio autor sa www.nbs.rs

Imajući u vidu ogroman pad broja putovanja u 2020. godini, očekivan je i pad premije putnog zdravstvenog osiguranja. Premija te vrste osiguranja zabeležila je pad od preko 1,5 milijardi dinara u 2020. godini, odnosno pad od skoro 61% (Tabela 2). Takav pad bi podrazumevao i pad u ukupnoj premiji osiguranja, što se nije desilo.

Tabela 2. Premija putnog zdravstvenog osiguranja po godinama u 000 rsd

Godina	Premija	% promene
2011	733.258,00	-16,29
2012	1.197.433,00	63,30
2013	1.350.068,00	12,75
2014	1.506.657,00	11,60
2015	1.712.817,00	13,68
2016	1.848.432,00	7,92
2017	2.080.616,00	12,56
2018	2.287.494,00	9,94
2019	2.478.353,00	8,34
2020	971.141,00	-60,82

Izvor: prilagodio autor sa www.nbs.rs

Premija obaveznog osiguranja od odgovornosti vlasnika motornih vozila tradicionalno čini najveće učešće ukupnog tržišta RS. Ta premija nije zabeležila pad, ali je ipak zabeležen znatno manji rast od 1,82% u 2020. godini u odnosu na prethodne godine posmatranja (Tabela 3).

Tabela 3. Premija obaveznog osiguranja od odgovornosti vlasnika motornih vozila u 000 rsd

Godina	Premija	% promene
2011	18.709.971,00	-0,55
2012	19.332.284,00	3,33
2013	19.573.648,00	1,25
2014	22.706.165,00	16,00
2015	29.007.378,00	27,75
2016	30.208.399,00	4,14
2017	31.980.243,00	5,87
2018	33.558.552,00	4,94
2019	35.373.139,00	5,41
2020	36.018.025,00	1,82

Izvor: prilagodio autor sa www.nbs.rs

Imajući u vidu pad ekonomske aktivnosti (Privredna komora Srbije, 2021), kao i vanredno stanje, očekivalo se da će premija auto-kasko osiguranja zabeležiti znatan pad u 2020. godini, međutim, to se nije desilo. Iako je zabeležen rast premije od preko 600 miliona dinara (Tabela 4), on je ipak manji od rasta u prethodnim godinama. Tradicionalno negativan odnos premije i isplaćenih šteta doveo je do promene cenovne politike kojom je obezbeđen navedeni rast, iako nije došlo do povećanja broja prodatih polisa.

Tabela 4. Premija auto-kasko osiguranja u 000 rsd

Godina	Premija	% promene
2011	7.177.352,00	-5,73
2012	6.927.923,00	-3,48
2013	6.429.888,00	-7,19
2014	6.049.950,00	-5,91
2015	6.229.062,00	2,96
2016	6.916.653,00	11,04
2017	7.791.685,00	12,65
2018	8.982.425,00	15,28
2019	10.335.755,00	15,07
2020	10.961.273,00	6,05

Izvor: prilagodio autor sa www.nbs.rs

Dobrovoljno zdravstveno osiguranje je vrsta osiguranja s najvećim rastom u poslednjih 10 godina. Savremene, pogotovo strane kompanije, u ugovore o radu kao dodatnu korist uključuju i plaćeno privatno zdravstveno osiguranje za svoje zaposlene. Ta vrsta osiguranja beleži rast u 2020. godini od preko 18%, što je u skladu sa svetskim tokovima da ljudi posežu za ovom vrstom osiguranja u vreme zdravstvene krize (Tabela 5). U pitanju je povećanje premije od preko 500 miliona dinara, što je zajedno sa kasko i životnim osiguranjem, kao i sa još nekim vrstama imovinskih osiguranja, ne samo nadomestilo ogroman pad premije putnog zdravstvenog osiguranja već i obezbedilo rast ukupne premije na tržištu osiguranja RS u uslovima pandemije.

Tabela 5. Premija dobrovoljnog zdravstvenog osiguranja u 000 rsd

Godina	Premija	% promene
2011	971.764,00	-5,08
2012	1.083.190,00	11,47
2013	1.158.120,00	6,92
2014	1.324.894,00	14,40
2015	1.585.351,00	19,66
2016	2.229.411,00	40,63
2017	2.859.554,00	28,26
2018	3.465.351,00	21,19
2019	4.581.469,00	32,21
2020	5.416.185,00	18,22

Izvor: prilagodio autor sa www.nbs.rs

U skladu sa svetskom tendencijom, i tržište životnog osiguranja pokazuje sličnu otpornost. Iako je u 2020. godini zabeležen nešto manji rast nego što je to bio 2019. godine (Tabela 6), ipak je ostvaren rast premije osiguranja od preko milijardu dinara. Time je pad premije putnog zdravstvenog osiguranja potpuno neutralizovan, a zdravstveno osiguranje ponovo je pokazalo pozitivne tendencije i ozbiljno i sigurno poslovanje. Stanovništvo je u vreme zdravstvene krize znatno više ugovaralo polise životnog osiguranja, koje su, inovirane dodatnim pokrićima u pogledu rizika od kovida, doprinele ukupnom rastu premije i pozitivnim pokazateljima poslovanja.

Tabela 6. Premija životnog osiguranja u 000 rsd

Godina	Premija	% promene
2011	9.992.709,00	6,84
2012	11.855.400,00	18,64
2013	14.065.460,00	18,64

Godina	Premija	% promene
2014	16.005.073,00	13,79
2015	19.364.294,00	20,99
2016	23.127.709,00	19,43
2017	22.757.361,00	-1,60
2018	23.788.981,00	4,53
2019	25.064.463,00	5,36
2020	26.162.910,00	4,38

Izvor: prilagodio autor sa www.nbs.rs

Neto rezultat tržišta osiguranja RS u pandemijskoj godini pokazuje stabilnost sektora, pa iako je zabeležen manji rast u odnosu na prethodne godine, osiguravajuća društva RS poslovala su pozitivno (Tabela 7). Rast u ovom pokazatelju iznosi 10,85% u odnosu na 2019. godinu.

Tabela 7. Neto rezultat tržišta osiguranja RS u 000 rsd

Godina	Neto dobitak	Neto gubitak	Neto rezultat
2011	1.941.055,00	1.383.224,00	557.831,00
2012	2.371.872,00	1.166.591,00	1.205.281,00
2013	2.229.168,00	2.272.416,00	-43.248,00
2014	2.900.478,00	2.473.165,00	427.313,00
2015	4.625.617,00	1.721.355,00	2.904.262,00
2016	6.009.647,00	286.508,00	5.723.139,00
2017	6.634.512,00	202.007,00	6.432.505,00
2018	8.877.837,00	19.941,00	8.857.896,00
2019	11.680.788,00	38.067,00	11.642.721,00
2020	12.986.202,00	79.211,00	12.906.991,00

Izvor: prilagodio autor sa www.nbs.rs

Imajući u vidu napred navedeno, može se konstatovati da se prvobitno postavljene hipoteze 1) i 2) u ovom radu moraju odbaciti. Podaci iz napred navedenih tabela pokazuju da pandemija kovida 19 ima uticaja na ostvarenu premiju osiguranja i neto rezultat tržišta osiguranja RS, u smislu manjeg rasta, ali taj uticaj nije doveo do pada premije u odnosu na prethodne godine, kao ni do gubitka i negativnog rezultata tržišta osiguranja RS. Osiguravajuće kuće uspele su da, i pored pada premije putnog zdravstvenog osiguranja, ostvare rast ukupne premije, kao i pozitivan rezultat i rast neto rezultata u odnosu na 2019. godinu. Ti rezultati su pokazatelji kontrolisanog poslovanja i stroge politike reosiguranja, upravljanja rizikom i investiranja.

III. Metodologija istraživanja

Uvidom u izveštaje sa sajta NBS obezbeđene su neophodne informacije za analizu uticaja kretanja premije putnog zdravstvenog osiguranja na neto rezultat osiguravajućih društava na tržištu RS. U skladu s karakterom dostupnih podataka i senzitivnošću problematike, istraživanje je vršeno kombinovanjem kvalitativne i kvantitativne metodologije. Rezultati istraživanja prikazani su pomoću korelacione analize i panel regresije.

Kako bi se detektovao uticaj pada premije putnog zdravstvenog osiguranja na ukupnu ostvarenu dobit, razvijen je model u kojem postoje četiri varijable, od kojih su tri nezavisne, a jedna zavisna. Nezavisne varijable su:

1. Premija obaveznog osiguranja motornih vozila (odgovornosti) – AO
2. Premija kasko osiguranja motornih vozila – AK
3. Premija putnog zdravstvenog osiguranja – PZO.

Zavisna varijabla je:

1. Neto rezultat tržišta osiguranja – NR.

Prilikom izrade modela najpre je izvršena identifikacija promenljivih. Na osnovu ekonomske logike, kao zavisna promenljiva bira se NR (Y), a kao objašnjavajuće promenljive biraju se AO, AK, PZO, odnosno respektivno , , . Mogućnost greške u predviđanju Y u modelu je označena sa e. Koeficijenti nagiba su β_1 , β_2 , β_3 , dok je konstanta obeležena sa β_0 . Samim tim model se može prikazati na sledeći način:

$$Y(NR) = \beta_0 + \beta_1 * + \beta_2 * + \beta_3 + e,$$

odnosno $NR = \beta_0 + \beta_1 * + \beta_2 * + \beta_3 + e$

Empirijsko istraživanje sprovodi se na uzorku od pet osiguravajućih kuća koje čine 78% ukupnog tržišta osiguranja RS, za period od 10 godina. U Tabeli 8 data je deskriptivna statistika za svih 50 opservacija, tj. minimalne i maksimalne vrednosti posmatranih varijabli, njihova aritmetička sredina i standardna devijacija. Zbog karaktera krize cilj je ispitati uticaj osetljivih vrsta osiguranja (putno zdravstveno osiguranje) na ukupni rezultat tržišta u pogledu ostvarene neto dobiti.

Tabela 8. Deskriptivna statistika (u 000 rsd)

	Broj opservacija	Minimalne vrednosti	Maksimalne vrednosti	Aritmetička sredina	Standardna devijacija
AO	50	290188,00	12455539,00	4152505,0000	3390395,06101
AK	50	199581,00	2796087,00	1236409,2400	611497,69719
PZO	50	18761,00	567283,00	227221,9200	136097,19139
NR	50	-1373943,00	8977666,00	998116,6800	1659689,59272
Valid N (listwise)	50				

Izvor: Kalkulacija autora

IV. Uticaj promene premije putnog zdravstvenog osiguranja na neto rezultat tržišta osiguranja Republike Srbije

Ispitivanje navedenog uticaja biće izvršeno kroz panel regresionu analizu, korišćenjem statističkog programskog alata SPSS. Ta vrsta regresione analize ima brojne prednosti u odnosu na tradicionalne regresione modele i analize vremenskih serija, sa većim stepenom slobode i smanjenom kolinearnošću između posmatranih varijabli, čime se poboljšava efikasnost ekonometrijskih procena.³⁰

Prednosti panel regresione analize ogledaju se u otkrivanju dinamičnih odnosa, kontroli uticaja izostavljenih varijabli, stvaranju preciznijih predviđanja za individualne ishode udruživanjem podataka, obezbeđivanju mikroosnova za agregatnu analizu podataka, pojednostavljivanju statističkih zaključaka, analizi nestacionarnih vremenskih serija, upravljanju greškama itd.³¹

Imajući u vidu da za jedinicu posmatranja u svakoj godini opservacije postoji identičan broj podataka, korišćeni su panel balansirani podaci. Zbog nepostojanje konstantnosti korišćenih nezavisnih varijabli tokom vremena, koristiće se model fiksnih efekata za ocenu uticaja nezavisnih varijabli na posmatrane zavisne varijable.³²

1.1. Uticaj varijacije premije putnog zdravstvenog osiguranja na ostvarenu dobit osiguravajućih društava

Opravdanost ispitivanja ovog uticaja ogleda se u činjenici da je ova vrsta osiguranja zabeležila ogroman pad premije osiguranja u 2020. godini zbog zabrane putovanja.

Testiranjem normalnosti raspodele podataka (Shapiro-Wilk i Kolomogorov-Smirnov testovi) utvrđeno je da posmatrani podaci imaju normalnu raspodelu. Na osnovu Tabele 9 i Spearman testa korelacije, može se zaključiti da postoji visoka međusobna korelacija uz adekvatnu statističku značajnost između premije auto-odgovornosti i neto ostvarenog rezultata tržišta osiguranja (.903, uz maksimalnu statističku značajnost). Nešto manja ali takođe visoka korelacija postoji između ukupne premije kasko osiguranja i neto rezultata (0,830), i uz adekvatnu statističku značajnost (0.003). S druge strane, može se zaključiti da postoji statistički najznačajnija korelacija između ostvarenog neto rezultata tržišta osiguranja RS i premije putnog zdravstvenog osiguranja sa koeficijentom korelacije 0.442, ali statistički beznačajna.

³⁰ Hsiao, C. *Analysis of Panel Data* (Econometric Society Monographs), Cambridge, 2014.

³¹ Hsiao, C., „Panel data analysis—advantages and challenges“. *TEST* 16, 2007, 1–22.

³² Knežević, A. *Primena panel modela u identifikovanju faktora uspešnosti poslovanja proizvodnih preduzeća* (doktorska disertacija). Novi Sad: Univerzitet u Novom Sadu – Fakultet tehničkih nauka, 2015, str. 20.

Tabela 9. Rezultati korelacione analize (Spearman koeficijent)

		AO	AK	PZO	NR
AO	Koeficijent korelacije	1	.661*	0.564	.903**
	Sig	.	0.038	0.090	0.000
AK	Koeficijent korelacije	.661*	1	0.164	.830**
	Sig	0.038	.	0.651	0.003
PZO	Koeficijent korelacije	0.564	0.164	1	0.442
	Sig	0.090	0.651	.	0.200
NR	Koeficijent korelacije	.903**	.830**	0.442	1
	Sig	0.000	0.003	0.200	.

*korelacija značajna uz sig manje od 0.05

**korelacija značajna uz sig manje od 0.01

Izvor: Kalkulacija autora

Primenom Breusch-Pagan i Koenker testa³³ utvrđeno je nepostojanje heteroskedastičnosti (Tabela 10), imajući u vidu navedene Sig vrednosti u tabeli koje moraju biti veće od .05.

Tabela 10. BP i Konker test heteroskedastičnosti

Test	LM	Sig
BP	6.103	0.347
Koenker	3.775	0.229

Izvor: Kalkulacija autora

U Tabeli 11 prikazani su rezultati panel regresione analize, odnosno rezultati ispitivanja uticaja varijacija premije različitih vrsta osiguranja na ostvareni neto rezultat tržišta RS.

Tabela 11. Regresioni model – NR nezavisna varijabla

Varijabla	NR - neto rezultat		
	Beta	Sig.	VIF
AO	0.547	0	4.445
AK	0.521	0	2.885
PZO	-0.006	0.905	2.050
R ²	0.992		
Prilagođeni R ²	0.989		
Sig.	0		

Izvor: Kalkulacija autora

³³ Hsiao C. pp. 148

Na osnovu rezultata panel regresione analize, može se zaključiti da R square koeficijent 0.992 ukazuje na to da se ovaj model, odnosno uticaj, može 99% pripisati AO, AK i PZO premiji osiguranja, uz maksimalnu statističku značajnost od .000 (tabela 11).

Test multikolinearnosti (VIF vrednosti, Tabela 11) pokazao je da ne postoji visoka međuzavisnost između posmatranih nezavisnih varijabli.

Uticaj promene premije obaveznog osiguranja vozila (AO) na neto rezultat osiguravajućih kuća prikazan u Tabeli 11 iznosi .547, dakle svako povećanje ove premije za jedan dinar vodi povećanju neto rezultata za .547 dinara, uz maksimalnu statističku značajnost od .000. S druge strane, postoji i značajan uticaj kretanja premije kasko osiguranja (0.521). Iako se u Tabeli 11 uočava negativan uticaj kretanja premije putnog zdravstvenog osiguranja na neto rezultat, u pitanju je statistički beznačajan uticaj, što je adekvatno rezultatima tržišta osiguranja u RS u poslednjoj godini posmatranja, gde premija ove vrste osiguranja nije dovela do pada neto rezultata.

Ova testiranja potvrdila su hipotezu 3 o nepostojanju statistički značajnog uticaja kretanja premije putnog zdravstvenog osiguranja na neto rezultat. Osiguravajuća društva na tržištu RS ostvarila su rast dobiti od oko 10% u odnosu na 2019. godinu, i pored pandemije i pada premije putnog zdravstvenog osiguranja od oko 1,5 milijardi dinara.

Zaključak

Pandemija kovida 19 uticala je na svakodnevni život pojedinca, privrednu aktivnost, globalnu ekonomiju, zdravstveni sistem. Sektor osiguranja, kao značajna delatnost u pogledu učešća u bruto društvenom proizvodu zemalja, takođe je osetio posledice ove zdravstvene krize. Negativan uticaj ogledao se, između ostalog, u padu aktivnosti, solventnosti, likvidnosti, produktivnosti, broja zaposlenih, premije osiguranja po pojedinim vrstama osiguranja, dobiti itd. Međutim, tržište osiguranja Republike Srbije takođe je osetilo posledice pandemije, ali te posledice nisu dovele do pada ukupno ugovorene premije osiguranja i gubitaka u većini kompanija. Zabeležen je očekivan pad premije putnog zdravstvenog osiguranja, koji, iako visok, nije dovoljan da dovede do ukupnog pada premije celokupnog tržišta. Tržište je nastavilo da raste, kao i u godinama pre pandemije, sa nešto manjim procentima. Osiguravajuća društva pozitivno su poslovala i u 2020. godini, uspevši da amortizuju negativne uticaje zdravstvene krize koja je zadesila ceo svet. Premija najpogođenije vrste osiguranja (putno zdravstveno osiguranje) nema značajan uticaj na ostvarenu dobit, odnosno na neto rezultat tržišta, što je u kombinaciji sa izrazitim rastom premije kasko, životnog i dobrovoljnog zdravstvenog osiguranja dovelo do pozitivnih tokova i u godini pandemije, kada su mnoge druge privredne delatnosti beležile gubitke.

Osiguravajuća društva u Republici Srbiji relativno su spremno dočekala pandemiju, te pomoću drugih vrsta osiguranja uspeła da amortizuju gubitke nastale usled velikog pada premije putnog zdravstvenog osiguranja. Panel regresiona analiza potvrdila je nepostojanje uticaja ove premije osiguranja na dobit osiguravajućih društava. Osiguravači u narednom periodu mogu svoje marketinške kampanje usmeriti na druge pakete usluga osiguranja. Preporuka za dalji rad i komercijalizaciju jeste da se osiguravajuća društva usredsrede na usluge kao što su životno i zdravstveno osiguranje, sa uključenim epidemijskim rizicima, kao i na kasko osiguranje vozila, jer su ove vrste osiguranja nadomestile pad premije putnog zdravstvenog osiguranja i obezbedile društvima rast premije osiguranja.

Literatura

- Babita, Y., Pushpa, S. "Study on the After Effect of Covid-19 Pandemic in Life Insurance Sector in India". *Journal of Interdisciplinary Cycle Research*. 2021, 504-510.
- Babuna P., Xiaohua Y., Gyllbag A., Awudi A.D., Ngmenbelle D., Dehui B. „Impact of COVID-19 on the insurance industry". *International Journal of Environmental Research and Public Health*. 2020, 17:5766. doi:10.3390/ijerph17165766.
- Baluch, F., Mutenga, S., Parsons, C. "Insurance, Systemic Risk and Financial Crisis", *The Geneva Papers on Risk and Insurance - Issues and Practice*, 2011, 126-163.
- Deloitte. "Impact of COVID-19 on the Insurance Sector". 2020. <https://www2.deloitte.com/ie/en/pages/covid-19/articles/impact-COVID-19-insurance-industry.html> poslednji pristup 25.08.2021.
- Fernandes, N. (2020). Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.3557504>.
- Festus, T., Solanke, F., Olugbamiye, O., Olaleye, B., Ekundayo, O.F. "Effects of COVID-19 pandemic on insurance companies' productivity in Nigeria". *International Journal of Intellectual Discourse (IJID)*. 2020, pp. 180-189.
- Haegali, J. J. "How insurance markets are bucking the global recession trend", Swiss Re Institute, 2020.
- Haque, A., Mohona, N. T., Sultana, S., Kulsum, U. "The impact of covid-19 on insurance industry of Bangladesh". *Indian Journal of Finance and Banking*, 6(1). 2021, 73-85. <https://doi.org/10.46281/ijfb.v6i1.1243>.

- Harris, Timothy F., Yelowitz, Aaron, Courtemanche, Charles, 2020. "Did COVID-19 Change Life Insurance Offerings?" IZA Discussion Papers 13912, Institute of Labor Economics (IZA).
- Hsiao, C., "Panel data analysis—advantages and challenges". *TEST* 16, 2007, 1–22 <https://doi.org/10.1007/s11749-007-0046-x>.
- Hsiao, C. *Analysis of Panel Data* (Econometric Society Monographs). Cambridge, 2014, Doi: 1017/CB09781139839327.
- Joshua D. F., Bradley, K., "The COVID-19 Pandemic and Health Insurance Regulation", *Journal of Insurance Regulation*, 2020, National Association of Insurance Commissioner
- Jovanović, S. O., "Uticaj pandemije kovida 19 na osiguranje". *Tokovi osiguranja*, 2021, 37(1), 41-69.
- Kirti, D., Shin, M. Y. "Impact of COVID-19 on Insurers". *International Monetary Fund Research*- 2020. pp. 1–11.
- Knežević, A. *Primena panel modela u identifikovanju faktora uspešnosti poslovanja proizvodnih preduzeća* (Doktorska disertacija). Novi Sad: Univerzitet u Novom Sadu – Fakultet tehničkih nauka, 2015, str. 20, <http://nardus.mpn.gov.rs/bitstream/handle/123456789/4781/Disertacija362.pdf?sequence=2&isAllowed=y>.
- Kočović, J., Antić, T., Jovović M. "The Impact of the Global Financial Crisis on the Structure of Investment Portfolios of Insurance Companies", *Ekonomski anali*, Ekonomski fakultet Beograd, 2011, pp. 143-161.
- Levantesi, S., Piscopo, G. "Insurance Role for Handling the COVID-19 impact on Business and Society". *Journal of Applied Management and Investments*. 2021, 9(4), 183–191.
- Makroekonomske analize i trendovi, Privredna komora Srbije <https://api.pks.rs/storage/assets/MAT%20312%202021-01.pdf>
- Vladimir Njegomir, Boris Marović, Rado Maksimović. "The Economic Crisis And The Insurance Industry: The Evidence From The Ex-Yugoslavia Region," *Economic Annals*, Faculty of Economics, University of Belgrade, 2010, vol. 55(185), pages 129-162.
- Ozili, Peterson, Arun, Thankom. "Spillover of COVID-19: Impact on the Global Economy". *MPRA Paper* 99317. 2020. University Library of Munich, Germany. <https://doi.org/10.2139/ssrn.3562570>.
- Parvathi, V., Lalitha, C. "Impact of Covid/19 on the Indian insurance sector". *Perspectives on Business Management & Economics*. 2021, 60-65.
- Pranali, N., Vinita, A.K. "Impact of COVID-19 on Health Insurance Sector". *International Journal of Scientific Research in Engineering and Management (IJSREM)*, 2020, 2582-393.

- Puławska, K. "Financial Stability of European Insurance Companies during the COVID-19 Pandemic". *Journal of Risk and Financial Management*. 2021, 14(6), pp. 1-18. <https://doi.org/10.3390/jrfm14060266>.
- Salehnia, N.Zabihi, S., Mohammad, G.; Safarzaei, K "The impact of COVID-19 Pandemic on Tourism Industry#: A Statistical Review in European Countries. 2021. Conference contribution. <https://doi.org/10.6084/m9.figshare.14528886.v2>.
- Sebastian Schich. "Insurance companies and the financial crisis," *OECD Journal: Financial Market Trends*, OECD Publishing, vol. 2009(2), pages 123-151.
- Society of Actuaries (SOA), "Impact of COVID-19", *Society of Actuaries Research*. 2020, Research Brief, Schaumburg, IL.
- Stojkoski, V., Jolajoski, P., Ivanovski, I. "The short-run impact of COVID-19 on the activity in the insurance industry in the Republic of North Macedonia". *ArXiv*. 2020.
- Strupczewski, G., Klonowska, A., "Impact of the COVID -19 pandemic on the global insurance market". In book: *Strategies, models and technologies of economic systems management in the context of international economic integration, 2020*, pp.230-238, Publisher: Institute of Economics of the Latvian Academy of Science.
- Wang, Y., Zhang, D., Xiaoquan, W., Fu, Q. "How does COVID-19 affect China's insurance market?", *Emerging Markets Finance and Trade*. 2020, 56(10), pp. 2350–2362.
- Xia, Y., Li, S., Meng, K. "The Impact of the COVID-19 on the Insurance Industry in China". *Frontiers in Economics and Management*. 2020, 1(12), 28.
- Zulfikar, R. "Estimation Model And Selection Method Of Panel Data Regression: An Overview Of Common Effect, Fixed Effect, And Random Effect Model," *INA-Rxiv 9qe2b*, 2018, pp. 3. www.apr.gov.rs poslednji pristup 25.10.2021.

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OPERATIONS OF THE INSURANCE SECTOR IN THE REPUBLIC OF SERBIA IN THE CIRCUMSTANCES OF COVID-19 PANDEMIC

REVIEW ARTICLE

Abstract

Every economic or health crisis forces insurance companies to take into account the sensitivity of their portfolios and adjust their business, notably in terms of proper risk management. This paper examines the effects of the pandemic on the profits of insurance companies and insurance premiums, where the impact of changes in travel health insurance premiums on the realized profits of insurance companies is particularly analysed since the premiums of travel health insurance are most affected by the health crisis. The impact of the pandemic on the insurance sector was explored by a comparative analysis of insurance premiums and profit before and after the pandemic. The analysis of the impact variation of the travel health insurance premium on the realized profit of insurance companies was performed by applying a panel data regression analysis. The obtained results show that the pandemic has not significantly affected the insurance sector in the Republic of Serbia, whereas the impact of changes in travel health insurance premiums on the profit of insurance companies in the Republic of Serbia is also not significant.

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I. Introduction

Insurance companies have been under constant pressure from various crises for years, from economic, political, to the last health crisis in the form of the COVID-19 pandemic. The insurance sector, with its sensitivity in risk management and risk-bearing on behalf of third parties is additionally pressured from regulatory authorities to carefully manage portfolios and investments, as well as the funds collected from policyholders. Given the continued growth of the insurance sector of the Republic of Serbia, it is of great importance to monitor the impact of the health crisis on this continuity, potential changes, and the results of the insurance sector.

Research into the impact of the crisis on the insurance sector, whether economic, health or otherwise, has gained in importance in the last decade.⁴ The increased risk of investments or recessions as a result of economic or health and political crisis is the subject of many researches, aimed at testing the insurance sector and its ability to adapt to the world's previously known crises. Numerous authors have addressed the very fact that insurance companies manage to resist crises and contain the consequences of recession at the time of the Great Recession.⁵ However, as opposed to banking sector, insurance sector has seen less consequences.

The impact of these crises on the insurance sector is multidimensional. It may prove negative for individual companies, but not for all. This impact depends to a large extent on the structure of the insurance company's portfolio, the size of the market, the competition, the starting base, and the level of liberalisation. In addition, the data suggest that the financial crisis had the strongest negative impact to those companies that specialize in a particular service or have extremely low diversification of insurance services.⁶

Experience has shown that the financial crisis has a strong impact on the banking sector, creating the illusion that the solvency of insurance companies during the crisis is sustainable. However, each crisis, even the financial one, has its own short-term and long-term consequences for the insurance sector.⁷ Insurance companies

⁴ Baluch, F., Mutenga, S., Parsons, C. "Insurance, Systemic Risk and Financial Crisis", *The Geneva Papers on Risk and Insurance - Issues and Practice*, 2011, 126-163

⁵ Haegali, J.J. „How insurance markets are bucking the global recession trend“, Swiss Re Institute, 2020

⁶ Vladimir Njegomir, Boris Marović, Rado Maksimović. „The Economic Crisis And The Insurance Industry: The Evidence From The Ex-Yugoslavia Region“, *Economic Annals*, Faculty of Economics, University of Belgrade, 2010. vol. 55(185), pages 129–162.

⁷ Sebastian Schich. „Insurance companies and the financial crisis“, *OECD Journal: Financial Market Trends*, OECD Publishing, vol. 2009(2), pages 123–151.

face a number of challenges after these crises, adapting to newly imposed market demands in the form of new service packages, and the need to change investment policies. The value and structure of the corporate assets have already suffered particular damage following the last major financial crisis. The major challenges that insurance companies face today concern investments, restructuring, and redefining current policies and strategies for further growth and development.⁸

The impact of the pandemic on insurance activities involves complex examination of several different aspects. These are many endogenous and exogenous factors such as consumer behaviour, their decisions, decisions by state regulatory institutions, etc. Adverse effects can be reflected in the decline in insurance premiums and profits, higher underwriting costs or payment of claims in certain types of insurance. The positive effects, on the other hand, in the long term, are increasing the people's awareness of the need for insurance.⁹

The subject of this paper will be the impact of the COVID-19 pandemic on the insurance sector of the Republic of Serbia. The results of examining such impact affect decisions and preparation for potential new crises, with the aim of amortizing their impact on business results (profit, insurance premium, key profitability and liquidity ratios, etc.). The aim of this research is to examine the extent to which the pandemic has affected the business results of insurance companies in the Republic of Serbia. The comparative analysis of insurance premiums, by years and types of insurance, examined the impact of the pandemic on the insurance sector, distribution of insurance premiums and profits, and also the impact of variations in travel health insurance premiums (as the most sensitive type of insurance) on the net income of insurance companies.

The analysis of the impact of the COVID-19 pandemic on the insurance sector of the Republic of Serbia (RS) used the reports of the National Bank of Serbia regarding the premium earned in the ten-year period, in total and by types of insurance.

The comparison of total results includes all insurance companies operating on the RS market, while the impact of changes in travel health insurance premiums will be observed in five insurance companies, according to the criterion of the highest contracted premium (by market share). The observation period is 2011–2020, with an emphasis on business results in the last observed year.

The underlying hypotheses that constitute the basis of this research are:

1. HYPOTHESIS 1: The COVID-19 pandemic has led to a decline in the total earned insurance premium of RS insurance companies;

⁸ Kočović, J., Antić, T., Jovović M., "The Impact of the Global Financial Crisis on the Structure of Investment Portfolios of Insurance Companies", *Ekonomski anali*, Ekonomski fakultet Beograd, 2011, pp 143-161.

⁹ Strupczewski, G., Klonowska, A., "Impact of the COVID -19 pandemic on the global insurance market". In book: *Strategies, models and technologies of economic systems management in the context of international economic integration*, 2020, pp. 230–238, Publisher: Institute of Economics of the Latvian Academy of Science

2. HYPOTHESIS 2: The current health crisis has led to a negative operating result of the RS insurance sector;
3. HYPOTHESIS 3: Travel health insurance premium has no statistically significant impact on the realized profit of RS insurance companies.

The paper consists of three complete segments: the first part of the paper, following the abstract and introduction, is focused on literature review and earlier theoretical and empirical research; the second part of the paper refers to the confirmation of hypotheses 1 and 2, in terms of examining the impact of the pandemic on the operating results of insurance companies in the RS; the third part of the paper contains evidence of the variation impact of the travel health insurance premium on the net result of insurance companies in RS to confirm hypothesis 3.

Literature Overview

Numerous theoreticians have analysed the impact of the current health crisis on both the overall economy and the insurance sector. The results of their studies are systematized according to the nature of the effects of the crisis on insurance premiums, liquidity and profitability of companies, work organization, and numerous other aspects.

Impact on health and life insurance

The impact of the COVID-19 pandemic on the insurance sector, among other things, has been observed in the form of significant changes in health insurance regulations, both private and state compulsory insurance. The long-term nature of these changes, which was omitted in the American regulations, is especially emphasized.¹⁰ The COVID-19 pandemic also pushed insurance companies toward innovating existing and designing new insurance services. These are most often short-term health insurance services with fixed amounts of insurance benefits.¹¹ A survey of a sample of 100 U.S. life insurance companies and over 800,000 insurance policies found that insurance companies made minimal adjustments in response to increased mortality risk, in terms of a slight increase in insurance premiums, especially for smokers older over 75.¹²

Insurance companies in the Republic of Serbia quickly responded and adjusted their insurance terms and conditions to the new pandemic-related risks.

¹⁰ Joshua D. F., Bradley, K., „The COVID-19 Pandemic and Health Insurance Regulation“, *Journal of Insurance Regulation*, 2020, National Association of Insurance Commissioner

¹¹ Pranali, N., Vinita, A.K., „Impact of COVID-19 on Health Insurance Sector“. *International Journal of Scientific Research in Engineering and Management (IJSREM)*, 2020, 2582-393.

¹² Harris, Timothy F., Yelowitz, Aaron, Courtemanche, Charles, 2020. „Did COVID-19 Change Life Insurance Offerings?“, IZA Discussion Papers 13912, Institute of Labor Economics (IZA).

Changes have been made regarding the exclusion from insurance of all those obligations that may be a consequence of epidemic and pandemic risks. It seems that companies in the Republic of Serbia have focused more on excluding and reducing potential future damages than on innovations in terms of including new risks in health and life insurance, business interruption due to a pandemic, and the like.¹³ It could be noticed that new services were missing, except for the coverage of travel health and life insurance. There was also no coverage of business interruption due to the pandemic, insurance of receivables, sick leave of employees, etc. An example of insufficient adjustment of insurance companies can be found in the SARS epidemic, after which most insurance companies excluded epidemics and pandemics from all of their insurance terms and conditions.

Insurance companies in the times of the pandemic place a stronger emphasis on underwriting risks of international travels, especially in countries with a large number of newly infected residents. It is expected that certain grace periods will be applied when concluding insurance contracts. It can also be expected that this pandemic will continue to significantly increase the sales of health insurance policies (including hospitalization coverage, hospital day benefits, and medical aid). In China, sales of these policies doubled during the SARS epidemic.¹⁴

Insurance companies mainly or exclusively focused on life insurance are given another task - to carefully invest the funds collected from life insurance premiums. If the pandemic proves difficult to control, it is these insurers, which are more exposed to mortality that can have significantly higher capital gains.¹⁵ Additional attention must be paid to risk management and diversification of insurance companies' portfolios. Risk diversification would imply a wider range of services, which would mitigate the potential losses of one type of insurance affected, in this case, by the pandemic.

Positive influence of health crisis

Insurance companies in North Macedonia have shown resilience and positive business results despite a strong health crisis that has hit the world.¹⁶ The example of the insurance market in North Macedonia shows that insurance markets around the world did not withstand the pressure of the pandemic, which depended on the structure of the market itself, although underdeveloped. The impact of the COVID-19

¹³ Jovanović, S. O., „Impact of COVID- 19 pandemic on the Insurance Industry“. *Insurance Trends*, 2021, 37(1), 41–69.

¹⁴ Strupczewski, G., Klonowska, A. 2020, pp. 230-238.

¹⁵ Kirti, D., Shin, M. Y., „Impact of COVID-19 on Insurers“. *International Monetary Fund Research*. 2020, pp. 1–11.

¹⁶ Stojkoski, V., Jolajoski, P., Ivanovski, I., „The short-run impact of COVID-19 on the activity in the insurance industry in the Republic of North Macedonia“, 2020, ArXiv.

pandemic on the insurance market of North Macedonia shows 11.69% decrease in the number and amount of reported claims in the first two quarters of 2020, while insurance premiums fell by 11.32% in the same period.

Nigeria's insurance market has also felt the impact of the pandemic, especially in productivity. However, insurance companies in this country saw an increase in the number of clients and insurance premiums during the pandemic, especially in the so-called personal insurance lines i.e. voluntary health insurance and life insurance with additional risks included in COVID coverage.¹⁷ The impact of the pandemic on insurance markets is diverse and depends on the level of development, but also on the portfolio structure of the largest insurance companies. Thus, the markets in the former Yugoslavia still have a dominant share of the compulsory motor insurance premium i.e. MTPL. Therefore, they cannot have the same sensitivity to a pandemic as in some other countries, where other types of insurance dominate the portfolio.

Negative impact of health crisis

Certain emerging markets have shown greater sensitivity of the insurance sector to the pandemic. Thus, the insurance market in Bangladesh raises the issue of liquidity, as one of the most important indicators of the business of insurance companies, which ensures the payment of damages to policyholders. The number of cars sold in 2020, the number of dissolved companies, travels reduced to a minimum, remoteness, and lack of adequate communication in the sales process shrank the activities of insurance companies in Bangladesh and led to a decline in premiums and changes in portfolio and profit structure.¹⁸

However, the pandemic had a significant short-term negative impact on the Chinese insurance market, due to limited marketing, sales channels and reduced demand for homeowners insurance. However, although such an impact is clearly negative, it is significantly higher in property insurance lines than in life and health insurance.¹⁹

The European insurance sector has also felt the effects of the pandemic, as evidenced by the decline in average ROA (return on assets). There has been a significant reduction in ROA in German and Italian insurance companies, as well as a reduction in solvency in the Belgian, French and Italian insurance sectors, while the Polish market has not felt the negative effects of this health crisis. Looking at the

¹⁷ Festus, T., Solanke, F., Olugbamiye, O., Olaleye, B., Ekundayo, O.F., „Effects of COVID-19 pandemic on insurance companies' productivity in Nigeria“. *International Journal of Intellectual Discourse (IJID)*, 2020, pp. 180-189.

¹⁸ Haque, A., Mohona, N. T., Sultana, S., Kulsum, U., „The impact of covid-19 on insurance industry of Bangladesh“. *Indian Journal of Finance and Banking*, 6(1), 2021, 73–85.

¹⁹ Wang, Y., Zhang, D., Xiaoquan, W., Fu, Q., „How does COVID-19 affect China's insurance market?“, *Emerging Markets Finance and Trade*. 2020, 56(10), pp. 2350–2362.

entire insurance market in Europe, it can be concluded that insurance companies have remained solvent and liquid despite the pandemic.²⁰ Insurance companies in these markets must lead to an increase in ROA through significant growth in premiums (both through new services and through the growth of premiums by policy), with the aim of reducing losses.

The Ghanaian insurance industry felt a sudden and unexpected shock due to the obvious lack of preparedness for this type of crisis by the companies operating in this market. There was a decline in profits by 16.6% for the period March-June 2020, as well as an increase in receivables by 38.4% in the same period. Total premiums fell by 17.01%, with only a small number of companies retaining their market share.²¹

However, insurance companies with a health insurance portfolio have suffered a significant blow regarding the payment of claims to hospitals and clinics in the United States. The health care management index fell to 7%, indicating that investors predicted a future significant impact on the health sector. The negative economic outlook for the health sector has led to the inclusion of insurance companies in the federal stimulus package of the United States.²²

The decline in the number of travels also has a significant impact on the companies focused on travel health insurance. This decline, which brings losses (over \$ 1 trillion and over a billion international arrivals less), unequivocally affects the global decline in travel health insurance premiums.²³

The global health crisis is a shock to the Indian insurance sector, which has significantly contributed to the growth and development of this country's economy (7% share in gross domestic product). What is now required of the state regulator is to help the sector return to its original state before the pandemic.²⁴

Impact of health crisis on work organisation of insurance companies

Despite the large number of countries where the health crisis in 2020 did not have significant negative effects on business, better communication between the insurance company and the state (regulator) is necessary. Owing to their risk

²⁰ Puławska, K., „Financial Stability of European Insurance Companies during the COVID-19 Pandemic”. *Journal of Risk and Financial Management*. 2021, 14(6), pp. 1-18.

²¹ Babuna P., Xiaohua Y., Gyllbag A., Awudi A.D., Ngmenbelle D., Dehui B., „Impact of COVID-19 on the insurance industry”. *International Journal of Environmental Research and Public Health*. 2020, 17:5766.

²² Ozili, Peterson & Arun, Thankom., „Spillover of COVID-19: Impact on the Global Economy”. *MPRA Paper* 99317. 2020. University Library of Munich, Germany.

²³ Salehnia, N.Zabihi, S., Mohammad, G.; Safarzaei, K., „The impact of COVID-19 Pandemic on Tourism Industry”: *A Statistical Review in European Countries*. 2021. Conference contribution.

²⁴ Parvathi, V., Lalitha, C., „Impact of Covid/19 on the Indian insurance sector”. *Perspectives on Business Management & Economics*. 2021, 60-65.

transfers and investment activities, insurance companies can make a significant contribution to economic growth, and therefore transparent risk assumptions and controls are needed to ensure solvency and business sustainability.²⁵

Key trends in the growth of online insurance sales (30-40%) were identified, as well as the increase in demand for life and health insurance. The awareness of the importance of life insurance was also raised, and various innovative solutions and additional insurance covers were introduced. The negative effects are reflected in the delayed payments of insurance premiums, namely, the growth of receivables (which influence the reduction in corporate profit through accruals), as well as a lower percentage of policy renewals, and reduced number of new property insurance policies. Also, one of the negative effects of this crisis is the reduction of investments due to financial uncertainty.²⁶

The lockdown oriented insurance companies toward making more use of the automatic insurance contracting, without the personal presence of the seller. Over 26% of them expanded this type of insurance sales. On the other hand, some state regulators asked insurance companies to extend the grace period for insurance premium payments, which was accepted by over 77% of the companies.²⁷

Adapting to new modern IT solutions and platforms has proven to be another challenge. Remoteness, inability to communicate offline, work from home, and lockdowns have forced insurance companies to make a more significant commitment to communicating with customers in a slightly different way from the traditional sales process.²⁸

Deloitte outlines four key impacts of pandemic on the operations of insurance companies: 1) business, financial and customer risk, 2) perception, brand and strategy 3) operational resilience, service delivery and workforce, 4) governance, risk and controls.²⁹

The crisis has led to the relocation of work processes to work from home, but also to online claims reporting, insurance contracting, and overall communication through modern platforms. In the coming period, Human Resource Services will have a special task to measure the efficiency of employees working from home. Insurance companies are additionally adapting their marketing and after-sales process to the new business conditions.

²⁵ Levantesi, S., Piscopo, G., „Insurance Role for Handling the COVID-19 impact on Business and Society“. *Journal of Applied Management and Investments*. 2021, 9(4), 183–191.

²⁶ Babita, Y., Pushpa, S., „Study on the After Effect of Covid-19 Pandemic in Life Insurance Sector in India“. *Journal of Interdisciplinary Cycle Research*. XIII. 2021, 504-510.

²⁷ Society of Actuaries (SOA), „Impact of COVID-19“, *Society of Actuaries Research*. 2020

²⁸ Xia, Y., Li, S., Meng, K., „The Impact of the COVID-19 on the Insurance Industry in China“. *Frontiers in Economics and Management*. 2020, 1(12), 28.

²⁹ Deloitte., „Impact of COVID-19 on the Insurance Sector“, 2020

II. Impact of COVID- 19 Pandemic on the Results of Insurance Sector in the Republic of Serbia

The intensity of the impact of the current pandemic on the RS insurance sector was measured by comparing the key business indicators through the earned insurance premium and the net result.

Looking at the total contracted insurance premium on the RS market (Table 1), we see a decrease in growth, but the market still recorded a growth of 2.3% in 2020 compared to 2019.

Table 1 Insurance premium in RS by years (000 RSD)

Year	Non-life premium	% changes	Life premium	% changes	Total	% changes
2011	47,321,292.00	0.32	9,992,706.00	6.84	57,313,998.00	1.40
2012	49,608,308.00	4.83	11,855,400.00	18.64	61,463,708.00	7.24
2013	46,976,051.00	-5.31	14,065,458.00	18.64	61,041,509.00	-0.69
2014	53,399,931.00	13.67	16,005,074.00	13.79	69,405,005.00	13.70
2015	61,561,694.00	15.28	19,364,294.00	20.99	80,925,988.00	16.60
2016	66,010,278.00	7.23	23,127,708.00	19.43	89,137,986.00	10.15
2017	70,336,633.00	6.55	22,757,361.00	-1.60	93,093,994.00	4.44
2018	76,121,610.00	8.22	23,788,981.00	4.53	99,910,591.00	7.32
2019	82,385,409.00	8.23	25,064,463.00	5.36	107,449,872.00	7.55
2020	83,753,833.00	1.66	26,162,910.00	4.38	109,916,743.00	2.30
Changes average		6.07		11.10		7.00

Source: adapted by the author from www.nbs.rs

Given a huge decline in the number of travels in 2020, a decline in travel health insurance premiums is also expected. Premiums of this type of insurance recorded a decline of over 1.5 billion dinars in 2020, or a decline of almost 61% (Table 2). Such a decline would mean a decline in total insurance premiums, but this was not the case.

Table 2 Premium of travel health insurance by years in 000 RSD

Year	Premium	% changes
2011	733,258.00	-16.29
2012	1,197,433.00	63.30
2013	1,350,068.00	12.75
2014	1,506,657.00	11.60

Year	Premium	% changes
2015	1,712,817.00	13.68
2016	1,848,432.00	7.92
2017	2,080,616.00	12.56
2018	2,287,494.00	9.94
2019	2,478,353.00	8.34
2020	971,141.00	-60.82

Source: adapted by the author from www.nbs.rs

The compulsory motor third party liability insurance premium traditionally accounts for the largest share of the total RS market. This premium did not show a decrease, but still recorded a significantly lower growth of 1.82% in 2020 compared to previous years of observation (Table 3).

Table 3 Compulsory motor third party liability insurance premium in 000 RSD

Year	Premium	% changes
2011	18,709,971.00	-0.55
2012	19,332,284.00	3.33
2013	19,573,648.00	1.25
2014	22,706,165.00	16.00
2015	29,007,378.00	27.75
2016	30,208,399.00	4.14
2017	31,980,243.00	5.87
2018	33,558,552.00	4.94
2019	35,373,139.00	5.41
2020	36,018,025.00	1.82

Source: adapted by the author from www.nbs.rs

Given the decline in economic activity (Serbian Chamber of Commerce, 2021), as well as the state of emergency, automobile Casco insurance premiums were expected to fall significantly in 2020. Although there was a premium growth of over 600 million dinars (Table 4), it is still lower than the growth in previous years. The traditionally negative ratio of premiums and paid damages led to a change in the pricing policy that ensured the above growth, although there was no increase in the number of policies sold.

Table 4 Premium of automobile Casco insurance in 000 RSD

Year	Premium	% changes
2011	7,177,352.00	-5.73
2012	6,927,923.00	-3.48
2013	6,429,888.00	-7.19
2014	6,049,950.00	-5.91
2015	6,229,062.00	2.96
2016	6,916,653.00	11.04
2017	7,791,685.00	12.65
2018	8,982,425.00	15.28
2019	10,335,755.00	15.07
2020	10,961,273.00	6.05

Source: adapted by the author from www.nbs.rs

Voluntary health insurance is the type of insurance with the highest growth in the last 10 years. Modern, especially foreign companies, include in their employment contracts paid private health insurance for their employees as an additional benefit. This type of insurance records a growth of over 18% in 2020, which is in line with global trends of people taking out this type of insurance during the health crisis (Table 5). The premiums have increased to more than 500 million dinars, which together with Casco and life insurance, as well as some other types of property insurance, not only compensated for the huge decline in travel health insurance premium but also provided a growth in total premiums in the RS insurance market in the circumstances of the pandemic.

Table 5 Premium of voluntary health insurance in 000 RSD

Year	Premium	% changes
2011	971,764.00	-5.08
2012	1,083,190.00	11.47
2013	1,158,120.00	6.92
2014	1,324,894.00	14.40
2015	1,585,351.00	19.66
2016	2,229,411.00	40.63
2017	2,859,554.00	28.26
2018	3,465,351.00	21.19
2019	4,581,469.00	32.21
2020	5,416,185.00	18.22

Source: adapted by the author from www.nbs.rs

In line with global trends, the life insurance market is showing similar resilience. Although in 2020 a slightly lower growth was recorded than in 2019 (Table 6), the insurance premium increased by over one billion dinars. Thus, the decline in travel health insurance premiums was completely neutralized, and health insurance again showed positive tendencies and serious and safe business. During the health crisis, there was a significantly higher number of life policies taken out by the population. These policies were innovated by additional coverage in terms of COVID risk, and contributed to the overall growth of premiums and positive business indicators.

Table 6 Premium of life insurance in 000 RSD

Year	Premium	% changes
2011	9,992,709.00	6.84
2012	11,855,400.00	18.64
2013	14,065,460.00	18.64
2014	16,005,073.00	13.79
2015	19,364,294.00	20.99
2016	23,127,709.00	19.43
2017	22,757,361.00	-1.60
2018	23,788,981.00	4.53
2019	25,064,463.00	5.36
2020	26,162,910.00	4.38

Source: adapted by the author from www.nbs.rs

The net result of the RS insurance market in the year of the pandemic shows the stability of the sector and therefore, although lower growth was recorded compared to previous years, the RS insurance companies performed positively (Table 7). The growth in this indicator is 10.85% compared to 2019.

Table 7 Net result of the RS insurance market in 000 RSD

Year	Net profit	Net loss	Net result
2011	1,941,055.00	1,383,224.00	557,831.00
2012	2,371,872.00	1,166,591.00	1,205,281.00
2013	2,229,168.00	2,272,416.00	-43,248.00
2014	2,900,478.00	2,473,165.00	427,313.00
2015	4,625,617.00	1,721,355.00	2,904,262.00
2016	6,009,647.00	286,508.00	5,723,139.00
2017	6,634,512.00	202,007.00	6,432,505.00

Year	Net profit	Net loss	Net result
2018	8,877,837.00	19,941.00	8,857,896.00
2019	11,680,788.00	38,067.00	11,642,721.00
2020	12,986,202.00	79,211.00	12,906,991.00

Source: adapted by the author from www.nbs.rs

In view of the above, it can be concluded that the hypotheses 1) and 2) originally set in this paper must be rejected. The data from the above tables show that the COVID-19 pandemic has an impact on the earned insurance premium and net result of the RS insurance market, in terms of lower growth, but this impact did not lead to a decrease in premiums compared to previous years, nor to the loss and negative RS market results. Despite the drop in travel health insurance premiums, insurance companies managed to achieve an increase in total premiums, as well as a positive result and an increase in net results compared to 2019. These results are indicators of controlled operations and strict reinsurance, risk management and investment policies.

III. Research Methodology

The reports from the NBS website provided the necessary information for the analysis of the impact of travel health insurance premium trends on the net result of insurance companies on the RS market. In accordance with the type of the available data and the sensitivity of the issue, the research was conducted by combining qualitative and quantitative methodology. The research results are presented using correlation analysis and panel data regression.

To detect the impact of the decline in travel health insurance premiums on total realized profit, a model was developed in which there are four variables, three of which are independent and one dependent.

The independent variables are:

1. Premium of compulsory motor vehicle insurance (liability) – MVL
2. Premium of automobile Casco insurance – AC
3. Premium of travel health insurance – THI.

The dependent variable is:

1. Net result of insurance market– NR.

When developing the model, the identification of variables was performed first. Based on economic logic, NR (Y) was chosen as the dependent variable, and MVL, AC, THI i.e. ,, were chosen respectively as explanatory variables. The possibility of an error in predicting Y in the model was marked by e. Slope coefficients are β_1 , β_2 , β_3 , while the constant is marked as β_0 . Therefore, the model can be presented as follows:

$$Y(NR) = \beta_0 + \beta_1^* + \beta_2^* + \beta_3 + e,$$

namely $NR = \beta_0 + \beta_1^* + \beta_2^* + \beta_3 + e$

Empirical research was conducted on a sample of five insurance companies that account for 78% of the total RS insurance market, for a period of 10 years. Table 8 shows descriptive statistics for all 50 observations, i.e. minimum and maximum values of the observed variables, their arithmetic mean and standard deviation. Due to the nature of the crisis, the aim is to examine the impact of sensitive types of insurance (travel health insurance) on the overall market result in terms of net profit.

Table 8 Descriptive statistics (in 000 RSD)

	Number of observations	Minimum values	Maximum values	Arithmetic mean	Standard deviation
MVL	50	290188.00	12455539.00	4152505.0000	3390395.06101
AC	50	199581.00	2796087.00	1236409.2400	611497.69719
THI	50	18761.00	567283.00	227221.9200	136097.19139
NR	50	-1373943.00	8977666.00	998116.6800	1659689.59272
Valid N (listwise)	50				

Source: Author's calculation

IV. Impact of the Change in the Travel Health Insurance Premium on the Net Result of the Insurance Market of the Republic of Serbia

This impact will be explored through panel data regression analysis, using the software package SPSS. This type of regression analysis has numerous advantages over traditional regression models and time series analyses, with a greater degree of freedom and reduced collinearity between the observed variables, thus improving the efficiency of econometric estimations.³⁰

The advantages of panel data analysis lie in uncovering dynamic relationships, controlling the impact of omitted variables, generating more accurate predictions for individual outcomes by pooling the data, providing micro foundations for aggregate data analysis, simplifying statistical inference, analysing nonstationary time series, measurement errors, etc.³¹

Bearing in mind that there is an identical number of data for the observation unit in each year of observation, balanced panel data were used. Due to the lack of consistency of the independent variables used over time, a fixed effects model will be used to assess the impact of the independent variables on the observed dependent variables.³²

³⁰ Hsiao, C. *Analysis of Panel Data* (Econometric Society Monographs), Cambridge, 2014

³¹ Hsiao, C., "Panel data analysis—advantages and challenges". *TEST* 16, 2007, 1–22.

³² Knežević, A. *Implementation of panel models in identifying factors of business success in manufacturing companies* (Doctoral Dissertation). Novi Sad: Novi Sad University – Faculty of Technical Science, 2015, pp. 20.

1.1. Impact of Variation of Travel Health Insurance Premium on the Realized Profit of Insurance Companies

The justification for examining this impact is reflected in the fact that this type of insurance recorded a huge decline in insurance premiums in 2020 due to the travel ban.

By testing the normality of the data distribution (Shapiro-Wilk and Kolmogorov-Smirnov tests), it was determined that the observed data have a normal distribution. Based on Table 9 and the Spearman correlation test, it can be concluded that there is a high correlation with adequate statistical significance between the motor liability premium and the net result of the insurance market (.903, with maximum statistical significance). There is a slightly smaller but also high correlation between the total Casco insurance premium and the net result (0.830), with adequate statistical significance (0.003). On the other hand, it can be concluded that there is a statistically most significant correlation between the net result of the RS insurance market and travel health insurance premiums with a correlation coefficient of 0.442, however, statistically insignificant.

Table 9 Correlation analysis results (Spearman Coefficient)

		MVL	AC	THI	NR
MVL	Correlation coefficient	1	.661*	0.564	.903**
	Sig	.	0.038	0.090	0.000
AC	Correlation coefficient	.661*	1	0.164	.830**
	Sig	0.038	.	0.651	0.003
THI	Correlation coefficient	0.564	0.164	1	0.442
	Sig	0.090	0.651	.	0.200
NR	Correlation coefficient	.903**	.830**	0.442	1
	Sig	0.000	0.003	0.200	.

*correlation significant with sig less than 0.05

** correlation significant with sig less than 0.01

Source: Author's calculation

Upon applying Breusch-Pagan and Koenker test³³ the absence of heteroscedasticity was determined (Table 10), having in mind Sig values specified in the Table that must be greater than .05.

Table 10 BP and Koenker heteroscedasticity test

Test	LM	Sig
BP	6.103	0.347
Koenker	3.775	0.229

Source: Author's calculation

³³ Hsiao C. pp. 148.

Table 11 shows the results of the panel data analysis, i.e. the results of the examination of the impact of premium variations of different types of insurance on the net result of the RS market.

Table 11 Regression model – NR independent variable

Variable	NR - net result		
	Beta	Sig.	VIF
MVL	0.547	0	4.445
AC	0.521	0	2.885
THI	-0.006	0.905	2.050
R ²	0.992		
Adjusted R ²	0.989		
Sig.	0		

Source: Author's calculation

Based on the results of the panel regression analysis, it can be concluded that the R square coefficient of 0.992 indicates that this model, i.e. the impact, can be 99% attributed to MVL, AC and THI premium, with a maximum statistical significance of .000 (Table 11).

The multicollinearity test (VIF values, Table 11) showed that there is no high interdependence between the observed independent variables.

The impact of the change in the compulsory motor vehicle insurance premium (MVI) on the net result of insurance companies shown in Table 11 is .547, so any increase in this premium by one dinar leads to an increase in the net result by .547 dinars, with a maximum statistical significance of .000. On the other hand, there is a significant impact of Casco insurance premium movements (0.521). Although Table 11 shows a negative impact of the variation in travel health insurance premium on the net result, the effect is statistically insignificant, which is adequate to the last year's results of the insurance market in RS, where the premium of this type of insurance did not lead to a decrease in net results.

These tests confirmed Hypothesis 3 on the absence of a statistically significant impact of the movement of travel health insurance premiums on the net result. Insurance companies on the RS market achieved a profit growth of about 10% compared to 2019, despite the pandemic and the drop in travel health insurance premiums of about 1.5 billion dinars.

Conclusion

The COVID- 19 pandemic affected the daily life of an individual, economic activities, the global economy, and the health care system. The insurance sector, as

an activity with a significant share in the gross domestic product of countries, also felt the consequences of this health crisis. The negative impact was reflected, among other things, in the decline in activity, solvency, liquidity, productivity, number of employees, insurance premiums by certain types of insurance, profit, etc. However, the insurance market of the Republic of Serbia also felt the consequences of the pandemic, but in most companies, those consequences did not lead to a decline in the total contracted insurance premiums and losses. The expected decline in travel health insurance premiums was recorded, which, although high, was not sufficient to produce an overall decline in the premium of the entire market. The market continued to grow, as in the years before the pandemic, with slightly lower percentages. Insurance companies operated with positive results even in 2020, managing to alleviate negative effects of the health crisis that hit the whole world. Premiums of the most affected type of insurance (travel health insurance) do not have a significant impact on profits, i.e. the net result of the market, which in combination with distinct growth of Casco, life and voluntary health insurance premiums led to positive trends in the year of the pandemic, when many other economic activities recorded losses.

Insurance companies in the Republic of Serbia were relatively prepared when the pandemic broke out, and with the help of other types of insurance, they managed to amortize the losses caused by a large drop in travel health insurance premiums. The panel data regression analysis confirmed the lack of impact of this insurance premium on the profits of insurance companies. In the coming period, insurers can focus their marketing campaigns on other insurance service packages. The recommendation for further work and commercialization is that insurance companies focus on services such as life and health insurance, including epidemic risks, as well as automobile Casco insurance, as these types of insurance have offset the decline in travel health insurance premiums and ensured for insurance companies the growth of insurance premiums.

Literature

- Babita, Y., Pushpa, S. "Study on the After Effect of Covid-19 Pandemic in Life Insurance Sector in India". *Journal of Interdisciplinary Cycle Research*. 2021, 504-510.
- Babuna P., Xiaohua Y., Gyllbag A., Awudi A.D., Ngmenbelle D., Dehui B. „Impact of COVID-19 on the insurance industry". *International Journal of Environmental Research and Public Health*. 2020, 17:5766. doi:10.3390/ijerph17165766
- Baluch, F., Mutenga, S., Parsons, C. "Insurance, Systemic Risk and Financial Crisis", *The Geneva Papers on Risk and Insurance - Issues and Practice*, 2011, 126-163

- Deloitte. "Impact of COVID-19 on the Insurance Sector". 2020 <https://www2.deloitte.com/ie/en/pages/covid-19/articles/impact-COVID-19-insurance-industry.html> last accessed on: 25.08.2021.
- Fernandes, N. (2020). Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.3557504>
- Festus, T., Solanke, F., Olugbamiye, O., Olaleye, B., Ekundayo, O.F. "Effects of COVID-19 pandemic on insurance companies' productivity in Nigeria". *International Journal of Intellectual Discourse (IJID)*. 2020, pp. 180-189.
- Haegali, J.J. "How insurance markets are bucking the global recession trend", Swiss Re Institute, 2020
- Haque, A., Mohona, N. T., Sultana, S., Kulsum, U. "The impact of covid-19 on insurance industry of Bangladesh". *Indian Journal of Finance and Banking*, 6(1). 2021, 73-85. <https://doi.org/10.46281/ijfb.v6i1.1243>
- Harris, Timothy F., Yelowitz, Aaron, Courtemanche, Charles, 2020. "Did COVID-19 Change Life Insurance Offerings?", IZA Discussion Papers 13912, Institute of Labor Economics (IZA).
- Hsiao, C., "Panel data analysis—advantages and challenges". *TEST* 16, 2007, 1–22 <https://doi.org/10.1007/s11749-007-0046-x>
- Hsiao, C. *Analysis of Panel Data* (Econometric Society Monographs). Cambridge, 2014, Doi: 1017/CB09781139839327
- Joshua D. F., Bradley, K., "The COVID-19 Pandemic and Health Insurance Regulation", *Journal of Insurance Regulation*, 2020, National Association of Insurance Commissioner
- Jovanović, S. O. " Impact of COVID- 19 pandemic on the Insurance Industry". *Insurance Trends*, 2021, 37(1), 41-69.
- Kirti, D., Shin, M. Y. "Impact of COVID-19 on Insurers". *International Monetary Fund Research-* 2020. pp. 1–11
- Knežević, A. *Implementation of panel models in identifying factors of business success in manufacturing companies* (Doctoral Dissertation). Novi Sad: Novi Sad University – Faculty of Technical Science, 2015, pp. 20 <http://nardus.mpn.gov.rs/bitstream/handle/123456789/4781/Disertacija362.pdf?sequence=2&isAllowed=y>
- Kočović, J., Antić, T., Jovović M. "The Impact of the Global Financial Crisis on the Structure of Investment Portfolios of Insurance Companies", *Ekonomski anali*, Faculty of Economics, Belgrade, 2011, pp 143-161.
- Levantesi, S., Piscopo, G. "Insurance Role for Handling the COVID-19 impact on Business and Society". *Journal of Applied Management and Investments*. 2021, 9(4), 183–191
- Makroekonomske analize i trendovi, Privredna komora Srbije <https://api.pks.rs/storage/assets/MAT%20312%202021-01.pdf>

- Vladimir Njegomir, Boris Marović, Rado Maksimović. "The Economic Crisis And The Insurance Industry: The Evidence From The Ex-Yugoslavia Region," *Economic Annals*, Faculty of Economics, University of Belgrade, 2010, vol. 55(185), pp. 129-162
- Ozili, Peterson, Arun, Thankom. "Spillover of COVID-19: Impact on the Global Economy". *MPRA Paper* 99317. 2020. University Library of Munich, Germany. <https://doi.org/10.2139/ssrn.3562570>
- Parvathi, V., Lalitha, C. "Impact of Covid/19 on the Indian insurance sector". *Perspectives on Business Management & Economics*. 2021, 60-65
- Pranali, N., Vinita, A.K. "Impact of COVID-19 on Health Insurance Sector". *International Journal of Scientific Research in Engineering and Management (IJSREM)*, 2020, 2582-393
- Puławska, K. "Financial Stability of European Insurance Companies during the COVID-19 Pandemic". *Journal of Risk and Financial Management*. 2021, 14(6), pp. 1-18. <https://doi.org/10.3390/jrfm14060266>
- Salehnia, N.Zabihi, S., Mohammad, G.; Safarzaei, K "The impact of COVID-19 Pandemic on Tourism Industry#: A Statistical Review in European Countries. 2021. Conference contribution. <https://doi.org/10.6084/m9.figshare.14528886.v2>
- Sebastian Schich. "Insurance companies and the financial crisis," *OECD Journal: Financial Market Trends*, OECD Publishing, vol. 2009(2), pp. 123-151.
- Society of Actuaries (SOA), "Impact of COVID-19", *Society of Actuaries Research*. 2020, Research Brief, Schaumburg, IL
- Stojkoski, V., Jolakoski, P., Ivanovski, I. "The short-run impact of COVID-19 on the activity in the insurance industry in the Republic of North Macedonia". *ArXiv*. 2020
- Strupczewski, G., Klonowska, A. „Impact of the COVID -19 pandemic on the global insurance market". In book: *Strategies, models and technologies of economic systems management in the context of international economic integration, 2020*, pp.230-238, Publisher: Institute of Economics of the Latvian Academy of Science
- Wang, Y., Zhang, D., Xiaoquan, W., Fu, Q. "How does COVID-19 affect China's insurance market?#", *Emerging Markets Finance and Trade*. 2020, 56(10), pp. 2350–2362.
- Xia, Y., Li, S., Meng, K. "The Impact of the COVID-19 on the Insurance Industry in China". *Frontiers in Economics and Management*. 2020, 1(12), 28
- Zulfikar, R. "Estimation Model And Selection Method Of Panel Data Regression: An Overview Of Common Effect, Fixed Effect, And Random Effect Model," *INA-Rxiv* 9qe2b, 2018, pp. 3. www.apr.gov.rs last accessed on: 25.10.2021.

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PRIKAZ SAVETOVANJA

OSIGURANJE I PRAVNO-EKONOMSKO OKRUŽENJE

U Šapcu, od 30. marta do 1. aprila 2022. godine, održano je 23. godišnje savetovanje Udruženja za pravo osiguranja Srbije i Udruženja osiguravača Srbije na temu „Osiguranje i pravno-ekonomsko okruženje – širi i uži okvir“.

U uvodnoj reči prilikom otvaranja savetovanja, **prof. dr Slobodan Jovanović**, predsednik Udruženja za pravo osiguranja Srbije, istakao je da proučavanje prava osiguranja i praćenje izmena u praksi i nauci prava osiguranja predstavlja zajednički interes okupljanja članova oba udruženja te ostalih učesnika savetovanja. Istakao je značaj sveobuhvatnog sagledavanja aktuelnih tendencija u osiguranju, ukazavši na brojne teme čije je razmatranje najavljeno.

– Od nauke i struke osiguranja očekuje se da pruži odgovore i predloži rešenja određenih pitanja imajući u vidu stabilnost i održivost delatnosti osiguranja. Prezentacijom radova na odabrane teme, ta pitanja se analiziraju i obrazlažu, a okrugli stolovi su prilika za diskusiju o predloženim stavovima i rešenjima koja može da iznedri i neka nova viđenja aktuelnih problema – istakao je prof. dr Slobodan Jovanović izrazivši uverenje da će konferencija proteći u akademskoj atmosferi i u razgovoru o zanimljivim temama.

Dostignuto milijardu evra premije

Čast da se uvodnim izlaganjem obrati učesnicima savetovanja pripala je **dr Dragici Janković**, menadžeru za upravljanje rizicima Kompanije „Dunav osiguranje“, koja je upoznala skup sa aktuelnim tendencijama na srpskom tržištu osiguranja, na kome je posle nekoliko godina iščekivanja dostignuta premija od milijardu evra.

– Uprkos pandemiji koronavirusa koja je bila aktuelna i 2021. godine, na srpskom tržištu osiguranja ostvarena je premija od 119 milijardi i 408 miliona dinara,

¹ Urednik časopisa, viši specijalista za razvoj izdavačke delatnosti u Centru za korporativni marketing i brigu o klijentima, Kompanija „Dunav osiguranje“ a.d.o.

što predstavlja rast od 8,64 odsto u odnosu na prethodnu, 2020. godinu. Premija neživotnih osiguranja povećana je za 10,2 odsto, a neživotnih osiguranja bez osiguranja od auto-odgovornosti čak za 16 procenata. U 2020. neživotna osiguranja porasla su svega 1,66 procenata u odnosu na prethodnu godinu. S druge strane, premija životnih osiguranja povećana je u prošloj godini za 3,62 odsto ne dostigavši rast iz 2020. godine koji je iznosio 4,38 odsto – navela je dr Janković ukazujući da je reč o preliminarnim podacima koje priprema i obrađuje Privredna komora Srbije, ali da su se do sada pokazali pouzdanim.

– Posmatrano po vrstama osiguranja, naročito značajan rast, veći od 27 procenata, ostvaren je u dobrovoljnom zdravstvenom osiguranju (DZO). To je vrsta koja u našoj zemlji ima značajan potencijal za razvoj i u nekoliko poslednjih godina ostvaruje rast od preko 20 procenata. Rast od preko 10 procenata ostvaren je u kasko osiguranju motornih vozila, porast premije osiguranja robe u prevozu kao rezultat pojačane privredne aktivnosti bio je veći od 27 procenata, za 9,23 odsto povećana je premija osiguranja od požara, premija u vrsti 9 koja predstavlja skup raznorodnih rizika počev od poljoprivrede pa do elektroprivrede, loma mašina, objekata u izgradnji i drugih, povećana je čak za 16,57 odsto, što je posledica osiguranja velikih infrastrukturnih projekata, ali i rasta poljoprivrede, gde je premija osiguranja useva porasla za 22 odsto. Osiguranje od auto-odgovornosti imalo je skromniji rast od svega 2,4 odsto, a procentualno približno isti – 2,54 odsto bio je i rast osiguranja od opšte odgovornosti kao moderne vrste osiguranja koja tek treba da se razvija. Uprkos rastu od preko 113% u osiguranju pomoći na putovanju, što se odnosi pre svega na putničko zdravstveno osiguranje (PZO), u 2021. nije dostignut nivo premije iz 2019. godine, kada je premija bila za 15,6% veća od ove koja je ostvarena u 2021 – rekla je dr Janković.

Ona je iznela da je generator rasta u životnim osiguranjima već nekoliko godina grupno riziko-osiguranje korisnika kredita, te da rast od 33 odsto u životnom osiguranju vezanom za jedinice investicionih fondova u apsolutnom iznosu nije preterano veliki, ali da ipak ukazuje na to da će investicioni fondovi i kod nas naći svoj razvojni pravac.

Analizirajući strukturu premije po vrstama osiguranja, dr Janković je navela da je DZO dostiglo učešće od 5,78% u ukupnoj premiji i gotovo se izjednačilo sa osiguranjem od požara, koje je nekada bilo glavna osiguravajuća vrsta za generisanje premije i dobiti. Premija DZO sada iznosi 6 mlrd. i 900 miliona dinara, a premija osiguranja od požara 6 mlrd. i 970 miliona dinara. Sa 12 mlrd. dinara premije i učešćem od 10 odsto u premiji, kasko osiguranje ima dvostruko veću premiju od osiguranja od požara. Sa učešćem od 14% vrsta 9 – ostala osiguranja imovine – dominantna je, izuzimajući osiguranje od auto-odgovornosti, čije je učešća opalo i ono sada iznosi 31%.

Sve što je navedeno dovelo je do porasta učešća neživotnih osiguranja u ukupnoj premiji sa 76 na 77,3% i pada učešća životnih osiguranja sa 23,8 na 23,7%.

– Učešće u ukupnoj premiji fizičkih i pravnih lica samo je na prvi pogled povoljno – 52 prema 48%. Međutim, ako se izuzmu životna osiguranja koja se prirodno odnose na fizička lica, navedeni odnos se menja u korist osiguranja pravnih lica i tada je 42 prema 58%, a kada se izuzme i osiguranje od auto-odgovornosti, gde je učešće fizičkih lica 74%, taj odnos je još nepovoljniji, tj. 21 prema 79%. Ovi podaci ukazuju na veliki prostor za razvoj personalnih osiguranja na našem tržištu, i to je ono čime daleko više moramo da se posvetimo – istakla je dr Janković.

– Osiguranje od auto-odgovornosti značajno je zbog svog visokog učešća od čak jedne trećine u ukupnoj premiji, te njegove likvidnosti i profitabilnosti. U 2021. godini bilo je za 3,27% više zaključenih osiguranja od AO, a premija je u toj vrsti bila za 2,41% veća. Na manji rast premije uticala je promena bonus-malus sistema do koje je došlo sredinom 2020. godine, uprkos povećanju premije kome su pribegla pojedina osiguravajuća društva. U poslednje dve godine, tržišno učešće u osiguranju od AO menjalo se tako da je većina društava imala pad: „Dunav osiguranje“ palo je sa 35,1 na 31,6%, „Đenerali“ sa 22 na 19%, DDOR sa 11,1 na 10%, „Milenijum osiguranje“ sa 7,9 na 7,5%, „Triglav osiguranje“ sa 7,8 na 5,9%, „Sava neživot“ sa 4,4 na 3,3%, „Viner“ sa 3,6 na 2,2%, „Unika neživot“ sa 0,9 na 0,6%. Apsolutni pobednik je „Globos osiguranje“, čije je tržišno učešće dostiglo 9%, a rast su zabeležili i „AMS osiguranje“ (sa 8,7 na 9,6%) i „Grave“ (sa 0,4 na 1,2%) – navela je dr Janković.

Poredak društava prema učešću u ukupnoj premiji, bar kad su prve dve pozicije u pitanju, nije se promenio u odnosu na prethodnih nekoliko godina, te prvo mesto i dalje neprikosnoveno drži „Dunav osiguranje“, na drugom mestu je „Đenerali osiguranje“, dok će se tek po objavljivanju zvaničnih podataka Narodne banke Srbije (NBS) pouzdano znati kakve su pozicije ostalih društava, napomenula je dr Janković.

– Likvidirane štete u 2021. godini iznosile su 54 mlrd. dinara i za 7,61% veće su u odnosu na prethodnu godinu, što je manje od rasta premije za jedan procentni poen. U neživotnim osiguranjima štete su veće za svega 1,92%, dok je premija povećana za čak 10%. Ako posmatramo neživotna osiguranja bez AO, štete su manje za 6% nego u prethodnoj godini, dok je premija za 16% veća. Ipak, interesantan je podatak o porastu likvidiranih šteta kod AK osiguranja – 13,7%, što je nešto više od povećanja premije (10%), a posledica je povećanja cena auto-delova koje će verovatno i dalje rasti. Kod osiguranja od AO taj rast je još drastičniji i dostigao je 18,45, dok je premija porasla za svega nešto više od 2%. S obzirom na to da se radi o vrsti gde je veliki broj ne tako velikih šteta, da je disperzija rizika prilično dobra, taj rast je značajan i posledica je kretanja u automobilskoj industriji. Društva za osiguranje o tome treba naročito da vode računa, da obrate naročitu pažnju na rezervaciju šteta kako u budućnosti ne bi bilo iznenađenja u bilansima – upozorila je dr Janković.

Ona je podvukla da su 2021. godinu obeležile i štete u životnim osiguranjima, koje su porasle za 3,13 mlrd. dinara, tj. za 22%, a već i u 2020. godini bile su za 1,2 mlrd. dinara, tj. za 9,2% veće nego u prethodnoj, 2019. godini. Prema podacima

Republičkog zavoda za statistiku, smrtnost je u 2021. godini u odnosu na 2020. povećana za 18,2% ili za gotovo 21.000 lica, a u 2020. u odnosu na 2019. za 14% ili za 14.000 lica. Kako se štete u životnim osiguranjima uglavnom odnose na grupno riziko-osiguranje korisnika kredita, veliki deo tih šteta je iz 2020. prenet u 2021, koja je znatno opterećena u bilansima životnih osiguranja.

Rast kapitala i tehničkih rezervi

– Tokom 2021. godine nastavljen je rast kapitala, te je na kraju trećeg kvartala 2021. iznosio 68,4 mlrd. dinara, što je uvećanje za 4,9% u odnosu na isti period prethodne godine. Adekvatnost kapitala kao pokazatelj dugoročne finansijske stabilnosti tržišta osiguranja i društava za osiguranje, tj. celog sektora osiguranja, prema zahtevima direktive Solventnost I, za neživotna osiguranja je na nivou od 210%, a za životna osiguranja na nivou od 244,6%. Izvesno je da će kod životnih osiguranja navedeni procenat pasti na kraju 2021. zbog šteta koje su dovele do loših rezultata društava za osiguranje – rekla je dr Janković.

Tehničke rezerve rastu i stalno su pokriveno u skladu sa zakonom. Od 2005. su sa 264 miliona povećane na milijardu i 667 miliona evra, tj. 6,3 puta. Ako je u istom periodu premija porasla 2,5 puta, razlika u rastu premije i tehničkih rezervi pokazatelj je povećanja finansijske stabilnosti tržišta osiguranja, kao i sigurnosti svakog osiguranika da će mu štete, ako se dese i kad god da se dese, biti nadoknađene. Kako je ukazala dr Janković, to je pravi primer dobrog regulisanja tržišta i onog što je NBS kao regulator postigla za stabilnost tržišta osiguranja od kada se bavi njegovom regulacijom.

– Pred nama je usklađivanje sa propisima EU, a naročito bih se osvrnula na direktivu Solventnost II, koja je drugačija od direktive Solventnost I. Zasniva se na izloženosti rizicima, kao što je to slučaj i u drugim delovima finansijskog sektora, a najviše u bankama. U EU je stupila na snagu 2016. godine, a mi smo sa implementacijom počeli 2017. godine, uspešno smo završili prvu fazu i polovinu druge faze. U toku prethodne dve godine nije bilo nekih većih aktivnosti, što, kako se pokazalo, nije bilo loše jer je EU u međuvremenu, posle četiri godine primene Solventnosti II, donela Odluku o njenoj reviziji. Direktiva je donela mnoge prednosti kroz visoke standarde upravljanja rizicima i obimne regulatorne javne izveštaje, ali i do prekomernih kapitalnih zahteva, do volatilnosti solventnosti, velikog operativnog i troškovnog tereta, koji na kraju moraju da plate osiguranici, što evropska društva za osiguranje čini manje konkurentnim na globalnom tržištu. Cilj revizije je pojednostavljenje koncepta, čime će se izbeći svi navedeni negativni efekti primene Solventnosti II. S obzirom na fazu primene do koje smo došli u našoj zemlji, mi ćemo biti u prilici da implementiramo ono najpovoljnije rešenje do koga budu došle zemlje EU nakon revizije direktive – istakla je dr Dragica Janković.

Ona se osvrnula i na globalnu ekonomsku krizu ukazujući na njene moguće pogubne posledice po delatnost osiguranja, što je ilustrovala podacima o dugotrajnom

oporavku osiguranja od krize devedesetih godina u našoj zemlji, pa potom i od globalne ekonomske krize koja je zahvatila svetsku privredu 2008. godine.

– Globalna kriza može izazvati povećanje inflacije i pad investicija koji je značajan generator premije. Inflacija je 1990. godine potpuno uništila životno osiguranje, čiji je oporavak počeo tek dolaskom inostranih društava na naše tržište. Učešće životnih osiguranja u ukupnoj premiji kod nas dostiglo je 9,51 odsto tek 2005. godine. Rast njihovog učešća nastavlja se iz godine u godinu, da bi 2016. dostigao maksimum od 25,9 procenata. Te godine, zbog ekonomskog rasta, infrastrukturnih projekata, pada kamatne stope, neživotna osiguranja počinju brže da rastu, dok učešće životnih osiguranja u ukupnoj premiji opada i u 2021. ono je 22,7 odsto. Za 16 godina, premija životnih osiguranja porasla je gotovo šest puta. Premija neživotnih osiguranja je sa 367 miliona evra u 2005. godini porasla na 517 miliona u 2008. godini. S globalnom ekonomskom krizom, premija neživotnih osiguranja počinje da pada i tek u 2016. godini uspeji smo da prestignemo premiju iz 2008. i to ne zahvaljujući realnom rastu nego zahvaljujući rastu cena AO u 2015. i 2016. godini. Međutim, ako posmatramo premiju neživotnih osiguranja bez AO, tek 2018. godine premija ostalih neživotnih osiguranja dostigla je onu s početka krize u 2008. godini. Za 16 posmatranih godina, premija neživotnih osiguranja porasla je oko dva puta.

Dr Janković je zaključila da srpsko tržište osiguranja nije dovoljno razvijeno, ali da ima značajan prostor za rast, kao i nove izazove pred sobom. Ostvaren je porast premije, ali je njeno učešće u BDP-u i dalje 2% jer je rastao i BDP. Procenat učešća premije u BDP-u u našoj zemlji u proseku je zemalja centralne i istočne Evrope, ali znatno niži nego u zemljama Evropske unije, u kojima je njeno učešće 8%.

– Ako izuzmemo životna osiguranja, možemo reći da nismo loše prošli u uslovima pandemije. NBS je pravovremeno donela niz dobro odmerenih mera za sprečavanje, smanjenje i otklanjanje njenih negativnih efekata, osiguravajuća društva su ih pažljivo primenila i dodatno se potrudila da na svaki način izađu u susret osiguranicima uvođenjem novih rizika i ubrzanom digitalizacijom procesa. Na tržištu je poslovalo 16 društava za osiguranje i 4 društva za reosiguranje, od čega 15 društava u većinskom stranom vlasništvu. Došlo je do malog rasta broja zaposlenih od svega jedan procenat, tako da u delatnosti osiguranja sada radi 11.300 ljudi. Ostvarenim rezultatima doprineo je i rad 16 banaka, 6 davalaca finansijskog lizinga, jedan javni poštanski operater, 104 pravna lica za posredovanje i zastupanje u osiguranju, 78 fizičkih lica i preduzetnika kao zastupnici u osiguranju i 4.241 lice za obavljanje poslova zastupanja i posredovanja u osiguranju.

Rad u okviru okruglih stolova

Dalji rad savetovanja organizovan je u okviru tematskih okruglih stolova, a prvi je bio na temu „Opšta pitanja u pravu i privredi osiguranja“. Referat „(Ne)izvesnost

u oblasti zastarelosti potraživanja iz ugovora o reosiguranju“ izložio je **dr Slobodan Jovanović**, profesor u Visokoj školi za poslovnu ekonomiju i preduzetništvo u Beogradu, a na temu „Održivost i osiguranje“ govorio je **prof. dr Wolfgang Rorbah** (Professor Wolfgang Rohrbach, PhD) sa Evropske akademije nauka i umetnosti u Salzburgu u Austriji. Rad „Osiguranje potraživanja u praksi Nacionalne korporacije za osiguranje stambenih kredita“ priredili su **dr Mladenka Balaban**, vanredni profesor na Fakultetu za bankarstvo, osiguranje i finansije Beogradske bankarske akademije, te **Dejan Hadžić**, dipl. ekonomista, i **Rade Tojagić**, dipl. pravnik iz Grupe za osiguranje i nepokretnosti Ministarstva finansija Republike Srbije, koji su referat izložili.

O regulatornom okviru osiguranja i zaštiti potrošača bilo je reči na drugom okruglom stolu. Prvi referat „Pravni aspekti obrade podataka pacijenata u zdravstvenom osiguranju u pravnom sistemu Tajvana“ podneo je **prof. dr Mihajlo Rabrenović** iz Instituta za virusologiju, vakcine i serume „Torlak“ u Beogradu kao koautor tog referata čiji su autori bili i **mr Fauzi Budi Satria** (Fauzi Budi Satria, MD, MPH) i **dr Usman Iqbal** (Usman Iqbal, PhD), obojica sa Medicinskog fakulteta u Tajpeju na Tajvanu. **Dr Ljiljana Stojković**, advokat u Beogradu i potpredsednica Udruženja za pravo osiguranja Srbije, izložila je referat pod naslovom „Primena i tumačenje prava u kontekstu pravilnog vršenja nadzora u osiguranju“.

U okviru okruglog stola posvećenog osiguranju od auto-odgovornosti pažnju učesnika privukao je referat „Osiguranje za štete pričinjene radom veštačke inteligencije – kritička analiza razvoja evropske tekuće politike“, koji je izložio **dr Šu Li** (Shu Li, PhD), istraživač na postdoktorskim studijama u oblasti veštačke inteligencije i prava na Univerzitetu u Helsinkiju, dok je koautor rada bio **prof. dr Majkl Faure** (Professor Michael Faure, PhD), profesor uporednog i međunarodnog ekološkog prava na Univerzitetu u Mاستrihtu i profesor uporednog privatnog prava i ekonomije na Pravnom fakultetu „Erazmus“ u Roterdamu. **Dr Miloš Radovanović**, naučni saradnik na Institutu za uporedno pravo, za ovu priliku priredio je referat „Požar na parkiranoj vozilu i osiguranje od auto-odgovornosti“. **Dr Karolin fon Šaubrok** (Professor Caroline Van Schoubroeck, PhD), profesor Univerziteta u Luvenu, u Belgiji, učesnicima savetovanja obratila se referatom na temu „Izmenjena Direktiva EU o osiguranju od odgovornosti iz upotrebe motornih vozila: Povratak u budućnost“, koji je u vidu video-snimka dostavila organizatoru savetovanja.

Zbog sprečenosti da lično prisustvuje i izloži svoj referat u okviru okruglog stola Opšte osiguranje, **Konstantinos Edolas** (Konstantinos Ntallas) iz advokatske firme „Rokas“ u Atini, u Grčkoj, takođe je poslao snimak referata pod nazivom „Fondovi kolektivnog penzijskog osiguranja i ugovorno pravo osiguranja“. **Dr Nebojša Žarković**, redovni profesor na Univerzitetu „Privredna akademija“ u Novom Sadu, izložio je referat „Savremeno osiguranje domaćinstva“, a **mr Milica Goravica**, sudija Drugog osnovnog suda u Beogradu, referat „Zakonska zatezna kamata na potraživanja osiguravača“.

Za okrugli sto Predugovorno informisanje i nove tehnologije odabrana su tri referata. **Dr Katarina Ivančević**, profesor Pravnog fakulteta Univerziteta „Union“ u Beogradu, govorila je na temu „Obaveza informisanja osiguravača o okolnostima značajnim za ocenu rizika kod ugovora o osiguranju lica, **mr Nikola Filipović** iz advokatske kancelarije „Živković – Samardžić“ u Beogradu izložio je referat „Budućnost predugovornog informisanja u pravu osiguranja“, a **dr Katažina Malinovska** (Professor Katarzyna Malinowska, PhD), profesor Univerziteta „Kozminski“ u Varšavi, poslala je snimak izlaganja svog referata pod nazivom „Pravni aspekti uloge i predmet ugovora o osiguranju u svetu novih tehnologija“.

Medicinske ustanove i pružanje usluga DZO

Uslugama zdravstvenog osiguranja koje ne pružaju osiguravajuća društva, zakonitosti takvih usluga i njihovog poreskog i pravnog tretmana bavio se poslednji okrugli sto na ovogodišnjem savetovanju, koji je okupio vrsne stručnjake iz osiguravajuće branše, kao i eksperte za poresku problematiku. Brojne nedoumice koje se javljaju u pogledu tih usluga iz različitih uglova osvetlili su učesnici okruglog stola **dr Nataša Petrović Tomić**, redovni profesor Prava osiguranja na Pravnom fakultetu Univerziteta u Beogradu, **Miloš Milanović**, član Izvršnog odbora „Dunav osiguranja“, **Boris Batarilo**, poreski savetnik, i **dr Nenad Grujić**, direktor Direkcije za pravne poslove u „Generali osiguranju“ i član Komisije za pravna pitanja UOS-a, koji je bio i moderator tog okruglog stola.

– Dobrovoljno zdravstveno osiguranje poslednjih godina doživljava ekspanziju, čemu je dobrim delom doprinela i pandemija koronavirusa. Paralelno sa osiguravajućim društvima, usluge DZO još pre nekoliko godina počele su da pružaju i pojedine zdravstvene ustanove nudeći određene pakete usluga korporativnim kupcima tj. kompanijama u svojstvu poslodavaca za njihove zaposlene. U početku, tim paketima usluga bio je obuhvaćen određeni broj od najmanje 100 zaposlenih, kasnije se smanjivao na 50 i manje ljudi, a zdravstvene ustanove su počele da stvaraju određene fondove, ali ne na takav način da su pružale mogućnost svakoj osobi da zaključi paket osiguranja određene vrednosti, svesni da bi takav paket svako iskoristio u potpunosti. Samim tim postavilo se pitanje zaštite interesa korisnika takvih usluga – da li su upoznati s uslugom koju su kupili i šta su dobili za ono što su platili. Jer, iza zaključenog ugovora o osiguranju stoji sve ono što je propisano Zakonom o osiguranju kao što su aktuarske metode, pravila o upravljanju rizicima i sve drugo što Zakon i regulator nalažu da bi korisnik usluge osiguranja bio zaštićen. Stoga se osnovano postavilo pitanje da li ustanovama koje nemaju odgovarajuće dozvole i ne posluju po pravilima koja su strogo propisana za osiguravače treba da bude dozvoljeno da se bave ovim poslom – rekao je Miloš Milanović.

Utemeljenost u pravnim propisima ugovaranja usluga DZO od strane zdravstvenih ustanova razmotrila je prof. dr Nataša Petrović Tomić.

– Pravo da formira zajednicu rizika koja funkcioniše po principima aktuarske matematike ima samo licencirani osiguravač, tj. onaj ko je dobio dozvolu Narodne banke Srbije da se bavi poslovima osiguranja u određenoj osiguravajućoj grani. Ako neko drugi nudi usluge osiguranja, pa makar one bile i usluge DZO, po principu aleatornosti, nezavisno od stvarnog „utroška“ pregleda, pritom formira određenu kvazizajednicu rizika, kroz neke protokole nudi i posebne pogodnosti i to ne samo za zaposlene kod poslodavca s kojim zaključuje ugovor već do određenog limita i za članove porodica zaposlenog, ugovara i učešće odnosno participaciju u određenom procentu koju snose zaposleni kao direktni korisnici usluga, onda definitivno pretenduje da zaključi ugovor o osiguranju. Sve to predstavlja neloyalnu konkurenciju osiguravačima koji plaćaju brojne takse i sve ostalo što je neophodno za zakonito obavljanje poslovanja. Ako se zaključivanjem jednog takvog ugovora simulira neki drugi ugovor, tj. ugovor o osiguranju, onda se s pravom mora postaviti pitanje njegovih pravnih posledica. Zakon o obligacionim odnosima propisuje da simulovani ugovori ne obavezuju ugovarače, a Zakon o osiguranju sadrži kogentna pravila koja ograničavaju slobodu ugovaranja. Da biste se bavili ugovaranjem osiguranja, morate imati dozvolu NBS – podsetila je prof. dr Petrović Tomić.

– Zakon o osiguranju nedvosmisleno propisuje da se uslugama u osiguranju može baviti samo onaj ko ima dozvolu za rad, a krivično je delo ako odgovorno lice u pravnom licu koje nema dozvolu za bavljenje osiguranjem sa drugim licima zaključuje ugovore o osiguranju u svojstvu pružaoca usluga ili druge ugovore koji su po svojoj prirodi ugovori o osiguranju. Logična posledica je ništavost takvih ugovora – istakao je Nenad Grujić. – Članom 55 Zakona o obligacionim odnosima propisano je da pravna lica u pravnom prometu mogu da zaključuju samo ugovore u granicama svoje pravne sposobnosti. Pravna sposobnost medicinskih ustanova ograničena je Rešenjem Ministarstva zdravlja koje im daje dozvolu za obavljanje zdravstvenih usluga, i to samo onih koje su tim rešenjem odobrene. Dakle, taj deo paketa zdravstvenih usluga koji simulira osiguranje ne samo da je simulovan, tj. prividan pravni posao već je i ništav jer je protivan prinudnim propisima, i to je suština ove pojave na tržištu – naglasio je Grujić.

Na okruglom stolu je razmotreno i kakav je poreski tretman uplata poslodavca za zaposlene određenih paketa zdravstvenih usluga, što je objasnio Boris Batarilo.

– Ako poslodavac plaća preventivne preglede za svoje zaposlene, tj. preglede koji imaju za cilj rano otkrivanje ili sprečavanje oštećenja zdravlja zaposlenih u vezi s radom, onda takve uplate poslodavca nisu predmet oporezivanja. Zdravstvene usluge dijagnostičko-terapijskog ili rehabilitacionog karaktera su oporezive. Naime, Zakonom o porezu na dohodak građana propisano je da se zaradom smatra svako primanje zaposlenog, bilo da se radi o novčanom primanju, bonovima za topli

obrok, uslugama, robi, određenom činjenju, pogodnostima, ili je reč o neposrednom plaćanju u korist zaposlenog, a na zaradu se primenjuju određene poreske stope i stope doprinosa za obavezno socijalno osiguranje – rekao je Batarilo i dodao da se postavlja pitanje kakve posledice snosi poslodavac koji prihvati određene „pakete zdravlja“ za svoje zaposlene, a u njima su specificirane razne vrste zdravstvenih usluga, kako preventivne tako i dijagnostičko-terapijske.

– U postupku poreske kontrole, poreski organ može da utvrdi poresku obavezu koju će poslodavac morati da plati dobrovoljno ili pod prinudnim izvršenjem. Pritom, poreski organ obračunava i kamatu, i to od momenta nastanka poreske obaveze pa do momenta plaćanja, i ona je u iznosu referentne kamatne stope i još dodatnih 10 procentnih poena na godišnjem nivou. Ukoliko se u prekršajnom postupku utvrdi da postoji i poreski prekršaj, poslodavac može odgovarati prekršajno i zaprećene kazne iznose od 30 do 100% od utvrđene poreske obaveze, sve u zavisnosti od toga da li je prekršaj učinjen iz nehata ili s umišljajem. Treba imati u vidu da se podrazumeva da je poslodavac kao pravno lice dužan da poznaje poreske propise, pa se ređe može pravdati da nije znao da je dužan da plati porez na određene zdravstvene usluge koje je pribavio za svoje zaposlene. Ako je pak znao da su zdravstvene usluge koje je platio za zaposlene oporezive pa porez nije platio u nameri izbegavanja poreske obaveze, a u krivičnom postupku se dokaže postojanje poreske obaveze i njegova krivica, tj. direktan umišljaj, u tom slučaju zaprećene su i kazne zatvora. U zavisnosti od iznosa utajenog poreza, Krivičnim zakonikom propisane su kazne zatvora u trajanju od jedne do deset godina – naveo je Batarilo i ukazao na to da poslodavac mora da bude veoma oprezan prilikom zaključivanja ugovora o pružanju zdravstvenih usluga, pogotovu onih koje se nude u vidu određenih paketa.

On je dodao da je poreska praksa u utvrđivanju poreskih obaveza vezanih za plaćanje zdravstvenih usluga zaposlenima i dalje prilično oskudna.

Zaključivanjem ugovora o osiguranju kojima se simuluje ugovor o DZO, korisnici zdravstvenih usluga dovode se u nepovoljniji položaj u odnosu na onaj u kome bi bili da su ugovor zaključili sa osiguravačima koji imaju dozvolu za obavljanje tih poslova i koje obavezuje niz propisa koji se tiču zaštite korisnika usluga osiguranja, kao što je, između ostalih, obaveza pružanja predugovornih informacija. Korisnik koji je nezadovoljan pruženom uslugom osiguranja može da uloži prigovor osiguravaču, posredniku ili zastupniku osiguranja, ali i Narodnoj banci Srbije, pod čijim okriljem i uz čije posredovanje može da pokuša da reši spor, što sve nije moguće ako korisnik nema zaključen ugovor o osiguranju. Kako se ugovori o DZO zaključuju najčešće na godinu dana, ako bi došlo do pokretanja stečaja nad osiguravačem koji se bavi poslovima DZO, korisnici bi bili zaštićeni jer se portfelj prenosi na drugo društvo za osiguranje, što, opet, nije moguće ako su ugovor zaključili s nekim ko nije osiguravač. Dodatno, Zakon o zdravstvenom osiguranju propisuje obavezu za osiguravajuća društva koja nameravaju da se bave poslovima DZO da osim dozvole NBS pribave

i prethodno mišljenje ministarstva nadležnog za poslove zdravstva, čime se uvodi još jedan vid kontrole i dodatni stepen zaštite korisnika usluga osiguranja, objasnila je prof. Nataša Petrović Tomić.

Miloš Milanović je podsetio na iskustva iz devedesetih godina, kada su osiguravajuća društva nicala kao trafike, bez ikakve kontrole i fondova koji bi pružili sigurnost osiguranicima da će biti oštećeni ako im se dogodi šteta.

– Osiguravajuća delatnost sada je detaljno regulisana. Društvo za osiguranje nije jednostavno osnovati, a njihov rad je pod strogim nadzorom upravo zbog zaštite korisnika usluga – rekao je Milanović. On je naveo primer da u svetu osiguravajuća društva otvaraju svoje bolnice, što smo imali i u Srbiji, ali te bolnice su posebna pravna lica registrovana u Ministarstvu zdravlja za pružanje zdravstvenih usluga, dok je u razmatranom slučaju reč o zdravstvenim ustanovama koje žele da se bave osiguranjem a da pritom za to nisu registrovana.

– Iako smo u diskusiji čuli da je ovde reč o prikrivenim poslovima u osiguranju, to ipak često uopšte nisu prikriveni poslovi jer se događa da se pored društava za osiguranje na tendere koje raspišu poslodavci radi javne nabavke usluga DZO jave i zdravstvene ustanove sa svojom ponudom – naveo je Milanović, uz sugestiju da put do rešenja navedenog problema treba tražiti kroz razgovore sa zdravstvenim ustanovama.

Dvadeset treća međunarodna konferencija Udruženja za pravo osiguranja Srbije okupila je veliki broj stručnjaka za pravo osiguranja sa univerziteta, iz društava za osiguranje, iz redova advokata koji se bave pravom osiguranja i drugih sa osiguranjem povezanih delatnosti i stručnjaka. Organizatori su istakli da su naročito ponosni na činjenicu da je i ove godine konferencija okupila ravnomeran broj domaćih i stranih autora iz različitih država članica EU, prijatelja Udruženja za pravo osiguranja Srbije i saradnika iz nacionalnih sekcija za pravo osiguranja. Kako se pokazalo tokom trodnevnog rada, Konferencija je bila ne samo mesto susreta starih znanaca iz osiguravajuće branše, upoznavanja s novim učesnicima, već pre svega razmene iskustava i informacija o brojnim novinama u pravu i praksi osiguranja. Zbornik radova na generalnu temu ovogodišnje konferencije „Osiguranje i pravno-ekonomsko okruženje – Širi i uži okvir“ ove godine je objavljen u elektronskom obliku, a svi radovi sadržani u njemu registrovani su pomoću DOI brojeva, što stručnoj javnosti koja nije bila u mogućnosti da učestvuje u radu konferencije omogućava njihovu veću vidljivost i pristupačnost.

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Ljiljana J. Lazarević Davidović, Graduate Lawyer¹

CONFERENCE REVIEW

INSURANCE AND LEGAL AND ECONOMIC ENVIRONMENT

The 23rd annual Conference organised by the International Association for Insurance Law and the Association of Serbian Insurers entitled "Insurance and Legal and Economic Environment – Wider and Narrower Framework" was held in Šabac from 30th March to 1st April 2022.

In his introductory speech at the opening of the Conference, the President of the International Association for Insurance Law, **Professor Slobodan Jovanović, PhD**, pointed out that studying insurance law and monitoring changes in practice and science of insurance law presents the common interest of members of both associations and other Conference participants. He emphasized the importance of a comprehensive review of current insurance trends, pointing out a number of topics whose consideration has been announced.

– Science and insurance are expected to provide answers and solutions to certain issues, bearing in mind the stability and sustainability of the insurance sector. By presenting papers on selected topics, these issues are analysed and explained, and round tables are an opportunity to discuss the proposed opinions and solutions that can give rise to some new views of current problems - said Professor Slobodan Jovanović, PhD, expressing confidence that the Conference will take place in an academic atmosphere and in discussions about interesting topics.

A Billion Euros in Premium is Achieved

Dragica Janković, PhD, a Risk Manager from the company "Dunav osiguranje" j.s.c., had the honour to introduce the participants of the Conference with

¹ Editor of the Journal, a Senior Specialist for Development of Publishing in the Centre for Corporate Marketing and Customer Care, "Dunav Osiguranje" j.s.c.

current trends in the Serbian insurance market where after years of expectations the premium of billion Euros was achieved.

– Despite the COVID-19 pandemic, which was current in 2021, the Serbian insurance market achieved a premium of 119 billion and 408 million RSD, which is an increase of 8.64 percent compared to the previous year. Non-life insurance premium increased by 10.2 percent, and non-life insurance without MTPL insurance by 16 percent. In 2020, non-life insurance increased by only 1.66 percent compared to the previous year. On the other hand, life insurance premium increased by 3.62 percent last year, not reaching the growth from 2020, which was 4.38 percent – said Dragica Janković, pointing out that these are preliminary data prepared and processed by the Serbian Chamber of Commerce and that they have so far proved to be reliable.

– Observed by insurance lines, especially significant growth, higher than 27 percent, was achieved in voluntary health insurance (VHI). That insurance line has significant potential for development in Serbia and has grown by over 20 percent in the last few years. Growth of over 10 percent was achieved in motor hull insurance; increase in insurance premium for cargo insurance as a result of increased economic activity was higher than 27 percent; fire insurance premium increased by 9.23 percent; premium in insurance line 9 (a group of various risks starting from agriculture to the electric power industry, machinery breakdown, builder's risk insurance and other) increased by 16.57 percent, which is a consequence of insurance of large infrastructure projects, but also growth of agriculture, where insurance premium for crops increased by 22 percent. MTPL insurance recorded a more modest growth of only 2.4 percent, and the growth of general liability insurance as a modern insurance line that has yet to be developed reached 2.54 percent. Despite the growth of over 113% in road assistance insurance, primarily related to travel health insurance (THI), in 2021 the level of premium from 2019 was not reached, when the premium was by 15.6% higher than the one realized in 2021 – said Dragica Janković.

She stated that the generator of growth in life insurance has been group credit life insurance for several years now, and that the growth of 33 percent in life insurance related to unit-linked insurance in the absolute amount is not excessive, but it still indicates that investment funds will find their development direction in our country.

Analysing the structure of premium by insurance lines, Dragica Janković stated that VHI reached a share of 5.78% in the total premium and was almost equal to fire insurance, which was once the main insurance line for generating premium and profits. The VHI premium is now 6 billion and 900 million RSD, and fire insurance premium is 6 billion and 970 million RSD. With 12 billion RSD of premium and a share of 10 percent in the premium, motor hull insurance has twice the premium than fire insurance. The insurance line 9 (other property) is dominant with a 14% share, with the exception of MTPL insurance, whose share has fallen to 31%.

All of the above led to an increase in the share of non-life insurance in the total premium from 76 to 77.3% and a decrease in the share of life insurance from 23.8 to 23.7%.

– Share in the total premium of natural persons and legal entities is favourable at first glance – 52 and 48%. However, if you exclude life insurance that is naturally related to natural persons, this ratio changes in favour of insurance of legal entities and then it is 42 and 58%, and when you exclude MTPL insurance, where the share of natural persons is 74% , that relation is even more unfavourable, i.e. 21 and 79%. These data indicate a big space for development of personal insurance in our market, and that should be our focus – Dragica Janković pointed out.

– MTPL insurance is significant due to its high share of one third in the total premium, as well as its liquidity and profitability. In 2021, there were 3.27% more concluded insurances than MTPL, and the premium in that insurance line was by 2.41% higher. The lower growth of the premium was influenced by the change of the bonus-malus system that occurred in the middle of 2020, despite the increase in the premium resorted to by some insurance companies. In the last two years, the market share in MTPL insurance has changed so that most companies recorded decline: "Dunav osiguranje" fell from 35.1 to 31.6%, "Generali osiguranje" from 22 to 19%, DDOR from 11.1 to 10%, "Milenijum osiguranje" from 7.9 to 7.5%, "Triglav osiguranje" from 7.8 to 5.9%, "Sava neživot" from 4.4 to 3.3%, "Wiener" from 3.6 to 2.2%, "Unika neživot" from 0.9 to 0.6%. The absolute winner is "Globos osiguranje", whose market share reached 9%, and growth was also recorded by "AMS osiguranje" (from 8.7 to 9.6%) and "Grawe" (from 0.4 to 1.2%) – stated Dragica Janković.

The ranking of companies according to their total premium share, at least when it comes to the first two positions, has not changed compared to previous years, and the first place is still held by "Dunav osiguranje", the second place belongs to "Generali osiguranje", while only after the publication of the official data by the National Bank of Serbia (NBS) the positions of other companies will be known, said Dragica Janković.

– Settled claims in 2021 amounted to 54 billion RSD and were by 7.61% higher compared to the previous year, which was less than the premium growth by one percentage point. In non-life insurance, claims increased by only 1.92%, while premium increased by as much as 10%. If we observe non-life insurance without MTPL insurance, the claims are lower by 6% than in the previous year, while the premium is by 16% higher. However, it is interesting to note the increase in claims paid with motor hull insurance – 13.7%, which is slightly more than the increase in premium (10%), and is a consequence of the increase in prices of automobile parts that are likely to continue to rise. In MTPL insurance, this growth was even more drastic and reached 18.45, while the premium increased by just over 2%. Given that this is an insurance line with a large number of not so big losses, and that the risk dispersion

is quite good, this growth is significant and resulting from trends in the automotive industry. Insurance companies should take special care of that, pay special attention to the loss reserve so that there would be no surprises in the balance sheets in future – Dragica Janković warned.

She stressed that 2021 was also marked by losses in life insurance, which increased by 3.13 billion RSD (by 22%), and already in 2020 they were by 1.2 billion RSD (9.2%) higher than the previous year. According to the data of the Statistical Office of the Republic of Serbia, mortality in 2021 compared to 2020 increased by 18.2% or almost 21,000 people, and in 2020 compared to 2019 by 14% or 14,000 people. As losses in life insurance mainly relate to group credit life insurance, a large part of these losses was transferred from 2020 to 2021, which is significantly burdened in life insurance balances.

Growth of Capital and Technical Reserves

– In 2021, the growth of capital continued, and at the end of the third quarter of 2021 it amounted to 68.4 billion RSD, which was an increase of 4.9% compared to the same period last year. Capital adequacy as an indicator of a long-term financial stability of insurance market and insurance companies, i.e. the entire insurance sector, according to the Solvency I Directive requirements, for non-life insurance is at the level of 210%, and for life insurance at the level of 244.6%. It is certain that the stated percentage in life insurance will fall at the end of 2021 due to losses leading to poor results of insurance companies – said Dragica Janković.

Technical reserves are growing and are constantly covered in accordance with the law. Since 2005, they increased from 264 million to 1 billion and 667 million Euros, i.e. by 6.3 times. If the premium increased by 2.5 times in the same period, the difference in the growth of premium and technical reserves was an indicator of increasing financial stability of the insurance market, as well as the security of each insured person that losses (if and when occurred) will be indemnified. As Dragica Janković pointed out, this is a real example of good market regulation and what the NBS, as a regulator, achieved for the stability of the insurance market since it has been dealing with its regulation.

– We are facing harmonization with the EU regulations, and I would like to refer to the Solvency II Directive, which is different from the Solvency I Directive. It is based on risk exposure, as is the case in other parts of the financial sector, especially banks. It entered into force in the EU in 2016, and we started with the implementation in 2017. We successfully completed the first phase and half of the second phase. During previous two years, there were no major activities, which, as it turned out, was not bad because the EU, after four years of implementing Solvency II, made a decision on its revision. The Directive brought many benefits

through high risk management standards and extensive regulatory public reports, but also excessive capital requirements, solvency volatility, high operating and cost burdens, which ultimately have to be paid by insured persons, making European insurance companies less competitive in the global market. The aim of the revision is to simplify the concept that will avoid all the mentioned negative effects of the Solvency II implementation. Considering the implementation phase in Serbia, we will be able to implement the most favourable solution that the EU countries reach after the revision of the Directive – said Dragica Janković.

She also referred to the global economic crisis, pointing to its possible disastrous consequences for the insurance sector, which she supported by data on long-term recovery of insurance from crisis in the 1990s in Serbia, and then from global economic crisis in 2008.

– Global crisis may cause an increase in inflation and a decline in investment, which is a significant generator of premium. In 1990, inflation completely destroyed life insurance, whose recovery began only with the arrival of foreign companies on our market. Share of life insurance in the total premium in Serbia reached 9.51 percent only in 2005. The growth of their share continued and reached a maximum of 25.9 percent in 2016. That year, due to economic growth, infrastructure projects, decline of interest rates, non-life insurance began to grow faster, while the share of life insurance in the total premium decreased to 22.7 percent in 2021. In 16 years, life insurance premium increased almost six fold. Non-life insurance premium increased from 367 million Euros in 2005 to 517 million in 2008. In times of the global economic crisis, non-life insurance premium started to decrease and only in 2016 did we manage to surpass the 2008 premium, not thanks to real growth but to rising MTPL prices in 2015 and 2016. However, if we observe non-life insurance premium without MTPL, only in 2018 did the premium from other non-life insurance reach the one from the beginning of the crisis in 2008. In 16 observed years, non-life insurance premium has doubled.

Dragica Janković concluded that Serbian insurance market is not sufficiently developed, but that it has significant space for growth as well as new challenges in future. Premium increased, but its share in GDP is still 2% because GDP also recorded growth. Percentage of the premium share in GDP in Serbia is on average as the one in countries of the Central and Eastern Europe, but significantly lower than the EU countries, where its share is 8%.

– If we exclude life insurance, we can say that we did not do badly during the COVID-19 pandemic. The NBS has timely adopted well-balanced measures to prevent, reduce and eliminate its negative effects, insurance companies carefully implemented them and made additional efforts to meet the needs of insured persons by introducing new risks and accelerating digitalization of the process. There were 16 insurance companies and 4 reinsurance companies operating on the market,

of which 15 were majority foreign-owned companies. There has been a slight increase in the number of employees of only one percent, so that 11,300 people now work in the insurance sector. Operations of 16 banks, 6 financial leasing providers, one public postal operator, 104 insurance agencies and insurance brokerage companies, 78 natural persons and entrepreneurs acting as insurance agents, and 4,241 persons operating as insurance agents and brokers also contributed to these results.

Round Tables

The Conference also included thematic round tables, and the first was on the topic "General Issues in Law and Insurance Sector". The paper "(Un)certainity in the Field of Obsolescence of Claims from Reinsurance Contracts" was presented by **Slobodan Jovanović, PhD**, a professor at the Faculty of Business Economics and Entrepreneurship in Belgrade. **Professor Wolfgang Rohrbach, PhD**, from the European Scientific and Art Academy of Salzburg, Austria, addressed the topic of "Sustainability and Insurance". The paper "Credit Insurance in Practice of the National Home Loan Insurance Corporation" was prepared by **Mladenka Balaban, PhD**, an Associate Professor at the Belgrade Banking Academy – Faculty of Banking, Insurance and Finance, and **Dejan Hadžić, B.Sc.** in Economy, and **Rade Tojagić, B.Sc.** in Law, from the Insurance and Real Estate Group of the Ministry of Finance of the Republic of Serbia, who presented the paper.

The regulatory framework of insurance and consumer protection was discussed at the second round table. The first paper "Legal Aspects of Processing Patient Data in Healthcare Insurance in the Legal System of Taiwan" was submitted by **professor Mihajlo Rabrenović, PhD**, from the Torlak Institute for Virology, Vaccines, and Serums in Belgrade as a co-author of the paper whose authors were **Fauzi Budi Satria, MD, MPH**, and **Usman Iqbal, PhD**, both from the Medical Faculty in Taipei, Taiwan. **Ljiljana Stojković, PhD**, an attorney in Belgrade and the vice president of the International Association for Insurance Law of Serbia, presented a paper entitled "Implementation and Interpretation of Law in Context of Proper Insurance Supervision."

At the round table dedicated to MTPL insurance, the participants' attention was drawn by the paper "Insurance of Losses Caused by Artificial Intelligence – a Critical Analysis of Development of European Current Policy", presented by **Shu Li, PhD** a researcher in postdoctoral studies in artificial intelligence and law at the University in Helsinki, while the co-author was **Michael Faure, PHD**, a professor of Comparative and International Environmental Law at the Maastricht University and a professor of Comparative Private Law and Economics at the Erasmus School of Law in Rotterdam. **Miloš Radovanović, PhD**, a research fellow at the Institute of Comparative Law, presented a paper "Fire on a Parked Vehicle and MTPL Insurance". **Caroline Van Schoubroeck, PhD**, a professor at the University of Leuven in Belgium,

addressed the conference with a paper on "Amended EU Directive on MTPL Insurance: Back to Future", which she submitted to the conference organizer in a video.

Due to inability to personally attend and present his paper at the General Insurance round table, **Konstantinos Ntallas** of Rokas Law Firm in Athens, Greece, also sent a video of a paper entitled "Collective Pension Insurance Funds and Contractual Insurance Law". **Nebojša Žarković, PhD**, a full professor at the University Business Academy in Novi Sad, presented the paper "Modern Household Insurance", and **Milica Goravica, LLM**, a judge of the Second Basic Court in Belgrade, presented the paper "Statutory Default Interest on Insurers' Claims".

Three papers were selected for the round table Pre-contractual information and new technologies. **Katarina Ivančević, PhD**, a professor at the Faculty of Law, Union University - Belgrade, spoke on the topic of "Disclosure Duties in Personal Insurance Contract". **Nikola Filipović, LLM**, from the law firm "Živković – Samardžić" in Belgrade presented a paper entitled "Future of Pre-contractual Information Duties in Insurance Law", and **Katarzyna Malinowska, PhD**, a professor at Kozminski University in Warsaw, sent a video of her paper entitled "Legal Aspects on the Role and Subject of Insurance Contracts in the World of New Technologies".

Healthcare Institutions and Providing VHI Services

The last round table at this year's Conference, which brought together top experts from the insurance sector as well as experts on tax issues, dealt with healthcare insurance not provided by insurance companies, the legality of such services and their tax and legal treatment. Numerous dilemmas arising within these services from various aspects were explained by participants of the round table **Nataša Petrović Tomić, PhD**, a full professor of Insurance Law at the Faculty of Law, University of Belgrade, **Miloš Milanović**, a member of the Executive Board of "Dunav osiguranje", **Boris Batarilo**, a tax advisor and **Nenad Grujić, PhD**, a Head of Legal Department in "Generali osiguranje" and a member of the Commission for Legal Affairs of the Association of Serbian Insurers, who was also a moderator of the round table.

– Voluntary health insurance has been expanding in recent years largely due to the COVID-19 pandemic. Certain healthcare institutions started offering packages of VHI services to corporate customers, i.e. companies in the capacity of employers for their employees parallel with insurance companies a few years ago. In the beginning, these packages included a number of at least 100 employees, which was later reduced to 50 or fewer people, and healthcare institutions began creating certain funds, but not in a way as to provide each person with the opportunity to conclude an insurance package, aware that such a package would be fully used by everyone. This raised the question of protecting interests of users of such services – whether they are familiar with the service they bought and what they received for what they

paid for. A concluded insurance contract presents everything that is prescribed by the Insurance Law, such as actuarial methods, risk management rules and everything else stipulated by the Law and the regulator in order for an insurance service user to be protected. Therefore, the question has been raised whether institutions without appropriate licences that do not operate by the rules strictly stipulated for insurers should be allowed to deal with insurance services – said Miloš Milanović.

The foundation in legal regulations of contracting VHI by healthcare institutions was considered by Professor Nataša Petrović Tomić, PhD.

– Only a licensed insurer has the right to form a risk community that operates on the principles of actuarial mathematics, i.e. the one that obtained a licence from the National Bank of Serbia to engage in certain insurance operations. If someone else offered insurance services, even if they were VHI services, according to aleatory contracts, regardless of the actual "cost" of the review, and formed a certain quasi-community of risks, through some protocols offered special benefits and not only for the employer's employees with whom he concluded a contract but up to a certain limit and for family members of an employee, contracted participation in a certain percentage borne by employees as direct service users, then he definitely aspired to conclude an insurance contract. All this represents unfair competition to insurers who pay numerous taxes and everything else required for legal conduct of business operations. If the conclusion of such contract simulates another contract, i.e. insurance contract, then the question of its legal consequences must be raised. The Law on Contracts and Torts stipulates that simulated contracts do not obligate contracting parties, and the Insurance Law contains mandatory rules that restrict freedom of contracting. In order to contract insurance, you must obtain a licence from the NBS – reminded professor Petrović Tomić.

– The Insurance Law unequivocally stipulates that insurance services can be provided only by those with a licence, and it is a criminal offense if a responsible person in a legal entity without a licence concluded insurance contracts with other persons as a service provider or other contracts that were by their nature insurance contracts. Logical result is the nullity of such agreements – Nenad Grujić pointed out. – Article 55 of the Law of Contracts and Torts stipulates that a legal entity in legal transactions may enter into contracts only within the framework of its legal capacity. Legal capacity of medical institutions is limited by the Decision of the Ministry of Health, which gives them a licence to provide healthcare services, and only those approved by that decision. Therefore, that part of the healthcare package simulating insurance is not only simulated, that is the apparent legal business, but is null and void because it is contrary to mandatory regulations, and that is the essence of this phenomenon on the market – Grujić emphasized.

The round table also included a discussion about tax treatment of employer's payments for employees for certain healthcare packages, which was explained by Boris Batarilo.

– If an employer pays preventive examinations for its employees, i.e. examinations intended for early detection or prevention of damage to the health of employees in connection with work, then such payments of an employer are not subject to taxation. Healthcare services of diagnostic and therapeutic or rehabilitation nature are taxable. Namely, the Law on Personal Income Tax stipulates that any employee's earnings is considered a salary, whether it is a cash income, hot meal vouchers, services, goods, certain actions, benefits, or direct payment in favour of an employee, and certain tax rates and contribution rates for compulsory social insurance are applied to salaries – said Batarilo and added that the question arises as to the consequences of an employer who accepts certain "health packages" for his employees, and they contain various types of healthcare services, such as preventive as well as diagnostic and therapeutic ones.

– During tax control, the tax authority may determine a tax liability that the employer is obliged to pay voluntarily or under enforcement. In addition, the tax authority calculates interest, from the moment the tax liability arises until the moment of payment, and it is equal to the key policy rate and an additional 10 percentage points annually. If it is determined in the misdemeanour proceedings that there was also a tax misdemeanour, the employer may be liable for the misdemeanour, and penalties amount to 30 to 100% of the determined tax liability, all depending on whether the misdemeanour was committed negligently or intentionally. It should be borne in mind that it is understood that the employer as a legal entity is obliged to know tax regulations, so he cannot say that he did not know about the obligation to pay tax to certain healthcare services he provided for his employees. If he knew that the healthcare services he paid for employees were taxable and failed to pay the tax in order to avoid the tax obligation, and in the criminal proceeding the existence of the tax obligation and his guilt were proven, i.e. direct intent, in which case imprisonment is imposed. Depending on the amount of evaded tax, the Criminal Code stipulates prison sentences of one to ten years – said Batarilo and pointed out that the employer must be very careful when concluding contracts for the provision of healthcare services, especially those offered in the form of certain packages.

He added that tax practice in determining tax liabilities related to payment of healthcare services to employees is still quite scarce.

By concluding insurance contracts simulating a VHI contract, healthcare service users are put at a disadvantage compared to what they would have if they concluded a contract with insurers licenced to perform these activities and that are bound by regulations concerning protection of insurance service users, such as, inter alia, the obligation to provide pre-contractual information. A user who is dissatisfied with the provided insurance service can file a complaint to the insurer, insurance broker or agent, but also to the National Bank of Serbia, under whose auspices and with whose mediation he can try to resolve the dispute, which is not possible if the user has not concluded an insurance contract. As VHI contracts are

often concluded for one year, if bankruptcy were initiated against the insurer dealing with VHI, users would be protected because the portfolio is transferred to another insurance company, which, again, would not be possible if they concluded a contract with someone that is not an insurer. In addition, the Law on Healthcare Insurance stipulates the obligation for insurance companies that intend to deal with VHI to obtain, in addition to the NBS licence, the prior opinion of the Ministry in charge of healthcare, which introduces another type of control and additional protection of insurance service users, explained Professor Nataša Petrović Tomić.

Miloš Milanović spoke of experience from the 1990s when insurance companies emerged as newsstands, without any control and funds that would provide security to insured persons that they would be indemnified in the event of a loss.

– The insurance sector is now properly regulated. It is not easy to establish an insurance company, and their operation is under strict supervision precisely because of the protection of service users - said Milanović. He stated an example of insurance companies opening their own hospitals in the world, as we had in Serbia, but those hospitals are special legal entities registered with the Ministry of Health for provision of healthcare services, while in this case these are healthcare institutions that want to deal with insurance but they are not registered for that.

– Although we heard in the discussion that these are covert jobs in insurance, they are often not covert jobs at all, because it is possible that alongside insurance companies, healthcare institutions also participate in bids announced by employers for public procurement of VHI services – Milanović stated, suggesting that the way to solve the mentioned problem should be sought through talks with healthcare institutions.

The 23rd International Conference of the International Association for Insurance Law of Serbia brought together a large number of insurance law experts from universities, insurance companies, insurance lawyers and other insurance-related businesses and experts. The organizers pointed out that they are proud of the fact that this year's Conference gathered an equal number of domestic and foreign authors from different EU member states, friends of the International Association for Insurance Law of Serbia and associates from national insurance law sections. As it turned out during the three-day Conference it was not only a meeting place for old acquaintances from the insurance sector, meeting new participants, but above all exchanging experience and information on numerous innovations in insurance law and practice. The collection of papers on the general topic of this year's conference "Insurance and Legal and Economic Environment - Wider and Narrower Framework" was published this year in electronic form, and all papers contained in it were registered using DOI numbers, which enabled the professional public, which was unable to participate in the conference, greater visibility and accessibility.

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Mr Slobodan N. Ilić

PRIKAZ KNJIGE

SUDSKOMEDICINSKO VEŠTAČENJE U TEORIJI I PRAKSI MEDICINSKOG PRAVA

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1. U uvodu monografije autorka je istakla svoj načelni stav o veštačenju: poslovi veštačenja ne predstavljaju klasičnu profesiju, ali ukoliko se udruženo i organizaciono obavljaju onda poprimaju ta svojstva. U nastavku je konstatovano da su ranije definicije profesionalizma svrstavale lekare u grupu elitnih zanimanja, a danas su informacije o zdravlju i bolesti dostupne svakom ko ima pristup internetu, zbog čega se definicija profesionalizma menjala i prilagođavala potrošačkom pristupu zdravstvenoj zaštiti. Razmišljanjem na opisani način došlo se do definicije da lekarska profesija označava skup vrednosti, ponašanja i odnosa koji podupiru poverenje javnosti u lekare. Iz te definicije teorija i sudska praksa medicinskog prava izvele su dva ključna pojma: *lekarska dužna pažnja* u smislu profesionalnog standarda i *lekarska greška* (oba pojma podvukla autorka).

2. Strukturu ove monografije čine četiri dela, četiri šire tematske celine, a u okviru tih celina su poglavlja. Naslov prvog dela glasi Osnovi sudskomedicinskog veštačenja. Prvi deo se sastoji iz šest poglavlja. Drugi deo je posvećen etici sudsko-medicinskog veštačenja – a u strukturi tog dela nema poglavlja. Ni u trećem delu naslovljenom kao Sudska praksa o veštačenju nema poglavlja. Predmet četvrtog dela predstavljaju sudska veštačenja osobena za oblast medicinskog prava. Ta tematska celina osvetljena je kroz šest poglavlja.

3. U prvom poglavlju šire teme o osnovima sudskomedicinskog veštačenja sagledava se pristup medicinskog prava. U celoj monografiji autorka primenjuje naučnu metodologiju, pa se s njom počelo odmah – definisanjem osnovnih

pojmovima. Najpre, objašnjeno je da pristup medicinskog prava karakteriše tretman i zaštita pojedinca sa stanovišta ljudskih prava. Medicinsko pravo pristupa čovekovim zaštićenim dobrima, kao što su – život, telesni integritet, zdravlje, samoodređenje (autonomija) i lično dostojanstvo. Otuda je medicinsko pravo definisano kao skup pravnih normi koje uređuju medicinsku delatnost, utvrđuju svojstva lica koja tu delatnost obavljaju i odnos prema korisnicima njihovih usluga, što uključuje i propise o lekovima i medicinskim sredstvima. Tom definicijom objašnjen je i pojam iz naslova monografije. Naposletku, precizirano je da je sudskomedicinsko veštačenje u monografiji osvetljavano iz aspekta tumačenja načela i pravila medicinskog prava u duhu građanskog prava, a u manjoj meri se imalo u vidu krivično i upravno pravo. U završnim redovima prvog poglavlja razmatraju se pitanja razgraničenja medicinskog prava i sudske medicine, kao i odnos između medicinskog prava i medicinske etike.

4. Glavni pravni izvori o veštačenju prikazani su u drugom poglavlju prvog dela. Razmatrani su nacionalni zakoni iz materije veštačenja i važniji podzakonski opšti akti Republike Srbije, Hrvatske i Mađarske, kao i zakoni iz materije veštačenja Republike Srpske i Federacije BiH. Propisi tih zemalja o veštačenju bili su podloga za dalja izlaganja. Od međunarodnih opštih akata analizirane su odredbe Vodiča o ulozi veštaka koja bira sud u pravosudnim postupcima. Pomenuti vodič doneo je Savet Evrope.

5. Procesnopravni i materijalnopravni aspekti veštačenja po domaćim propisima i propisima susednih zemalja analizirani su u trećem poglavlju u okviru teme Osnovi sudskomedicinskog veštačenja. Iz tih propisa proizašlo je da se pojam veštaka može posmatrati u širem i užem smislu te reči. U širem smislu veštak je svako lice koje u stvarima iz određene stručne oblasti, na osnovu svog obrazovanja ili iskustva, raspolaže posebnim stručnim znanjima, a u užem smislu veštakom se smatra ono lice koje, u vidu glavnog i sporednog zanimanja, svoje stručno i specijalno znanje podnosi kao ekspertizu sudu, upravnim organima, privatnim licima, preduzećima i ustanovama. Za razliku od tako shvaćenog pojma veštaka, po anglosaksonskom pravu veštak nastupa na sudu kao jedna vrsta stručnog svedoka. Razmatranje propisa susednih zemalja iz materije veštačenja uputilo je čitaoca na konstataciju da su svi ti propisi predvideli obavezno osiguranje od odgovornosti veštaka za štetu pričinjenu trećem licu. Propisi susednih zemalja predviđaju da je veštak dužan da pre imenovanja zaključi ugovor o obaveznom osiguranju od odgovornosti za štetu pričinjenu trećem licu. U ovom poglavlju naročito je podvučeno da je veštak dužan da postupa s pažnjom „dobrog stručnjaka“ i da se ispunjenost potrebne pažnje procenjuje u svakom konkretnom slučaju. Na taj način u monografiji je objašnjena suština greške ili propusta veštaka, koju pokriva ugovor o obaveznom osiguranju od odgovornosti za štetu pričinjenu trećem licu. Štaviše, u posebnom odeljku analizirano je samo obavezno osiguranje od odgovornosti. U tom odeljku, iz propisa o veštačenju susednih zemalja analizirana su i pitanja minimalne sume osiguranja, vrste osigurane štete, obuhvata rizika pokrivenih osiguranjem i nadzora nad osiguranjem.

Analiza je zaključena napomenom da je nadležno ministarstvo zakonima susednih zemalja ovlašćeno da prati je li sudski veštak obavezno osiguran za čitav period na koji je imenovan.

6. Tema o osnovima sudskomedicinskog veštačenja posmatrana je iz ugla javnog prava. Naime, u centru pažnje četvrtog poglavlja bili su javnopravni elementi obavljanja veštačenja. U okviru javnopravnih elemenata veštačenja prikazani su domaći propisi i propisi susednih zemalja o pitanjima zakletve veštaka, registra veštaka, položaja veštaka u odnosu na druge procesne subjekte i nadzora nad radom veštaka. U vezi s pitanjem nadzora nad radom veštaka autorka je ocenila da su u propisima Srbije iz materije veštaka odredbe o tom nadzoru nedovoljne i da ih treba revidirati u pravcu izloženom u ovom poglavlju.

7. Peto poglavlje, lekar kao sudski veštak, jeste jedno od udarnih poglavlja u okviru teme prvog dela monografije o osnovima sudskomedicinskog veštačenja. Proučavajući uporednopravno sudsku praksu, autorka je ocenila da lekar kao sudski veštak ima vrlo značajnu ulogu na sudu, bez obzira na to koji je pravni sistem u pitanju. U građanskim stvarima, uključujući i praksu Evropskog suda za ljudska prava, konstatovano je u ovom poglavlju, lekar veštak mnogo se češće javlja u vezi s naknadom štete prouzrokovane u saobraćajnim nezgodama, a ređe u građanskim stvarima uzrokovanim odgovornošću lekara u incidentima terapijske, hirurške ili uopšte medicinske prirode. Zakoni regulišu sadržinu i bitne elemente ekspertskog izveštaja lekara veštaka, navedeno je u ovom poglavlju, ali pre nego što lekar sudski veštak preduzme bilo koju ekspertsku radnju prema licu koga će pregledati za potrebe veštačenja, lekar veštak je dužan da tom licu pročita postavljeni zadatak onako kako je formulisan u rešenju suda. Dalje, precizirano je da se, formulišući ekspertizu, lekar kao sudski veštak rukovodi svojim znanjem, iskustvom i sposobnostima. Podvučeno je da lekar kao sudski veštak treba da ostane profesionalno nezavisan i u slučaju kad je prethodnu dijagnozu oboljenja istog lica potpisao njegov mentor van suda (npr. na univerzitetskoj klinici) ili ugledni specijalista lekar procenitelj u osiguranju. Komentarišući konkretan predmet iz prakse Evropskog suda za ljudska prava, autorka je zaključila da je sudskomedicinsko veštačenje odigralo presudnu ulogu na ishod tog sudskog spora, a u komentaru drugog predmeta istog suda zaključeno je da je utvrđena sumnja u nepristrasnost lekara veštaka zbog kolegijalnosti i mentorskog odnosa. U tom poglavlju učinjen je osvrt i na sudsku praksu u Srbiji. Tom prilikom je istaknuto da u odnosu na vertikalnu sudskomedicinskog veštačenja postoji razlika između krivičnih i građanskih predmeta. Naime, objašnjeno je da se u krivičnim predmetima poštuje vertikalna u pogledu stručnosti sudskomedicinskog veštačenja, odnosno trećestepeno sudskomedicinsko veštačenje može se smatrati konačnim veštačenjem, budući da je na Medicinskom fakultetu Univerziteta u Beogradu obrazovan Sudskomedicinski odbor sastavljen od profesora više specijalnosti. U građanskim stvarima pribavljanje mišljenja drugog veštaka ne predstavlja viši stepen veštačenja,

precizirano je u ovom poglavlju. U građanskim stvarima u sudskoj praksi Srbije, podvučeno je u ovom poglavlju, evidentno je da postoji usaglašavanje mišljenja dva veštaka, koje će sud ceniti u okviru svih izvedenih dokaza i utvrđenih činjenica. Dalje, istaknuto je u ovom poglavlju, u anglosaksonskoj sudskoj praksi nastupile su promene u tom smislu da sud može da ne prihvati veštaka koga je stranka predložila, te da postavi svog veštaka, zato što veštačenje veštaka koga je predložila stranka ne smatra naučno validnim. Posle izlaganja o promenama u anglosaksonskoj sudskoj praksi, u monografiji je dat još jedan kraći osvrt na sudsku praksu u Srbiji. Tim povodom samo su citirana zakonska pravila predviđena za predlaganje veštaka po zakonu iz materije veštaka i po zakonu iz materije parničnog postupka. Najzad, poglavlje o lekaru kao sudskom veštaku zaokruženo je sagledavanjem njegovog pravnog položaja, sa naglaskom na konstataciji da treba razlikovati privatno veštačenje, sudsko veštačenje ili službeno veštačenje za neki drugi organ.

8. Odgovornost sudskog veštaka razmatrana je u šestom, završnom poglavlju za temu – Osnovi sudskomedicinskog veštačenja. Jedna od osnovnih teza ovog poglavlja glasila je: privatni veštak odgovara svom nalogodavcu po osnovu ugovora, a sudski veštak odgovara po osnovu delikta. Precizirano je da se, po pravilu, od suda zahteva pošteno i savesno veštačenje, ali nalaz i mišljenje veštaka rezultat je misaonog procesa, pa se niko ne može optužiti zbog manjkavosti u mentalnoj sferi, pogotovo ako predmet veštačenja nije egzaktne prirode, kako se često dešava u medicini. Ako u nalazu i mišljenju veštaka ima protivrečnosti ili nedoslednosti, ili pak nedovoljne utemeljenosti, ukazano je da sud to ne vidi kao krivicu veštaka ili osnov za lažno svedočenje veštaka, već zanemaruje takvo veštačenje. U završnim redovima ovog poglavlja u uporednoj sudskoj praksi prikazana su različita rešenja kako strani sudovi rešavaju pitanje odgovornosti sudskih veštaka, a zatim je ocenjeno da je u Srbiji sudska praksa u tom pogledu oskudna, te da to zahteva reviziju zakonskih rešenja.

9. Posle teme o osnovima sudskomedicinskog veštačenja, koja je u prethodnim tačkama prikazana kroz šest poglavlja, za drugi deo monografije autorka je odabrala temu o etici sudskomedicinskog veštačenja. Pošlo se od razmatranja učenja o lekarskoj etici (deontologiji), koje je u većoj ili manjoj meri ugrađeno u medicinske kodekse. Završna teza u ovom delu monografije ukazala je da regulativa o medicinskoj delatnosti sve više preuzima pravila medicinske etike i pretvara ih u medicinska pravna pravila.

10. Sudska praksa o veštačenju predstavljena je kao treća tema ove monografije. Pošto su rasvetljeni pojam i razvoj sudske prakse, otvoreno je klasično pitanje sudske prakse kao jednog od izvora prava. Tim povodom saopšten je sadržaj nekih novijih radova domaćih autora, koji su nedavno izučavali to pitanje. Posle toga, zapažena je konstatacija da sudska praksa čvrsto stoji na stanovištu da lekari i medicinsko osoblje podležu sudskoj kontroli. Glavno u toj konstataciji je sledeće: sudska kontrola nema za cilj da sputava slobodu pripadnika medicinske profesije,

koja je u interesu pacijenta, već samo insistira na poštovanju važećih medicinskih standarda u struci i na savesnom postupanju, na postupanju s potrebnom pažnjom. U nastavku je precizirano da meru dužne pažnje opredeljuju sudovi u svojim presudama, pa tim putem sudska praksa uvodi pravna merila u medicinsku praksu. Najviše stranica teksta u trećem delu monografije poklonjeno je najpre opštem pogledu na sudska praksa o veštačenju. Potom su izloženi mnogobrojni primeri veštačenja na sudu od strane veštaka iz gotovo svih struka i zanimanja s ciljem da se osvetli sudska praksa u Srbiji. Što se pak tiče sudske prakse o veštačenju u Srbiji, ona je ilustrovana nizom interesantnih primera. Među tim primerima naveden je jedan građanski spor iz sudske prakse Srbije u kome je prvostepeni sud, između ostalog, rešavao pitanje uže specijalnosti sudskomedicinskog veštaka. Konkretno, tužilac je doživeo nagnječenje levog uha sa traumatskim prsnućem bubne opne, navodeći da je to imalo za posledicu umanjene tužiočeve opšte životne aktivnosti od 3%, a prvostepeni sud je za veštačenje ove povrede odredio veštaka sudske medicine za citologiju i patologiju. Pokazalo se u daljem postupku da je prvostepeni sud pogrešio, odnosno da je trebalo da odredi veštaka otorinolaringologa. Tim putem će u ponovnom postupku pred prvostepenim sudom biti ispravljena prvobitna greška suda u izboru specijalnosti sudskomedicinskog veštaka.

11. Četvrta tematska celina, odnosno četvrti deo monografije obuhvatio je pitanja sudske veštačenja osobenog za oblast medicinskog prava. U tom okviru za prvo poglavlje odabrano je veštačenje lekarskih (medicinskih) grešaka. Ukazano je najpre da je u razvijenim zemljama sve zastupljeniji problem sudske postupaka protiv lekara i zdravstvenih ustanova, a da se sudska praksa kreće u pravcu zaštite pacijenata i što efikasnijeg sistema obeštećenja. Naveden je za to i konkretan primer. Udruženi lekari i osiguravači u SAD zahtevali su od Kongresa da se ograniči visina naknade nematerijalne štete, koja se dosuđuje u korist oštećenih pacijenata. Posledica je bila da je došlo do razvoja osiguravajuće prakse u kojoj je oštećeni, umesto tužbe sudu, popunjavao tipski obrazac, a u posebnom postupku osiguravač bi, uz pomoć medicinskog veštaka i unapred pripremljene tabele, određivao naknadu štete oštećenom. Primenom naučne metodologije u ovom poglavlju pojam medicinskog standarda iznijansirano je na sledeći način: medicinski standard predstavlja ono stanje prirodnih nauka i lekarskog iskustva koje je potrebno za postizanje cilja medicinskog tretmana, a potvrđeno je u praksi. Medicinski standard se ispoljava putem ujednačavanja pravila po određenim procedurama kojih treba da se pridržavaju svi lekari. Nadalje, medicinski standard nije stalna veličina, koja u svako vreme, na svakom mestu i u svim okolnostima ima jednaku vrednost. Najveći broj medicinskih standarda odnosi se na dijagnostičke procedure, navedeno je u ovom poglavlju. Protokoli i vodiči u medicini opisuju standarde u pažnji lekara. Lekar duguje pacijentu pažljivost, koju mu nalaže struka. U vezi s medicinskim standardom i lekarskom greškom u ovom poglavlju prikazani su zadaci veštaka medicinske struke kad veštače lekarsku grešku. Prvi

zadatak jeste da se sudu razjasni medicinsko stanje stvari. Razjašnjenje medicinskog stanja stvari naslanja se na činjenice koje je već utvrdio sud. Drugi zadatak obuhvata ocenu da li je postupak tuženog lekara u skladu s važećim medicinskim standardom ili pak od njega odstupa. Da bi odgovorio na to pitanje, sudskomedicinski veštak bi morao prethodno proveriti da li sudski spisi raspolažu potpunim podacima, potpunom medicinskom dokumentacijom, laboratorijskim analizama i sl. Treći zadatak ima u vidu situaciju kad sudskomedicinski veštak ustanovi da postupak tuženog lekara ne odgovara medicinskom standardu. U toj situaciji veštak treba da oceni je li postupak tuženog lekara prouzrokovao oštećenje pacijentovog zdravlja ili bi do štete došlo i u slučaju da se postupilo po medicinskom standardu. Drukčije rečeno, u ovom poglavlju podvučeno je da sudovi čvrsto stoje na stanovištu da veštak mora da se rukovodi onim što je u datoj situaciji bilo potrebno uraditi, a ne onim što je u praksi uobičajeno. Otuda je u sudskim sporovima protiv lekara i zdravstvene ustanove zavisnost suda od nalaza i mišljenja sudskomedicinskog veštaka veća nego u drugim sporovima s veštacima ostalih struka i zanimanja.

12. U sklopu teme o sudskom veštačenju osobenom za oblast medicinskog prava drugo poglavlje razmatralo je veštačenja u oblasti dijagnostičkih grešaka. Najpre su definisani pojmovi dijagnoze i dijagnostičke greške. Dijagnoza je kratak lekarski zaključak o suštini bolesti i stanju bolesnika. Dijagnostička greška obuhvata sve nepravilnosti u oblasti dijagnostičkog ispitivanja. Tako shvaćena dijagnostička greška obuhvata ne samo rezultat ispitivanja nego i greške počinjene na putu ka rezultatu. Za osiguravajuću praksu naročito je interesantno objašnjenje opštih uzroka dijagnostičke greške. Navedeno je u tom pogledu da se kod lekara stvaraju: predubeđenje, predrasude, sujeta i taština, sklonost ka preteranom pesimizmu ili optimizmu, nesposobnost za konstruktivno razmišljanje, nedostaci mašte za diferencijalnu dijagnostiku, nastojanje da se postavi posebno interesantna dijagnoza, nesposobnost da se uđe u svet pacijentovih predstava i da se njegov način izražavanja podvede pod medicinske kategorije. Potom, prikazani su primeri sudskomedicinskog veštačenja dijagnostičke greške iz uporedne i domaće sudske prakse. Iz te sudske prakse najveći broj dijagnostičkih grešaka zabeležen je kod usluga lekara radiologa u vezi sa čitanjem mamografskih snimaka, kao i u slučajevima neobučenosti lekara za rad na medicinskoj opremi, aparatima i uređajima. Sudskomedicinskom veštaku naročitu teškoću predstavlja slučaj kad simptomi i znaci bolesti daju osnova za više različitih dijagnoza, od kojih se bar dve ne mogu potpuno isključiti.

13. Naročita pažnja u monografiji poklonjena je profesionalnoj tajni sudskomedicinskog veštaka. Tim pitanjima bavilo se treće poglavlje u okviru teme o sudskom veštačenju osobenom za oblast medicinskog prava. Naglašeno je da je dugo vremena čuvanje profesionalne tajne sudskomedicinskog veštaka i lekara uopšte smatrano moralnom obavezom. Danas je to zakonska obaveza. U ovom poglavlju istaknuto je da je važan izvor te promene shvatanja donelo donošenje Evropske

konvencije o ljudskim pravima i biomedicini iz 1950. godine. Ta konvencija stupila je na snagu u međunarodnoj zajednici septembra 1953. godine, a ratifikovana je i kod nas. Predvidela je da svako ima pravo na poštovanje privatnog života u vezi s podacima o njegovom zdravlju, kao i pravo da zna bilo koji prikupljeni podatak o sopstvenom zdravlju. Pri tome, profesionalnu tajnu čini sve ono do čega je došao sudskomedicinski veštak u vršenju svoje profesije ili veštačenju na sudu, i to ne samo ono što mu je povereno, već i ono što je eventualno video, čuo ili razumeo. Kršenje profesionalne tajne sudskomedicinskog veštaka ilustrovano je u brojnim primerima u ovom poglavlju.

14. Veštačenje u oblasti lekova predmet je četvrtog poglavlja. Po autorkinom nalazu, oštećenje ličnih dobara prouzrokovanih lekovima i drugim farmaceutskim proizvodima nije retkost, naročito ako se ima u vidu inostrana sudska praksa. Veštak farmaceut ima znanje i iskustvo o učinku lekova i drugih agensa na prateće efekte u ljudskom organizmu. Mnogi lekari se u osnovi obučavaju za upotrebu leka, ali lekari nemaju kao farmaceuti specijalizovana znanja o lekovima i njihovim kinetičkim i suprotnim reakcijama ili o statističkim i drugim podacima o epidemiološkim i neželjenim dejstvima koji se mogu ubrojati u te reakcije. Ta specijalizovana znanja poseduju samo farmaceuti. Veštak farmaceut na sudu može da bude pitan o sledećem: da li postoje kontraindikacije korišćenja određenih farmakoloških agensa; da li je dato upozorenje o štetnim dejstvima lekova; da li postoji interakcija s drugim lekovima; da li su korišćene nedozvoljene supstance i sl. Veštak farmaceut daje sudu naučni dokaz uzročnosti i pokušava da isključi alternativna objašnjenja za ono što se u predmetu veštačenja događa u praksi. Pritom se može pokazati da je ključno za sud specijalističko znanje farmaceuta, kao i veština njihove stručne komunikacije.

15. Posebnu vrstu veštačenja predstavlja veštačenje u oblasti psihijatrijskih šteta. O toj vrsti veštačenja govori se u petom poglavlju četvrtog dela monografije. Iz ovog poglavlja čitalac bi mogao da izvede zaključak da se u osnovi psihijatrijske štete nalazi posttraumatski stresni poremećaj (PTSP). Autorka je utvrdila da je PTSP u medicinsku literaturu ušao 1959. godine putem radova dr A. Kardinera. Prema definiciji, PTSP je vrsta psihijatrijskog poremećaja koji se javlja kao posledica snažnog i upečatljivog stresnog događaja, tako što je na obolelog taj događaj ili događanje ostavilo ili ostavlja psihičke posledice. Proučavanjem psihičkih posledica bivših boraca Drugog svetskog rata, Korejskog rata i dr. PTSP je objašnjen u literaturi. Sudska praksa u Srbiji priznavala je u velikom broju predmeta pravo na obeštećenje zbog PTSP. Tim povodom autorka je izložila sledeće razmišljanje: po našem važećem zakonu i sudskoj praksi, rok zastarelosti za potraživanje naknade nematerijalne štete počinje da teče od dana kada su pojedini vidovi nematerijalne štete dobili oblik konačnog stanja. Primenjujući te rokove zastarelosti, konstatovano je u ovom poglavlju, zahtevi svih lica pali bi pod zastaru za potraživanja za naknadu nematerijalne štete ako su pretrpela torturu tokom NATO agresije i ako su im lekari utvrdili PTSP. Autorka je

predložila da se početak roka zastarelosti za potraživanja za naknadu nematerijalne štete zbog PTSP ne računa od konačnog stanja tog vida nematerijalne štete, kao do sada. U monografiji je predloženo da najviši sud u Srbiji izmeni svoj stav za obolele od PTSP tako da rok zastarelosti potraživanja za naknadu štete zbog PTSP počinje da teče od prvih simptoma PTSP.

16. Šesto poglavlje na temu sudska veštačenja osobena za oblast medicinskog prava imalo je u vidu veštačenja u okviru rada lekarskih komora. To je ujedno i završno poglavlje ove monografije, ali za rad Lekarske komore u Srbiji to je sasvim nova tema. Međutim, veštačenja u okviru rada lekarskih komora dobro je poznata tema u uporednom medicinskom pravu. Naime, u drugoj polovini XX veka u razvijenim privredama znatno je porastao broj parnica protiv lekara i zdravstvenih ustanova, što je za sobom povuklo porast premija u osiguranju od odgovornosti lekara i zdravstvenih ustanova, istakla je autorka. Lekarske komore predstavljaju organizacije medicinskog staleža, a u isto vreme imaju i javnopravni karakter, pa su bile pozvane da se pozabave pojavom nezadovoljnih pacijenata lečenjem od strane lekara i zdravstvenih ustanova. U ovom poglavlju autorka je izložila samo nemačka iskustva s veštačenjem u radu lekarskih komora iz sedamdesetih godina XX veka. U nemačkim lekarskim komorama bile su formirane dve vrste komisija. Jednu vrstu komisija pri lekarskim komorama činile su komisije za poravnanje, a drugu vrstu predstavljale su komisije za veštačenje. Postupak pred prvom obuhvatio je ispitivanje osnova spora između pacijenta i lekara, odnosno zdravstvene ustanove. Razmatrano je da li je lekar počinio grešku. Pojam greške obuhvatao je ne samo pogrešnu dijagnozu i terapijske mere nego i nedostatke u organizaciji i razgraničenju odgovornosti među lekarima. Postupak je mogao da bude okončan predlogom osiguravaču da pacijentu nadoknadi štetu ili da se pacijent i osiguravač poravnaju. Pred komisijom za veštačenje lekarske komore, kao stručnim telom, ispitivan je osnov spora, ali i uslovi za odgovornost lekara ili zdravstvene ustanove. I pred tom komisijom težište je na medicinskom veštačenju lekarske greške na koju je ukazao pacijent. Time je osiguravaču i pacijentu omogućeno da sami zakluče da li je zahtev za naknadu štete osnovan. Okončanje ovog postupka moglo je da se postigne poravnanjem, ali i na drugi način. Drugim rečima, nezadovoljna strana mogla je da iznese spor pred sud i da se spor tamo reši. U svakom slučaju, na obe komisije pri lekarskim komorama težište je bilo na veštačenju lekarske greške i stavovi tog veštačenja imali su posebnu težinu. Ovo stoga što su sudovi retko izricali presude koje su suprotne stavovima komisija lekarskih komora, zaključila je autorka akcente svog istraživanja veštačenja u okviru lekarskih komora Nemačke.

17. Posle temeljne obrade četiri tematske celine kroz dvanaest poglavlja, monografija je na kraju obuhvatila zaključak, obimnu literaturu i indeks pojmova. U zaključku je istaknuto da je došlo do porasta broja sudskomedicinskih veštačenja, ali taj porast ne prati porast kvaliteta veštačenja. Sudskomedicinsko veštačenje ima

za predmet utvrđivanje i ocenu fizičkog ili mentalnog stanja nekog lica povodom posledica do kojih su doveli incidenti u krivičnom i građanskom pravu. Da bi nalaz i mišljenje sudskomedicinskog veštaka postao stvarni sudijski instrument, potrebno je da sud razgraniči faktička od pravnih pitanja prilikom postavljanja zadatka tom veštaku, naglašeno je u zaključku. Obaveza suda jeste da sudskomedicinsko veštačenje proveri i ispita, samostalno i kritički, ali se to praktično svodi na kontrolu uverljivosti. Dalje, u zaključku je precizirano da je sudskomedicinsko veštačenje veoma složen deo parnice u kome je potrebna saradnja svih učesnika te parnice kako bi bila doneta pravična presuda. Upravo stoga sudskomedicinski veštak treba da bude svestan svoje odgovornosti, jer je u sudskoj praksi zabeleženo da sudovi ređe donose presude suprotno nalazu i mišljenju sudskomedicinskog veštaka.

18. Ova monografija može da bude od koristi i pravnicima i lekarima. Pravnicima i lekarima zaposlenim u osiguranju biće od velike koristi stoga što se na trideset mesta u monografiji razmatraju pojedini instituti osiguranja, komentarišu sudski sporovi poreklom iz osiguranja, izlažu nalazi i mišljenja sudskomedicinskog veštaka povodom mišljenja lekara procenitelja i lekara cenzora datih povodom konkretnih odštetnih zahteva. Takođe, monografija će biti korisno štivo advokatima, sudijama, tužiocima, sudskomedicinskim veštacima i ostalim veštacima, kao i zaposlenima u organima pravosuđa i zdravstva. U Srbiji se prvi put u ovom obimu izlaže materija sudskomedicinskog veštačenja iz ugla teorije medicinskog prava, inostrane i domaće sudske prakse. Izlaganje je zasnovano na pozitivnim propisima, a predlozi za promene tih propisa odmereno su i znalački formulisani. Autorka spada u pionire u proučavanju materije medicinskog prava, tako da je posle objavljivanja udžbenika, niza studija, eseja i članaka iz materije medicinskog prava bilo logično što se latila izrade ove uspele monografije.

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BOOK REVIEW

FORENSIC EVALUATION IN THEORY AND PRACTICE OF MEDICAL LAW

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1. In the introduction to the monograph, the author emphasized her general attitude towards the expertise: the expertise activities are not a standard profession but, performed in a common and organized way, they acquire such capacities. It was further stated that earlier definitions of professionalism classified doctors in the group of elite professions, whereas today the information on health and disease is available to anyone who has access to the Internet, which is why the definition of professionalism has changed and adjusted to the consumer's access to health care. Considering the above, we came to a definition that the medical profession means a set of values, behaviours and attitudes underlying the public trust in doctors. From this definition, the theory and case practice of medical law derived two key concepts: *medical due diligence* in terms of professional standards and *medical error* (both concepts are highlighted by the author).

2. The structure of this monograph consists of four parts, four broader thematic units that are subdivided into chapters. The title of the first part is "The Basics of Forensic Evaluation". The first part consists of six chapters. The second part is dedicated to the ethics of forensic evaluation, with no chapters in its structure. There is no chapter either in the third part, entitled Court Practice of Expertise. The subject of the fourth part comprises forensic evaluation characteristic of the medical law. This thematic unit is presented through six chapters.

3. The first chapter of the broader topic of standard forensic evaluation examines the approach to medical law. Throughout the monograph, the author

applies the scientific methodology that is initiated straightforward by defining the basic concepts. First, it was explained that the approach to medical law was characterized by the treatment and protection of the individual from the point of view of human rights. Medical law has access to humane protected assets such as life, bodily integrity, health, self-determination (autonomy) and personal dignity. Hence, medical law is defined as a set of legal norms that regulate medical activity, determine the characteristics of persons who perform the activity and the relationship towards the users of their services, which includes regulations on medicines and medical devices. This definition has also explained the term in the title of the monograph. Finally, it was specified that the forensic evaluation in the monograph was explicated from the aspect of construing the principles and rules of medical law in the spirit of civil law, and to a lesser extent, bearing in mind the criminal and administrative law. The final lines of the first chapter discuss the issues of demarcation between medical law and forensic medicine, as well as the relationship between medical law and medical ethics.

4. The main legal sources on expertise are presented in the second chapter of the first part. The national laws on the subject of expertise and important bylaws of the Republic of Serbia, Croatia and Hungary were discussed, as well as the laws on the subject of expertise of the Republic Srpska and the Federation of Bosnia and Herzegovina. The regulations of those countries on expertise were taken as the basis for further presentations. Among the international general deeds, the provisions have been analyzed of the Guide on the role of expert appointed by a court in judicial proceedings. The mentioned Guide was adopted by the Council of Europe.

5. Procedural and substantive aspects of expertise according to domestic regulations and regulations of neighbouring countries are analyzed in the third chapter, as part of the topic – Basics of forensic evaluation. Following these regulations, the notion of an expert can be observed in the broader and narrower sense of the word. In the broader sense, an expert is any person possessing particular professional knowledge on matters regarding a particular professional field, according to such person's education or experience, whereas in a narrower sense, an expert is a person who delivers his professional and particular knowledge as an expertise before the court of law, in the capacity of his main and/or secondary occupation, as well as before administrative bodies, individuals, companies and institutions. In contrast to the notion of an expert grasped in this way, under Anglo-Saxon law, an expert appears in court as a type of a professional witness. Considerations of the regulations of neighbouring countries on the subject of expertise led the reader to the conclusion that all these regulations provided for mandatory liability insurance of experts against damage caused to third parties. The regulations of the neighbouring countries stipulate that the expert is obliged to conclude a contract on mandatory liability insurance to cover damages inflicted upon a third party before

their appointment. In this chapter, it is especially emphasized that the expert is obliged to act with the due diligence and that the exercise of the due diligence shall be assessed in each individual case. In that way, the monograph explains the essence of an expert's mistake or omission, which is covered by the contract on mandatory insurance against liability for damage caused to a third party. Moreover, only the compulsory liability insurance is analyzed in a separate section. The said section of the regulations on expertise of the neighbouring countries has also analysed the issues of the minimum sum insured, types of insured loss, scope of risks covered by insurance and insurance supervision. The analysis is completed by the remark that the competent ministry is authorized by the laws of neighbouring countries to monitor whether the court expert holds a compulsorily insurance policy for the entire period for which he has been appointed.

6. The topic of the basics of forensic evaluation is observed from the point of view of the public law. Namely, the focus of the fourth chapter was on public law elements of carrying out the evaluation. Within the public law elements of expertise, domestic regulations and those of the neighbouring countries as regards the matter of oath given by experts, the register of experts, the position of experts in relation to other procedural entities and the supervision of the work of experts are presented. Regarding the issue of supervision over the work of experts, the author's estimation was that the regulations of Serbia are lacking the number of provisions on such supervision and that they should be revised as defined in this chapter.

7. The fifth chapter, a medical doctor as a court expert, is one of the most important chapters within the topic of the first part of the monograph on the basics of forensic evaluation. Studying the comparative case law, the author assessed that a doctor as a court expert has a vital role in court, regardless of the legal system in question. In civil matters, including the case law of the European Court of Human Rights, as noted in this chapter, a medical expert is much more likely to appear in connection with the damage compensation due to traffic accidents, and less often in civil matters caused by medical liability in therapeutic, surgical or general medicine incidents. The laws regulate the content and essential elements of the expert report of a medical expert, as stated in this chapter, but before the medical court expert makes any expertise towards the person he shall examine for the forensic purposes, the expert doctor shall undertake to read out the task to such person, as has been formulated in the court decision. Furthermore, it was specified that, formulating the expertise, the doctor, as a court expert, is guided by his knowledge, experience and abilities. It was underlined that a doctor as a court expert should remain professionally independent even if the previous diagnosis of the same person's illness was signed by his out-of-court mentor (e.g. at a university clinic) or a reputable medical specialist, an insurance assessor. Commenting on a specific case from the case law of the European Court of Human Rights, the author concluded that forensic evaluation

played a crucial role in the outcome of the said lawsuit, and in a comment on another case of the same court it was concluded that suspicion of impartiality was established because of the collegiality and a mentoring relation. In that chapter, a review was made of the case law in Serbia. On that occasion, it was pointed out that in relation to the vertical of forensic evaluation, there is a difference between criminal and civil cases. Namely, it was explained that in criminal cases the vertical is obeyed, in terms of forensic evaluation, i.e. third-level forensic evaluation can be considered final expertise, since the Medical Faculty of the University of Belgrade has formed a Forensic Board comprised of professors of several specialties. In civil matters, obtaining the opinion of another expert does not represent a higher level expertise, as specified in this chapter. In civil matters in the judicial practice of Serbia, as underlined in this chapter, it is evident that there is a harmonization of the opinions of the two experts, which the court will assess within all presented evidence and established facts. Furthermore, as pointed out in this chapter, changes have taken place in Anglo-Saxon court practice in the sense that the court may refuse to accept an expert when proposed by a party, and appoint the court's own expert instead, because expertise of an expert proposed by a party is not deemed scientifically valid. After the presentation on the changes in the Anglo-Saxon court practice, the monograph gave us another brief overview of the court practice in Serbia. To this effect, cited were only the legal rules regulating the proposing of experts under the law on the subject-matter of experts and under the law on the subject-matter of civil proceedings. Finally, the chapter on the doctor as a court expert is rounded off with an overview of his legal position, with an emphasis on the statement that a distinction should be made between private expertise, legal expertise or a service expertise for another authority.

8. The responsibility of a court expert is discussed in the sixth, final chapter that deals with the topic of basics of forensic evaluation. One of the basic theses of this chapter is that a private expert is liable to his client on the basis of a contract, whereas a court expert is liable in tort. It is specified that, as a rule, fair and conscientious expertise is required from the court, but the expert's finding and opinion is the result of a contemplation procedure, so no one can be accused of mental deficiencies, especially if the subject matter of evaluation is not of an exact nature, as often happens in medicine. If the finding and opinion includes contradictions or inconsistencies, or is not well-founded, the Court does not appear to blame an expert for this or see it as grounds of false expert testimony, but neglects such expertise. In the final wording of this chapter, presented are various case law solutions that address the issue of court expertise, whereupon it was concluded that the case law in Serbia is scarce as regards this issue and that this calls for a review of legal solutions.

9. After the topic of the basics of forensic evaluation, which was presented in the previous items of six chapters, the author decided to dedicate the second part

of the monograph to the topic of the ethics of forensic evaluation. The starting point was considerations of the doctrine of medical ethics (deontology), which is more or less incorporated into medical codes. The final thesis in this part of the monograph pointed out that the regulations on medical activity are increasingly taking over the rules of medical ethics and turning them into medical legal rules.

10. The case law on expertise is presented as the third topic of this monograph. As the concept and development of case law are clarified, the classic issue of case law as one of the sources of law was initiated. With this in view, communicated was the wording of some recent papers of local authors, who recently studied the issue. Thereupon, the statement was presented that the case law is of a firm attitude that doctors and medical staff are subject to judicial control. The main thing in this statement is the following: judicial control does not aim to hinder the freedom of members of the medical profession, which is in the interest of the patient, but only insists on respecting valid medical professional standards and conscientious treatment, due care. It is further specified that the measure of due care is determined by the courts in their judgments, whereby the case law has introduced a legal criteria into medical practice. Most of the pages of the text in the third part of the monograph are primarily dedicated to the general attitude of the case law on the topic of expertise. Numerous examples of court evaluations were presented by experts from almost all professions and occupations, with the aim of shedding the light on court practice in Serbia. As for the case law view on expertise in Serbia, it is illustrated by a number of interesting examples. Inter alia, there is a civil dispute within the case law of Serbia, in which the first-instance court resolved, among other things, the issue of the narrow specialty of the forensic expert. Specifically, the plaintiff sustained a contusion of the left ear with a traumatic eruption of the eardrum, stating that this resulted in a decrease in the plaintiff's general life activity of 3%, and the first instance court appointed a forensic expert specializing in cytology and pathology. It turned out in the ongoing procedure that the first-instance court was wrong, that is, it was necessary to appoint an expert Otorhinolaryngologist. In this way, in the repeated procedure before the first instance court, the original mistake of the court in choosing the specialty of the forensic expert has been rectified.

11. The fourth thematic unit, that is the fourth part of the monograph, includes the issues of court expertise specific to the field of medical law. In the scope of this topic, the expertise of medical errors was selected for the first chapter. It was pointed out, first of, all that the problem of initiating legal proceedings against doctors and healthcare institutions is becoming more common in developed countries and/or that case law is moving in the direction of patient protection and the most efficient compensation system. A concrete example for this was presented. The associated doctors and insurers in the United States have demanded that Congress limit the amount of compensation for non-pecuniary damages awarded in favour

of injured patients. The result of this was such a development of insurance practice where the injured party, instead of filing a claim before a court of law, just needed to complete a standard form, and the Insurer would in their special procedure and assisted by a medical expert and a default scale, assess the indemnity to the claimant. By applying the scientific methodology in this Chapter, the concept of medical standard is fine-tuned as follows: medical standard represents a state of natural sciences and medical experience required to achieve the goal of medical treatment that has been confirmed in practice. The medical standard is manifested through the harmonization of rules according to certain procedures that should be followed by all doctors. Furthermore, the medical standard is not a constant quantity with an equal value at all times, in all places and under all circumstances. As stated in this Chapter, most of the medical standards refer to diagnostic procedures. Medical protocols and guidelines describe standards to be followed by doctors in providing healthcare. The doctor owes the patient the care required by the doctor's profession. As regards the medical standard and medical error, this Chapter presents the tasks of medical experts when examining a medical error. The first task is to clarify to the court the medical state of fact. This clarification of the medical state of fact relies upon the facts already established by the court. The second task includes assessing whether the procedure of the defendant doctor is in accordance with the applicable medical standard or deviates from this standard. To provide answer to this question, the forensic expert would have to check in advance whether the records kept with the court have complete data, complete medical documentation, laboratory analyzes, etc. The third task considers the situation when the forensic expert establishes that the procedure followed by the defendant doctor does not correspond to the medical standard. In this situation, the expert needs to assess whether the action of the defendant doctor caused damage to the patient's health and/or whether such damage would have occurred even if the medical standard had been obeyed. In other words, this Chapter underlines that the courts are firmly of the opinion that an expert must be guided by what needed to be done in a given situation, and not by what is usual in practice. Therefore, in court disputes against doctors and healthcare institutions, the court's dependence on the findings and opinion of a forensic expert is greater than in other disputes that include experts of other professions and occupations.

12. Within the topic of forensic evaluation, especially in the field of medical law, the second chapter discusses the expertise in the diagnosis of errors. First, the concepts of making diagnosis and diagnostic errors are defined. The diagnosis is a short medical conclusion about the essence of the disease and the patient's condition. Diagnostic error includes all irregularities in diagnostic testing. Considered in this way, the diagnostic error includes not only the test result but also the errors made while reaching the result. It is especially interesting for insurance practice to explain the general causes of diagnostic error. In this regard, it has been said that doctors

suffer from the preconceptions, prejudice, ego and vanity, tendency to excessive pessimism or optimism, inability to think constructively, lack of imagination for differential diagnosis, efforts to make a particularly interesting diagnosis, inability to enter the world of the patient's ideas and to bring his way of expression under medical categories. Moreover, examples of forensic evaluation of diagnostic errors in comparative and local case law are presented. From the case law, the largest number of diagnostic errors was recorded in the services of radiologists in connection with reading mammography images, as well as in cases of doctors' lack of training to work on medical equipment, apparatus and devices. It is particularly difficult for a forensic expert when the symptoms and signs of the disease bring about several different diagnoses, at least two of which cannot be completely ruled out.

13. In the monograph, a special attention is paid to the professional secret of the forensic expert. The issue was addressed in the third chapter, on the topic of forensic evaluation specific to the medical law. It was emphasized that keeping the professional secret on a part of a forensic expert and a doctor was for a long time considered a moral obligation. Today, this is a legal obligation. In this chapter, it was pointed out that the adoption of the 1950 European Convention on Human Rights and Biomedicine triggered an important source of this change in the mindset. That convention entered into force in the international community in September 1953, and was ratified by Serbia as well. The Convention stipulated that everyone had the right to respect of his private life in connection with the data on his health, as well as the right to know about any data on his own health that have been collected. Simultaneously, professional secret is deemed to include everything that the forensic expert found out while performing his professional activity or expertise before the court of law, not only what was entrusted to him, but also what he may have seen, heard or understood by chance. Violation of the professional secret by a forensic expert is illustrated in numerous examples in this chapter.

14. Expertise in the field of drugs comprises the subject-matter of the fourth chapter. According to the author's findings, damage to personal property caused by drugs and other pharmaceutical products is not uncommon, especially if we consider the foreign case law. An expert pharmacist has knowledge and experience about the effect of drugs and other agents and on their side effects in the human body. Many doctors are basically trained to use drugs, but doctors do not possess specialized knowledge of drugs and their kinetic and adverse reactions as do pharmacist or of statistical and other data on epidemiological and adverse reactions that may be included. Only pharmacists possess such specialized knowledge. An expert pharmacist before the court of law may be asked about the following: are there any contraindications for the administration of certain pharmacological agents; whether a warning has been given about the harmful effects of drugs; whether there is an interaction with other drugs; whether illicit substances, etc. were used. An expert

pharmacist provides the court with scientific evidence of causality and tries to rule out alternative explanations for what is happening in practice in the subject-matter of the expertise. It can be proven, though, that the specialist knowledge of pharmacists is crucial for the court, as well as the skills of their professional communication.

15. A special type of expertise is the one in the field of psychiatric damages. This type of expertise is discussed about in the fifth chapter of the fourth part of the monograph. From this chapter, the reader could conclude that psychiatric damages are based on post-traumatic stress disorder (PTSD). The author found that PTSD entered the medical literature in 1959 through the work of Dr. A. Cardiner. By definition, PTSD is a type of psychiatric disorder that occurs as a result of a strong and striking stressful event, in such a way that the event or an occurrence left or leave psychological consequences on the patient. By studying the psychological consequences of former fighters of the Second World War, the Korean War, etc., the PTSD has been explained in literature. Judicial practice in Serbia has recognized the right to compensation for PTSD in a large number of cases. On that occasion, the author presented the following attitude: according to our current legal theory and practice, the statute of limitations for claiming compensation for non-pecuniary damage begins to run from the date when certain types of non-pecuniary damages took the form of final diagnosis. If such statutes of limitation were to be applied, it was stated in this chapter, the claims of all persons would fall under the statute of limitations as regards compensation for non-pecuniary damage following torture during the NATO aggression, if their doctors diagnosed PTSD. The author suggested that the beginning of the statute of limitations for claims for compensation for non-pecuniary damages due to PTSD should not be calculated from the final diagnosis of the condition of such type for non-pecuniary damage, as it has been so far. The monograph proposes that the highest court in Serbia change its position for PTSD patients so that the statute of limitations for claims for compensation for PTSD shall begin to run from the first symptoms of PTSD.

16. The sixth chapter that deals with the topic of forensic expertise primarily in the field of medical law considered the evaluation within the activity of medical chambers. Although the last chapter of this monograph, it is not the least for the work of the Medical Chamber in Serbia – moreover, it introduces a completely new topic. Nevertheless, expertise within the work of medical chambers is a well-known topic in comparative medical law. Namely, in the second half of the 20th century, the number of lawsuits against doctors and healthcare institutions increased significantly in developed countries, leading to an increase in premiums under liability insurance for doctors and health care institutions, according to the author. Medical chambers are organizations of the medical class, but they at the same time have a public-law character, so they are invited to deal with the patients dissatisfied with treatment delivered by doctors and healthcare institutions. In this chapter, the author presented

only German experience with expertise in the work of medical chambers from the 1970s. In German medical chambers, there were two types of commissions; the first type consisted of settlement commissions, and the second type was the expert commissions. The procedure before the first one included the examination of the basis of the dispute between the patient and the doctor and/or healthcare institution. It was considered whether the doctor made a mistake. The notion of error included not only wrong diagnosis and therapeutic measures, but also shortcomings in the organization and delimitation of responsibilities among physicians. The procedure could have ended with a proposal to the insurer to compensate the patient or with a proposal of settlement between the patient and the Insurer. Before the expert's committee of the medical chamber, as an expert body, the basis of the dispute was examined, but also the conditions for the attachment of liability of the doctor or healthcare institution. Before this committee as well, the focus was on the medical expertise of the medical error that the patient pointed out. This allows the insurer and the patient to decide for themselves whether the claim for damages has been reasonable. The end of this procedure could have been achieved by settlement, but also otherwise. In other words, the dissatisfied party could bring the dispute before the court of law and resolve the dispute in such a way. In any case, the focus of both committees at the medical chambers was on the evaluation of the medical error and the views of those experts were particularly important. This is because the courts have rarely pronounced verdicts that are contrary to the attitudes of the committees of medical chambers, the author concluded, emphasizing her research of expertise within the medical chambers of Germany.

17. After a thorough elaboration of four thematic units through twelve chapters, the monograph finally comprises a conclusion, extensive literature and an index of terms. In the conclusion, it was pointed out that there was an increase in the number of forensic evaluation, but that increase is not accompanied by an increased quality of the evaluation. The subject of forensic evaluation is to determine and assess the physical or mental condition of a person in connection with the consequences of incidents in criminal and civil law. In order for the finding and opinion of a forensic expert to become a real judicial instrument, the court of law needs to distinguish factual from legal issues when setting a task for the expert, as stressed in the conclusion. The obligation of the court of law is to check and examine the forensic evaluation, independently and critically; this, however, practically comes down to the control of persuasiveness. Furthermore, the conclusion specifies that the forensic evaluation is a very complex part of the litigation, calling for cooperation between all participants in that litigation so as to reach a fair verdict. That is why the forensic expert should be aware of his responsibility, since it was noted in the case law that courts are less likely to pass judgments contrary to the findings and opinion of the forensic expert.

18. This monograph can be useful to both lawyers and doctors. Lawyers and doctors employed in insurance industry will benefit from it much, because there are thirty places in the monograph that deal with the individual insurance institutes, comment on court disputes originating from insurance and/or present the findings and opinions of forensic experts. Moreover, the monograph will be a useful read for lawyers, judges, prosecutors, forensic and other experts, as well as employees in the judiciary and health sectors. For the first time in Serbia, the subject of forensic expertise is presented from the point of view of the theory of medical law, foreign and local case law. The presentation relies upon positive regulations and proposals for amendments to these regulations have been measured and expertly formulated. The author is one of the pioneers in studying the medical law. After publishing the textbooks, a series of studies, essays and articles on the subject of medical law, it was only logical that she set out to produce this successful monograph.

*Translated by: **Bojana Papović***

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PROPISI EU

MIŠLJENJE EKONOMSKOG I SOCIJALNOG KOMITETA EVROPSKE UNIJE O IZMENAMA DIREKTIVE SOLVENTNOST II

U skladu sa članom 13. Ugovora o Evropskoj uniji, osnovni zadatak Ekonomskog i socijalnog komiteta (skraćeno: EKOSOK) jeste da pruža savetodavnu pomoć Evropskom parlamentu, Savetu i Komisiji.² Radi se o ustanovi koja predstavlja interese ekonomskih i socijalnih organizacija iz različitih zemalja Evropske unije, čije je konsultovanje od strane gorenavedenih ustanova obavezno u domenima koji se direktno tiču njenih kompetencija; pored toga, EKOSOK može i autonomno da objavljuje svoje stručne stavove prema različitim aspektima, a prosečno ukupno izdaje oko 180 mišljenja svake godine.³ Ekonomski i socijalni komitet sastavljen je od 329 delegata iz dvadeset sedam država članica Evropske unije, koji su grupisani u tri celine – radnici, poslodavci i ostali.⁴ U mišljenju koje je artikulirano tokom 567. plenarne sednice 23. i 24. februara 2022. godine, Ekonomski i socijalni komitet pozdravio je predlog Komisije da se u pravnom smislu unapredi sadržaj direktive Solventnost II, pri čemu se podvlači želja civilnog društva da se osigura šira finansijska stabilnost i podržavaju zahtevi za osiguranje kapitala i otpornosti na rizike u osiguravajućoj delatnosti.⁵ Dalje u tekstu biće predstavljeni osnovni delovi stručnog

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² European Economic and Social Committee, About, 2022, <https://www.eesc.europa.eu/en/about> (accessed: 8. 4. 2022).

³ Ministarstvo za evropske integracije, Ekonomski i socijalni komitet, 2022, <https://www.mei.gov.rs/srl/srbija-i-eu/ukratko-o-eu/najvazniji-pojmovi-o-eu> (pristupljeno: 10. 4. 2022).

⁴ European Economic and Social Committee, About, 2022, <https://www.eesc.europa.eu/en/about> (accessed: 08.04.2022).

⁵ European Economic and Social Committee, A stable and resilient European insurance sector could contribute much more to the green and digital transition and the COVID-19 recovery, 2022,

mišljenja Ekonomskog i socijalnog komiteta spram predloženih izmena direktive Solventnost II.⁶

U prvom delu Mišljenja (zaključci i preporuke), ističe se da se EKOSOK slaže da je direktiva Solventnost II imala dobre rezultate u pogledu kvantitativnih zahteva za sopstvena sredstva, ustrojstvo poslovanja i izveštavanje, s tim da je, s obzirom na krize poslednjih godina (koje se odnose na one u domenu povećanja državnih dugova, preko kamatnih varijacija, do pandemijskih izazova), neophodno da se navedeni akt unapredi. Naročito se prepoznaje rešenost Komisije da adekvatno odgovori na sistemske rizike u domenu osiguravajuće delatnosti, s obzirom na izmene porekla rizika, koje se kreću od klimatskih promena i ekoloških izazova do sve veće investicione uloge osiguravajućih kuća. Kako se navodi, osiguravači mogu imati značajnu ulogu u stvaranju održivijih privrednih uslova i prevazilaženju izazova koji proističu iz pandemije i klimatskih izazova. S druge strane, ističe se neophodnost što stabilnijih kapitalnih zahteva i spremnosti za nošenje s rizicima.

U drugom delu Mišljenja (opšte napomene) prepoznaje se opredeljenost Komisije da se unaprede uslovi poslovanja i funkcionisanja direktive Solventnost II, uključujući i namere da se primena tog akta pojednostavi. Takođe se navodi i da taj domen treba da bude posmatran u kontekstu drugih evropskih propisa i politika. U tom pogledu, Zelena agenda i prevazilaženje pandemijskih izazova nalaze se na vrhu liste zadataka evropskih institucija, s obzirom na ogromne resurse koji su u tom pravcu neophodni. EKOSOK procenjuje da bi evropski osiguravači, koji su u prethodnim godinama u okviru svojih portfelja raspolagali sa preko 10 biliona evra, mogli daleko više da doprinesu ne samo ciljevima klimatske neutralnosti, već i infrastrukturnih projekata. S druge strane, kako se navodi u mišljenju, ta veća uloga osiguravača ne sme ići na štetu kvaliteta pružanja osiguravajućih usluga niti stabilnosti tog, kao ni šireg finansijskog okvira. U tom pogledu mora se i dalje strogo voditi računa o proceni rizika investiranja, bez obzira na to da li se radi o zelenoj ili nekoj drugoj investiciji – rizici moraju biti podvrgnuti istovetnim analitičkim alatima. U pogledu kapitalnih zahteva, EKOSOK se slaže s predlogom Komisije da se unaprede norme u situacijama koje su ishodovale neadekvatnim zahtevima kako bi se očuvala stabilnost.

EKOSOK smatra pozitivnim namere Komisije da se podrži realizacija unije tržišta kapitala, ocenjujući da bi se stvaranjem unutrašnjeg tržišta pružio doprinos pandemijskim izazovima, kao i Zelenoj agendi. Kako se dalje navodi, ne samo da bi osiguravajuća delatnost trebalo da bude zastupljenija u pogledu realizacije klimatskih

<https://www.eesc.europa.eu/en/news-media/news/stable-and-resilient-european-insurance-sector-could-contribute-much-more-green-and-digital-transition-and-covid-19#downloads> (accessed: 08.04.2022).

⁶ Pun tekst Mišljenja Ekonomskog i socijalnog komiteta (COM(2021) 581 final 2021/0295 COD), usvojenog tokom 567. plenarne sednice 23–24. 2. 2022, a koji je predmet analize u ovom članku, dostupan je u okviru zasebnog fajla na linku: <https://www.eesc.europa.eu/en/news-media/news/stable-and-resilient-european-insurance-sector-could-contribute-much-more-green-and-digital-transition-and-covid-19#downloads>.

ciljeva Evropske unije, već bi trebalo i da se povede računa o ekološkim i društvenim posledicama investicija, pogotovo onih u domenima ljudskih prava i prava radnika. Generalno govoreći, imajući u vidu širinu i značajnu ekonomsku relevantnost evropskih propisa, Ekonomski i socijalni komitet ističe da bi bilo poželjno da se u važnim domenima u što većoj meri odlučuje po principu redovnog zakonodavnog postupka (uz učešće Evropskog parlamenta i savetovanje s drugim grupama), pre negoli u obliku delegiranih propisa. Takođe, EKOSOK se zalaže za ponovnu evaluaciju okvira Solventnosti II za nekoliko godina usled promena koje se očekuju u međuvremenu, pogotovo imajući u vidu posledice na aspekt globalne konkurentnosti evropske osiguravajuće delatnosti.

U trećem delu (posebne stavke) najpre se ističe kao dobra intencija da se više primenjuje princip proporcionalnosti, s tim da se podvlači da treba voditi računa da su, pored veličine osiguravajućih kuća, takođe važni i aspekti poput adekvatnosti bonitetnih zahteva spram realnih osiguravajućih rizika, što bi doprinelo održavanju pluralizma tržišta, gde posluju kako veća tako i manja društva. Treba nastojati, kako se navodi u Mišljenju, da se taj diverzitet ne poremeti pojačanim birokratskim zahtevima. U pogledu dugoročnih garancija, EKOSOK smatra da osiguravači mogu vidljivije učestvovati u ostvarenju klimatskih ciljeva i onih definisanih Zelenom agendom, kao i u prevazilaženju posledica pandemije koronavirusa. Smatra se da norme koje se tiču kapitalnih zahteva moraju da budu prilagođene kako bi prestale da ohrabruju industrije koje zagađuju okolinu. Nužno je raditi na balansu između podrške osiguravačima da doprinesu ciljevima koji se tiču društva i okoline, s jedne strane, i adekvatnosti bonitetnih zahteva, s druge strane. Dalje se u okviru ovog dela razmatra izazov volatilnosti povezane s dugoročnim investiranjem (3.2.2), pozdravlja se usklađenost između izmene dodatka na rizik i kamatnog rizika spram ciljeva Solventnosti II (3.2.3), kao i revizija uslova prihvatljivosti za imovinu dugoročnih vlasničkih investicija u pogledu finansijske stabilnosti (3.2.4), dok se skreće pažnja da treba biti obazriv u pogledu usvajanja novog instrumenta ekstrapolacije (3.2.5). Dalje, u odeljku 3.3. se najpre ističe neophodnost da osiguravači uključe u svoje strategije klimatske rizike na srednjeročnom i dugoročnom nivou, preporučujući da bi te scenarije trebalo napraviti i za druge ekološke rizike, dok bi takođe trebalo da iz svog poslovanja što više izbace štetne ekološke prakse. EKOSOK se slaže da bi EIOPA trebalo da predloži visinu kapitala u skladu s održivim rizicima, ističući da bi to trebalo da učini u što kraćem roku (3.3.2). Što se tiče nadzornih mehanizama, pozdravlja se ideja da se holdinzi podvrgnu bonitetnim zahtevima Evropske unije (3.4).

U Mišljenju se dalje navodi da je pandemija ishodovala zahtevima za preciznije informacije u pogledu pokrića. To se naročito tiče domena poput putnog osiguranja i paketa kojima se štiti poslovanje, koji moraju pratiti izmenjene zahteve klijenata. Nadzor nad uslugama u osiguravajućoj delatnosti trebalo bi da bude efikasniji, i u tom smislu se očekuje i stručno mišljenje EIOPE (3.5.1). Imajući u vidu nove rizike, kao i učestalije prisustvo starih (kao posledica klimatskih promena i pandemije koronavirusa),

nužno je razvijati dugoročne modele osiguravajućeg pokrića za te situacije, pri čemu Ekonomski i socijalni komitet smatra da bi trebalo što pre pokrenuti dijalog različitih aktera, uključujući i osiguravače, radi jačanja otpornosti na klimatske promene.

Najzad, što se tiče mreže garancija u osiguranju, EKOSOK kritikuje Komisiju što nije iznela predloge za njihovo usklađivanje na nivou Evropske unije, uz napomenu da se to nepovoljno odražava na osiguranike. Ekonomski i socijalni komitet mišljenja je da bi panevropska mreža osiguravajućih garancija unapredila i poverenje i bezbednost klijenata, te je urgentna potreba za barem minimalnim prilagođavanjem različitih garantnih mreža, pri čemu se mora povesti računa o prelaznim periodima i činjenici da bi previsoki zahtevi za pojedine članice mogli da budu kontraproduktivni. Dalje se navodi da je evropskom strategijom oporavka proširen nadzorni alat kako bi se omogućila efikasnija intervencija u slučaju krize, pri čemu treba preciznije razdvojiti mere koje spadaju u domen Solventnosti II od onih što su usmerene na oporavak i prevazilaženje kriznih posledica (3.6.2). Iako je Direktiva pokazala svoju efikasnost u toku pandemije, Ekonomski i socijalni komitet se zalaže za ranu kriznu intervenciju čak i pre pada kapitala ispod minimalne lestvice ukoliko postoje negativna razvojna perspektiva.

Na osnovu prethodno rečenog, može se zaključiti da je EKOSOK naklonjen većem učešću osiguravača u stvaranju klimatski odgovornije, postpandemijske ekonomije. Podržava se što snažnija primena redovnog zakonodavnog postupka uz konsultaciju s relevantnim društveno-ekonomskim i političkim akterima, umesto usvajanja delegiranih akata. Takođe se može zaključiti i da će sistemski i drugi izazovi iziskivati dalje promene Solventnosti II u godinama koje dolaze.

Izvori

- COM(2021) 581 final 2021/0295 COD – Opinion of the European Economic and Social Committee - Solvency II Review.
- European Economic and Social Committee, About, 2022, <https://www.eesc.europa.eu/en/about> (accessed: 8. 4. 2022).
- European Economic and Social Committee, A stable and resilient European insurance sector could contribute much more to the green and digital transition and the COVID-19 recovery, 2022, <https://www.eesc.europa.eu/en/news-media/news/stable-and-resilient-european-insurance-sector-could-contribute-much-more-green-and-digital-transition-and-covid-19#downloads> (accessed: 8. 4. 2022).
- Ministarstvo za evropske integracije, Ekonomski i socijalni komitet, 2022, <https://www.mei.gov.rs/sr/srbija-i-eu/ukratko-o-eu/najvazniji-pojmovi-o-eu> (pristupljeno: 10. 4. 2022).

UDK:35.077.6(4-672EEZ):316.658:35.075.77(4):347.77.04:368.811:651.2:069.2:
328.1(4):341.176(4):65.012.16

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EU REGULATIONS

OPINION OF THE ECONOMIC AND SOCIAL COMMITTEE OF THE EUROPEAN UNION ON AMENDMENTS TO THE SOLVENCY II DIRECTIVE

In accordance with Article 13 of the Treaty on European Union, the main task of the Economic and Social Committee (EESC) is to act in an advisory capacity to the European Parliament, the Council and the Commission.² It is an institution that represents the interests of economic and social organizations from various member states of the EU, whose assistance by the above stated institutions is mandatory in areas directly related to its competencies; in addition, the EESC can autonomously publish its expert opinions on various aspects, and on average can issue a total of about 180 opinions each year.³ The EESC is composed of 329 delegates from twenty-seven member states of the EU, classified into three groups - Workers, Employers and Diversity.⁴ In the opinion adopted on the 567th plenary session held on 23 and 24 February 2022, the EESC welcomed the Commission's proposal to improve the content of the Solvency II Directive in legal terms, underlining the considerable interest of civil society in ensuring the stability of the financial sector and calls for sound capital requirements and risk preparedness in the insurance sector.⁵ The main

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² European Economic and Social Committee, About, 2022, <https://www.eesc.europa.eu/en/about> (accessed: 8. 4. 2022).

³ Ministarstvo za evropske integracije, Ekonomski i socijalni komitet, 2022, <https://www.mei.gov.rs/srl/srbija-i-eu/ukratko-o-eu/najvazniji-pojmovi-o-eu> (pristupljeno: 10. 4. 2022).

⁴ European Economic and Social Committee, About, 2022, <https://www.eesc.europa.eu/en/about> (accessed: 08.04.2022).

⁵ European Economic and Social Committee, A stable and resilient European insurance sector could contribute much more to the green and digital transition and the COVID-19 recovery, 2022,

parts of the expert opinion of the EESC on proposed amendments to the Solvency II Directive will be presented below.⁶

In the first part of the Opinion (conclusions and recommendations), it is pointed out that the EESC agrees that the Solvency II Directive showed good results in terms of quantitative capital requirements, organizational structure and reporting, provided that, given the crises of recent years (increase of government debt, interest rate variations, pandemic challenges), it is necessary to improve this document. The EESC strongly welcomes the fact that the European Commission is addressing the issue of systemic risks in the insurance sector, given the changes in the origin of risks ranging from climate change and environmental challenges to the growing investment role of insurance companies. The insurers can play a significant role in creating more sustainable economic conditions and overcoming the challenges arising from pandemics and climate challenges. On the other hand, the necessity of more stable capital requirements and readiness to deal with risks is emphasized.

The second part of the Opinion (general comments) recognizes the Commission's commitment to improve business conditions and functioning of the Solvency II Directive, including the intention to simplify its implementation. It is also stated that this area should be viewed in the context of other European regulations and policies. In this regard, the Green Deal and overcoming the consequences of the COVID-19 pandemic are top-priority policies of the European institutions, given the enormous resources that are needed. The EESC estimates that European insurers, which have had over 10 trillion euros in their portfolios in previous years, could contribute far more to the goals of climate-neutral economy as well as infrastructure projects. On the other hand, as stated in the opinion, this greater role of insurers must not be to the detriment of the quality of insurance services provided or the stability of that or wider financial framework. In this regard, the assessment of investment risk must continue to be strictly taken into account, regardless of whether it is a green investment or some other investment - the risks must be subjected to the same analytical tools. With regard to capital requirements, the EESC agrees with the Commission's proposal to improve standards in situations resulting from inadequate requirements in order to preserve stability.

The EESC considers positive the intentions of the Commission to support the realization of the Capital Markets Union, assessing that building of the internal

<https://www.eesc.europa.eu/en/news-media/news/stable-and-resilient-european-insurance-sector-could-contribute-much-more-green-and-digital-transition-and-covid-19#downloads> (accessed: 08.04.2022).

⁶ Full text of the Opinion of the EESC (COM(2021) 581 final 2021/0295 COD), adopted on the 567th Plenary Session held on 23–24 February 2022, which is the subject of the analysis in this paper, is available within a separate file on the link: <https://www.eesc.europa.eu/en/news-media/news/stable-and-resilient-european-insurance-sector-could-contribute-much-more-green-and-digital-transition-and-covid-19#downloads>.

market would contribute to the pandemic challenges as well as the Green Deal. It is further stated that not only the insurance sector should be more represented in terms of realization of the European Union's climate goals, but also the environmental and social consequences of investments should be taken into account, especially those in the areas of workers' and human rights. Generally speaking, having in mind the scope and significant economic relevance of European regulations, the EESC emphasizes that it would be preferable to make decisions in important areas as much as possible by using the principle of regular legislative procedure (with the participation of the European Parliament and consultation with other groups), rather than in the form of delegated acts. In addition, the EESC proposes that a full evaluation of the Solvency II framework be carried out in the coming years due to expected changes, especially given the implications for the global competitiveness of European insurance sector.

The third part (specific comments) first emphasizes the good intention to apply the principle of proportionality, stressing that in addition to the size of insurance companies, aspects such as the adequacy of prudential requirements to real insurance risks are also important, which would contribute to maintaining the pluralism of the market, where both larger and smaller companies operate. This diversity should not be put at risk by overburdening insurers with excessive red tape. With regard to long-term guarantees, the EESC believes that insurers can be more involved in achieving climate goals and those defined by the Green Deal, as well as tackling the consequences of the COVID-19 pandemic. It is considered that the standards regarding capital requirements must be adjusted in order to stop encouraging industries that pollute the environment. It is necessary to work on a balance between supporting insurers to contribute to the goals of society and the environment, on one hand, and the adequacy of prudential requirements, on the other. This section further discusses the volatility from long-term investment (3.2.2), welcomes the correlation between the spread risk and interest rate risk without jeopardizing Solvency II objectives (3.2.3), as well as revision of the eligibility criteria for long-term equity investments while at the same time ensuring financial stability (3.2.4), while drawing attention to the need to be cautious in adopting a new extrapolation method (3.2.5). In section 3.3 the EESC fully supports the need for insurers to include in their strategies any climate change risks and to assess the medium and long-term impact on their business. The EESC recommends extending this scenario analysis to all environmental risks and removing harmful environmental practice. The EESC agrees that EIOPA should propose adjustments to the capital requirements with regard to sustainability risks as soon as possible (3.3.2). The EESC supports the European Commission's proposals to bring insurance holding companies into the scope of the EU prudential framework (3.4). The EESC agrees with the European Commission's assessment that the pandemic has highlighted the need for clearer

and simpler information on the terms of insurance cover and guarantees offered to consumers, especially as regards business interruption and travel insurance, and the need to constantly verify that insurance products continue to be in line with consumer needs. Current product oversight should be more efficient and therefore EIOPA's opinion is expected (3.5.1). Having in mind new risks, as well as the increasing presence of old ones (as a result of climate change and the COVID-19 pandemic), it is necessary to develop long-term models of insurance cover for these situations. The EESC stated that a discussion between various parties, including insurers, should be initiated as soon as possible in order to strengthen resilience to climate change.

Finally, regarding the insurance guarantee schemes (IGSs), the EESC criticizes the Commission for not making proposals for their harmonization at the level of the European Union, noting that this has an adverse effect on insureds. The EESC believes that a pan-European IGSs would improve both trust and customer safety, and that there is an urgent need to at least harmonise a set of minimum principles for the IGSs, taking into account transition periods and the fact that excessive requirements for certain member states could be counterproductive. It is further stated that the European recovery strategy has expanded the supervisory tools to enable more efficient intervention in the event of a crisis, separating more precisely the measures falling within the domain of Solvency II from those aimed at recovery and overcoming crisis consequences (3.6.2). Although the Directive has shown its effectiveness during a pandemic, the EESC advocates early crisis intervention even before capital falls below the minimum ladder if there is a negative development perspective.

Based on the above, it can be concluded that the EESC is in favour of greater participation of insurers in creating a more climate-responsible, post-pandemic economy. The strongest possible implementation of regular legislative procedure is supported in consultation with relevant socio-economic and political parties, instead of the adoption of delegated acts. It can also be concluded that systemic and other challenges will require further changes in Solvency II in the coming years.

Sources

- COM(2021) 581 final 2021/0295 COD – Opinion of the European Economic and Social Committee - Solvency II Review.
- European Economic and Social Committee, About, 2022, <https://www.eesc.europa.eu/en/about> (accessed: 8. 4. 2022).
- European Economic and Social Committee, A stable and resilient European insurance sector could contribute much more to the green and digital transition and the COVID-19 recovery, 2022, <https://www.eesc.europa.eu/en/>

news-media/news/stable-and-resilient-european-insurance-sector-could-contribute-much-more-green-and-digital-transition-and-covid-19#downloads (accessed: 8. 4. 2022).

- Ministarstvo za evropske integracije, Ekonomski i socijalni komitet, 2022, <https://www.mei.gov.rs/srl/srbija-i-eu/ukratko-o-eu/najvazniji-pojmovi-o-eu> (pristupljeno: 10. 4. 2022).

Translated by: Jelena Rajković

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INOSTRANA SUDSKA PRAKSA

PRESUDA EVROPSKOG SUDA PRAVDE U PREDMETU B. G. Ž. LEASING SP. Z O.O. V DYREKTOR IZBY SKARBOWEJ W WARSZAWIE

1. Uvodne napomene

Pravno pitanje kojim se Evropski sud pravde bavio u predmetu *C-224/11 B. G. Ž. Leasing sp. z o.o. v Dyrektor Izby Skarbowej w Warszawie* (presuda od 17. 1. 2013. godine) postavljeno je u kontekstu primene poreskopavnih propisa, odnosno u pogledu primene Direktive EU o zajedničkom sistemu poreza na dodatu vrednost (PDV) u sporu između poljskih poreskih vlasti i lokalne lizing kompanije.

U konkretnom sporu, postavilo se pitanje pravne prirode povezanih usluga lizinga i osiguranja, to jest da li se lizing usluga i usluga osiguranja predmeta lizinga smatraju za jedan kompleksan pravni posao (transakciju) koji potpadaju pod isti poreskopravni tretman, ili su pak u pitanju dva odvojena pravna posla na koje se odvojeno primenjuju poreski propisi (stope poreza).

Predmet tog spora nije bio ugovor o osiguranju i ugovor o lizingu zaključen između primaoca i davaoca lizinga, pa samim tim ni Sud nije imao uvid u njih, već isključivo poreski tretman više usluga u okviru jedne kompleksne transakcije.

2. Regulatorni okvir

Relevantan propis za to pravno pitanje jeste Direktiva 2006/112 EC od 28. novembra 2006. godine o zajedničkom sistemu poreza na dodatu vrednost (PDV).

Prema članu 1 (2) Direktive, pri svakoj transakciji PDV se izračunava na bazi cene robe ili usluga po stopi koja se primjenjuje na takvu robu ili usluge, po odbitku iznosa PDV-a koji otpada direktno na pojedine komponente.

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Prema članu 24 (1) Direktive, isporuka usluga je svaka transakcija koja nije isporuka robe.

Prema članu 28 Direktive, kada poreski obveznik koji istupa u svoje ime ali za račun druge osobe sudeluje u isporuci usluga, smatra se da je sam primio odnosno isporučio usluge.

Prema članu 73 Direktive, u pogledu isporuke robe ili usluga, osim onih posebno regulisanih članovima 74-77, oporezivi iznos uključuje sve što čini naknadu koju je dobio ili će dobiti dobavljač u zamenu za isporuku od kupca ili neke treće strane, uključujući doprinose odnosno dodatna plaćanja direktno povezana s cenom isporuke.

Prema članu 78 Direktive, oporezivi iznos uključuje (*inter alia*) „prateće rashode poput provizije, troškova parkiranja, prevoza i osiguranja (podvukao autor), za koje dobavljač tereti kupca.“

Ono što je stvar učinilo spornom jesu određeni izuzeci od primene pravila Direktive, sadržani u članu 135 (1) (a), to jest izuzeće iz domašaja primene Direktive transakcija u oblasti osiguranja i reosiguranja, uključujući povezane usluge koje provode posrednici i zastupnici u osiguranju.

3. Predmet spora i pravna pitanja

B. G. Ž Leasing sp. z o.o. je privredno društvo koje se bavi pružanjem lizing usluga u skladu s nacionalnim zakonima.

Prema opštim pravilima (nacionalnog tj. poljskog) ugovornog prava, predmet lizinga ostaje u svojini davaoca lizinga tokom trajanja ugovora o lizingu. Primalac plaća naknadu davaocu lizinga, kao i druge troškove u vezi s predmetom lizinga.

U skladu sa svojim opštim uslovima i ugovornim odredbama B. G. Ž. Leasing zahteva da predmet lizinga bude osiguran. B. G. Ž. Leasing nudi klijentima mogućnost da obezbedi osiguravajuće pokriće predmeta lizinga. Ukoliko klijent prihvati ponudu B. G. Ž. Leasing-a, kontaktira osiguravajuće društvo, zaključuje ugovor o osiguranju i (pre)fakturiše cenu osiguranja primaocu lizinga.

U prijavi za povraćaj PDV-a od februara 2008. godine B. G. Ž. Leasing je naveo da je deo usluga koji se odnosi na osiguranje u sklopu lizing naknade izuzet od obaveze plaćanja PDV-a. S druge strane, Poreska uprava Poljske smatrala je da je u sklopu ugovora o lizingu osiguranje samo sporedni (prateći) element ugovora, te da ceo pravni posao po svojoj pravnoj prirodi predstavlja ugovor o lizingu, i da kao takav kompletno treba da bude oporezovan po poreskoj stopi predviđenoj za glavnu uslugu – lizing.

Drugostepeni upravni organ potvrdio je stav Poreske uprave, pa je B. G. Ž. Leasing pokrenuo sudski spor pred Upravnim sudom u Varšavi.

Upravni sud u Varšavi potvrdio je stav Poreske uprave – da se na celokupan iznos naknade primenjuje jedinstvena poreska stopa predviđena za uslugu lizinga od 22%, a ovo svoje shvatanje utemeljio je na članu 78 Direktive 2006/112 EC o zajedničkom sistemu poreza na dodatu vrednost, prema kojem poresku osnovicu za obračun PDV-a čine, između ostalog (vidi paragraf a i b stav 1 člana 78), „prateći rashodi poput provizije, troškova parkiranja, prevoza i osiguranja, za koje dobavljač tereti kupca“.

Prema stavu poljskog suda, usluga koju pruža B. G. Ž. Leasing iz ekonomskog aspekta čini jedinstvenu uslugu koju ne treba „veštački deliti“, pošto bi u suprotnom došlo do podririvanja pravilnog funkcionisanja poreskog sistema. Poljski sud smatrao je da je u pitanju naknada za jednu jedinstvenu uslugu (koja se sastoji od lizinga i osiguranja), ali da je glavna usluga lizing, pa se stoga na ovu uslugu primenjuje jedinstvena stopa poreza na dodatu vrednost koja se odnosi na glavnu uslugu.

B. G. Ž. Leasing je inicirao žalbeni postupak protiv te presude pred Vrhovnim upravnim sudom, tvrdeći da je sud pogrešno primenio odredbe članova 2 (1)c, 24 (1), 28, 73 i 78 (b) Direktive o zajedničkom sistemu poreza na dodatu vrednost, a Vrhovni upravni sud se obratio Evropskom sudu za tumačenje navedenih članova Direktive.

3.1. Stav Evropskog suda pravde

Evropski sud pravde je u svom razmatranju bio fokusiran na dva ključna pitanja:

1. Da li cena za kombinovanu uslugu koja se sastoji od lizing naknade i naknade (premije) za osiguranje čini iz aspekta PDV-a jedinstvenu uslugu (na koje se primenjuje jedna stopa PDV-a), ili dve odvojene usluge (na koje se primenjuju različite poreske stope)?
2. Ukoliko su u pitanju dve odvojene usluge, da li se druga usluga može izuzeti iz obaveze plaćanja PDV-a po osnovu člana 135 (1)(a) Direktive 2006/112 EC o zajedničkom sistemu poreza na dodatu vrednost?

Sud je pošao od opšteg pravila (sadržanog u članu 1 (2) Direktive) da usluge načelno treba posmatrati odvojeno, ali da postoje slučajevi kada nekoliko formalno različitih usluga koje bi se mogle pružati odvojeno i različito oporezivati ipak smatraju jedinstvenom uslugom – kada su usluge tako tesno povezane da objektivno čine jednu nedeljivu ekonomsku celinu koju bi bilo neprikladno deliti. U takvim slučajevima prateće (pomoćne) usluge potpadaju pod poreski tretman glavne usluge.

Stoga je za Sud ključno pitanje bilo stepen međusobne povezanosti između dve usluge koje su predmet spora – lizinga i osiguranja.

Kao prvi korak u utvrđivanju stepena povezanosti usluga, Sud je razmatrao pitanje da li se usluge isporučuju zajedno, to jest pokušao je da primeni pravni standard upotrebljen ranije u sudskoj praksi u sličnim situacijama, koji se bazirao na pitanju da li je prateća usluga jedino relevantna u odnosu na glavnu uslugu.

Međutim, sud je pravilno utvrdio da bi primenom tog standarda došao u logički ćorsokak, budući da je usluga osiguranje *uvek* u vezi sa nekim drugim predmetom i jedino relevantna u odnosu na predmet osiguranja, pa bi primenom tog standarda na osiguranje došao u pitanje domašaj odredbe člana 135 (1) Direktive, kojim se transakcije u oblasti osiguranja i reosiguranja isključuju iz domašaja primene Direktive. Drugim rečima, kako je osiguranje suštinski uvek relevantno samo u odnosu na predmet koji se osigurava, onda bi svaka usluga osiguranja bila smatrana pratećom u odnosu na predmet osiguranja i nijedna transakcija osiguranja se ne bi mogla izuzeti iz domašaja pravila o PDV-u, što je posve suprotno nameri zakonodavca.

Umesto toga, Sud je postavio sledeće pitanje: Da li je usluga osiguranja cilj sama po sebi, ili je to samo način da se bolje i lakše pruži glavna usluga?

U tom smislu Sud je zaključio da bez obzira na to što osiguranje smanjuje rizike koji opterećuju predmet lizinga (koji je u svojini davaoca lizinga), i što na taj način suštinski doprinose položaju i sigurnosti davaoca lizinga, pa čak i uprkos činjenici da je osiguranje predmeta lizinga jedan od uslova njegovog dobijanja, ova dva ugovora nisu dovoljno povezana da bi se iz aspekta poreskih propisa smatrali jednom uslugom. Činjenica da davalac lizinga ima pravo da raskine ugovor usled neizvršenja ugovorne obaveze u slučaju da primalac ne plaća premiju osiguranja (kao jednu od obaveza po osnovu ugovora o lizingu), isto tako, po mišljenju Suda, nije dovoljna da se lizing i osiguranje smatraju jedinstvenom uslugom.

Sud je smatrao da usluga osiguranja u konkretnom slučaju ne čini jedinstvenu uslugu sa lizingom zato što su odluke o lizingu i odluka o osiguranju predmeta lizinga dve odvojene odluke primaoca lizinga. Primalac lizinga se može odlučiti da pribavi osiguranje preko davaoca lizinga (a čak i tada ova ekonomska odluka je odvojena od odluke o samom lizingu), od nekog drugog učesnika na tržištu osiguranja – npr. ličnog brokera, a isto tako može i samostalno odabrati osiguravajuće društvo kod kojeg želi da predmet lizinga bude osiguran, pa je za primaoca lizinga odluka o osiguranju „cilj sama po sebi“, a ne samo prateća usluga koja mu omogućava korišćenje usluge lizinga pod najpovoljnijim uslovima.

Iz navedenog, Sud je zaključio da se lizing i osiguranje moraju posmatrati odvojeno u smislu člana 78 Direktive.

Sledeće pitanje koje je Sud razmatrao bilo je da li konkretna situacija u kojoj lizing kuća (pre)fakturiše troškove premije osiguranja korisniku lizinga potpada pod izuzeće iz člana 135 (1) (a) Direktive, odnosno da li je u pitanju transakcija osiguranja. Premda u predmetu nije bilo sporno da je usluga koju je lizing kompanija izvršila usluga osiguranja, ono što je bilo donekle sporno jeste to da li usluga osiguranja koja je u „paketu“ ponuđena sa još jednom uslugom (konkretno lizing) potpada pod domašaj ovog izuzeća. Problem je donekle bio u tome što sama Direktiva o zajedničkom sistemu PDV-a nije sadržala definiciju „transakcije osiguranja“, pa je Sud na osnovu prethodno ustanovljene sudske prakse zaključio da je pojam „transakcija osiguranja“

dovoljno širok da obuhvati i situacije u kojima „osiguravajuće pokriće obezbeđuje poreski obveznik koji sâm nije osiguravajuće društvo niti učesnik na tržištu“. Dalje, primenjujući načelo fiskalne neutralnosti, Sud zaključuje da je suprotno propisima različito poresko tretiranje sličnih dobara i usluga koji su u međusobnoj konkurenciji, pa usluga osiguranja koja je za predmet lizinga obezbeđena preko lizing kompanije ne može biti drugačije tretirana kao usluga osiguranja koja bi se nezavisno pribavila za predmet lizinga od strane korisnika lizinga.

Prema stavu Suda, u okviru ukupne naknade koju plaća lizing kompaniji, korisnik lizinga deo koji se odnosi na osiguranje plaća kao protivčinidbu za osiguranje, a ne za lizing, pa stoga ovaj iznos mora biti oporezovan kao premija osiguranje, odnosno bez tereta PDV-a.

4. Kratak osvrt na presudu

Suštinski dilema koju je sud razrešio odnosila se na dva kontradiktorna člana Direktive o zajedničkom sistemu PDV-a. S jedne strane, član 78 predviđao je da oporezivi iznos (poresku osnovicu) čine „prateći rashodi poput provizije, troškova parkiranja, prevoza i osiguranja, za koje dobavljač tereti kupca“, dok je, s druge strane, član 135 predviđao da su „transakcije u oblasti osiguranja i reosiguranja, uključujući povezane usluge koje sprovode posrednici i zastupnici u osiguranju“, izuzete iz domašaja Direktive, dakle da se na njih ne obračunava PDV.

Stav Suda u pogledu spornih pitanja jeste da uslugu osiguranja kojom se osigurava predmet lizinga u smislu propisa o PDV-u treba tretirati kao odvojenu uslugu od usluge lizinga, kao i da se na iznos premije osiguranja, bez obzira na to što je naplaćena u okviru kompleksnog pravnog posla (obuhvaćena lizing naknadom), ne plaća PDV.

Međutim važno je napomenuti da je Sud taj stav zauzeo uz dve važne ograde.

Prvo, stav Suda temelji se na pretpostavci da davalac lizinga fakturiše primaocu lizinga isti iznos koji je ugovoren sa osiguravajućim društvom za pokriće rizika, odnosno da dolazi do prefakturisanja istog (tačnog) iznosa premije, bez bilo kakvih uvećanja. Ako kojim slučajem davalac lizinga fakturiše veći iznos od onoga koji je ugovoren s osiguravajućim društvom, onda se na takve situacije ne može primeniti ova presuda.

Drugo, Sud je na stanovištu da ne postoji apsolutno jasno definisano pravilo u Direktivi šta obuhvata pojam usluge (a pogotovo kada su u pitanju kompleksne transakcije koje se sastoje od više pravnih poslova/naknada za različite protivčinidbe), pa je na Sudu da, uzimajući u obzir sve okolnosti pojedinačnog slučaja, proceni stepen povezanosti usluge, odnosno to da li se usluge smatraju „jedinstvenim“ ili odvojenim iz aspekta poreskih propisa, uvažavajući pri tome pravne standarde koji su uspostavljeni u prethodnoj sudskoj praksi, a koji se odnose na pitanje da li je pravni posao „cilj sam po sebi“ ili samo olakšava korišćenje glavne usluge.

UDK:340.142:343.197:336.211.4:336.215.3(438):347.453:368

Nikola L. Filipović, LL.M.¹

INTERNATIONAL COURT PRACTICE

JUDGMENT OF THE EUROPEAN COURT OF JUSTICE IN THE CASE *B.G.Ž. LEASING SP. Z O.O. V DYREKTOR IZBY SKARBOWEJ W WARSZAWIE*

1. Introductory Notes

The legal issue dealt with by the European Court of Justice in the case *C-224/11 B.G.Ž. Leasing sp. z o.o. v Dyrektor Izby Skarbowej w Warszawie* (the Judgment of 17 January 2013) is set in the context of implementation of tax legislation, i.e. regarding implementation of the Council Directive on the common system of value added tax (VAT) in the proceedings between the Polish tax authorities and a local leasing company.

In the proceedings, the issue of the legal nature of related leasing and insurance services was posed, i.e. whether leasing services and insurance of leased item are considered as one complex legal transaction that fall under the same tax treatment or two separate legal transactions to which tax regulations (tax rates) apply separately.

The subject of the proceedings was not the insurance contract and the leasing agreement concluded between the lessee and the lessor, and therefore the Court did not have access to them, but only the tax treatment of several services within one complex transaction.

2. Regulatory Framework

Applicable regulation for such legal issue is the Council Directive 2006/112 EC of 28 November 2006 on the common system of value added tax (VAT).

Pursuant to Article 1 (2) of the Directive, on each transaction, VAT, calculated on the price of the goods or services at the rate applicable to such goods or

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services, shall be chargeable after deduction of the amount of VAT borne directly by the various cost components.

Pursuant to Article 24 (1) of the Directive, supply of services' shall mean any transaction that does not constitute a supply of goods.

Pursuant to Article 28 of the Directive, where a taxable person acting in his own name but on behalf of another person takes part in a supply of services, he shall be deemed to have received and supplied those services himself.

Pursuant to Article 73 of the Directive, in respect of the supply of goods or services, other than as referred to in Articles 74 to 77, the taxable amount shall include everything which constitutes consideration obtained or to be obtained by the supplier, in return for the supply, including subsidies directly linked to the price of the supply.

Pursuant to Article 78 of the Directive, the taxable amount shall include, *inter alia*, "incidental expenses, such as commission, packing, transport and insurance costs (underlined by the author), charged by the supplier to the customer"

Exemptions contained in Article 135 (1) (a) of the Directive – insurance and reinsurance transactions, including related services performed by insurance brokers and insurance agents make the case disputable.

3. Subject Matter of the Proceedings and Legal Issues

B.G.Ż. Leasing sp. z o.o. is a company providing leasing services in accordance with national legislation.

According to the general conditions of the national, i.e. Polish law applicable to contracts, the items leased by the lessor remain its property throughout the duration of the lease. The lessee pays a rent to the lessor and also pays others expenses related to the item leased.

According to the general conditions and contractual provisions, *B.G.Ż. Leasing* requires that leased item is insured. *B.G.Ż. Leasing* offers to provide its clients with insurance. If they wish to take up that offer, *B.G.Ż. Leasing* subscribes to the corresponding insurance with an insurer and re-invoices the cost of that insurance to the lessee.

In its VAT return for February 2008, *B.G.Ż. Leasing* took the view that such re-invoicing of the cost of the insurance for the leased item was exempt from VAT. The National Revenue Administration of Poland took the view however that the transaction consisting in the supply of insurance cover was a supply of services ancillary to the leasing service, and as such should be subject to VAT in the same way as the principal service, namely the leasing transaction.

The Second Instance Administrative Court agreed with the opinion of the National Revenue Administration of Poland and therefore *B.G.Ż. Leasing* brought an appeal against that judgment before the Regional Administrative Court in Warsaw.

The Regional Administrative Court in Warsaw agreed with the opinion of the National Revenue Administration of Poland – that transaction was subject to VAT at a rate of 22% in the same way as the principal service, and supported its opinion by Article 78 of the Council Directive of 2006/112 EC on the common system of value added tax (VAT) which read that taxable amount shall include, among other, (see Paragraph a and b Item 1 Article 78), “incidental expenses, such as commission, packing, transport and insurance costs, charged by the supplier to the customer.”

The Court stated that a service provided by *B.G.Ž. Leasing*, which comprises a single service from an economic point of view should not be artificially split, so as not to distort the functioning of the tax system. The Court held that it is a single supply of services constituted by the leasing and insurance services. According to the Court, a single rate of VAT must be applied to all the elements comprising such a service, which is the rate applicable to the supply of the principal service which is the leasing.

B.G.Ž. Leasing brought an appeal against that judgment before the Supreme Administrative Court claiming that the Regional Administrative Court had incorrectly interpreted, in particular, Articles 2(1)(c), 24(1), 28, 73 and 78(b) of the Directive on the common system of value added tax (VAT). The Supreme Administrative Court addressed the European Court regarding interpretation of the said Articles from the Directive.

3.1. Opinion of the European Court of Justice

The European Court of Justice focused on two key issues:

1. Is the price for combined services, consisting of leasing services and insurance services for the leased item, for VAT purposes, a single service, to which a single rate of VAT must be applied, or two distinct services (to which different tax rates apply)?
2. If those are two distinct services, may the second service be exempt from VAT under Article 135(1)(a) of the Directive 2006/112 EC on the common system of value added tax?

The Court started with the general condition (contained in Article 1 (2) of the Directive) that services should in principle be considered separately, but that there are cases where several formally different services that could be provided separately and taxed differently are still considered a single service – when such services are closely linked that they form, objectively, a single, indivisible economic supply, which it would be artificial to split. In such cases, ancillary services share the tax treatment of the principal service.

Therefore, the key issue for the Court was the degree of interconnectedness between the two services – leasing and insurance.

As the first step in determining the degree of interconnectedness of services, the Court considered whether services are supplied together, i.e. it sought to apply a legal standard previously used in case law in similar situations, based on whether ancillary services were only relevant in relation to the principal service.

However, the Court has held that the application of that standard would lead to a logical impasse, since insurance service is *always* related to another subject and only relevant in relation to the subject matter of insurance, so applying that standard to insurance would call into question the scope of Article 135 (1) of the Directive, which excludes insurance and reinsurance transactions from the scope of the Directive. In other words, as insurance is essentially always relevant only in relation to the item to be insured, then any insurance service would be considered ancillary to the subject matter of insurance and no insurance transaction could be excluded from the scope of VAT rules, which is quite contrary to the intention of the legislator.

Instead, the Court asked the following question: Is the insurance service an end in itself or is it just a way to provide the principal service better and easier?

In this regard, the Court concluded that despite the fact that insurance reduces the risks burdening the subject of leasing (which is owned by the lessor), and that thus significantly contribute to the position and security of the lessor, and even despite the fact that insurance of leased item is one of the conditions for obtaining it, these two contracts are not sufficiently connected to be considered as one service from the aspect of tax regulations. The fact that the lessor has the right to terminate the leasing agreement if the lessee does not pay the insurance premium (as one of the leasing agreement's obligations), according to the Court, is not substantial to consider both leasing and insurance as one service.

The Court held that the insurance service in the specific case does not constitute a single service together with leasing service, because decisions on leasing and the decision on insurance of leased item are two separate decisions of the lessee. The lessee may decide to obtain insurance through the lessor (and even then this economic decision is separate from the decision on the lease itself), from another participant in the insurance market – e.g. personal broker, and can also independently choose an insurance company with which he wants the subject of leasing to be insured, so for the lessee a decision on insurance is “an end in itself” and not just an ancillary service that allows him to use leasing services under the most favourable conditions .

Therefore, the Court concluded that leasing and insurance must be regarded separately in terms of Article 78 of the Directive.

The next question considered by the Court was whether the specific situation where the leasing company re-invoiced the insurance premium costs to the lessee fell under the exemption under Article 135 (1) (a) of the Directive, i.e. whether it is an insurance transaction. Although it was not disputed that the service provided

by the leasing company was an insurance service, what was somewhat disputable was whether the insurance service offered in the “package” with another service (specifically leasing) fell within the scope of this exemption. The problem was to some extent that the Directive on the common system of value added tax itself did not contain a definition of “insurance transaction”, so the Court concluded on the basis of previously established case law that the expression “insurance transaction” is broad enough in principle to include the “provision of insurance cover by a taxable person who is not himself an insurer or a market participant.” Furthermore, applying the principle of fiscal neutrality, the Court concludes that contrary to the regulations, treating similar goods and services, which are thus in competition with each other, differently for VAT purposes, so insurance service provided for the leased item through a leasing company cannot be treated differently as an insurance service acquired for the subject of leasing by the lessee.

According to the Court, within the total consideration paid to the leasing company, the lessee pays the part related to insurance as a consideration for insurance and not to leasing, so this amount must be taxed as insurance premium, i.e. without VAT.

4. Brief Overview of the Judgment

Essentially, the court resolved a dilemma referring to two contradictory Articles of the Directive on the common system of value added tax. On one hand, Article 78 stipulated that the taxable amount (tax base) consisted of “incidental expenses, such as commission, packing, transport and insurance costs charged by the supplier to the customer”, while on the other hand, Article 135 stipulated that “insurance and reinsurance transactions, including related services performed by insurance brokers and insurance agents are excluded from the scope of the Directive”, so that they are not subject to VAT.

The Court has held that the insurance of the subject of leasing, in terms of VAT regulations, should be treated as a separate service from the leasing service, and that VAT is not charged to insurance premium, even though it was charged under complex legal transaction (included in the leasing consideration).

However, it is important to note that the Court took this position having in mind two important things.

First, the Court’s position is based on the assumption that the lessor invoices the lessee the same amount agreed with an insurance company to cover the risk, i.e. that the same (correct) amount of premium is re-invoiced without any increases. If, by any chance, the lessor invoices a larger amount than the one contracted with an insurance company, then this judgment cannot be applied to such situations.

Secondly, the Court believes that the rule in the Directive covering the notion of service is not absolutely and clearly defined (especially regarding complex

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B.G.Ż. Leasing sp. z o.o. v Dyrektor Izby Skarbowej w Warszawie***

transactions consisting of several legal transactions/various considerations), so it is up to the Court to take into account all the circumstances of the particular case, assess the degree of connection of the service, i.e. whether services are considered "single" or separate from the aspect of tax regulations, taking into account legal standards established in previous case law referring to the question whether a legal transaction is an "end in itself" or only facilitates use of the principal service.

Translated by: Jelena Rajković

UGROŽAVANJE JAVNOG SAOBRAĆAJA I PRESUĐENA STVAR

Kada je okrivljeni pred prekršajnim sudom proglašen odgovornim za učinjeni prekršaj povodom nastale saobraćajne nezgode zato što je upravljao vozilom koje je registrovano u inostranstvu i koje nije osigurano u skladu s propisima Republike Srbije o obaveznom osiguranju, ne radi se o istom činjeničnom osnovu i presuđenoj stvari, bez obzira na to što je u pitanju isti okrivljeni i isti krivičnopравни događaj, pa je pravilno prvostepeni sud okrivljenog oglosio krivim zbog krivičnog dela ugrožavanja javnog saobraćaja.

Iz obrazloženja:

Iz pravosnažne presude prekršajnog suda proizlazi da je okrivljeni kritičnog dana upravljao vozilom koje je registrovano u inostranstvu i koje nije osigurano u skladu s propisima Republike Srbije o obaveznom osiguranju, čime je učinio prekršaj iz člana 331 stav 1 tačka 76 i 82 Zakona o bezbednosti saobraćaja na putevima. Potpuno je jasno da se u konkretnom slučaju ne radi o presuđenoj stvari s obzirom na to da citirani prekršaji za koje je okrivljeni oglašen odgovornim pred prekršajnim sudom nemaju nikakve veze s bitnim elementima krivičnog dela ugrožavanje javnog saobraćaja iz člana 289 stav 1 KZ, pri čemu se opisani prekršaji ne pominju u izreci ožalbene presude, što je i logično, jer okolnost da je okrivljeni upravljao vozilom koje je registrovano u inostranstvu i koje nije osigurano u skladu s propisima Republike Srbije o obaveznom osiguranju vozila jeste bez značaja u odnosu na bitne elemente krivičnog dela iz člana 289 stav 1 KZ, zbog čega su žalbeni navodi branioca okrivljenog neosnovani.

*(Presuda Višeg suda u Čačku, Kž 198/21 od 28. oktobra 2021)
Izvor: Izbor sudske prakse br. 2/2022, str. 38.*

NAKNADA MATERIJALNE ŠTETE

Imalac opasne stvari odgovara za štetu nastalu u vezi sa opasnom stvari odnosno opasnom delatnošću.

Iz obrazloženja:

Iz spisa proizlazi da je kritičnog dana tužilac upravljao svojim putničkim vozilom i da je točkovima prešao preko šahta za kišnu kanalizaciju koji se tom prilikom otvorio, na vozilu je nastala šteta, što je konstatovano službenom beleškom Policijske uprave, a visina štete utvrđena je nalazom i mišljenjem veštaka.

Pravilno je prvostepeni sud primenio odredbu člana 154 stav 1 ZOO, kojom je predviđeno da ko drugom prouzrokuje štetu dužan je da je nadoknadi, a čl. 173-174 predviđeno je da za štetu nastalu u vezi sa opasnom stvari odnosno opasnom delatnošću odgovara njen imalac. Tuženik je odgovoran za naknadu štete, kao što je i odgovoran za postavljanje takvih šahtova, koje je dužan i da u odgovarajućem postupku nadgleda.

(Presuda Višeg suda u Užicu, Gž 560/20 od 24. februar 2021)

Izvor: Izbor sudske prakse br. 2/2022, str. 56.

NOVČANA NAKNADA NEMATERIJALNE ŠTETE

Tužilja nema pravo na naknadu nematerijalne štete od tužene opštine zbog povrede uzrokovane padom ispred advokatske kancelarije jer je advokat bio dužan da očisti sneg i led ispred svog lokala.

Iz obrazloženja:

Iz spisa proizlazi da je tužilja dana 17. marta 2011. pala na ulici jer je prostor ispred advokatske kancelarije bio pokriven snegom i ledom, a usled pada pretrpela je telesne povrede.

Polazeći od utvrđenog činjeničnog stanja, prvostepeni sud je na osnovu odredbe čl. 155, 188 i 200 ZOO obavezao tuženu opštinu da tužilji naknadi nematerijalnu štetu sa pripadajućom kamatom.

Kod nesporno utvrđene činjenice koja se odnosi na tužiljin pad ispred kancelarije advokata, da je tuženik osporio pasivnu legitimaciju zato što nije bio dužan da čisti sneg i led ispred kancelarije advokata, već je to bio dužan da u smislu

člana 15 Odluke o komunalnom uređenju Grada Užice učini vlasnik objekta, jasno proizlazi da je u ovom slučaju tužilja bila dužna da dokaže odgovornost tuženog, što u toku postupka nije učinila. U konkretnom slučaju, shodno odredbama čl. 4 i 32 Zakona o komunalnim delatnostima („Sl. glasnik RS“, br. 88/11) tuženik nije imao obavezu da sprovodi nadzor nad vršenjem radova od strane advokata koji je bio dužan da ispred svoje kancelarije očisti sneg i led u smislu važeće odluke tuženog o komunalnom redu, a odredbom čl. 4 stav 3 i 32 navedenog zakona predviđeno je da Grad ima obavezu da sprovodi nadzor nad vršenjem radova od strane organa čiji je on osnivač, a ne i ostalih lica koja su dužna da održavaju prostor ispred svojih kuća, lokala, stanova.

Pored toga što je prethodno pomenutom odredbom Grad imao obavezu da sprovodi nadzor nad vršenjem radova od strane organa čiji je on osnivač, i odredbom člana 184 ZOO predviđena je odgovornost Grada za štetu koju pričinu preduzeće i drugo pravno lice koje vrši komunalnu ili drugu sličnu delatnost od opšteg interesa ako bez opravdanog razloga obustave ili neredovno vrše svoju uslugu, ali ne i za odgovornost fizičkih lica, kako to nepravilno zaključuje prvostepeni sud. Na osnovu navedenog, preinačena je presuda prvostepenog suda tako da se tužbeni zahtev tužilje odbije kao neosnovan.

(Presuda Apelacionog suda u Kragujevcu, Gž 1967/20 od 13. aprila 2021)

Izvor: Izbor sudske prakse br. 2/2022, str. 56.

REGRES OSIGURAVAČA

Tužilac (osiguravač) ima pravo regresa prema tuženiku (štetniku) koji je napustio mesto događaja.

Iz obrazloženja:

Iz spisa proizlazi da se kritičnog dana desila saobraćajna nezgoda isključivo krivicom tuženog koji je, upravljajući putničkim motornim vozilom, udario pešaka koji je zadobio povrede, a od povreda pešak je trpeo fizičke bolove i strah čiji su intenzitet i trajanje utvrđeni nalazom i mišljenjem veštaka medicinske struke. Kako je tužilac kao osiguravač isplatio naknadu štete povređenom pešaku, to je postavljen tužbeni zahtev prema tuženiku čijom je krivicom došlo do saobraćajne nezgode, a za isplatu navedene naknade štete.

S obzirom na to da je tuženik neposredno nakon saobraćajne nezgode vozilom napustio lice mesta ne ostavljajući podatke o sebi niti podatke o osiguranju, to je prvostepeni sud pravilno ocenio da tužilac osnovano, u smislu člana 29

stav 1 tačka 7 Zakona o obaveznom osiguranju u saobraćaju, kojim je propisano da osigurano lice gubi prava iz osiguranja ako je vozač posle saobraćajne nezgode napustio mesto događaja a tom prilikom nije dao svoje lične podatke i podatke o osiguranju, potražuje od tuženika regres isplaćene naknade štete.

*(Presuda Višeg suda u Užicu, GŽ 585/20 od 24. februara 2021)
Izvor: Izbor sudske prakse br. 2/2022, str. 57.*

OSLOBAĐANJE OD OBAVEZE PLAĆANJA SUDSKE TAKSE

Stranke se oslobađaju obaveze plaćanja sudske takse ukoliko se parnični postupak okonča do dana zaključenja prvog ročišta za glavnu raspravu posredovanjem, sudskim poravnanjem, priznanjem tužbenog zahteva ili odricanjem od tužbenog zahteva.

Iz obrazloženja:

Prema stanju u spisu predmeta tužilac je tužbom podnetom 11. 6. 2019. godine inicirao postupak radi naplate regresa u vrednosti od 148.378 dinara protiv tuženog. Tuženi je podneskom od 6. 8. 2019. godine priznao tužbeni zahtev, nakon čega je presudom na osnovu priznanja Privrednog suda u Beogradu P 3158/19 od 7. 8. 2019. godine usvojen tužbeni zahtev. Navedena presuda je pravosnažna i izvršna.

Članom 9 stav 6 Zakona o sudskim taksama („Sl. glasnik RS“, br. 28/94, ...95/18) propisano je da se stranke oslobađaju plaćanja takse ukoliko se parnični postupak okonča do dana zaključenja prvog ročišta za glavnu raspravu posredovanjem, sudskim poravnanjem, priznanjem tužbenog zahteva ili odricanjem od tužbenog zahteva.

U konkretnom slučaju do okončanja prvostepenog postupka došlo je priznanjem tužbenog zahteva to jest donošenjem presude na osnovu priznanja pre održavanja prvog ročišta za glavnu raspravu, iz čega sledi da su u navedenom postupku stranke oslobođene plaćanja sudske takse. Imajući u vidu da je prvostepeni sud obavezao tužioca na plaćanje sudske takse na presudu na osnovu priznanja u ukupnom iznosu od 9.284 dinara uvećanu za kaznenu taksu, Privredni apelacioni sud ukinuo je navedeno rešenje bez vraćanja na ponovno odlučivanje, primenom člana 9 stav 6 Zakona o sudskim taksama.

*(Rešenje Privrednog apelacionog suda, Pž. 1290/20 od 11. juna 2020)
Izvor: Izbor sudske prakse br. 7-8/2021, str. 69–70.*

TEŠKO DELO PROTIV OPŠTE SIGURNOSTI

Kada je optuženi parkirao vozilo na zemljanoj površini van kolovoza, koja je pod nagibom prema kolovozu, te izašao iz vozila a da prethodno nije preduzeo potrebne mere kako bi sprečio da se vozilo samo pokrene, nije zaključao vrata na vozilu niti je aktivirao parkirnu kočnicu, a ručicu menjača ostavio u neutralnom položaju, usled kojih propusta optuženog je došlo do samopokretanja vozila unazad, a zatim i kontakta vozila s telom pešaka, koji se propisno kretao, što je rezultiralo time da bude pregažen ovim vozilom, zadobije teške telesne povrede opasne po život, koje su uslovile i smrtni ishod pešaka koji je preminuo na licu mesta, tada se u radnjama optuženog stiču obeležja kvalifikovanog oblika krivičnog dela teško delo protiv opšte sigurnosti.

Iz obrazloženja:

Iz rezultata pravilne ocene svih izvedenih dokaza, a pre svega pisanih dokaza iz spisa predmeta i obavljenih veštačenja, pravilno je prvostepeni sud zaključio da je optuženi kritičnom prilikom vozilo parkirao na zemljanoj površini van kolovoza, koja je pod nagibom prema kolovozu, da je izašao iz vozila a da prethodno nije preduzeo potrebne mere kako bi sprečio da se vozilo samo pokrene, da nije zaključao vrata na vozilu, niti je aktivirao parkirnu kočnicu a ručicu menjača ostavio u neutralnom položaju. Usled tih propusta optuženog došlo je do samopokretanja vozila unazad, a zatim i kontakta vozila s telom pešaka, maloletne I, koja se propisno kretala, a što je rezultiralo time da bude pregažena ovim vozilom, zadobije teške telesne povrede opasne po život, koje su uslovile i smrtni ishod I, koja je preminula na licu mesta.

Takođe, pravilno je utvrđeno da predmetno vozilo predstavlja opšte opasno sredstvo, a propuštanje optuženog da preduzme navedene radnje predstavlja opšte opasnu radnju, te da su u radnjama optuženog, bliže opisanim u izreci dobijene presude, sadržana sva bitna obeležja krivičnog dela teško delo protiv opšte sigurnosti iz člana 288 stav 4 u vezi sa članom 278 stav 5 u vezi sa stavom 1 Krivičnog zakonika, za koje je oglašen krivim, te se žalbom neosnovano ukazuje na pogrešnu primenu zakona.

(Presuda Apelacionog suda u Nišu, KŽ1 674/20 od 5. oktobra 2020)

Izvor: Izbor sudske prakse br. 12/2021, str. 41.

Izbor: Ljiljana J. Lazarević Davidović, dipl. pravnik

USTALJENO TARIFIRANJE

Ustaljeno tarifiranje (engl. *manual rating, group rating*, nem. *manuelle Tarifierung*) – uobičajeno odmeravanje premija osiguranja prema objavljenom, važećem cenovniku osiguranja koji primenjuje izvesno osiguravajuće društvo. Ono se upražnjava na isti način prema svim osiguranicima koji pripadaju istoj zajednici rizika, polazeći od prosečnih veličina. Recimo, društvo će na svakih 1.000 dolara osigurane svote osiguraniku muškog pola, starom 26 godina, naplatiti 12,02 dolara godišnje premije. Ustaljeno tarifiranje se temelji na unutrašnjim obeležjima rizika, odnosno na objektivnom riziku. To, međutim, ne zadovoljava uvek potrebe tekuće prakse. Stoga je neretko u primeni i *iskustveno tarifiranje*, kojim se dodatno uvažava subjektivni rizik vezan za tačno određenog osiguranika.

Izvor: Nebojša Žarković, *Pojmovnik osiguranja*, Novi Sad, str. 586.

OPASNOST ZBOG SUSEDSTVA

Opasnost zbog susedstva (engl. *Exposure hazard, neighbouring risk*, nem. *Nachbarschaftsgefahr, Nachbarschaftsrisiko*) – pojam iz osiguranja imovine, a poglavito požarnog osiguranja. Radi se o mogućnosti nastupanja štete zato što se osigurani objekat graniči sa zgradom ili nekim drugim objektom gde postoji veliki stepen izloženosti riziku. Zbog toga, prilikom procene težine rizika, osiguravač odmerava premiju osiguranja vodeći računa i o obimu spoljne izloženosti rizicima. Na primer, zbog vrste gradnje susedne zgrade, ili susednog skladišta zapaljivih sredstava na otvorenom prostoru, što uvećava opasnost od požara, zaračunaće se doplatak na premiju. Suprotan pojam je *unutrašnja opasnost*.

Izvor: Nebojša Žarković, *Pojmovnik osiguranja*, Novi Sad, str. 254.

Odabrani članci

Peter Blanc: Tough conversations with clients. – Teški razgovori s klijentima. Peter Blanc, direktor osiguravajuće kuće „Aston Lark“, kaže da je izrazito važno da osiguravajuće kuće dostignu najviši nivo tehničke kvalifikacije, ali i da je podjednako važno obezbediti adekvatnu obuku osiguravača kako bi se bolje snašli u teškim diskusijama koje mogu voditi s klijentima. Dodaje da je klijentu prilično teško objasniti zašto se o mogućim rizicima nije na pravi način razgovaralo kada je šteta već nastala. Postoje vrlo specifične tehnike koje se mogu upotrebljavati kako bi se klijenti bolje upoznali s potencijalnim gubicima i štetama – u tom slučaju potkrepljivanje primerima je i te kako od pomoći. Svrha našeg posla je da osigura klijentima sjajan rezultat, zaključuje Blanc.

(*Insurance Post*, januar 2022, str. 12)

The future of Affinity insurance in the digital age. – Budućnost osiguravajuće kuće „Affinity“ u digitalnom dobu. Osiguravajuća kuća „Affinity“ tradicionalno nudi dodatni izvor prihoda kroz rad sa neosiguravajućim brendom kako bi ponudila pokriće svojoj bazi kupaca. Pitanje koje je postavljeno na nedavno održanom okruglom stolu, koji je organizovao *Post* u saradnji sa Crif Decision Solutions, jeste kako osiguravači sada prilagođavaju svoje proizvode u cilju zadovoljenja rastućih potreba partnera i klijenata kuće „Affinity“? Kristy Walker kaže da je najvažnije razumeti klijenta i uvideti šta je to drugačije što im se može ponuditi – cena, usluge ili određene pogodnosti?

Razmatrani su, takođe, ključni faktori koji utiču na odnos klijenta i osiguravajućih kuća: sagledavanje i razumevanje ciljeva, razumevanje onog što klijenti žele, šta vrednuju, otvorena komunikacija između partnera u pogledu razumevanja brenda i svega što predstavlja, kao i zaštite njegove vrednosti, konsultativni pristup klijentima, dodatna edukacija u vidu testiranja usluga i adaptacija na digitalnom tržištu.

U članku se kao zaključak navodi da su najuspješnija partnerstva ona gde postoji uzajamno poštovanje u pogledu snaga koje ih odlikuju.

(*Insurance Post*, januar 2022, str. 16–19)

Why ESG and digital transformation are inextricably linked for the insurance industry? – Zašto su ESG i digitalna transformacija neraskidivo povezani sa delatnošću osiguranja? Digitalna transformacija je već dugi niz godina cilj delatnosti osiguranja. ESG (Environmental, Social & Governance – skup standarda

koji usmeravaju korporativne politike kako bi bile u skladu s konceptima održivog razvoja u oblastima životne sredine, društvene odgovornosti i korporativnog upravljanja) pomerio se sa područja perifernog interesa za one koji traže etičke pristupe za upravljanje imovinom, i u fokusu je kako kompanija tako i klijenata.

ESG je nova vrsta rizika. Uključuje komponente klimatskog, tranzicionog i socijalnog rizika, koje je teško proceniti jer su podaci često netačni ili se jednostavno ne prikupljaju. Kako se agregacija podataka i modeliranje budu poboljšavali, osiguravači će biti u boljoj poziciji da efikasno upravljaju svojim ESG rizicima i moći će da izveštavaju o njima. Ključ adaptacije i primene ESG-a je digitalna transformacija koja podrazumeva uklanjanje administrativnog komuniciranja i prilagođavanje korisnika digitalnim kanalima.

Digitalna transformacija pruža različite načine rada i komunikacije. Iako tehnologija sama po sebi ne može da reši velike i hitne probleme, postoji potreba da se ona primenjuje uz adekvatnu upotrebu i lociranje. Jedan od glavnih razloga što kompanije propadaju tokom tehnološke transformacije jesu i kulturološke prepreke. Ljudi se protive promenama, ali je poverenje integralni deo novih poslovnih modela. Osiguravači treba da dokažu svoju posvećenost ESG-u regulatorima i korisnicima, ali i svojim saradnicima. Osiguranje mora da se razvija uporedo sa programom digitalizacije.

(Insurance Post, januar 2022, str. 22–24)

Jim Bruce: How can insurers accelerate digital transformation in their business? – Kako osiguravači mogu ubrzati digitalnu transformaciju u svom poslovanju? Kako se zahtevi kupaca menjaju, stavljaajući veći naglasak na digitalne kanale, osiguravači moraju razmotriti kako da najbolje prilagode svoje poslovanje i procese. No, dok su neki prihvatili put digitalne transformacije, drugi su još uvek na početku. Zašto pojedini osiguravači sporo ulažu u digitalnu transformaciju? Jedan od razloga koji se često pojavljuje jeste složenost postojeće infrastrukture. To može biti posledica postojećih implementacija ili integracija među velikim osiguravačima ili osiguravajućim grupama koje su prošle kroz različita spajanja i akvizicije u okviru raznih poslovnih aktivnosti. Mnoge osiguravajuće kuće jednostavno nemaju digitalne sposobnosti i talenat u pogledu poslovanja kako bi ostvarile viziju digitalne transformacije. Samim tim, mnogi osiguravači ne znaju kako da premoste taj jaz u budućnosti. Priznaju da, i kad bi prešli na potpunu digitalizaciju, njihove veštine unutar njihovih organizacija verovatno ne bi bile zadovoljavajućeg standarda kako bi taj jaz savladali.

Mobilne aplikacije su područje na kojem postoji neposredna prilika za transformaciju odštetnih zahteva i automatizacije. To će pomaknuti tradicionalni model osiguravajućih društava u nadolazećim godinama i poboljšati našu sposobnost da razumemo i da, ukoliko je to moguće, eliminišemo rizik.

Postoje opšte promene u praksi određivanja cena osiguranja, kao i primetnog povećanja nekih regulatornih delova koje delatnost osiguranja mora da usvoji i promeni u pogledu organizacije.

Traženje proaktivnog načina na koji možemo izbeći rizik, umesto da se držimo tradicionalnog modela osiguranja, doneće inovacije u svim delatnostima, menjajući postojeće algoritme, analitiku i zahteve za osiguranje. Mnogi možda ne osećaju da su spremni u ovoj fazi, da nemaju sve informacije i veštine koje su im potrebne da krenu tim putem. Morate napraviti prvi korak kako biste uspeali, a mnogi osiguravači se s tim bore, konstatuje Jim Bruce.

(Insurance Post, januar 2022, str. 25–26)

The hydrogen boom. – Eksplozija vodonika. Vodonik je obećavajući izvor energije za tešku industriju i smatra se gorivom budućnosti. Ukoliko je energija koja se koristi za dobijanje vodonika održiva, on može postati zelena alternativa fosilnim gorivima. Anthony Vassallo, regionalni direktor za energetiku i građevinarstvo u „Allianz Global Corporate & Specialty“ (nemačka osiguravajuća kuća „Allianz“), kaže da se trenutno veoma nizak nivo zelenog hidrogena proizvodi zbog visokih troškova obnovljive energije. Uprkos tome što u poslednje vreme troškovi proizvodnje opadaju, zeleni vodonik je 2-3 puta skuplji od plavog vodonika. On takođe navodi nekoliko rizika upotrebe vodonika proizvedenog od fosilnih goriva bez ugljen-dioksida:

- potencijalne eksplozije kada se vodonik pomeša s vazduhom
- curenje vodonika koje je teško detektovati, jer vodonik nema boju i miris
- difuzija vodonika može da napravi da metalne i čelične legure postanu krte, što može uticati na cevi, zatvarače i druge mašinske komponente.

Proizvodnja i transport vodonika zahteva visokotehnološku opremu i svaki neuspeh može rezultirati ozbiljnim poslovnim i finansijskim gubicima. „Lloyd“ u julskom izveštaju „Insuring a sustainable greener future“ (Osiguravanje održive, zelenije budućnosti) ističe rad koji osiguravači moraju sprovesti kako bi se realizovale potrebe razvoja industrije vodonika. Osiguravači moraju da vode dijalog s korporacijama koje se bave upotrebom vodonika kako bi se bolje razumeli izazovi i potrebe zbog specifičnih rizika sa kojima se suočavaju. Rhys Newland, direktor za obnovljivu energiju i ekološku tehnologiju u „Miller“-u, kaže da će tranzicija ka upotrebi vodonika postati veliki deo novog sveta, i da mi kao delatnost moramo da nađemo načine da izbalansiramo potrebe. Zbog povećanog broja projekata planiranih širom sveta, osiguravači, u budućnosti, mogu očekivati povećanje zahteva za osiguranje sistema transporta vodonika. Uprkos izazovima, osiguravači su sigurni da će tržište imati dovoljno kapaciteta da podrži brzorastuću industriju vodonika.

(Insurance Post, januar 2022, str. 40–43)

Amy Danise: Outlook For Life Insurance Shoppers In 2022. – Izgledi za korisnike životnog osiguranja u 2022. godini. S obzirom na to da omikron soj virusa ometa povratak u normalu, 2022. godina mogla bi biti još jedna godina koja se može

pohvaliti dobrom prodajom životnog osiguranja. Skoro svaki treći potrošač (31%) kaže da je veća verovatnoća da će se osigurati zbog pandemije. Prema istraživanju kompanije LIMRA, rast prodaje životnih osiguranja iznosi 18% tokom prva tri kvartala 2021. godine, a sve vrste polisa životnog osiguranja zabeležile su rast prodaje. Na osnovu istorijskih podataka tokom pandemije 1918. godine, kada je prodaja znatno porasla nekoliko godina nakon njenog izbijanja, verujemo da će uticaj kovida 19 nastaviti da utiče na ljude kako bi razmotrili životno osiguranje, dok istovremeno planiraju svoju finansijsku budućnost, kaže Džon Kerol, viši potpredsednik i šef odseka za osiguranje u kompaniji LIMRA. Na sreću kupaca životnog osiguranja, kovid nije doveo do povećanja cena oročenog životnog osiguranja. Indeks cena životnog osiguranja prema izveštajima kompanije „Policygenius“, nije pokazao značajne promene cena od januara 2021. Očekivanja potrošača su evoluirala, a osiguravajuće kuće će nastaviti da se prilagođavaju kako bi zadovoljile njihove potrebe i omogućile lakšu i efikasniju kupovinu, podršku i procese potraživanja, kaže Vejd Harison, viši potpredsednik „Protective“-a i direktor sektora za zaštitu. „Protective“ je jedna od najboljih kompanija za životno osiguranje prema *Forbes Advisor*-ovim ocenama životnih osiguravača.

Udeo žena koje su životno osigurane opadao je i pre pandemije, primećuje Kerol iz kompanije LIMRA. Danas je samo 47% žena osigurano, u poređenju sa 58% muškaraca. To predstavlja petu uzastopnu godinu opadanja broja žena koje su životno osigurane. Kerol kaže da je oko 14% žena (više od 18 miliona) izgubilo pokriće životnog osiguranja 2020. godine, a više od trećine (36%) reklo je da je to zbog neplaniranog gubitka posla. Mnoge žene su morale da napuste posao kako bi pomogle svoje porodice tokom pandemije. Morale su da promene svoje karijere da bi imale još veću ulogu u svom domaćinstvu, kaže Pančoli, a to ima ogromnu ekonomsku vrednost. Visoka cena kako bi se ostvarile usluge majke koja ostaje kod kuće stvara potrebu za životnim osiguranjem za ljude koji ne primaju plate. Percepcija da je životno osiguranje namenjeno isključivo hraniteljima porodice se menja i postoji tendencija ka prepoznavanju nematerijalne ekonomske vrednosti majki u domaćinstvu (kuvarica, spremačica, finansijska direktorka, šofer, savetnica, detektiv, sudija, domar, učiteljica, organizator dešavanja), kaže Pančoli.

Kako se „velika ostavka“ (*Great Resignation*) nastavlja i radnici dobrovoljno (i često srećno) napuštaju svoje poslove, potreba da ljudi obezbede životno osiguranje raste. Grupno (kolektivno) životno osiguranje preko zaposlenja uglavnom prestaje kada napustite posao. Vidimo da žene sve više napuštaju radna mesta kako bi pokrenule posao, postale nezavisne i operativne, i ostale kod kuće da vode svoja domaćinstva. Svaki od tih elemenata zahteva i doneće veću potražnju za životnim osiguranjem, zaključuje Pančoli.

(*Forbes Advisor*, decembar 2021, <https://www.forbes.com/advisor/life-insurance/2022-life-insurance-outlook>)

Prevela i priredila: **Tijana V. Đekić, dipl. filolog**

Nove knjige

Markus Keller, Andreas Buttler: Einführung in die betriebliche Altersversorgung. – Uvod u penzijsko osiguranje u preduzeću. Deseto izdanje „Uvoda u penzijsko osiguranje u preduzeću“ služi ekspertima i praktikantima i dalje kao pouzdan priručnik i pored svih ovih aktuelnih tema. Ova knjiga omogućuje „početnicima“ razumljiv i kompaktan pristup kompleksnoj materiji penzijskog osiguranja. Detaljno se diskutuje o novitetima od strane zakonodavaca, uprave i suda.

(*Versicherungswirtschaft*, mart 2022, str. 47)

Peter Doetsch, Arne Lenz: Versorgungszusagen an Gesellschaftler- Geschäftsführer und Vorstände. – Odobrenja za penzijsko osiguranje za upravne privrednih društava i direktore. Ovo standardno delo već preko 20 godina nudi jedan pouzdan pregled pravnog okvira uslova za penzijsko osiguranje direktora i upravnika privrednih društava.

(*Versicherungswirtschaft*, mart 2022, str. 47)

Hans-Peter Schwintowski, Christoph Brömmelmeyer, Martin Ebers: Praxiskommentar zum Versicherungsvertragsgesetz. – Komentar prakse o zakonu o ugovoru o osiguranju. Ovaj komentar pridaje poseban značaj praktičnim smernicama i predlozima koji se, između ostalog, odnose na advokate u osiguranju. Četvrto izdanje uzima u obzir aktuelnu jurisdikciju, kao i nove propise nastale kroz primenu obavezujućih smernica u osiguravajućoj delatnosti. Osim toga, obrađuju se aktuelni megatrendovi kao što su digitalizacija, veštačka inteligencija, kao i održivost prodaje u osiguranju, a takođe se predlažu i inovativna rešenja problema regulisanja i prodaje (npr. za kvotni sistem). Tim autora svojom kompetentnošću (univerzitet-ski profesori i advokati u osiguranju) garantuje kako naučnost tako i praktičnost i korisnost ovog komentara.

(*Versicherungswirtschaft*, januar 2022, str. 57)

Prevela i priredila: **Slađana D. Andrejić, master filologije**

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