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KOMPARATIVNA ANALIZA STABILNOSTI BANKARSKOG SEKTORA ZEMALJA ZAPADNOG BALKANA

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Rezime: Bankarski sektor predstavlja veoma važan segment finansijskog sistema nezavisno da li je reč o bankocentričnim ili tržišno orijentisanim finansijskim sistemima. Za zemlje Zapadnog Balkana, očuvanje stabilnosti bankarskog sektora je posebno značajan preduslov ostvarenja finansijske stabilnosti s obzirom na dominantnu ulogu bankarskog sektora u strukturi finansijskog sistema. Odsustvo stabilnosti bankarskog sektora može negativno uticati, ne samo na stabilnost finansijskog sektora, već i ekonomskog sistema u celini. Dodatno, obezbeđenje stabilnosti bankarskog sektora u privredama Zapadnog Balkana ima poseban značaj usled činjenice da je bankarski sektor ključni izvor finansiranja privrednih aktivnosti u ovim ekonomijama. Shodno navedenom, cilj istraživanja ogleda se u identifikovanju nivoa stabilnosti bankarskog sektora u zemljama Zapadnog Balkana. Rezultati istraživanja sugerišu da bankarski sektori posmatranih zemalja beleže zadovoljavajuće i u određenoj meri ujednačene nivoe finansijske stabilnosti.

Ključne reči : finansijska stabilnost, bankarski sektor, Zapadni Balkan

JEL klasifikacija: G21, G28, F36

Uvod

Globalni finansijski sistem se krajem XX i tokom prve decenije XXI veka suočio sa ozbiljnim izazovima. Azijska finansijska kriza iz 1997. godine pokazala je da je neophodno značajnu pažnju posvetiti kretanjima u finansijskom sektoru, s obzirom na ekonomske posledice koje mogu proisteći iz odsustva finansijske stabilnosti (Edwards, 2003; Arner i Taylor, 2009). Međutim, globalna finansijska kriza iz 2008. godine u velikoj meri je doprinela promeni pristupa u pogledu finansijske stabilnosti. Ključni uzrok ovih kriza bila su upravo dešavanja u finansijskom sektoru (Dugalić et al., 2021). Nakon globalne recesije iz 2008. godine, području finansijske stabilnosti se pristupa strateški i sistematično. Stabilnost finansijskog sektora se posmatra kao jedan od neizostavnih preduslova održivog rasta i razvoja ne samo u nacionalnim okvirima već i na globalnom nivou (Shirakawa, 2012; Ahulu et al., 2021). Po tom osnovu, razvijaju se sistemi za praćenje i upravljanje stabilnošću finansijskog sistema, pri čemu se posebno apostrofira važnost primene makroprudencijalnih mera u domenu monetarne politike (Borio, 2014; Grbić, 2022).

U cilju postizanja stabilnosti, kako nacionalnih finansijskih sistema, tako i globalnog finansijskog sistema u celini, Međunarodni monetarni fond dizajnirao je set indikatora finansijske stabilnosti, namenjene proceni i unapređenju finansijske stabilnosti na globalnom nivou. Kako bi se obezbedila harmonizovanost u postizanju finansijske stabilnosti na globalnom nivou, centralne banke nacionalnih ekonomija uskladile su svoje sisteme praćenja i upravljanja finansijskom stabilnošću sa standardima i smernicama Međunarodnog monetarnog fonda. Pritom, najveći deo ovih standarda usmeren je ka depozitnim institucijama odnosno bankarskom sektoru, pri čemu su obuhvaćeni i ostali delovi finansijskog sistema.

U zemljama Zapadnog Balkana bankarski sektor je najznačajniji segment finansijskog sistema (Muller-Jentsch, 2007; (Grbić i Luković, 2020). Nerazvijenost tržišta kapitala, političko i ekonomsko uređenje tokom druge polovine XX veka primarno su uticali da poslovne banke imaju dominantan položaj u odnosu na druge finansijske institucije (Dugalić i Štimac, 2014; Jakšić i Purić, 2014). Po tom osnovu postizanje stabilnosti bankarskog sektora je veoma značajno za ostvarenje finansijske stabilnosti u ovim ekonomijama. Analogno tome, predmet rada se bazira na ispitivanju stepena finansijske stabilnosti bankarskog sektora u zapadnobalkanskim ekonomijama. Cilj istraživanja je dvojak. Osnovni cilj istraživanja je da se ustanovi da li je u periodu od 2007. zaključno sa 2021. godinom došlo do pogoršanja, odnosno poboljšanja stabilnosti bankarskog sektora u posmatranim zemljama. Posredstvom izvedenog cilja istraživanja nastoji se utvrditi da li se bankarski sektor Srbije odlikovao višim ili nižim stepenom stabilnosti u poređenju sa ostalim ekonomijama Zapadnog Balkana.

Rad je strukturiran iz četiri dela. U prvom delu rada teorijski je razmatran koncept finansijske stabilnosti. U drugom delu rada prikazani su najznačajniji indikatori finansijske stabilnosti dizajnirani od strane Međunarodnog monetarnog fonda. Treći deo rada baziran je na analizi finansijske stabilnosti bankarskih sektora zemalja Zapadnog Balkana. Procena finansijske stabilnosti posmatranih finansijskih sistema vršena je posredstvom osnovnih indikatora finansijske stabilnosti, pri čemu je u analizu uključen i z score kao jedan od najznačajnijih i najčešće korišćenih pokazatelja. U četvrtom delu rada prikazana su zaključna razmatranja.

O finansijskoj stabilnosti

Postizanje stabilnosti finansijskog sistema veoma je važan preduslov za uspešno funkcionisanje nacionalne ekonomije (Creel et al., 2015; Jayakumar et al., 2018). Osvrtom na ulogu koju finansijski sistem ima u finansiranju privrednih aktivnosti može se istaći da stabilan finansijski sistem doprinosi rastu i razvoju nacionalne ekonomije, ali paralelno pozitivno utiče na stabilnost ekonomskog sistema jedne zemlje. Imajući u vidu međuzavisnost i kompleksne interakcije između različitih elemenata finansijskog sistema, kako međusobno, tako i sa realnim sektorom, finansijsku stabilnost je teško precizno definisati. Usled toga, ne postoji opšte prihvaćena definicija finansijske stabilnosti.

Sistem Federalnih rezervi (2023) ističe da je finansijski sistem stabilan kada banke, drugi zajmodavci i finansijska tržišta mogu da obezbede domaćinstva, zajednice i preduzeća finansijskim sredstvima koja su im potrebna da investiraju i participiraju u ekonomiji bilo kada ona dobro funkcioniše ili pak kada je suočena sa određenim poremećajima. Prema definiciji Evropske centralne banke (2022), finansijska stabilnost predstavlja stanje u kom je finansijski sistem sposoban da podnese prisustvo šokova i finansijskih neravnoteža. Svetska banka (2023) pod stabilnim finansijskim sistemom podrazumeva sistem koji je u stanju da efikasno alokira resurse, procenjuje i upravlja finansijskim rizicima, ali i koji doprinosi održavanju zaposlenosti blizu prirodnog nivoa i koji je sposoban da eliminiše nepovoljna kretanja koja mogu uticati na monetarnu stabilnost ili nivo zaposlenosti. Preciznije rečeno, finansijski sistem je stabilan kada je u mogućnosti da apsorbuje finansijske neravnoteže bilo da one nastaju endogeno ili pak kao rezultat značajnih nepovoljnih i nepredviđenih događaja. Po tom osnovu stabilan finansijski sistem posredstvom samokorektivnih mehanizama apsorbuje šokove sprečavajući da neželjeni događaji imaju nepovoljan uticaj na realnu ekonomiju. Shodno tome ističe se da je finansijska stabilnost od presudne važnosti za postizanje ekonomskog rasta s obzirom da se većina transakcija realnog sektora obavlja posredstvom finansijskog sistema.

Schinasi (2004) pod stabilnim finansijskim sistemom podrazumeva sistem koji je sposoban da:

- olakša i obezbedi efikasnu alokaciju ekonomskih resursa (prostorno i vremenski), ali i drugih ekonomskih procesa (poput akumulacije bogatstva, finansiranja ekonomskog rasta i obezbeđenja društvenog prosperiteta);
- proceni, kvantifikuje, alokira i upravlja finansijskim rizicima i
- zadrži svoju sposobnost da obavlja svoje ključne funkcije, čak i u slučaju kada je izložen dejstvu eksternih šokova ili finansijskih neravnoteža.

Slično prethodnim pojmovnim određenjima, Narodna banka Srbije (2023) pod finansijskom stabilnošću podrazumeva sposobnost čitavog finansijskog sistema (sačinjenog od finansijskih posrednika, finansijskih tržišta i finansijske infrastrukture) da efikasno alokira finansijske resurse i omogući ostvarenje ključnih makroekonomskih funkcija, kako u normalnim uslovima, tako i u uslovima finansijske neravnoteže ili potresa u domaćem i međunarodnom okruženju (Drvendžija, 2015). Tokom protekle decenije značajna pažnja posvećena je razvoju sistemskog pristupa regulaciji i superviziji finansijskog sistema u cilju očuvanja njegove stabilnosti. Razlozi tome ogledaju se ne samo u činjenici da finansijski sistem ima daleko veći uticaj na ekonomsku aktivnost nego što je to ranije isticano, već i usled visokih troškova finansijske krize i činjenice da očuvanje cenovne stabilnosti nije jedini dovoljan uslov za postizanje finansijske stabilnosti.

U sklopu pojmovnog određenja finansijske stabilnosti značajno je ukazati i na stanovište Fabrisa i Luburića (2023) koji ističu da je finansijski sistem stabilan u situacijama kada finansijske institucije dobro posluju, odnosno kada su u stanju da stanovništvu i privredi obezbede resurse i usluge neophodne za njihov rast i razvoj. U periodima finansijske nestabilnosti, kriza se veoma brzo može proširiti iz realnog u finansijski sektor, s obzirom da banke nisu u stanju da finansiraju profitabilne projekte i izvršavaju svoje obaveze. Navedeno se u krajnjoj instanci može negativno odraziti ne samo na stabilnost finansijskog sektora, već makroekonomsku stabilnost privrede u celini.

Izuzev nacionalnih okvira očuvanje finansijske stabilnosti značajno je i na globalnom nivou. Globalizacija finansijskog sistema i tesna povezanost među finansijskim institucijama na globalnom nivou uticala je da se nestabilnost jednog finansijskog sistema veoma brzo može preneti i na finansijske sektore ostalih zemalja (Acedanski i Karkowska, 2022). To je potvrdila ekonomska kriza iz 2008. godine, koja se najpre pojavila u finansijskom sektoru Sjedinjenih Američkih Država da bi se veoma brzo prenela na finansijske sisteme Velike Britanije, Irske i Islanda, a potom i na ostatak sveta. To praktično znači da se finansijska kriza veoma brzo i lako može preneti i na ekonomije sa stabilnim i zdravim finansijskim sistemima. U tom cilju, tokom poslednjih nekoliko godina sve su prisutnije inicijative za uspostavljanje odgovarajućih regulativa, pristupa i smernica za praćenje, upravljanje i očuvanje finansijske stabilnosti na međunarodnom nivou.

Indikatori finansijske stabilnosti

Značaj finansijske stabilnosti kao preduslova održivog ekonomskog rasta stvorio je potrebu za kvantifikovanjem i monitoringom finansijske stabilnosti. Azijska finansijska kriza iz 1997. godine, kao i globalna ekonomska kriza iz 2008. godine dodatno su potvrdile neophodnost postojanja indikatora za procenu stabilnosti finansijskih sistema. S obzirom na globalizaciju svetske privrede i činjenicu da se finansijska nestabilnost može veoma lako i brzo iz jednog finansijskog sistema preneti na druge, neophodno je bilo razviti globalni okvir za procenu i praćenje finansijske stabilnosti. U tu svrhu zvaničnici Međunarodnog monetarnog fonda su 2006. godine dizajnirali set indikatora za procenu finansijske stabilnosti, dok su u 2009., 2013. i 2019. godini vršene određene izmene i dopune prethodno navedenog seta indikatora (International Monetary Fund, 2019).

Prema smernicama Međunarodnog monetarnog fonda indikatori finansijske stabilnosti su podeljeni u dve grupe: osnovne i dopunske. Osnovni set indikatora obuhvata 12 pokazatelja i oni su prvenstveno usmereni na depozitne institucije. Revizijom Međunarodnog monetarnog fonda 2019. godine osnovni set indikatora je proširen na 18 pokazatelja i dodatnu dimenziju koja obuhvata kretanja na tržištu nekretnina. Posredstvom njih se posmatraju performanse depozitnih institucija u pogledu solventnosti (adekvatnosti kapitala) zatim likvidnosti, profitabilnosti, kvaliteta aktive i njihove osetljivosti na tržišni rizik što je prikazano u tabeli 1. Sa druge strane, drugu grupu indikatora finansijske stabilnosti čine dopunski, odnosno podsticajni indikatori. Ovaj set indikatora čini 28 pokazatelja pri čemu se najveći broj indikatora odnosi na depozitne institucije (13), zatim finansijske korporacije (2), nefinansijske korporacije (5), odnosno sektor domaćinstva (2), tržišnu likvidnost (2) i tržište nekretnina (4) (San Jose et al., 2008). Identično, kao i u pogledu osnovnog seta indikatora, revizijom iz 2019. godine broj pokazatelja u sklopu podsticajnog seta indikatora povećan je na 35.

Tabela 1. Osnovni indikatori finansijske stabilnosti za depozitne institucije

Kriterijum	Indikator
Adekvatnost kapitala	• Regulatorni kapital u odnosu na rizikom ponderisanu aktivu • Regulatorni osnovni kapital u odnosu na rizikom ponderisanu aktivu • Nenaplativi krediti umanjani za rezerve visanja za kapital

Kvalitet aktive	• Problematici krediti u odnosu na ukupne kredite • Sektorska distribucija kredita u odnosu na ukupne kredite
Profitabilnost	• Prinos na aktivu • Prinos na kapital • Kamatna marža na bruto prihod • Nekamatni rashodi prema bruto prihodima
Likvidnost	• Likvidna aktiva u odnosu na ukupnu aktivu • Likvidna aktiva u odnosu na kratkoročne obaveze
Osetljivost na tržišni rizik	• Neto otvorena devizna pozicija u odnosu na kapital

Izvor: Međunarodni monetarni fond (2019). Financial Soundness Indicators Compilation Guide. str. 2

Osnovni indikatori se smatraju vitalnim za analizu stabilnosti finansijskog sektora kroz evaluaciju finansijske stabilnosti depozitnih institucija posredstvom pet dimenzija. Osvrtom na tabelu 1 može se ustanoviti da se vrednosti prikazanih indikatora dobijaju na bazi osnovnih kategorija prikazanih u bilansu stanja odnosno bilansu uspeha. Indikatori bazirani na adekvatnosti kapitala procenjuju da li depozitne institucije poseduju dovoljno kapitala da apsorbuju potencijalne gubitke u odnosu na aktivu ponderisanu rizikom ili pak u odnosu na problematične kredite. Indikatori kvaliteta aktive prikazuju ranjivost depozitnih institucija od potencijalnih gubitaka koji mogu nastati po osnovu problematičnih kredita ili pak neadekvatne sektorske diversifikacije kreditnih plasmana. Indikatori profitabilnosti procenjuju efikasnost depozitnih institucija u pogledu korišćenja svoje aktive i kapitala u pogledu sposobnosti generisanja dodatnih prihoda i minimiziranja određenih kategorija troškova. U pogledu dimenzije likvidnosti procenjuje se sposobnost depozitnih institucija da zadovolje iznenadnu tražnju za likvidnom aktivom. Poslednja, ali ne i manje bitna dimenzija finansijske stabilnosti odnosi se na procenu osetljivosti depozitnih institucija na tržišne rizike. Suština indikatora osetljivosti na tržišni rizik je da prikažu u kojoj meri su depozitne institucije sposobne da posredstvom kapitala ublaže negativne promene koje mogu proisteci usled volatilnosti deviznog kursa (Asian Development Bank, 2015).

U cilju praćenja finansijske stabilnosti na globalnom nivou, centralne banke nacionalnih ekonomija dostavljaju izveštaje Međunarodnom monetarnom fondu o finansijskoj stabilnosti njihovih finansijskih sistema. Pomenutim izveštajima je prvenstveno obuhvaćen set osnovnih indikatora, pri čemu se podaci distribuiraju u različitim dinamikama (mesečno ili kvartalno). Kada je reč o dopunskim, odnosno o podsticajnim indikatorima, nacionalne ekonomije nisu u obavezi da dostavljaju Međunarodnom monetarnom fondu podatke koji se odnose na ovu grupu indikatora. Međutim, dostavljanje pomenute grupe indikatora se preporučuje kako bi se dobili što adekvatniji zaključci u pogledu stabilnosti njihovih finansijskih sistema.

Dodatno, treba istaći da značajan broj centralnih banaka publikuje izveštaje o stabilnosti finansijskog sistema, čija je metodologija usklađena sa smernicama Međunarodnog monetarnog fonda.

Navedeno je karakteristično za zemlje Zapadnog Balkana, čije centralne banke redovno, u različitim dinamikama publikuju izveštaje o stabilnosti finansijskog sistema. S obzirom na karakteristike njihovih finansijskih sistema, izveštajima o stabilnosti finansijskog sistema primarno je obuhvaćen bankarski sektor, pri čemu se posmatraju i ostali segmenti i učesnici finansijskog sistema, u cilju dobijanja što objektivnijih zaključaka o stabilnosti finansijskog sistema.

Analiza stabilnosti bankarskog sektora zemalja Zapadnog Balkana

Finansijski sistemi zemalja Zapadnog Balkana odlikuju se izraženom bankocentričnošću. Usled toga, stabilnost bankarskog sektora ima veoma značajnu ulogu u ostvarenju stabilnosti njihovih finansijskih sistema. U sklopu praćenja rezultata sprovedenih mera usmerenih ka očuvanju finansijske stabilnosti, centralne banke posmatranih zemalja publikuju godišnje izveštaje o stabilnosti bankarskog sektora koji predstavljaju dominantan izvor podataka korišćenih u radu. Pored toga, u radu su korišćeni podaci sa sajta Međunarodnog monetarnog fonda, prvenstveno za inicijalne godine posmatranog vremenskog intervala.

Adekvatnost kapitala i kvalitet aktive

Adekvatnost kapitala predstavlja jedan od preduslova stabilnosti bankarskog sektora. Adekvatna kapitalizovanost bankarskog sektora ujedno svedoči o njegovoj zadovoljavajućoj solventnosti i većoj otpornosti na iznenadne poremećaje (Todorović, 2003; Alihodžić i Nadžaković, 2022). Procena kapitalizovanosti bankarskog sektora najčešće se vrši posredstvom dva indikatora; adekvatnosti ukupnog i adekvatnosti osnovnog kapitala (Zelenović i Vunjak, 2014). Adekvatnost (ukupnog) kapitala predstavlja odnos između ukupnog kapitala bankarskog sektora i rizikom ponderisane aktive. Prema standardima Bazelskog komiteta za bankarsku superviziju, regulatorni minimum adekvatnosti kapitala iznosi 8% u odnosu na rizikom ponderisanu aktivu. Pritom, nacionalne supervizorske institucije mogu propisati i strožije standarde adekvatnosti kapitala. Primera radi, u Republici Srbiji do 2017. godine regulatorni zahtevi u pogledu adekvatnosti kapitala iznosili su 12% u odnosu na rizikom ponderisanu aktivu (Narodna banka Srbije, 2019). Sa druge strane, indikator adekvatnosti osnovnog kapitala predstavlja odnos između osnovnog kapitala i rizikom ponderisane aktive. Regulatorni minimum ovog indikatora adekvatnosti kapitala propisan od strane Bazelskog komiteta iznosi 6%.

Tabela 2. Adekvatnost kapitala, period 2007-2021. godine, (u %)

Godina	Srbija	Crna Gora	BiH	Albanija	Severna Makedonija
2007.	23,3	17,1	17,1	17,1	17,0
2008.	21,9	15,0	16,3	17,2	16,2
2009.	21,4	15,8	16,1	16,2	16,4
2010.	19,9	15,9	16,2	15,4	16,1
2011.	19,1	16,5	17,1	15,6	16,8

2012.	19,9	14,7	17,0	16,2	17,1
2013.	20,9	14,4	17,8	19,1	16,8
2014.	20,0	16,2	16,3	17,7	15,7
2015.	20,9	15,5	14,9	15,8	15,5
2016.	21,8	16,1	15,8	16,0	15,2
2017.	22,6	16,4	15,7	16,6	15,7
2018.	22,3	15,6	17,5	18,7	16,5
2019.	23,4	17,7	18,0	18,7	16,3
2020.	22,4	18,5	19,2	18,7	16,7
2021.	20,8	18,5	19,6	18,0	17,3

Izvor: Izveštaji o finansijskoj stabilnosti koje publikuju centralne banke posmatranih zemalja;

Medjunarodni monetarni fond (2023)

Posmatrajući adekvatnost kapitala bankarskih sektora zemalja Zapadnog Balkana u periodu od 2007. zaključno sa 2021. godinom na bazi tabele 2, može se ustanoviti da su bankarski sistemi posmatranih ekonomija adekvatno kapitalizovani. Tokom svih godina posmatranog perioda vrednost adekvatnosti kapitala je znatno premašivala regulatorne minimume od 8%. Takođe, ono što se dodatno može primetiti je da većina posmatranih bankarskih sektora beleži povećanje vrednosti stope adekvatnosti kapitala u odnosu na početak posmatranog perioda. Izuzetak predstavlja jedino bankarski sektor Srbije u kome je nivo adekvatnosti kapitala bio niži na kraju 2021. u odnosu na 2007. godinu. Među posmatranim ekonomijama, u periodu 2007-2021. godina, bankarski sektor Srbije beležio je najviše vrednosti adekvatnosti kapitala, dok je bankarski sektor Severne Makedonije bio manje kapitalizovan u odnosu na bankarske sektore ostalih zapadno balkanskih ekonomija.

Slične tendencije se mogu primetiti i u pogledu adekvatnosti osnovnog kapitala, prikazanoj u tabeli 3. Adekvatnost osnovnog kapitala u svim posmatranim bankarskim sektorima bila je znatno iznad regulatornih zahteva Bazelskog komiteta (6%). Takođe, kao i u pogledu adekvatnosti ukupnog kapitala, prisutan je trend povećanja nivoa adekvatnosti osnovnog kapitala. Tako, na kraju posmatranog perioda nivo adekvatnosti osnovnog kapitala bio je za 6,1 p.p. viši u Bosni i Hercegovini, odnosno 2,5 p.p. u Crnoj Gori i 2.3 p.p. u Albaniji. Pritom, bankarski sektori Srbije i Severne Makedonije beleže nešto sporije nivoe rasta stope adekvatnosti osnovnog kapitala, pri čemu se može primetiti da bankarski sektor Srbije beleži nešto više nivoe u poređenju sa ostalim posmatranim bankarskim sektorima.

Tabela 3. Adekvatnost osnovnog kapitala, period 2007-2021. godina, (u %)

Godina	Srbija	Crna Gora	BiH	Albanija	Severna Makedonija
2007.	n.p.	14,9	12,6	n.p.	15,7
2008.	17,9	15,1	12,0	n.p.	14,0
2009.	16,5	13,5	12,4	n.p.	13,8
2010.	15,9	12,9	12,6	14,6	13,4

2011.	18,1	14,0	13,6	14,4	14,1
2012.	19,0	12,9	14,1	14,6	14,5
2013.	19,3	13,0	15,2	14,8	14,4
2014.	17,6	14,4	14,3	13,8	13,7
2015.	18,8	14,2	13,8	13,5	13,9
2016.	20,0	14,8	15,0	13,8	13,9
2017.	21,6	15,0	14,8	15,1	14,2
2018.	21,1	14,4	16,5	17,0	15,0
2019.	22,4	18,1	17,5	17,1	14,8
2020.	21,6	17,4	18,1	17,2	15,3
2021.	19,7	17,4	18,7	16,9	15,8

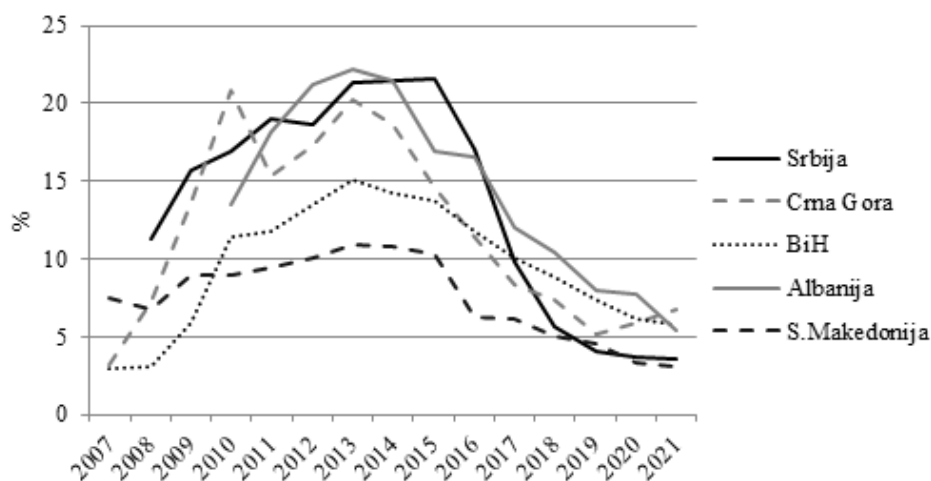
Izvor: Izveštaji o finansijskoj stabilnosti koje publikuju centralne banke posmatranih zemalja;

Medjunarodni monetarni fond (2023)

Kvalitet aktive predstavlja još jedan veoma značajan indikator stabilnosti bankarskog sektora, budući da viši kvalitet aktive bankarskog sektora pozitivno utiče na njegovu finansijsku stabilnost. Za procenu kvaliteta aktive najčešće se koristi učešće problematičnih kredita u ukupnim kreditima. Pokazatelj učešća problematičnih kredita u ukupnim kreditima predstavlja bitnu meru kvaliteta aktive, s obzirom na to da krediti predstavljaju dominantan udeo ukupne bilansne aktive posmatranih bankarskih sektora (Tmava et al., 2018). Problematicni krediti predstavljaju stanje duga plasmana koji su u docnji preko 90 dana ili sa docnjom ispod 90 dana, ukoliko banka proceni da je kreditna sposobnost dužnika toliko ugrožena, da se otplata duga u celosti, dovodi u pitanje (International Monetary Fund, 2005).

Na slici 1 prikazano je učešće problematičnih kredita u ukupnim kreditima u bankarskim sektorima zemalja Zapadnog Balkana. Ono što se može primetiti da je u posmatranim sektorima zabeleženo značajno smanjenje nivoa problematičnih kredita u odnosu na početak posmatranog perioda. U periodu od 2009. zaključno sa 2016. godinom učešće problematičnih kredita u ukupnim kreditima je u većini posmatranih bankarskih sektora bilo dvocifreno, nakon čega dolazi do kontinuiranog smanjenja njihovog učešća. Navedeno se može objasniti činjenicom da su neke od centralnih banaka posmatranih ekonomija usvojile systemske pristupe za reduciranje obima problematičnih kredita imajući u vidu posledice koje mogu nastati po stabilnost bankarskog sistema. Tako, sredinom 2015. godine u Albaniji je kreiran Akcioni plan za smanjenje obima problematičnih kredita (Bank of Albania, 2015). Narodna banka Srbije je krajem 2012. godine izvršila izmene regulative, kako bi obezbedila uslove za smanjenje problematičnih kredita u bankarskom sektoru Srbije. Eliminirana su određena ograničenja koja se odnose na prenos potraživanja od pravnih lica (Stakić, 2014). Strateški korak u upravljanju problematičnim kreditima učinjen je u avgustu 2015. godine usvajanjem Strategije za rešavanje problematičnih kredita (Narodna Banka Srbije, 2021a).

Slika 1. Učešće problematičnih kredita u ukupnim kreditima, period 2007-2021. godina, (u %)



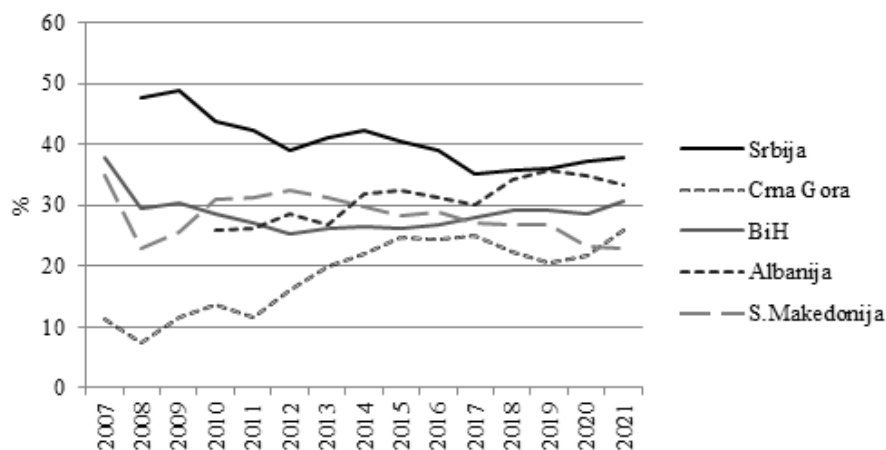
Izvor: Izveštaji o finansijskoj stabilnosti koje publikuju centralne banke posmatranih zemalja;
Medjunarodni monetarni fond (2023)

Na kraju 2021. godine najniži udeo problematičnih kredita u ukupnim kreditima zabeležen je u bankarskim sektorima Severne Makedonije i Srbije, dok je njihov udeo najviši u bankarskom sektoru Crne Gore. Međutim, ono što je svakako pozitivno je da je u posmatranom periodu zabeleženo smanjenje udela problematičnih kredita, kao i da su oni na kraju perioda na relativno niskom nivou. Na taj način se smanjuje mogućnost da problematični krediti budu uzrok krize u bankarskim sektorima zemalja Zapadnog Balkana, što je veoma važno kako za stabilnost finansijskog sistema, tako i za uspešno funkcionisanje ovih ekonomija s obzirom na važnu ulogu bankarskog sektora kao primarnog izvora finansiranja ekonomskog rasta (Erić et al., 2012).

Likvidnost

Još jedna bitna determinanta stabilnosti bankarskog sektora i finansijskog sistema u celini je likvidnost. Za procenu likvidnosti postoji čitav niz indikatora među kojima se najčešće koriste indikator ukupne likvidnosti (odnos likvidne i ukupne aktive), a zatim odnos između likvidne aktive i kratkoročnih obaveza. Pored ovih širih pokazatelja likvidnosti, postoje i indikatori užje likvidnosti koji se iskazuju kao odnos između likvidne aktive u užem smislu i ukupne aktive, odnosno likvidne aktive u užem smislu i kratkoročnih obaveza (Narodna banka Srbije, 2021b).

Slika 2. Indikator ukupne likvidnosti, period 2007-2021. godine, (u %)



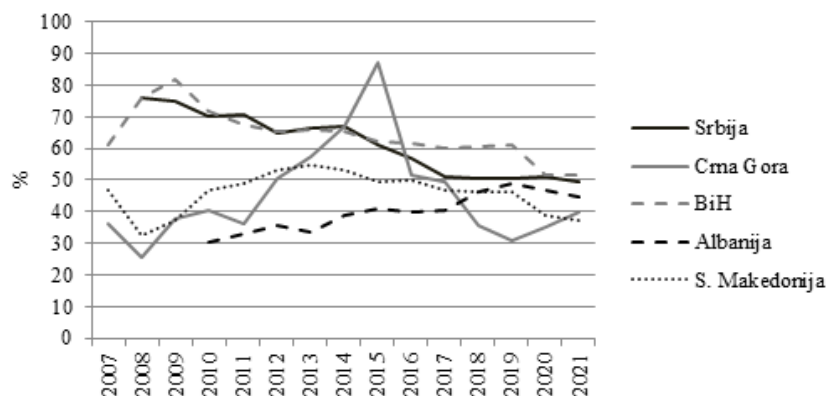
Izvor: Izveštaji o finansijskoj stabilnosti koje publikuju centralne banke posmatranih zemalja;

Medjunarodni monetarni fond (2023)

Posmatrajući vrednosti indikatora ukupne likvidnosti za bankarske sektore zemalja Zapadnog Balkana, prikazane na slici 2, može se ustanoviti da bankarski sektor Srbije od 2008. godine beleži više nivoa likvidnosti u poređenju sa bankarskim sektorima ostalih zemalja Zapadnog Balkana. Pritom, može se primetiti da bankarski sektori Crne Gore i Albanije beleže poboljšanje likvidnosti u odnosu na početak posmatranog perioda. Sa druge strane, u bankarskim sektorima Srbije, Bosne i Hercegovine i Severne Makedonije ostvareno je blago pogoršanje indikatora ukupne likvidnosti na kraju, u odnosu na početak posmatranog perioda.

Slični zaključci u pogledu likvidnosti bankarskih sektora zemalja Zapadnog Balkana mogu se proizvesti ukoliko se likvidnost posmatra kao odnos između likvidne aktive i kratkoročnih obaveza (slika 3). Posmatrajući od 2008. godine, bankarski sektor Srbije je beležio najbolje performanse u pogledu likvidnosti, da bi od 2015. godine bankarski sektori Crne Gore odnosno Bosne i Hercegovine beležili nešto više nivoa likvidnosti. Na kraju u odnosu na početak posmatranog perioda poboljšanje likvidnosti beleže bankarski sektori Crne Gore i Albanije, dok bankarski sistemi preostalih zemalja Zapadnog Balkana beleže pogoršanje vrednosti ovog indikatora.

Slika 3. Likvidnost u odnosu na kratkoročne obaveze, period 2007-2021. godina, (u %)



Izvor: Izveštaji o finansijskoj stabilnosti koje publikuju centralne banke posmatranih zemalja;

Medjunarodni monetarni fond (2023)

Profitabilnost

Profitabilnost bankarskog sektora je takođe značajna determinanta njegove stabilnosti. U ekonomskoj literaturi postoji polarizacija mišljenja u pogledu uticaja profitabilnosti na finansijsku stabilnost. Novija istraživanja ne baziraju se isključivo na analizi uticaja profitabilnosti na stabilnost banaka i bankarskog sektora, već je u fokusu istraživanja ispitivanje međuzavisnosti između ovih pojmova, odnosno u kojoj meri stabilnost banaka doprinosi njihovoj profitabilnosti. Tan i Ancor (2016) su ispitali međuzavisnost profitabilnosti i finansijske stabilnosti kineskih komercijalnih banaka u periodu od 2002., zaključno sa 2013. godinom. Rezultati istraživanja sugerišu da veći rizik od nesolventnosti, odnosno manja stabilnost dovodi do povećanja profitabilnosti kineskih komercijalnih banaka. Sa druge strane, veća profitabilnost banaka smanjuje otpornost banaka na potencijalne šokove i negativno utiče na njihovu stabilnost. Nguyen i Le (2022) su posmatrali međuzavisnost odnosa između stabilnosti banke, profitabilnosti i rasta kredita u jugoistočnoj Aziji u periodu između 2006. i 2017. godine. Njihovi nalazi sugerišu da banke koje posluju stabilno beleže veću profitabilnost i manji rast kredita. Sa druge strane, rast kreditiranja pozitivno utiče na profitabilnost banke, ali ispoljavanju negativne efekte na finansijsku stabilnost, dok profitabilnost pozitivno utiče na finansijsku stabilnost i na rast kredita.

Natalya i saradnici (2015) takođe u svom istraživanju sugerišu da profitabilnost nepovoljno utiče na profitabilnost banaka ističući da visoka profitabilnost dovodi od većeg preuzimanja rizika i potencijalne nestabilnosti banaka. Značajne implikacije o pogledu uticaja profitabilnosti na finansijsku stabilnost pruža istraživanje Meiselmanna i saradnika (2020) koje ukazuje da visoki nivoi profitabilnosti u „dobrim“ vremenima mogu biti indikator povećanog sistemskog rizika u periodima kriza i nestabilnosti, posebno ukoliko se visoki nivoi profita ostvaruju iz nekamatonskih prihoda. Niz istraživanja u novijem periodu upravo ukazuje da povećanje izvora profita iz nekamatonskih izvora pozitivno utiče na profitabilnost banaka, ali se pretežno negativno odražava na njihovu finansijsku stabilnost. Tako, Kohler (2013) ispitujući uticaj nekamatonskih prihoda na finansijsku stabilnost banaka u nemačkom bankarskom sektoru ističe da ovaj uticaj zavisi od poslovnog modela banke. Kod banaka usmerenih ka poslovanju sa stanovništvom povećanje nekamatonskih prihoda pozitivno utiče na njihovu stabilnost. Sa druge strane investicione banke postaju znatno manje stabilne sa porastom nekamatonskih prihoda. Antao i Karnik (2022) su takođe ustanovili da porast nekamatonskih prihoda ne čini poslovne banke stabilnijim. Navedeno je posebno bilo izraženo tokom globalne finansijske krize iz 2008. godine, pri čemu je nivo nekamatonskih prihoda beležio pad nakon krize, što sugeriše da je u ovom periodu došlo do povećanja finansijske stabilnosti. U tom kontekstu u pogledu razumevanja implikacija profitabilnosti na finansijsku stabilnost značajno je adekvatno posmatrati izvore profitabilnosti banaka, posebno u onim bankarskim sistemima gde se profitabilnost banaka značajno bazira na nekamatonsnim prihodima (Teng Teng et al., 2019).

Tabela 4. Stopa prinosa na aktivu (ROA), period 2007-2021. godina, (u %)

Godina	Srbija	Crna Gora	BiH	Albanija	Severna Makedonija
2007.	1,7	0,8	0,8	2,0	1,8
2008.	2,1	-0,5	0,5	1,7	1,4
2009.	1,0	-0,6	0,1	1,2	0,6
2010.	1,1	-2,7	-0,5	1,2	0,8
2011.	0,0	-0,06	0,8	1,0	0,4
2012.	0,4	-1,9	0,7	0,6	0,6
2013.	-0,1	0,1	-0,07	0,6	0,8
2014.	0,1	0,8	0,8	0,9	1,0
2015.	0,3	-0,08	0,3	0,7	1,6
2016.	0,7	0,2	1,1	1,0	2,1
2017.	2,1	0,9	1,5	1,1	2,5
2018.	2,2	0,6	1,3	0,9	2,2
2019.	1,8	1,2	1,4	1,2	1,9
2020.	1,1	0,5	0,8	1,3	1,3
2021.	1,2	0,8	1,3	1,3	1,5

Izvor: Izveštaji o finansijskoj stabilnosti koje publikuju centralne banke posmatranih zemalja;

Medjunarodni monetarni fond (2023)

Za analizu profitabilnosti bankarskih sektora zemalja Zapadnog Balkana korišćeni su tradicionalni indikatori za merenje profitabilnosti; stopa prinosa na aktivu (ROA) i stopa prinosa na kapital (ROE). Posmatrajući stopu prinosa na aktivu, u inicijalnim godinama posmatranog perioda bankarski sektori Crne Gore i Bosne i Hercegovine su beležili nešto slabije vrednosti ovog indikatora u odnosu na bankarske sektore ostalih zemalja Zapadnog Balkana. Ono što se može takođe ustanoviti je da su izuzev bankarskog sektora Bosne i Hercegovine i Crne Gore bankarski sektori ostalih zapadno balkanskih ekonomija zabeležili blago smanjenje vrednosti stope prinosa na aktivu na kraju u odnosu na početak posmatranog perioda. Kao što se iz tabele 4 može zaključiti najvišu vrednost stope prinosa na aktivu u posmatranom periodu beleži bankarski sektor Severne Makedonije, dok je najnižu vrednost pomenutog indikatora ima bankarski sektor Crne Gore.

Slični zaključci u pogledu profitabilnosti bankarskih sektora zemalja Zapadnog Balkana mogu se proizvesti ukoliko se posmatra stopa prinosa na kapital (ROE) prikazana u tabeli 5. Izuzev bankarskog sektora Bosne i Hercegovine, ostali posmatrani bankarski sektori zabeležili su smanjenje vrednosti stope prinosa na kapital, pri čemu je najveće povećanje vrednosti stope prinosa na kapital zabeleženo u bankarskom sektoru Albanije.

U poređenju sa ostalim bankarskim sektorima, bankarski sektori Albanije i Severne Makedonije su beležili više nivoe stope prinosa na kapital, tako da je na kraju 2021. godine najvišu stopu prinosa na kapital imao bankarski sektor Albanije, a najnižu bankarski sistem Crne Gore.

Tabela 5. Stopa prinosa na kapital (ROE), period 2007-2021. godine, (u %)

Godina	Srbija	Crna Gora	BiH	Albanija	Severna Makedonija
2007.	8,5	7,1	8,6	20,7	15,2
2008.	9,0	-7,4	3,9	11,4	12,5
2009.	4,6	-7,5	0,8	4,6	5,6
2010.	5,3	-25,8	-5,5	7,6	7,3
2011.	0,2	-1,1	5,5	0,8	3,4
2012.	2,0	-19,4	4,3	3,8	3,8
2013.	-0,4	0,5	-1,2	6,4	5,7
2014.	0,6	5,6	4,4	10,5	7,4
2015.	1,5	-0,9	0,9	13,2	10,4
2016.	3,3	1,2	6,2	7,2	13,6
2017.	10,5	6,9	9,0	15,7	13,5
2018.	11,3	4,9	8,5	13,0	13,5
2019.	9,8	9,1	9,1	13,5	16,0
2020.	6,5	3,7	5,6	10,7	11,7
2021.	7,8	5,6	9,6	12,9	11,3

Izvor: Izveštaji o finansijskoj stabilnosti koje publikuju centralne banke posmatranih zemalja;

Medjunarodni monetarni fond (2023)

Na bazi prikazanih podataka može se zaključiti da je većina bankarskih sektora posmatranih ekonomija beležila zadovoljavajuću profitabilnost. Izuzetak može predstavljati bankarski sektor Crne Gore koji je u nekoliko navrata tokom posmatranog perioda beležio negativne vrednosti ključnih indikatora profitabilnosti. Međutim, za donošenje relevantnijih zaključaka o uticaju profitabilnosti na stabilnost bankarskih sektora posmatranih ekonomija neophodno je dodatno posmatrati strukturu ključnih izvora profitabilnosti prevashodno u pogledu učešća nekamatonosnih prihoda. Imajući u vidu činjenicu da se poslovne banke u analiziranim bankarskim sektorima pretežno bave depozitno-kreditnim poslovima može se očekivati da nekamatonosni prihodi imaju manje učešće u strukturi ukupnih prihoda. Po tom osnovu porast profitabilnosti bankarskog sektora ne mora nužno nepovoljno uticati na njegovu stabilnost u slučaju zemalja Zapadnog Balkana.

Z score

Izuzev indikatora za procenu finansijske stabilnosti formulisanih od strane Međunarodnog monetarnog fonda postoje i drugi indikatori za procenu stepena finansijske stabilnosti. Među njima posebno treba izdvojiti z score. U ekonomskoj literaturi postoji mnoštvo istraživanja koja su procenu stabilnosti finansijskih institucija vršili posredstvom z scora (Kasman i Kasman, 2015; Barra i Zotti, 2018). Najveći broj istraživanja je posredstvom z scora procenjivao stabilnost bankarskog sektora (Demirgüç-Kunt et al., 2008; Čihák i Hesse, 2008; Lepetit i Strobel, 2015; Hafeez et al., 2022) pri čemu se posredstvom z scora može posmatrati i finansijska stabilnost ostalih finansijskih institucija (Moreno et al., 2020). Nezavisno od brojnosti istraživanja i tipa finansijskih institucija čija se stabilnost procenjuje, suština z scora ogleda se u činjenici da je njegova vrednost u inverznom odnosu sa verovatnoćom nastupanja nesolventnosti. Preciznije rečeno, viša vrednost z scora implicira manju verovatnoću nastupanja problema nesolventnosti (Sysoyeva, 2020). Kao ključni nedostatak z scora ističe se činjenica da se on bazira na računovodstvenim podacima, tako da neretko može pružiti manje objektivne zaključke o stabilnosti bankarskog sektora (Grbić, 2019).

Tabela 6. Z score, period 2007-2021. godine

Godina	Srbija	Crna Gora	BiH	Albanija	Severna Makedonija
2007.	15,2	5,3	12,4	15,6	11,5
2008.	16,5	5,3	13	19,2	11,1
2009.	13,9	7,6	13,5	20,2	9,9
2010.	12,8	4,1	14,1	21	9,4
2011.	13,8	7,3	17,9	22,2	9,2
2012.	13,6	6,4	18,8	22,3	9,6
2013.	13,3	9,3	17,8	22,1	10
2014.	13,2	10,4	18,7	22,2	9,9
2015.	14,3	8,8	18	22,1	10,2
2016.	13,3	8,9	18,5	23,8	10,6
2017.	14,4	9,2	19	21,7	11,1
2018.	13,3	9,3	17,1	20	11,1
2019.	12,6	10	16,8	20,6	11,2
2020.	11,1	9,4	15,3	20,2	11,3
2021.	10,3	8,9	15,3	19,1	9,5

Izvor: Global Economy (2023). Banking system Z scores.

Polazeći od činjenice da viša vrednost z scora implicira manju verovatnoću od nesolventnosti, odnosno veću stabilnost bankarskog sektora, na bazi prikazanih podataka u tabeli 6 može se ustanoviti da je bankarski sektor Albanije beležio najviše vrednosti finansijske stabilnosti tokom čitavog posmatranog perioda. Bankarski sektori Srbije i Severne Makedonije su u inicijalnim godinama posmatranog perioda beležili nešto više vrednosti z scora, pri čemu od 2010. godine bankarski sektor Bosne i Hercegovine beleži više vrednosti z scora. Ono što se takođe može primetiti je da većina posmatranih bankarskih sistema zabeležila povećanje vrednosti z scora na kraju u odnosu na početak posmatranog perioda. Izuzetak predstavljaju bankarski sektori Severne Makedonije i Srbije, pri čemu je bankarski sektor Srbije ostvario najveće smanjenje z scora u posmatranom periodu.

ZAKLJUČAK

Bankarski sektor je najznačajniji segment finansijskog sistema zemalja Zapadnog Balkana. Poslovne banke imaju dominantnu ulogu u strukturi aktive i kapitala finansijskog sektora, tako da stabilnost bankarskog sektora predstavlja jednu od najvažnijih determinanti uspostavljanja finansijske stabilnosti. Posmatrajući bankarske sektore zemalja Zapadnog Balkana može se ustanoviti da se oni odlikuju približno identičnim karakteristikama. Poslovne banke se dominantno bave depozitno-kreditnim poslovima i ujedno su najznačajniji izvor finansiranja ekonomskog rasta. Pored toga bankarski sektori posmatranih ekonomija odlikuju se zadovoljavajućom kapitalizovanošću, kako u pogledu adekvatnosti ukupnog, tako i u pogledu adekvatnosti osnovnog kapitala. Dodatno, analizirani bankarski sektori imaju relativno nisko učešće problematičnih kredita, zadovoljavajuću likvidnost, uz određene razlike u pogledu profitabilnosti.

Rezultati istraživanja sugerišu da bankarski sektori zemalja Zapadnog Balkana beleže zadovoljavajuće nivoe finansijske stabilnosti. Adekvatnost ukupnog i osnovnog kapitala je iznad regulatornih zahteva Bazelskog komiteta, što ukazuje da su posmatrani bankarski sektori u mogućnosti da apsorbuju potencijalne gubitke. Međutim, ono što se može primetiti je da je na kraju u odnosu na početak posmatranog perioda došlo do blagog pogoršanja solventnosti u svim posmatranim bankarskim sektorima (izuzev Albanije), dok u pogledu adekvatnosti osnovnog kapitala poboljšanje beleže bankarski sektori Srbije i Albanije. Takođe u posmatranom periodu svi bankarski sistemi beleže poboljšanje kvaliteta aktive s obzirom da je udeo problematičnih kredita u ukupnim kreditima bio niži u svim posmatranim ekonomijama izuzev Crne Gore. Kada je reč o likvidnosti, poboljšanje likvidnosti u posmatranom periodu ostvarili su bankarski sektori Crne Gore i Albanije, dok je u ostalim ekonomijama došlo do blagog pogoršanja pozicije likvidnosti. Posmatrajući profitabilnost, niže vrednosti stope prinosa na aktivu u odnosu na početak posmatranog perioda zabeležio je bankarski sektor Albanije, dok su u pogledu stope prinosa na kapital pogoršanje zabeležili bankarski sektori Crne Gore i Albanije. Na kraju, posmatrajući stabilnost bankarskog sektora posredstvom vrednosti z scora, može se zaključiti da većina posmatranih zemalja beleži povećanje vrednosti ovog indikatora izuzev Crne Gore i Severne Makedonije.

Bankarski sektor Srbije u poređenju sa ostalim bankarskim sektorima beleži nešto više nivoe adekvatnosti kapitala i likvidnosti. Međutim, učešće problematičnih kredita u ukupnim kreditima je značajno smanjeno, ali je nešto više u poređenju sa bankarskim sektorom Severne Makedonije. Kada je reč o profitabilnosti, bankarski sektor Srbije beleži više nivoe profitabilnosti jedino od bankarskog sektora Crne Gore, pri čemu je nivo stope prinosa na aktivu i stope prinosa na kapital niži u poređenju sa bankarskim sektorima ostalih posmatranih ekonomija. Na kraju, u pogledu vrednosti z scora, bankarski sektori Albanije i Bosne i Hercegovine

Uprkos formulisanju relevantnih zaključaka, istraživanje poseduje i određena ograničenja. Primarno ograničenje istraživanja ogleda se u relativno kratkom periodu posmatranja usled nedostupnosti podataka za raniji period (posebno u slučaju Srbije, Crne Gore i Albanije). Takođe, istraživanjem je obuhvaćeno pet zemalja, tako da bi se sveobuhvatniji zaključci o stepenu finansijske stabilnosti mogli dobiti proširenjem uzorka na ostale evropske ekonomije (zemlje članice Evropske unije) ili pak druge uporedive zemlje u razvoju, što može predstavljati dobru osnovu za buduća istraživanja.

Na kraju treba istaći da rezultati istraživanja pružaju značajne implikacije koje mogu biti od koristi nacionalnim supervizorima, ali i menadžmentu banaka u posmatranim ekonomijama. Prikazani rezultati mogu pomoći supervizorskim institucijama da identifikuju oblasti u kojima je moguće sprovesti određena poboljšanja, što bi se pozitivno odrazilo ne samo na performanse bankarskog sektora već i na stabilnost finansijskog sistema. Sa druge strane, rezultati istraživanja pružaju objektivne informacije menadžmentu banaka koje posluju u posmatranim regionima najpre da sagledaju njihove performanse, kako u odnosu na domaći bankarski sektor, tako i iz regionalne perspektive, što u krajnjoj instanci može doprineti unapređenju poslovnih performansi i stepena finansijske stabilnosti.

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COMPARATIVE ANALYSIS OF THE BANKING SECTOR STABILITY IN THE WESTERN BALKAN COUNTRIES

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Abstract: The banking sector is an important segment of the financial system, regardless of whether it is a bank-based or market-based system. In Western Balkan countries, preserving the banking sector's stability remains a particularly important condition for achieving financial stability, considering the dominant role of the banking sector in the financial system. The absence of stability in the banking sector can negatively affect not only the stability of the financial sector, but also the economic system as a whole. Additionally, ensuring the stability of the banking sector in the Western Balkan economies is of particular importance due to the fact that the banking sector is a key source of financing economic activities in these economies. Accordingly, the aim of the research is to identify the level of stability of the banking sector in the Western Balkan countries. The research results suggest that the banking sectors of the observed countries report satisfactory and relatively uniform levels of financial stability.

Key words : Financial stability, Banking sector, Western Balkans

JEL classification: G21, G28, F36

Introduction

The global financial system faced serious challenges at the end of the 20th and during the first decade of the 21st century. The 1997 Asian financial crisis showed that it is necessary to pay increased attention to the financial sector disruptions, considering the economic consequences that may arise from the absence of financial stability (Edwards, 2003; Arner & Taylor, 2009). However, the 2008 financial crisis greatly contributed to a change in approach to financial stability analysis. The primary causes of the aforementioned crises were the financial sector turmoils (Dugalić et al., 2021). After the 2008 global recession, the financial stability has been approached in a strategic and systematic manner. The financial sector stability has been seen as one of the crucial prerequisites for sustainable economic growth and development not only in national frameworks but also at the global level (Shirakawa, 2012; Ahulu et al., 2021). Based on this, frameworks for monitoring and managing the stability of the financial system were being developed, with the importance of applying macroprudential measures of monetary policy being emphasized in particular (Borio, 2014; Grbić, 2022).

In order to measure and assess the stability of national systems and the global financial system as a whole, the International Monetary Fund designed a set of financial stability indicators, intended to improve financial stability at the global level. In order to ensure harmonization in achieving global financial stability, central banks across the world have harmonized their systems of monitoring and managing financial stability with the standards and guidelines provided by the International Monetary Fund. The largest part of these standards is aimed at depository institutions (banking sector), but other segments of the financial system are also covered.

In the Western Balkan countries, the banking sector is the most important segment of the financial system (Muller-Jentsch, 2007; Grbić & Luković, 2020). Capital market underdevelopment, political and economic system shaping during the second half of the 20th century primarily influenced commercial banks to have a dominant position compared to other financial institutions (Dugalić & Štimac, 2014; Jakšić & Purić, 2014). Therefore, achieving the stability of the banking sector is crucial for the overall financial system stability in these economies. Analogously, the subject of the paper is the examination of the level of banking sector stability in the Western Balkan economies. The primary goal of the research is to assess whether deterioration or improvement has been recorded in the level of stability of banking sectors in the observed countries during the 2007-2021 period (Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, and Serbia). Also, an attempt is made to determine whether the banking sector of Serbia was characterized by a higher or lower degree of stability compared to other Western Balkans countries.

The paper consists of four parts. In the first part, the theoretical considerations regarding the financial stability concept are given. The second part of the paper introduces the most significant indicators of financial stability designed by the International Monetary Fund. In the third part, an analysis of the banking sector stability levels in the Western Balkan countries is provided. The assessment of the financial stability levels was conducted by means of the basic financial stability indicators, with the inclusion of the z score as one of the most frequently used indicators. The fourth part of the paper provides the concluding remarks.

About Financial Stability

Achieving financial system stability is an important condition for the successful functioning of the national economy (Creel et al., 2015; Jayakumar et al., 2018). By looking at the role that the financial system plays in financing economic activities, it can be pointed out that a stable financial system contributes to the growth and development of the national economy, but at the same time positively affects the stability of the national economic system. Bearing in mind the interdependence and complex interactions between different elements of the financial system, the task of providing the precise financial stability definition is challenging. As a result, there is no generally accepted definition of financial stability.

The Federal Reserve System (2022) emphasizes that the financial system is stable when banks, other lenders, and financial markets can provide households, communities, and business entities with the financial resources they need to invest and participate in the economy, even in the case when it is facing disruptions. European Central Bank (2022) defines financial stability as a state in which the financial system is able to withstand the presence of shocks and financial imbalances. World Bank (2023) defines a stable financial system as a system fitted to efficiently allocate resources, assess, and manage financial risks, but also to contribute to maintaining employment close to the economy's natural rate. Additionally, a stable financial system is able to eliminate adverse financial asset price movements that may affect monetary stability or the level of employment. More precisely, the financial system is stable when it is able to absorb financial imbalances, whether they arise endogenously or as a result of unanticipated exogenous shocks. Encompassing all the approaches, it can be concluded that a stable financial system is able to absorb shocks through self-correcting mechanisms, preventing adverse events from having an unfavorable impact on the real economy.

Schinasi (2004) defines stable financial system as a system capable of:

- facilitating and ensuring efficient use of economic resources (spatially and temporally), but also other economic processes (such as accumulation of wealth, economic growth financing and social prosperity);
- assessing, quantifying, allocating and managing financial risks;
- maintaining the ability to perform even when exposed to external shocks or financial imbalances.

Similar to previous definitions, the National Bank of Serbia (2023) defines financial stability as the ability of the entire financial system (financial intermediaries, financial markets and financial infrastructure) to efficiently allocate financial resources and enable the realization of key macroeconomic functions, both in normal conditions and in conditions of financial imbalance or turmoils in the domestic and international markets. During the past decade, the development of a systemic approach to the regulation and supervision of the financial system in order to preserve its stability has received significant attention. The explanation can be found not only in the fact that the financial system has a far greater influence on economic activity than was previously emphasized, but also in the high costs of the financial crisis and the fact that price stability preservation is not a sufficient condition for achieving financial stability (Drvendžija, 2015).

In discussing the financial stability conceptual definition, it is important to point out the view of Fabris and Luburić (2023), who state that the financial system is stable in situations where financial institutions operate well, i.e., they are able to provide households and companies with the resources and services necessary for their growth and development. In periods of financial instability, the crisis can spread quickly from the real sector to the financial sector since banks are unable to finance profitable projects and fulfill their duties. Eventually, the aforementioned can have a negative impact not only on the financial sector's stability, but also on the macroeconomic stability of the national economy as well.

Apart from the national frameworks, the preservation of financial stability is also important on a global level. The financial system's globalization and the financial institutions' global interconnectedness has influenced that the instability of one country's financial system can very quickly be transferred to the financial sectors of other countries (Acedanski & Karkowska, 2022). This was confirmed by the Economic crisis of 2008, which first erupted in the US financial sector but then quickly spread to the financial systems of Great Britain, Ireland and Iceland, and then to the rest of the world. Practically, this means that the financial crisis can very quickly and easily be transferred to economies with previously stable and healthy financial systems. For that reason, over the last few years more and more global initiatives have been endorsed to establish appropriate regulations, approaches, and guidelines for monitoring, managing and preserving financial stability at the international level.

Indicators of Financial Stability

The importance of financial stability, as a necessary condition for sustainable economic growth, created the need for its quantification and monitoring. The 1997 Asian financial crisis, as well as the global financial crisis of 2008, additionally confirmed the demand for indicators to measure the financial system's stability. Given the rising globalization trends and the fact that financial instability is very easily and quickly transferred from one financial system to another, it was necessary to develop a global framework for assessing and monitoring financial stability. For this purpose, in 2006, the officials of the International Monetary Fund designed a set of indicators for assessing financial stability, while in 2009, 2013 and 2019, improvements and additions were made to the aforementioned set of indicators (International Monetary Fund, 2019).

According to the guidelines of the International Monetary Fund (2019), financial stability indicators are divided into two groups: basic and supplementary. The basic set of indicators includes 12 indicators primarily aimed at depository institutions. With the revision of the International Monetary Fund guidelines in 2019, the basic set of indicators was expanded with new indicators to a level of 18 indicators and the additional dimension of the developments in the real estate market. By using indicators, the performance and progress of depository institutions can be monitored in terms of solvency (adequacy of capital), liquidity, profitability, quality of assets and their sensitivity to market risk, as shown in Table 1.

On the other hand, the second group of financial stability indicators consists of supplementary or incentive indicators. This set of indicators consists of 28 indicators, with the largest number of indicators referring to depository institutions (13), followed by financial corporations (2), non-financial corporations (5), households (2), market liquidity (2) and the real estate market (4) (San Jose et al., 2008). As was the case with the basic indicators set, the number of supplementary indicators was increased to 35 in 2019 revision.

Table 1. Basic Financial Stability Indicators for Depository Institutions

Criteria	Indicator
Capital adequacy	•Regulatory capital to risk-weighted assets •Regulatory (Tier 1) capital to risk-weighted assets •Nonperforming loans net of provisions to capital

Asset quality	• Nonperforming loans to total loans • Loan concentration by economic activity
Profitability	• Return on assets (ROA) • Return on capital (ROE) • Interest margin to gross income • Noninterest expenses to gross income
Liquidity	• Liquid assets to total assets • Liquid assets to short term liabilities
Market risk sensitivity	• Net open position in foreign exchange to capital

Source: International Monetary Fund (2019). Financial Soundness Indicators Compilation Guide. p. 2

Basic indicators are crucial for the financial sector stability analysis, since they encompass five dimensions of depository institutions' financial stability. By looking at Table 1, it can be pointed out that the calculation of indicator values is conducted by using the data from the balance sheet and the income statement. Capital adequacy indicators assess whether depository institutions have enough capital to absorb potential losses stemming from risk-weighted assets or problem loans. Asset quality indicators show the vulnerability of depository institutions against potential losses that may arise from problem loans or inadequate sectoral allocation of bank loans. Profitability indicators measure the efficiency of depository institutions in using their assets and capital to generate additional income or minimize costs. Regarding liquidity dimension, the ability of depository institutions to satisfy an unexpected demand for liquid assets is measured. The last, but not the least important dimension of financial stability refers to the assessment of the sensitivity of depository institutions to market risks. The key goal of market risk sensitivity indicators is to show the extent to which depository institutions are capable of mitigating adverse movements that may arise from exchange rate fluctuations, for example (Asian Development Bank, 2015).

As a way to monitor global financial stability, central banks across the world regularly submit reports concerning national financial system stability to the International Monetary Fund. These reports primarily cover a set of basic indicators, whereby the data are distributed in different dynamics (monthly or quarterly). When it comes to supplementary indicators, central banks are not obliged to submit data related to this group of indicators. However, calculation and public disclosure of these indicators is recommended as a way to adequately assess the stability of the national financial systems all over the world. In addition, it should be noted that a significant number of central banks provide self-initiated financial stability reports, with the methodology fully aligned with the guidelines of the International Monetary Fund.

This is the case with Western Balkan countries, since central banks of the observed countries publish financial stability reports on a regular basis, but with different frequencies. Considering the bank-based nature of financial systems in these countries, financial stability reports primarily cover the banking sector, but other financial system segments and participants are also included to derive the most objective conclusions about the financial stability levels.

Analysis of the Stability of the Banking Sector of Western Balkan Countries

The financial systems of Western Balkan countries are characterized by their distinct bank-based nature. As a result, the stability of the banking sector plays an important role in achieving overall financial stability. As part of monitoring the results of implemented measures aimed at preserving financial stability, the central banks of the observed countries publish annual banking sector stability reports, which provide the source of data used in the analysis. In addition, data from the official website of the International Monetary Fund were used, primarily for the initial years of the observed time interval.

Capital Adequacy and Asset Quality

Capital adequacy is one of the prerequisites for the banking sector's stability. Adequate capitalization of the banking sector also supports the satisfactory solvency and greater robustness in coping with unexpected disruptions (Todorović, 2003; Alihodžić & Nadžaković, 2022). The banking sector's capitalization is most often assessed by the calculation of two indicators: the total capital adequacy and the core capital adequacy (Zelenović & Vunjak, 2014). Adequacy of total capital is measured as the ratio of total banking sector's capital to risk-weighted assets. According to the Basel Committee for Banking Supervision standards, the regulatory minimum of capital adequacy is 8% of risk-weighted assets. At the same time, national regulatory authorities can prescribe even stricter capital adequacy standards. For example, regulatory requirements for capital adequacy amounted to 12% of risk-weighted assets in Serbia until 2017 (National Bank of Serbia, 2019). The core capital adequacy indicator is calculated as a ratio of core (Tier 1) capital to risk-weighted assets. The regulatory minimum for this capital adequacy indicator is 6%, as prescribed by the Basel Committee.

Table 2. Regulatory Capital to Risk-Weighted Assets, 2007-2021 (in %)

Year	Serbia	Montenegro	Bosnia and Herzegovina	Albania	North Macedonia
2007	23.3	17.1	17.1	17.1	17.0
2008	21.9	15.0	16.3	17.2	16.2
2009	21.4	15.8	16.1	16.2	16.4
2010	19.9	15.9	16.2	15.4	16.1
2011	19.1	16.5	17.1	15.6	16.8

2012	19.9	14.7	17.0	16.2	17.1
2013	20.9	14.4	17.8	19.1	16.8
2014	20.0	16.2	16.3	17.7	15.7
2015	20.9	15.5	14.9	15.8	15.5
2016	21.8	16.1	15.8	16.0	15.2
2017	22.6	16.4	15.7	16.6	15.7
2018	22.3	15.6	17.5	18.7	16.5
2019	23.4	17.7	18.0	18.7	16.3
2020	22.4	18.5	19.2	18.7	16.7
2021	20.8	18.5	19.6	18.0	17.3

Annual Financial Stability Reports published by Central Banks of the observed countries;

International Monetary Fund (2023)

By observing the capital adequacy of the banking sectors in the Western Balkan countries in 2007-2021 period (Table 2), it can be concluded that all national banking systems are adequately capitalized. During the entire period, the capital adequacy indicator significantly exceeded the regulatory minimum of 8%. Also, what can be additionally noticed is that the majority of the observed banking sectors recorded an increase in capital adequacy rate during the observed period. The only exception is the Serbian banking sector, where the level of capital adequacy was lower at the end of 2021 compared to 2007. In 2007-2021 period, the Serbian banking sector recorded the highest values of capital adequacy (23.4% in 2019), while the banking sector of North Macedonia recorded the lowest level of regulatory capital adequacy (15.2% in 2016).

Similar tendencies can be observed in the adequacy of the core capital, as shown in Table 3. The adequacy of Tier 1 (core) capital in all observed banking sectors was significantly above the regulatory requirements prescribed by the Basel Committee (6%). As well as with regard to the adequacy of the total capital, an increasing trend in the adequacy of core capital is evident. Thus, at the end of the observed period, the level of core capital adequacy was by 6.1 p.p. higher in Bosnia and Herzegovina, 2.5 p.p. in Montenegro and 2.3 p.p. in Albania. In the observed period, the Serbian banking sector recorded the highest levels of the core capital adequacy (22.4% in 2019).

Table 3. Tier 1 (core) Capital Adequacy, 2007-2021 Period, (in %)

Year	Serbia	Montenegro	Bosnia and Herzegovina	Albania	North Macedonia
2007	n.p.	14.9	12.6	-	15.7
2008	17.9	15.1	12.0	-	14.0
2009	16.5	13.5	12.4	-	13.8
2010	15.9	12.9	12.6	14.6	13.4

2011	18.1	14.0	13.6	14.4	14.1
2012	19.0	12.9	14.1	14.6	14.5
2013	19.3	13.0	15.2	14.8	14.4
2014	17.6	14.4	14.3	13.8	13.7
2015	18.8	14.2	13.8	13.5	13.9
2016	20.0	14.8	15.0	13.8	13.9
2017	21.6	15.0	14.8	15.1	14.2
2018	21.1	14.4	16.5	17.0	15.0
2019	22.4	18.1	17.5	17.1	14.8
2020	21.6	17.4	18.1	17.2	15.3
2021	19.7	17.4	18.7	16.9	15.8

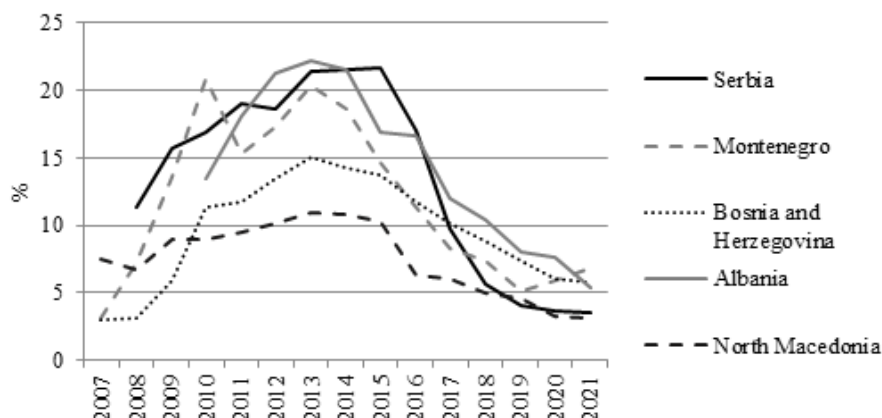
Annual Financial Stability Reports published by Central Banks of the observed countries;

International Monetary Fund (2023)

The quality of assets is an important indicator of the banking sector stability, since the higher quality of assets creates a positive effect on financial stability. The share of problem loans in total loans is most often used to assess the quality of assets. The indicator of the share of non-performing loans in total loans is an important measure of asset quality, since loans account for a dominant share in total assets of the observed banking sectors (Tmava et al., 2018). Problem loans are loans where payments of interest and/or principal are past due by 90 days or more, or if the bank assesses that the debtor's creditworthiness is so threatened that the full repayment of the debt is called into question (International Monetary Fund, 2005).

Figure 1 shows the share of non-performing loans in total loans in the banking sectors of Western Balkan countries. What can be noticed is that a significant decrease in the share of problem loans was recorded during the observed period. Between 2009 and 2016, the share of non-performing loans in total loans was in double digits in most of the observed banking sectors, after which there was a continuous decrease in their share. The above can be explained by the fact that some of the central banks have adopted systemic approaches to reduce the volume of problem loans, bearing in mind the consequences that may arise for the banking stability system. Thus, in the middle of 2015, an Action Plan for reducing the volume of problem loans was implemented in Albania (Bank of Albania, 2015). At the end of 2012, the National Bank of Serbia amended the regulations in order to ensure the conditions for reducing problem loans in the banking sector of Serbia. Certain restrictions related to the transfer of claims from legal entities have been eliminated (Stakić, 2014). A strategic step in the management of problem loans was made in August 2015 with the adoption of the Strategy for Solving Problem Loans (National Bank of Serbia, 2021a).

Figure 1. Share of Non-Performing Loans in Total Loans, 2007-2021



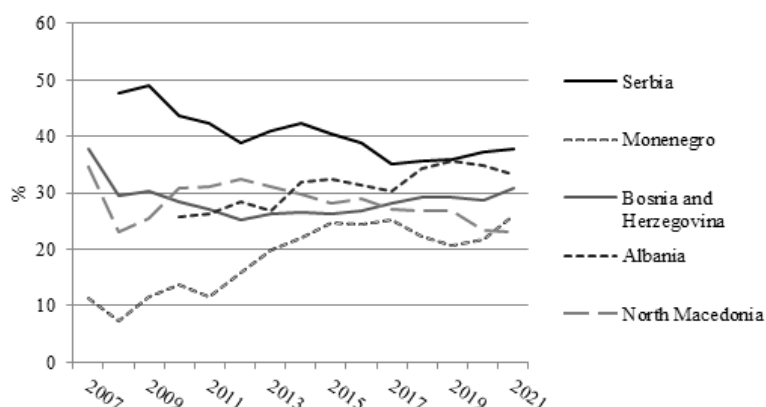
Source: Annual Financial Stability Reports published by Central Banks of the observed countries;
International Monetary Fund (2023)

At the end of 2021, the lowest share of problem loans in total loans was recorded in the banking sectors of North Macedonia and Serbia, while their share was the highest in the banking sector of Montenegro (Figure 1). However, what is certainly positive is that in the observed period a decrease in the share of problem loans was recorded in all countries, making it relatively low at the end of the period. In this way, the possibility of problem loans being the cause of crisis in the Western Balkan countries' banking sectors is reduced, which is very important for both the stability of the financial system and successful functioning of these economies, given the important role of the banking sector as the primary source of financing economic growth (Erić et al., 2012).

Liquidity

Another important determinant of the banking sector stability is liquidity. To assess liquidity, there is a whole series of indicators, among which the indicator of total liquidity (the ratio of liquid to total assets) is most often used, followed by liquid assets to short-term liabilities indicator. In addition to these broad liquidity indicators, there are narrow liquidity indicators expressed as the ratio between narrow liquid assets and total assets, and liquid assets in the narrow sense and short-term liabilities (National Bank of Serbia, 2021b)

Figure 2. Total Liquidity Indicator, 2007-2021.

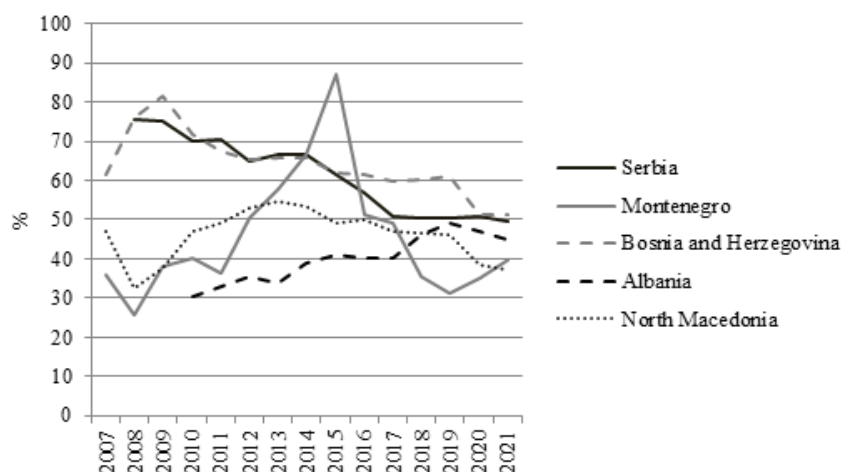


Source: Annual Financial Stability Reports published by Central Banks of the observed countries;
International Monetary Fund (2023)

By observing the total liquidity indicator values for Western Balkan countries banking sectors shown in Figure 2, it can be concluded that since 2008, the Serbian banking sector has recorded higher levels of liquidity compared to the other Western Balkan countries. At the same time, it can be noted that the banking sectors of Montenegro and Albania recorded an improvement in liquidity during the observed period. On the other hand, in the banking sectors of Serbia, Bosnia and Herzegovina and North Macedonia, a slight deterioration of the total liquidity indicator has occurred during the observed period.

Similar conclusions regarding the liquidity of the Western Balkan countries' banking sectors can be drawn if liquidity is viewed as the ratio of liquid assets to short-term liabilities (Figure 3). In 2007-2014 subperiod, the banking sectors of Serbia and Bosnia and Herzegovina recorded the highest values of narrow liquidity indicator. In 2015, the Montenegrin banking sector reported the peak value of approximately 87%. In the rest of the period, the Bosnian banking sector has recorded the highest levels of liquidity. The banking sectors of Montenegro and Albania recorded an improvement in liquidity during the observed period, while the banking systems of the remaining countries recorded deterioration.

Figure 3. Ratio of Liquid Assets to Short Term Liabilities, 2007-2021



Source: Annual Financial Stability Reports published by Central Banks of the observed countries; International Monetary Fund (2023)

Profitability

The banking sector's profitability is also a significant determinant of its stability. In economic literature, an opinion polarization exists regarding the impact of profitability on financial stability. Newer research is not focused exclusively on the analysis of the impact of profitability on banking sector stability, but rather on examining the interdependence between these concepts, that is, to what extent the sector stability contributes to profitability. Tan and Ancor (2016) examined the interdependence of profitability and financial stability of Chinese commercial banks in 2002-2013. The results of the research suggest that a higher risk of insolvency, or lower stability, led to an increase in the profitability of Chinese commercial banks. On the other hand, higher profitability of banks reduces banks' resistance to potential shocks and negatively affects their stability. Nguyen and Le (2022) looked at the interdependence of the relationships between bank stability, profitability, and credit growth in Southeast Asia between 2006 and 2017. Their findings suggest that stable banks recorded higher profitability and lower loan growth.

On the other hand, credit growth has a positive effect on the bank's profitability, but has a negative effect on financial stability, while profitability has a positive effect on financial stability and loan growth. Natalya et al. (2015) also suggest that profitability adversely affects the profitability of banks, pointing out that high profitability leads to greater risk-taking and potential bank instability.

Significant implications regarding the impact of profitability on financial stability are provided by the research of Meiselman et al. (2020), which indicates that high levels of profitability in "good" times can be an indicator of increased systemic risk in periods of crisis and instability, especially if high levels of profit are realized from non-interest-bearing income. A number of research in the recent period indicates that the increase in the profits stemming from non-interest-bearing sources has a positive effect on the profitability of banks but has a predominantly negative impact on their financial stability. Thus, Kohler (2013), examining the impact of non-interest-bearing income on the financial stability of banks in the German banking sector, points out that this impact depends on the bank's business model. In the case of banks focused on retail operations, the increase in non-interest-bearing income has a positive effect on their stability. On the other hand, investment banks become significantly less stable with the increase in non-interest income. Antao and Karnik (2022) also found that an increase in non-interest income does not make commercial banks more stable. The above was especially evident during the Global financial crisis of 2008, where the level of non-interest-bearing income recorded a decline after the crisis, which suggests that there was an increase in financial stability during this period. In this context, in terms of understanding the implications of profitability on financial stability, it is important to adequately observe the sources of bank profitability, especially in those banking systems where bank profitability is significantly based on non-interest income (Teng Teng et al., 2019).

Table 4. Return on assets (ROA), 2007-2021, (in %)

Year	Serbia	Montenegro	Bosnia and Herzegovina	Albania	North Macedonia
2007	1.7	0.8	0.8	2.0	1.8
2008	2.1	-0.5	0.5	1.7	1.4
2009	1.0	-0.6	0.1	1.2	0.6
2010	1.1	-2.7	-0.5	1.2	0.8
2011	0.0	-0.06	0.8	1.0	0.4
2012	0.4	-1.9	0.7	0.6	0.6
2013	-0.1	0.1	-0.07	0.6	0.8
2014	0.1	0.8	0.8	0.9	1.0
2015	0.3	-0.08	0.3	0.7	1.6
2016	0.7	0.2	1.1	1.0	2.1
2017	2.1	0.9	1.5	1.1	2.5
2018	2.2	0.6	1.3	0.9	2.2
2019	1.8	1.2	1.4	1.2	1.9
2020	1.1	0.5	0.8	1.3	1.3
2021	1.2	0.8	1.3	1.3	1.5

Source: Annual Financial Stability Reports published by Central Banks of the observed countries;

International Monetary Fund (2023)

Traditional indicators for measuring profitability were used to analyze the profitability of the banking sectors of the Western Balkan countries; rate of return on assets (ROA) and rate of return on equity (ROE). By observing the rate of return on assets, it can be said that in the initial years of the observed period, the banking sectors of Montenegro and Bosnia and Herzegovina recorded slightly lower values compared to the banking sectors of other countries (Table 4). With the exception of the banking sectors of Bosnia and Herzegovina and Montenegro, the banking sectors of the other Western Balkan countries recorded a slight decrease in the value of ROA. The highest value of ROA in the observed period was recorded in North Macedonia (2.5% in 2017), while the lowest value was recorded in Montenegro (-2.7 in 2010).

Similar conclusions regarding the profitability of the Western Balkan countries' banking sectors can be made, if the rate of return on equity (ROE) is observed (Table 5). With the exception of the banking sector of Bosnia and Herzegovina, the other banking sectors recorded a decrease in the value of the rate of return on capital, whereby the largest increase has been recorded in the Albanian banking sector. Compared to other banking sectors, the banking sectors of Albania and North Macedonia recorded higher rates of ROE. At the end of 2021, the banking sector of Albania recorded the highest value of ROE (12.9%), while Montenegro recorded the lowest (5.6%).

Table 5. Return on equity (ROE), 2007-2021, (in %)

Year	Serbia	Montenegro	Bosnia and Herzegovina	Albania	North Macedonia
2007	8.5	7.1	8.6	20.7	15.2
2008	9.0	-7.4	3.9	11.4	12.5
2009	4.6	-7.5	0.8	4.6	5.6
2010	5.3	-25.8	-5.5	7.6	7.3
2011	0.2	-1.1	5.5	0.8	3.4
2012	2.0	-19.4	4.3	3.8	3.8
2013	-0.4	0.5	-1.2	6.4	5.7
2014	0.6	5.6	4.4	10.5	7.4
2015	1.5	-0.9	0.9	13.2	10.4
2016	3.3	1.2	6.2	7.2	13.6
2017	10.5	6.9	9.0	15.7	13.5
2018	11.3	4.9	8.5	13.0	13.5
2019	9.8	9.1	9.1	13.5	16.0
2020	6.5	3.7	5.6	10.7	11.7
2021	7.8	5.6	9.6	12.9	11.3

Source: Annual Financial Stability Reports published by Central Banks of the observed countries;
International Monetary Fund (2023)

On the basis of IMF financial soundness indicators values, it can be concluded that the banking sectors of the Western Balkan countries recorded satisfactory profitability in the observed period. An exception may be the banking sector of Montenegro, which recorded negative values of key profitability indicators on several occasions during the observed period. However, in order to make more relevant conclusions about the impact of profitability on the stability of the banking sectors of the observed economies, it is necessary to additionally observe the structure of the key sources of profitability, primarily with regard to the share of non-interest-bearing income. Bearing in mind the fact that commercial banks in the observed banking sectors are predominantly engaged in deposit-loan operations, it can be expected that non-interest-bearing income has a smaller share in the structure of total income. On this basis, the increase in the profitability of the banking sector does not necessarily have an adverse effect on its stability in the case of the countries of the Western Balkans.

Z score

Apart from the IMF financial soundness indicators, there are other indicators for assessing the financial stability levels. Among them, the z score should be singled out. In the economic literature, there are many studies that assessed the stability of financial institutions using the z score (Kasman & Kasman 2015; Barra & Zotti, 2018). Many studies assessed the stability of the banking sector by measuring z score (Demirgüç-Kunt et al., 2008; Cihak & Hesse, 2010; Lepetit & Strobel, 2015; Hafeez et al., 2022), but some researchers measured the financial stability of other financial institutions (Moreno et al., 2020). Regardless of the number of studies and the type of financial institutions whose stability is assessed, the essence of z score is reflected in the fact that its value is inversely related to the probability of insolvency. More precisely, a higher value of z score implies a lower probability of insolvency problems (Sysoyeva, 2020). The key disadvantage of z score lies in the fact that it is based on accounting data, so it can often provide fewer objective conclusions about the stability of the banking sector (Grbić, 2019).

Table 6. Z Score, 2007-2021

Godina	Srbija	Crna Gora	BiH	Albanija	Severna Makedonija
2007	15.2	5.3	12.4	15.6	11.5
2008	16.5	5.3	13	19.2	11.1
2009	13.9	7.6	13.5	20.2	9.9
2010	12.8	4.1	14.1	21	9.4
2011	13.8	7.3	17.9	22.2	9.2
2012	13.6	6.4	18.8	22.3	9.6
2013	13.3	9.3	17.8	22.1	10
2014	13.2	10.4	18.7	22.2	9.9
2015	14.3	8.8	18	22.1	10.2
2016	13.3	8.9	18.5	23.8	10.6

2017.	14.4	9.2	19	21.7	11.1
2018.	13.3	9.3	17.1	20	11.1
2019.	12.6	10	16.8	20.6	11.2
2020.	11.1	9.4	15.3	20.2	11.3
2021.	10.3	8.9	15.3	19.1	9.5

Source: Global Economy (2023). Banking system Z scores.

CONCLUSION

The banking sector is the most important segment of the Western Balkan countries' financial systems. Commercial banks have a dominant role in the structure of assets and capital of the financial sector, so the stability of the banking sector is one of the most important determinants of overall financial stability. The analysis of the banking sectors of the Western Balkan countries has shown that they have almost identical characteristics. Commercial banks are dominantly engaged in deposit-loan operations and are also the most important source of financing economic growth. In addition, the observed banking sectors are characterized by satisfactory capitalization both in terms of the adequacy of the total and in terms of the adequacy of the core capital. Additionally, the analyzed banking sectors have a relatively low share of problem loans, satisfactory liquidity, with certain variations regarding profitability.

The research results suggest that Western Balkan countries' banking sectors record satisfactory financial stability levels. The adequacy of total and core capital is above the regulatory requirements of the Basel Committee, which indicates that the observed banking sectors are able to absorb potential losses. However, what can be noticed is that in the observed period there was a slight deterioration of solvency in all the observed banking sectors, except Albania, while in the case of the core capital adequacy, the banking sectors of Serbia and Albania recorded an improvement. Also, in the observed period, all banking systems recorded an improvement in the quality of assets, since the share of problem loans in total loans was lower in all observed economies, except for Montenegro. When it comes to liquidity, the improvement of liquidity in the observed period occurred in Montenegro and Albania, while in other economies there was a slight liquidity deterioration. Regarding profitability, the decrease in the rate of return was recorded in the Albanian banking sector, while the banking sectors of Montenegro and Albania recorded a decrease in the rate of return on equity. Finally, looking at the stability of the banking sector by means of z score points out that most of the observed countries record an increase in stability, except for Montenegro and North Macedonia.

The Serbian banking sector records slightly higher levels of capital adequacy and liquidity compared to other banking sectors. However, the share of problem loans in total loans has significantly decreased in the observed period but is slightly higher compared to the banking sector of North Macedonia. When it comes to profitability, the Serbian banking sector records lower levels of rate of return on assets and rate of return on equity compared to all the other countries, except Montenegro. Finally, regarding z score values, only banking sectors of Albania and Bosnia and Herzegovina recorded slightly higher values compared to the Serbian banking sector.

Despite formulating relevant conclusions, the research has certain limitations. The primary limitation of the research is reflected in the relatively short observation period due to the unavailability of data for an earlier period (especially in the case of Serbia, Montenegro and Albania). Also, the research included five countries, so more comprehensive conclusions about the degree of financial stability could be obtained by expanding the sample to other European economies (EU member countries) or other developing countries, which can represent a good basis for future research.

In the end, it should be pointed out that the results of the analysis provide significant implications that can be useful to national supervisors, but also to the bank managers in the observed economies. The presented results can help supervisory institutions to identify areas where certain improvements can be implemented, which would have a positive impact not only on the performance of the banking sector but also on the stability of the financial system. On the other hand, the results of the research provide objective information to bank managers to assess their performance both in relation to the domestic banking sector and from a regional perspective, which in the last instance can contribute to the improvement of business performance and the degree of financial stability.

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