

ISSN 1840-2313 (Print) ISSN 2566-333X (Online) UDK 33



Министарство за научнотехнолошки развој,  
високо образовање и информационо друштво

*Ministry for Scientific and Technological Development,  
Higher Education and Information Society*



Универзитет  
у Источном Сарајеву

*University  
of East Sarajevo*



Факултет пословне економије  
Бијељина

*Faculty of Business Economics  
Bijeljina*

# Нови Економист

часопис за економску теорију и праксу

Вол 14(1), Година XIV, број 27, јануар - јун 2020.

# Novi Ekonomist

Journal of Economic Theory and Practice

Vol 14(1), Year XIV, Issue 27, january - june 2020.

Бијељина / Bijeljina 2020.

## Издавач

Универзитет у Источном Сарајеву  
Факултет пословне економије Бијељина

### Назив издања:

Нови Економист  
часопис за економску теорију и праксу

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Техничка реализација:  
ВАЊА ЂУРИЋ

Тираж: 300

Штампа: Еурографика Зворник

### Претплата:

За правна лица: 100 KM (11 ком)  
За физичка лица: 10 KM (1 ком)

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У финансирању часописа учествује  
Министарство за научнотехнолошки развој, високо образовање  
и информационо друштво.

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<b>Novi Ekonomist is published semiannually (two issues per year).</b> <b>The journal is partly funded by the</b> <b>Ministry for Scientific and Technological Development, Higher Education</b> <b>and Information Society</b>	

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## UPRAVLJANJE PROMENAMA U BANKARSKOJ INDUSTRIFI POD UTICAJEM PANDEMIJE COVID 19

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*Članak je izlagan na VIII Internacionalnom naučnom skupu „EkonBiz: Upravljanje promjenama u uslovima globalizacije“, Bijeljina 18. i 19. jun 2020. godine*

**Apstrakt:** Uspešnost neke promene valorizuje se novim stanjem, a da li će do njega doći zavisi od više uticajnih faktora: okoline, upravljanja, znanja, volje za promenom, otpora promenama, preduzetničkog duha, motivacije, rizika. Upravljanje promenama i donošenje ispravnih odluka je mnogo lakše kada je poznat put koji se nalazi ispred menadžera. U nepredviđenim situacijama, poput pandemije na globalnom nivou Covid 19, dolazi do izražaja spremnost banaka da momentalno odgovore na postavljene izazove i upravljaju promenama koje prete da ih preteknu, ukoliko odgovori ne budu adekvatni i blagovremeni, što je i predmet ovog istraživanja. Cilj istraživanja je da ukaže koliki je značaj da se banke u hodu počnu prestrojavati i upravljati promenama na način koji će im omogućiti opstanak na tržištu. Za one banke koje nisu bile spremne za promene, izgubljene su nove poslovne prilike, zadovoljstvo kupaca i zaposleni su bili neefikasni.

**Ključne riječi:** banka, globalizacija, pandemija, upravljanje promenama

### UVOD

U najširem smislu, smatra Mačvanin., N. (2009), promena znači prelazak iz jednog (postojećeg) stanja u neko novo stanje (bilo da se radi o pojedincima, organizacijama ili samom društvu). Promena je najznačajniji događaj u nekom sistemu, uspešnost promene valorizuje se novim stanjem, a da li će do njega doći zavisi od više

uticajnih faktora: okoline, upravljanja, znanja, volje za promenom, otpora promenama, preduzetničkog duha, motivacije, rizika... Ovaj proces nije ni brz, ni lak, ni jednostavan; potrebni su odluka, vreme, inicijativa da se promene sprovedu, da novo rešenje počne da funkcioniše, da se održi i dovede do novog kvaliteta. Funkcionisanje novog rešenja samo je prelazna faza ka daljim promenama. Postoje i promene "u hodu", koje zovemo inovacijama. Inovacija je u ovom aspektu promena manjeg obima. Iako je teško odrediti granice kada inovacija prelazi prag značajnosti koji određuje da se može govoriti o promenama, ipak između ove dve pojave postoje određene razlike. Drucker smatra da "organizacija bez obzira na svoje ciljeve mora znati da reši jučerašnje zadatke i na taj način osloboodi energiju i resurse za nove, proizvodnije zadatke. Ako želi da iskoristi povoljne prilike, mora napustiti neproduktivno i odbaciti zastarelo." To je suština svake promene! Svoj stav o promenama iznose i (Collins, J. C. 1., & Porras, J. I. 2002), koji kažu da u današnjoj realnosti jedina parada poslovnog upravljanja, je promena, kao jedina konstantna. Novi milenijum je svedočio nekoliko aspekata promena uključujući informacionu tehnologiju, borbu za vrhunske talente, preopterećenost informacijama, raznoliko okruženje, trendovi koji se menjaju kod korisnika i demografski, ekonomski i geopolitički pokretači promena. Izazovi sa kojim se suočava uspešna i čak vizionarska organizacija je koliko je uspešna i

efikasna u upravljanju promenama na način da se sa jedne strane sačuvaju osnovne vrednosti i svrha postojanja, a sa druge strane upravljanje promenljivim kulturnim i operativnim praksama i specifičnim ciljevima i strategijama.

U svom istraživanju (Jayawardhena,C. & Foley, 2000) smatraju da tehnologija, a posebno internet, su ključni pokretač unutrašnjih promena. Unutrašnje promene uveliko su pojačane kako internetom tako i liderstvom i organizacionom strukturon i inovacijama. Unutrašnje promene su uzrokovale velike promene kada je u pitanju isporuka bankarskih proizvoda i usluga. Sinergija svih ovih snaga doveće do velikih transformacija bankarskog sektora. Budućnost bankarskog sektora ima još više da pretrpi kada su u pitanju značajne promene povezane sa napretkom širom sveta u telekomunikacionoj infrastrukturi, niži operativni troškovi i potrošački rastući trend tehnologije samoposluživanja, uključujući bankomate, mrežno bankarstvo i druge usluge i aplikacije orijentisane na tehnologiju.

Bogdanović., D. (2016) smatra da je upravljanje promenama i donošenje ispravnih odluka je mnogo lakše kada je poznat put koji se nalazi ispred menadžera. Tada je čak moguće i predvideti promenu što otvara mogućnost menadžerima da izbegnu određene probleme ili da ih mnogo lakše reše pošto tada promena predstavlja događaj koji je bio isplaniran i za koji su se menadžeri već spremili. Shodno tome, veština predviđanja promena je jedna od najvažnijih veština koju treba da poseduje svaki menadžer. Predvideti promene znači predvideti probleme. To menadžerima daje dovoljno vremena da se pripreme za date probleme kako bi ih rešili na najefikasniji i najmanje bolan način.(str.9)

Banke i druga finansijska udruženja razvijaju strategije digitalizacije, ciljaju pojedince i pojedinačne projekte kako bi institucije uspešno i održivo vodile u digitalnu eru. Opseg i nivo ambicija su ovde podjednako različiti kao i planirana dužina primene . Uverenje je da se digitalizacija razlikuje od ostalih trenutnih procesa promena: bavi se gotovo svim poslovnim jedinicama i procesima i značajna je za sve učesnike. Dakle, željeni uspjeh ne zavisi samo od tehničke izvodljivosti, već posebno od spremnosti tima da se prilagodi. Ključna komponenta na putu do digitalne ere je efikasno upravljanje promenama. Neprekidne promene u svim poslovnim segmentima i preklapanje različitih projekata predstavljaju nove izazove traženim procesnim koracima za efikasno upravljanje promenama i opravdavaju odgovarajuće akcije (Schuderer, M., Heiden, K.M., Schroeder, S. 2017):

1. Osećaj hitnosti zbog konkurenetskog poređenja
2. Uspostavljanje interdisciplinarne koalicije

3. Razvijanje vizije i strategije sa fleksibilnom ciljnom slikom
4. Razvijanje veština promene i njihovo sprovođenje u praksi
5. Poverenje zaposlenih i prenos veština
6. Istančanje uspeha na prekretnicama
7. Kontinuirani pregled prioriteta
8. Stalne promene kao deo korporativne kulture

## 1. CILJ I METODE ISTRAŽIVANJA

Predmet ovog istraživanja je sagledavanje kako bankarska industrija reaguje povodom pandemije Covid 19. Iako je pandemija još u toku, ona izaziva i traži odluke i promene skoro na dnevnom nivou, a ono što je već sada izvesno je da ništa posle ove pandemije neće biti isto.

Cilj istraživanja je da ukaže koliki je značaj da se banke u hodu počnu prestrojavati i upravljati promenama na način koji će im omogućiti opstanak na tržištu. Takođe je bitno ukazati da portfolio promena nije gotov, da će on zahtevati kontinuirane promene u skladu sa globalnom situacijom i promenama u ponašanju i navikama, kako kod fizičkih, tako i kod pravnih lica. Sigurno je da će na opseg promena uticati i eventualni državni programi za pomoć, kao i regulativa u okviru bankarske industrije.

Najveći problem koji se javlja kod upravljanja ovim neminovnim promenama je koliko dugo će ova pandemija trajati, da li će se vratiti i da li će i kada medicina imati adekvatan odgovor na nju? Sve su to faktori koji će uticati na kreiranje promena i na način kako će se njima upravljati.

Kao izvori za ovo istraživanje su osim knjiga, i stručnih radova, poslužili i alktuelne primarne internet adrese, gde se analizom sadržaja istih pokušalo doći do određenih zaključaka.

## 2. PRELIMINARNA ISTRAŽIVANJA U SAD KAO REZULTAT PANDEMIJE COVID 19

Jedan od najvećih izazova sa kojim se danas, u realnom vremenu, susreće bankarska industrija, (i ne samo bankarska) je kako odgovoriti na izazov koji se zove globalna pandemija Covid 19? Dužina trajanja epidemije, njena globalna rasprostranjenost u globalizovanom svetu, traži promptne odgovore i prilagođavanja nastaloj situaciji na nedeljnem a ne retko i na dnevnom nivou. U takvim situacijama dolazi do izražaja spremnost banaka da momentalno odgovore na postavljene izazove i upravljaju promenama koje prete da ih preteknu, ukoliko odgovori ne budu adekvatni i blagovremeni. Obzirom da su države obuzete uspostavljanjem kontrole nad pandemijom provenstveno sa medicinskog aspekta, nije moguće

izbeći i propratne efekte i posledice koje pandemija ostavlja kako na pojedinca tako i na privrednu u celini. Još uvek je rano za analize sa finansijskih aspekata, ali su adekvatni odgovori i sa tog aspekta neophodni da ne bi došlo do kolapsa i finansijskih sistema i privrede. Stoga je potrebno, koliko je to moguće, pokušati istražiti dosadašnje finansijske posledice koje je pandemija imala kako na pojedince, tako i na celu privredu, projektovati potencijalne dalje tendove i na bazi toga upravljati promenama na najbolji mogući način. Jedna od preliminarnih istraživanja su vršena u SAD, sa ciljem da se sagledaju dosadašnje posledice pandemije i na pojedinca i na privredu u celini.

Uticaj koronavirusa po mišljenju Cocheo, S., (2020) na američku ekonomiju se produbljuje, a sve više građana trpiće finansijsku anksioznost. Najveća zabrinutost je da tamo gde banke i kreditne organizacije pokušavaju sa porukama da se povežu vezano za potencijalno olakšanje za potrošače, ali nikako ne uspevaju da dopru do njih. Uticaj pandemije koronavirusa na američku ekonomiju nalazi se na naslovnim stranama svih vesti u državi, ali ništa ne beleži baš tako loše vesti poput onih koje su direktno vezane za kućni, porodični finansijski aspekt. Nova saznanja o uticaju na pojedinca iz tekućeg istraživanja potrošača koje je sprovela kompanija JD Power pokazuju da bol zatvorenih preduzeća, otpuštanja radnika, smanjenja plata još nije dostigao vrhunac, čak i dok nacija čeka vrhunac virusa na lokalnom, državnom i nacionalnom nivou.

Najnovije istraživanje urađeno između 3-5. aprila, kompanija je pitala kako je kriza COVID-19 uticala na ličnu finansijsku situaciju ispitanika. Odgovori na nacionalnom nivou su sledeći:

1. Devastirana je moja finansijska situacija 9%
2. Teško je povredilo moju finansijsku situaciju 19%

3. Donekle se povredila moja finansijska situacija 43%
4. Nije uticalo na moju finansijsku situaciju 26%
5. Poboljšalo je moju finansijsku situaciju 2%

Iz prikazanih rezultata istraživanja da se zaključiti da je pandemija na 28% ispitanika imala veoma težak uticaj, ako još tome dodamo i onih 43% čija je finansijska situacija donekle povređena, dolazimo do cifre od 72%, a da još nije dostignut vrhunac epidemije. Ovakva situacija govori u prilog velike ekonomске krize koja sigurno sledi posle Covida 19. dok se razmere krize se još uvek procenjuju.

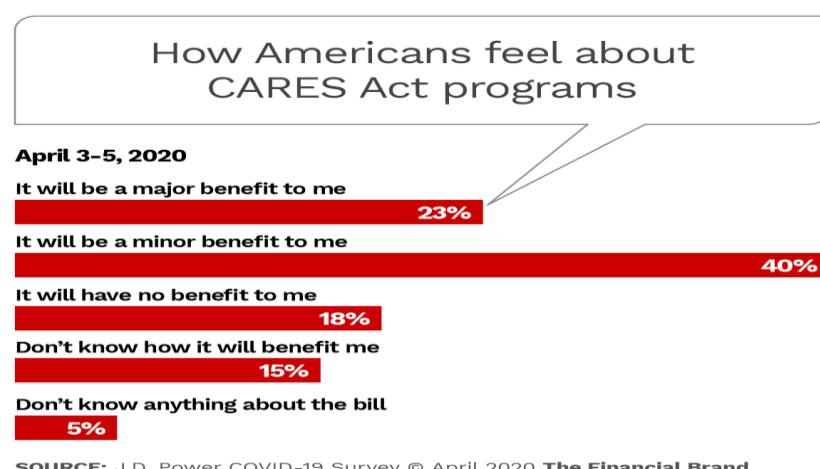
J.D Power je sproveo istraživanje posle drugog punog meseca društvenog distanciranja, dobrovoljne izolacije i školovanja i rada od kuće. Istraživanjem je utvrđeno da je 55% anketiranih pomalo pod stresom zbog svoje ukupne finansijske situacije, dok njih 27% kaže da su pod velikim stresom. U pogledu zaposlenosti, ispitanici su J.D Power-u rekli ovo:

1. 25% radi manje sati.
2. 21% je privremeno izgubilo posao.
3. 14% ima niži prihod od provizije ili bonusa
4. 5% ispitanih je smanjilo prihod od napojnice.
5. 6% je trajno izgubilo posao.
6. 13% se prijavilo za nezaposlenost

Kada se pogledaju rezultati vezano za zaposlenost, vidimo da su sve grupe ispitanika na gubitku, samo je pitanje stepen gubitka, koji se kreće od gubitka radnih sati do prijavljivanja na biro za nezaposlenost.

U istraživanju od 3. aprila 2020, kada je kompanija J.D Power postavila pitanje šta ljudi očekuju da li će im Zakon o programu brige koristiti, 58% nije video nikavu korist ili samo malu korist proisteklu iz paketa pomoći. Svega njih 23% se izjasnilo da očekuju neku korist od zakona.

**Grafikon 1.** Kako se Amerikanci osećaju vezano za Zakon o programu brige



### **3. UPRAVLJANJE PROMENAMA U BANKAMA POD UTICAJEM PANDEMIJE COVID 19**

Posle Covid-19, bankarstvo će biti mnogo drugačije nego što je bilo prepandemije. Promena načina na koji ljudi koriste banke, budućnost rada, upotreba savremene tehnologije i vrednosti brendova sve će uveliko zavisiti od vremena koje je potrebno da se ponovo "uđe u normalu". Pogled u budućnost pruža dobru osnovu za ono što je danas potrebno učiniti i na koji način upravljati promenama, koje su neminovne.

Kao i većina drugih organizacija, banke se trenutno suočavaju sa okruženjem velike nesigurnosti. Stručnjaci konsultantske firme Corporate Value Associates opisuju kako Covid-19 na banke utiče i kako mogu strateški odgovoriti na globalnu pandemiju.

Covid-19 negativno utiče na bankarski sektor na četiri značajna načina(Vessey, S., Ott, C.,& Dimidschstein, F.,2020

#### **1) Povreda kvaliteta portfelja:**

Banke će morati biti krajnje proaktivne kako bi sprečile porast kreditnih neplaćanja i kasniji pad vrednosti obezbeđenja kredita koji bi mogao da pokrene talas problematične prodaje imovina. Ponude godišnjih odmora na otplatu u kombinaciji sa efektivnim usmeravanjem državne podrške preduzećima kojima su potrebna su dva osnovna alata koja su na raspolaganju i banke već rade na brzini u tom pogledu, sve kako bi spasili što više klijenata, dok će „širiti vrhunac“ ' od onih koje nije moguće spasiti.

#### **2) Smanjenje vrednost u bilansu stanja**

Kamatne stope mogu neko vreme ostati blizu nule ili na negativnom nivou. Zbog toga su depoziti stanovništva relativno skupi, a pasivna imovina koja ih finansira ispoljavaće sve negativniji doprinos dobiti. Zauzvrat, ovo će stvoriti podsticaj za restrukturiranjem bilansa aktivnim pokretanjem odliva depozita stanovništva. Izazov je da će, nakon jedne decenije najnižih stopa depozita, osetljivost potrošačkih cena na dalje sniženje stopa biti izuzetno niska, a kako prelazimo u ono što bi mogla biti još jedna dugotrajna globalna recesija sa naglo rastućim stopama nezaposlenosti, većina kupaca na masovnom tržištu će dati prednost kapitalnoj sigurnosti nad većim (rizičnim) ulaganjima. Sledće pitanje je da, ako na primer, veliki broj klijenata na kraju svoje ušteđevine iskoristi za plaćanje računa - banke će sve više početi da liče na nebankarske zajmodavce, ali sa znatno višim regulatornim troškovima, dodatno smanjujući marže. Na strani potražnje, u dugoj

recesiji, novi obim pozajmljivanja verovatno će znatno pasti u svakom slučaju.

#### **3) Tok likvidnosti**

Kako centralne banke pokušavaju da ojačaju ekonomiju, količina novca u opticaju raste. Osim u slučaju kada se od banaka traži da deluju kao vodiči za državnu podršku preduzećima, bilansi banaka su u strukturalnom konkurentnom nepovoljnem položaju kada je u pitanju prikupljanje ovih dodatnih sredstava, a veliki deo te nove likvidnosti će se preliti negde drugde.

#### **4) Povećani društveni nadzor**

Bankarski sektor se još uvek nije oporavio u smislu slike od finansijske krize 2008/9. Neće biti dovoljno da banke rade ravnomerno kako bi podržale svoje klijente onda kada je to njima potrebno. Na njih će trebati pažljivo motriti kako rade u okruženju u kojem političari mogu tražiti žrtvene jarce ako se veliki broj preduzeća uruši, a nezaposlenost naglo poraste.

Međutim, tradicionalni alati za podršku odlučivanju - analiza podataka, predviđanje i planiranje scenarija - od male su koristi kada se situacija menja na nedeljnoj osnovi, a nove informacije neprestano dolaze do izražaja. Sa toliko velikih nesigurnosti, jednostavno nije moguće predvideti budućnost sa bilo kakvim stepenom pouzdanja, čak i tokom relativno kratkog vremenskog okvira. Strategija koja se zasniva na jedinstvenom, tvrdо kodiranom prikazu u narednih 12–24 meseci dešavanjem će brzo biti prevaziđena.

Umesto toga, kompanija Corporate Value Associates zagovara pristup zasnovan na dve jednostavne ideje(Vessey, S., Ott, C.,& Dimidschstein, F.,2020) :

1. Prvo, umesto da pokušavate da definitivno predvidite budućnost, radite unazad („reprizirajte“) iz širokog spektra verodostojnih scenarija kako biste identifikovali poteze bez žaljenja koji imaju smisla bez obzira na to kako se budućnost okreće, kao i opcione poteze koji mogu biti sprovedeni kao i kad postane jasno da se svet kreće u određenom pravcu.
2. Drugo, razviti agilni strateški plan koji donosi male korake, u kratkim vremenskim razmacima, omogućavajući zaokret prema potrebi, umesto da se obavezuje na dugački, nefleksibilan program isporuke čiji se smer ne može lako izmeniti. Uložite u postavljanje skupa vodećih pokazatelja, koji se neprestano prate, tako da se strategija može prilagoditi kako se tržišni uslovi menjaju.

Svedoci smo po mišljenju [Marous, J.](#),(2020). da se čitav finansijski ekosistem ljudi dok se banke i kreditne unije širom sveta bave uticajem COVID-

19 i zato je važnije nego ikad prilagoditi svoj poslovni model u svetu novog konkurenetskog pejzaža. Rast uticaja fintech firmi nije se umanjio kako smo ušli u 2020. godinu, kada je finansiranje rizičnim kapitalom za privatne američke fintech otpočelo jaku 2019. godinu, u koju je uloženo 18 milijardi dolara u poređenju sa 13 milijardi dolara u 2018. godini, prema CB Insights i PwC. Veliki deo rasta bio je usmeren na firme koje su koristile podatke, analitiku i napredne tehnologije da bi pružile i poboljšale iskustva potrošača.

Fintech firme širom sveta takođe su imale koristi od fleksibilnijih propisa u zemljama u nastajanju i u razvijenijim zemljama, jer su organizacije težile da poboljšaju finansijsku inkluziju i služe široj digitalnoj ekonomiji. Prema izveštaju kompanije Ecosystem, bilo je pet ključnih trendova za koje se očekivalo da će oblikovati tržište Fintech-a tokom 2020. Oni uključuju:

1. Veća ulaganja u platforme koje podržavaju finansijsku inkluziju.
2. Povećana saradnja i ulaganja u fintech firme od strane tradicionalnih banaka.
3. Svest o Aziji kao središtu fintech univerzuma.
4. Porast važnosti naprednih podataka i analitičkih start-up kompanija.
5. Regtech firme pružaju poboljšanu automatizaciju usaglašavanja.

Marous, J.,(2020). nadalje smatra da će epidemija koronavirusa uticati na finansijska tržišta i na ponašanje potrošača kao nikada do sada. Barem u kratkom roku, došlo je do značajnog obrta ka sigurnijim investicijama od strane potrošača, što bi moglo negativno uticati na finansiranje već postojećih i novih fintech kompanija. Ovo potencijalno presušivanje finansiranja netradicionalnih firmi za finansijske usluge moglo bi primorati mnoge kompanije da pronađu saradnju ili investicionie partnerne kod tradicionalnih bankarskih organizacija. Neke fintech kompanije u ranoj fazi će možda morati da se zatvore. Takođe negativno, posebno za fintech kompanije u platnom prometu, utiče i očekivani pad transakcija na svim nivoima ekonomije širom sveta. To znači i manje naknada koje kompanije prikupljaju na platnoj strani fintech sektora, što utiče na profitabilnost što važi i za procene za tradicionalne platne kompanije kao i fintech firme. Ono što je pozitivno u svemu ovome je da će se želja potrošača za uslugama digitalnog bankarstva najverovatnije povećati, primoravajući mnoge tradicionalne finansijske institucije da ubrzaju napore na polju digitalne inovacije. Kao rezultat toga, mnoge "zaostale" banke i kreditni savezi mogu potražiti fintech kompanije za pomoć u donošenju boljih rešenja za digitalno bankarstvo

na tržištu. Ovo povećanje potražnje za digitalnim rešenjima moglo bi pružiti spas finansijskim firmama u vremenu kada finansiranje tradicionalnim putem možda nije opcija. Pored toga, slabe ekonomije mogu primorati vladine organizacije i regulatore da podstaknu širenje fintech rešenja. Na primer, Južna Koreja planira da u martu privremeno ublaži propise o fintech-u i deset drugih industrija u pokušaju da ubrza svoju ekonomiju usled izbijanja koronavirusa. Svetska zdravstvena organizacija je takođe podstakla beskontaktno plaćanje. Konačno, za one fintech, regtech i napredne kompanije za analizu podataka i analitičkih kompanija koje mogu da zaustave trenutnu oluju coronavirusa, verovatnije će biti dostupno više venture finansiranja. Prema mnogim izveštajima, privatne kompanije i rizični kapital imaće na raspolaganju značajna novčana sredstva nakon što se tržište stabilizuje.

#### **4. UPRAVLJANJE PROMENAMA U EU BANKAMA POD UTICAJEM PANDEMIJE COVID 19**

Delloite je u svom izveštaju od 9.04.2020. izneo mera koje važe za bankarski sektor EU, sa ciljem da se što bolje upravlja promenama izazvanim nepredviđenim okolnostima. Evropska centralna banka (ECB) je 27. marta 2020. godine usvojila Preporuku o raspodeli dividendi kao odgovor na COVID-19. Preporuke su sledeće:

1. Do 1. oktobra 2020. godine, kreditne institucije ne bi trebalo da isplaćuju dividende, niti se obavežu na neopozivu obavezu da isplaćuju dividende za finansijsku 2019. i 2020. godinu, i da se suzdrže od otkupa akcija sa ciljem nagrađivanja akcionara
2. Kreditne institucije koje nisu u mogućnosti da se pridržavaju ove preporuke, jer smatraju da su zakonski obavezne da isplate dividendu, treba da odmah objasne osnovne razloge zajedničkom nadzornom timu
3. Ova preporuka se primenjuje na konsolidovanom nivou značajne nadgledane grupe i na pojedinačnom nivou značajnog nadziranog entiteta, ako takav značajan nadgledani subjekt nije deo značajne nadgledane grupe1.

Takođe, kako Deloitte dalje navodi, Evropska agencija za bankarstvo (EBA) je 31. marta 2020. godine izdala Izjavu o raspodeli dividendi, otkupu deonica i promjenjivim naknadama. Kao odgovor na COVID-19, EBA podržava sve mera koje su do sada preduzele države članice kako bi banke osigurale solidnu kapitalnu bazu i pružile potrebnu podršku ekonomiji. Nadalje, EBA preporučuje nadležnim vlastima da zatraže od banaka da

preispitaju politiku, prakse i nagrade o naknadama kako bi se osiguralo da su one u skladu sa onim što se promoviše, zdravo i efikasno upravljanje rizikom, koje treba da odražava trenutnu ekonomsku situaciju. Takođe, EBA preporučuje da se nadoknade i posebno njegov promjenjivi deo utvrde na konzervativnom nivou. Da bi se postiglo odgovarajuće usklađivanje pod rizicima povezanim sa COVID-19, veći deo promenljive naknade može se (a) odložiti na duži period i (b) isplatiti u kapitalne instrumente.

## ZAKLJUČAK

U današnjoj realnosti jedina paradigma poslovnog upravljanja, je promena, kao jedina konstantna. Izazovi sa kojim se suočava uspešna i čak vizionarska organizacija je koliko je uspešna i efikasna u upravljanju promenama na način da se sa jedne strane sačuvaju osnovne vrednosti i svrha postojanja, a sa druge strane upravljanje promenljivim kulturnim i operativnim praksama i specifičnim ciljevima i strategijama.

Jedan od najvećih izazova sa kojim se danas, u realnom vremenu, susreće bankarska industrija je kako odgovoriti na izazov koji se zove globalna pandemija Covid 19? Dužina trajanja epidemije, njena globalna rasprostranjenost u globalizovanom svetu, traži promptne odgovore i prilagođavanja u nastaloj situaciji. Posle Covid-19, bankarstvo će biti mnogo drugačije nego što je bilo prepandemije. Promena načina na koji ljudi koriste banke, budućnost rada, upotreba savremene tehnologije i vrednosti brendova sve će uveliko zavisiti od vremena koje je potrebno da se ponovo "uđe u normalu". Pogled u budućnost pruža dobru osnovu za ono što je danas potrebno učiniti i na koji način upravljati promenama, koje su neminovne.

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## SUMMARY

The future of the banking sector is undergoing changes, especially when it comes to significant changes associated with advances in telecommunications infrastructure, lower operating costs and a growing consumer trend in self-service technology, including ATMs, network banking and other technology-oriented services and applications. A key component in the journey to the digital age is effective change management, which means continuous change across all business segments.

According to Marous, J. (2020), before COVID-19, the banking industry talked a lot about digital transformation, but only less than 15% of banking organizations considered themselves leaders of digital transformation. In fact, during the protracted recovery and prosperity experienced more than a decade after the financial crisis, very few organizations showed a genuine interest in building a bank ready for digital transfer. When the coronavirus pandemic hit the world, without exception, everything changed ... overnight. Organizations were forced not only to offer consumers alternative digital banking, but also to employees. For those organizations that were not ready, new business opportunities and customer satisfaction were lost, and employees were ineffective. In banking, there has been greater collaboration with the use of video technologies, accelerating innovation that has before taken months or years.

## MANAGING BANKING INDUSTRY CHANGES UNDER THE COVID 19 PANDEMIA

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*Paper presented at the 8th International Scientific Symposium „EkonBiz: Change management in the conditions of globalization“, Bijeljina, 18 – 19th June 2020.*

**Abstract:** The success of a change is valorized by a new state, and whether it will occur depends on several influential factors: environment, management, knowledge, the will to change, resistance to change, entrepreneurial spirit, motivation, risk. Managing change and making the right decisions is much easier when the path ahead of the manager is known. In contingencies, such as the global pandemic, Covid 19, banks' readiness to respond to challenges and manage change that threatens to overcome them is evident, which is the subject of this research. The aim of the research is to show the importance of banks in the course of starting to reorganize themselves and manage changes in a way that will enable them to survive in the market. For those banks that were not ready for changes, new business opportunities and customer satisfaction were lost, and employees were inefficient.

**Key words:** bank, globalization, pandemic, change management

### INTRODUCTION

In the broadest sense, according to Macvanin., N. (2009), change means the transition from one (existing) state to a new state (whether it is about individuals, organizations or society itself). Change is the most important event in a system, the success of change is valorized by the new situation, and whether it will happen depends on several influential factors: environment,

management, knowledge, will to change, resistance to change, entrepreneurial spirit, motivation, risk ... This process is neither quick, nor easy, nor simple; it takes decision, time, initiative to implement changes, for a new solution start working, to be maintained and to lead to a new quality. The functioning of the new solution is only a transitional phase towards further changes. There are also changes "on the fly", which we call innovations. Innovation is a small-scale change in this aspect. Although it is difficult to determine the boundaries when innovation exceeds the threshold of significance that determines that one can talk about change, there are still certain differences between these two phenomena. Drucker believes that "an organization, regardless of its goals, must to know how to solve yesterday's tasks and thus free up energy and resources for new ones, more productive tasks. If he wants to take advantage of opportunities, he must abandon the unproductive and discard the obsolete." That is the essence of any change!

Their position of changes are also state and Collins, J. C. 1., & Porras, J. I. (2002), saying that in today's reality the only paradigm of business management is change, as the only constant. The new millennium has witnessed several aspects of change including information technology, the struggle for top talent, information congestion, a diverse environment, changing user trends, and demographic, economic, and geopolitical drivers of change. The challenge faced by a successful and even visionary organization is how successful and

efficient it is in managing change by preserving the basic values and purpose of existence on the one hand, and managing changing cultural and operational practices and specific goals and strategies on the other.

In their research (Jayawardhena, C. & Foley, 2000), they believe that technology, and especially the Internet, are a key driver of internal changes. Internal changes have been greatly enhanced by both the Internet and leadership and organizational structure and innovation. Internal changes have caused major changes when it comes to the delivery of banking products and services. The synergy of all these forces will lead to major transformations of the banking sector. The future of the banking sector has even more to suffer when it comes to significant changes related to global advances in telecommunications infrastructure, lower operating costs and the growing consumer trend of self-service technology, including ATMs, network banking and other technology-oriented services and applications. Bogdanović, D. (2016) believes that managing change and making the right decisions is much easier when the path ahead of the manager is known. Then it is even possible to predict the change, which opens the possibility for managers to avoid certain problems or to solve them much easier, because then the change is an event that was planned and for which the managers are already prepared. Consequently, the skill of anticipating change is one of the most important skills that every manager should possess. Anticipating change means anticipating problems. This gives managers enough time to prepare for the given problems in order to solve them in the most efficient and least painful way. (p.9) Banks and other financial associations are developing digitization strategies, targeting individuals and individual projects to lead institutions successfully and sustainably into the digital age. The scope and level of ambition here are as different as the planned length of implementation. The belief is that digitalization is different from other current processes of change: it deals with almost all business units and processes and is important for all participants. Thus, the desired success depends not only on the technical feasibility, but especially on the willingness of the team to adapt. A key component on the road to the digital age is effective change management. Continuous changes in all business segments and overlapping of different projects represent new challenges to the required process steps for efficient change management and justify appropriate actions (Schuderer, M., Heiden, K.M., Schroeder, S. 2017):

- 1) Sense of urgency due to competitive comparison

- 2) Establishment of an interdisciplinary coalition
- 3) Developing a vision and strategy with a flexible target image
- 4) Developing skills of change and their implementation in practice
- 5) Employee trust and skill transfer
- 6) Emphasizing success at milestones
- 7) Continuous review of priorities
- 8) Constant changes as part of corporate culture

## **1. OBJECTIVE AND METHODS OF RESEARCH**

The subject of this research is to see how banks react to the Covid 19 pandemic. Although the pandemic is still ongoing, it provokes and seeks decisions and changes almost on a daily basis, and what is already certain is that nothing will be the same after this pandemic. The aim of the research is to point out how important it is for banks to start restructuring and managing changes in a way that will enable them to survive in the market. It is also important to point out that the portfolio of changes is not ready, that it will require continuous changes in accordance with the global situation and changes in behavior and habits, both for individuals and legal entities. It is certain that the scope of changes will be affected by possible state aid programs, as well as regulations within banks. The biggest problem that arises in managing these inevitable changes is how long will this pandemic last, will it return and will medicine have an adequate response to it and when? These are all factors that will influence the creation of changes and the way they will be managed. Apart from books and professional papers, the sources for this research were the current primary internet addresses, where the analysis of their contents tried to reach certain conclusions.

## **2. PRELIMINARY RESEARCH IN THE USA AS A RESULT OF THE COVID 19 PANDEMIC**

One of the biggest challenges facing banks today (and not just banks) today is how to respond to a challenge called the Covid 19 global pandemic? The duration of the epidemic, its global distribution in a globalized world, requires prompt responses and adjustments to the situation on a weekly basis and not infrequently on a daily basis. In such situations, the willingness of banks to respond immediately to the challenges and manage the changes that threaten to overtake them, if the answers are not adequate and timely. Given that states are preoccupied with establishing control over a pandemic from a medical point of view, it is not possible to avoid the side effects and consequences that a pandemic leaves on both the individual and the economy as a whole. It is still

early for analyzes from the financial aspects, but adequate answers from that aspect are also necessary in order to avoid the collapse of both the financial systems and the economy. Therefore, it is necessary, as much as possible, to try to investigate the current financial consequences that the pandemic has on both individuals and the entire economy, to design potential further trends and on that basis to manage changes in the best possible way. One of the preliminary researches was conducted in the USA, with the aim of understanding the consequences of the pandemic so far on both the individual and the economy as a whole. According to Cocheo, S., (2020), the impact of the coronavirus on the American economy is deepening, and more and more citizens will suffer from financial anxiety. The biggest concern is that where banks and credit organizations try to connect with messages related to potential relief for consumers, but they fail to reach them. The impact of the coronavirus pandemic on the American economy is on the front pages of all the news in the country, but nothing records such bad news as those that are directly related to the domestic, family financial aspect. New findings on the impact on individuals from ongoing consumer research conducted by JD Power show that the pain of closed companies, layoffs, wage cuts has not yet peaked, even as the nation awaits the peak of the virus at the local, state and national levels. The latest research done between 3-5. In April, the company asked how the COVID-19 crisis affected respondents' personal financial situation. The answers at the national level are as follows:

1. My financial situation is devastated 9%
2. Severely hurt my financial situation 19%
3. My financial situation was somewhat hurt 43%
4. It did not affect my financial situation 26%
5. Improved my financial situation 2%

From the presented research results, it can be concluded that the pandemic had a very severe impact on 28% of respondents, if we add those 43% whose financial situation was somewhat damaged, we come to the figure of 72%, without reaching the peak of the epidemic. This situation speaks in favor of the great economic crisis that certainly follows after Covid 19, while the scale of the crisis is still being assessed.

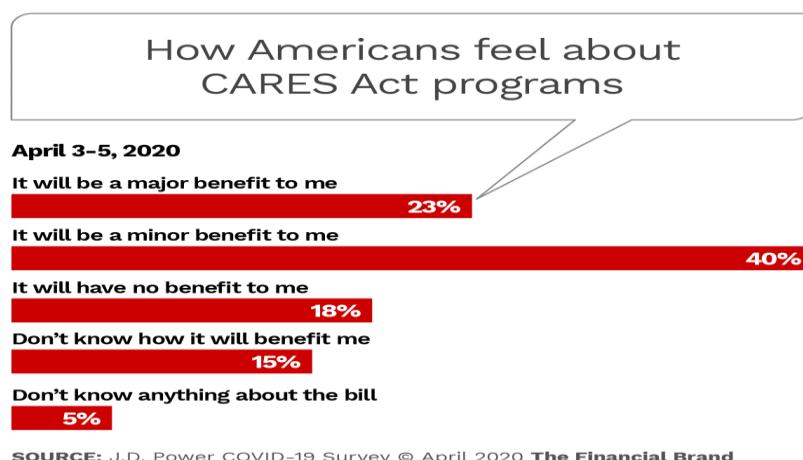
JD Power conducted the research after another full month of social distancing, voluntary isolation, and schooling and work from home. The survey found that 55% of respondents are slightly stressed due to their overall financial situation, while 27% say they are under a lot of stress. In terms of employment, respondents told J.D. Power this:

1. 25% work fewer hours.
2. 21% temporarily lost their jobs.
3. 14% have lower income from commission or bonus
4. 5% of respondents reduced their income from a tip.
5. 6% lost their job permanently.
6. 13% registered for unemployment

When we look at the results related to employment, we see that all groups of respondents are at a loss, the only question is the degree of loss, which ranges from the loss of working hours to registering with the unemployment office.

In the April 3 survey. In 2020, when J.D. Power asked what people expected to benefit from the CARES Act, 58% saw no benefit or only a small benefit from the aid package. Only 23% of them said they expected some benefit from the law.

**Graph 1. How Americans feel about the CARES Act programs**



### **3. MANAGING BANKING INDUSTRY CHANGES UNDER THE INFLUENCE OF THE COVID PANDEMIC 19**

After the Covid-19, banking industry will be much different than it was before the pandemic. Changing the way people use banks, the future of work, the use of modern technology and the value of brands will all largely depend on the time it takes to “get back to normal”. Looking to the future provides a good basis for what needs to be done today and how to manage change, which is inevitable.

Like most other organizations, banks are currently facing an environment of great uncertainty. Experts from the consulting firm Corporate Value Associates describe how Covid-19 affects banks and how they can strategically respond to a global pandemic. Covid-19 negatively affects the banking sector in four significant ways (Vessey, S., Ott, C., & Dimidschstein, F., 2020):

**1) Violation of portfolio quality:**

Banks will have to be extremely proactive to prevent an increase in credit defaults and a subsequent decline in the value of loan collateral that could trigger a wave of problematic asset sales. Offers of repayment leave combined with effective targeting of state support to companies in need are two basic tools available and banks are already working fast in this regard, all to save as many customers as possible, while “spreading the pinnacle” of those that cannot be saved.

**2) Decrease in value in the balance sheet:**

Interest rates may remain close to zero or negative for some time. Due to that, household deposits are relatively expensive, and the passive assets that finance them will show an increasingly negative contribution to profits. In turn, this will create an incentive to restructure the balance sheet by actively initiating the outflow of household deposits. The challenge is that, after a decade of low deposit rates, consumer price sensitivity to further rate cuts will be extremely low, and as we move into what could be another long-running global recession with rapidly rising unemployment rates, most mass market buyers will give the advantage of capital security over larger (risky) investments. The next question is that, if, for example, a large number of clients use their savings to pay bills at the end - banks will start to look more like non-bank lenders, but with significantly higher regulatory costs, further reducing margins. On the demand side, in the long

recession, the new volume of lending is likely to fall significantly anyway.

**3) Liquidity flow:**

As central banks try to strengthen the economy, the amount of money in circulation is growing. Except when banks are required to act as guides to state support to enterprises, banks' balance sheets are at a structurally competitive disadvantage when it comes to raising these additional funds, and much of that new liquidity will spill over elsewhere.

**4) Increased social oversight:**

The banking sector has not yet recovered in terms of the picture from the 2008/9 financial crisis. It will not be enough for banks to work evenly to support their customers when they need it. They will need to be closely monitored as they work in an environment where politicians can look for scapegoats if large numbers of businesses collapse and unemployment rises sharply.

However, traditional decision support tools - data analysis, forecasting and scenario planning - are of little use when the situation changes on a weekly basis and new information is constantly coming to the fore. With so much uncertainty, it is simply not possible to predict the future with any degree of confidence, even over a relatively short period of time. A strategy based on a single, hard-coded view in the next 12-24 months will be quickly overcome.

Instead, Corporate Value Associates advocates an approach based on two simple ideas (Vessey, S., Ott, C., & Dimidschstein, F., 2020):

1. First, instead of trying to definitely predict the future, work backwards (“replay”) from a wide range of plausible scenarios to identify regret-free moves that make sense no matter how the future turns, as well as optional moves that can be implemented as well as when it becomes clear that the world is moving in a certain direction.

2. Second, develop an agile strategic plan that delivers small steps, at short intervals, allowing for a turnaround as needed, rather than committing to a long, inflexible delivery program whose direction cannot be easily changed. Invest in setting a set of leading indicators, which are constantly monitored, so that the strategy can be adjusted as market conditions change.

We are witnesses by the opinion of Marous, J., (2020). that the entire financial ecosystem is swaying as banks and credit unions around the world deal with the impact of COVID-19 and that is why it is more important than ever to adapt their

business model in light of the new competitive landscape. The growth of fintech firms' influence has not diminished as we entered 2020, when venture capital funding for private U.S. fintech began a strong 2019, in which \$ 18 billion was invested compared to \$ 13 billion in 2018, according to the CB Insights and PwC. Much of the growth has focused on firms that have used data, analytics, and advanced technologies to provide and enhance consumer experiences.

Fintech firms around the world have also benefited from more flexible regulations in emerging and more developed countries, as organizations have sought to improve financial inclusion and serve the wider digital economy. According to the Ecosystem report, there were five key trends that were expected to shape Fintech's market during 2020. These include:

1. Greater investment in platforms that support financial inclusion.
2. Increased cooperation and investment in fintech firms by traditional banks.
3. Awareness of Asia as the center of the fintech universe.
4. The growing importance of advanced data and analytical start-up companies.
5. Regtech firms provide improved compliance automation.

Marous, J., (2020). further believes that the coronavirus epidemic will affect financial markets and consumer behavior like never before. At least in the short term, there has been a significant shift towards safer investments by consumers, which could negatively affect the financing of already existing and new fintech companies. This potential drying up of funding for non-traditional financial services firms could force many companies to find cooperation or investment partners with traditional banking organizations. Some fintech companies may have to close at an early stage.

Also negatively, especially for fintech companies in the payment system, is the expected decline in transactions at all levels of the economy around the world. This also means less fees that companies collect on the pay side of the fintech sector, which affects profitability as well as estimates for traditional pay companies as well as fintech firms. What is positive in all of this is that consumer desire for digital banking services is likely to increase, forcing many traditional financial institutions to accelerate efforts in the field of digital innovation. As a result, many "backward" banks and credit unions can seek out fintech companies to help bring better digital banking

solutions to market. This increase in demand for digital solutions could save financial firms at a time when traditional financing may not be an option. In addition, weak economies can force government organizations and regulators to encourage the spread of fintech solutions. For example, South Korea plans to temporarily ease regulations on fintech and ten other industries in March in a bid to boost its economy due to a coronavirus outbreak. The World Health Organization has also encouraged contactless paymentFinally, for those fintech, regtech, and advanced data analysis companies and analytics companies that can stop the current coronavirus storm, more venture funding is more likely to be available. According to many reports, private companies and venture capital will have significant cash at their disposal once the market stabilizes.

#### **4. MANAGING BANKING INDUSTRY CHANGES IN EU UNDER THE INFLUENCE OF THE COVID PANDEMIC 19**

Deloitte is in its report from April 9, 2020. set out measures applicable to the EU banking sector, with the aim of better managing changes caused by unforeseen circumstances. On March 27, 2020, the European Central Bank (ECB) adopted a Recommendation on the distribution of dividends in response to COVID-19. The recommendations are as follows:

1. Until 1 October 2020, credit institutions shall not pay dividends, nor commit to an irrevocable obligation to pay dividends for the financial years 2019 and 2020, and to refrain from repurchasing shares for the purpose of rewarding shareholders.
2. Credit institutions that are unable to comply with this recommendation because they believe they are legally obliged to pay a dividend should immediately explain the underlying reasons to the joint supervisory team.
3. This Recommendation applies at the consolidated level of a significant supervised group and at the individual level of a significant supervised entity, if such a significant supervised entity is not part of a significant supervised group1.

Also, as Deloitte further states, on March 31, 2020, the European Banking Agency (EBA) issued a Statement on the distribution of dividends, share repurchases and variable fees. In response to COVID-19, the EBA supports all measures taken so far by Member States to ensure that banks provide a solid capital base and provide the

necessary support to the economy. Furthermore, the EBA recommends that the competent authorities ask banks to review fees, practices and rewards on fees to ensure that they are in line with what is being promoted, sound and effective risk management, which should reflect the current economic situation. The EBA recommends compensation and, in particular, its variable part be determined at a conservative level. In order to achieve appropriate adjustment under the risks associated with COVID-19, most of the variable fee may be (a) deferred for a longer period and (b) paid into equity instruments.

## CONCLUSION

In today's reality, the only paradigm of business management is change, as the only one constant. The challenge faced by a successful and even visionary organization is how successful and efficient it is in managing change by preserving the basic values and purpose of existence on the one hand, and managing changing cultural and operational practices and specific goals and strategies on the other. One of the biggest challenges facing banks today, in real time, is how to respond to a challenge called the Covid 19 global pandemic? The duration of the epidemic, its global distribution in a globalized world, requires prompt responses and adjustments in the situation. After Covid-19, banking will be much different than it was before the pandemic. Changing the way people use banks, the future of work, the use of modern technology and the value of brands will all largely depend on the time it takes to "get back to normal". Looking to the future provides a good basis for what needs to be done today and how to manage changes, which are inevitable.

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## SUMMARY

The future of the banking sector is undergoing changes, especially when it comes to significant changes associated with advances in telecommunications infrastructure, lower operating costs and a growing consumer trend in self-service technology, including ATMs, network banking and other technology-oriented services and applications. A key component in the journey to the digital age is effective change management, which means continuous change across all business segments. According to Marous, J. (2020), before COVID-19, the banking industry talked a lot about digital transformation, but only less than 15% of banking organizations considered themselves leaders of digital transformation. In fact, during the protracted recovery and prosperity experienced more than a decade after the financial crisis, very few organizations showed a genuine interest in building a bank ready for digital transfer. When the coronavirus pandemic hit the world, without exception, everything changed ... overnight. Organizations were forced not only to offer consumers alternative digital banking, but also to employees. For those organizations that were not ready, new business opportunities and customer satisfaction were lost, and employees were ineffective. In banking, there has been greater collaboration with the use of video technologies, accelerating innovation that has before taken months or years.

## УЛОГА УЧЕЊА НА ДАЉИНУ ТОКОМ ПАНДЕМИЈЕ COVID-19

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Чланак је изложен на VIII Интернационалном научном скупу „ЕконБиз: Управљање промјенама у условима глобализације“, Бијељина 18. и 19. јун 2020. године

**Апстракт:** Основни циљ овог рада јесте да прикаже анализу функционисања учења на даљину у образовном систему Србије за време пандемије Covid-19, као и да представи закључке о спремности образовног система за ову и сличне ванредне ситуације. Имајући у виду чињеницу да је само у основном и средњем образовању Србије 750 000 ученика и 80 000 наставника било принуђено да користи неку форму учења на даљину, посебно је важно да се сагледа значај учења на даљину у оваквим околностима. Пандемија Covid-19 је утицала на образовни систем Србије, као уосталом и на образовне системе у целом свету, тиме што је проузроковала значајне логистичке и технолошке проблеме, и наметнула наставном особљу потребу да пређу на нове начине подучавања. У раду су прво представљене најчешће коришћене платформе и апликације учења на даљину за време пандемије. Затим су представљени резултати истраживања о ставу студената према учењу на даљину, које је обављено на Економском факултету, Универзитета у Београду. Посебно је наглашено да ће утицај пандемије бити далекосежан и да ће се значајно одразити на образовне системе у свету, као и на образовни систем Србије. Имајући у виду да се разна технолошка решења већ користе у образовању и да ће наставити и даље да имају кључну

улогу у образовању генерација које долазе, у раду се указује на потребу сагледавања потреба за новим ИКТ вештинама у образовању. У окружењу где се знају може приступити са једним click-ом, јасно је да ће у будућности улога предавача претрпети значајне промене.

**Кљићне ријечи:** пандемија COVID-19, образовни систем, учење на даљину, софтверски алати.

### УВОД

Пандемија COVID-19 је захватила целокупан образовни систем, како у свету тако и у Србији, ставивши га пред невиђен низ логистичких и технолошких изазова, приморавши наставнике и васпитаче да подучавају на нове и непознате начине, а родитеље да прилагоде начине надгледања деце која уче код куће. Још од Другог светског рата није толико земља широм света дошло у ситуацију да школе и образовне институције затворе у исто време и из истог разлога. Око 1,2 милијарде студената и омладине широм планете, односно око 60% те популације, било је погођено затварањем школа и универзитета због епидемије COVID-19 (UNESCO, 2020). У Србији је само у основном и средњем школама преко 750 000 ученика и 80 000 наставника било принуђено да користи неку форму учења на даљину. Јасно

је да ће утицај ове пандемије бити далекосежан и широко распострањен, па се поставља питање шта би то могло дугорочно значити за образовање уопште, а посебно за образовни систем Србије? Док се наставници и васпитачи суочавају са новим начинима комуникације са ученицима и студентима који су далеко од својих ученицица, право је време да размислимо о следећем: како ова разорна криза може да нам помогне да дефинишемо како треба да изгледа учење за будуће генерације, као и шта треба променити у образовном систему како би систем несметано и ефикасно функционисао у оваквим и другим кризним ситуацијама, а да прелазак из редовног стања у ванредно стање буде готово неосетан.

*Глобална коалиција за образовање (Global Education Coalition)* коју је покренуо UNESCO жели да олакша могућности учења за децу и омладину током овог наглог и невиђеног поремећаја у образовању. Улагање у учење на даљину требало би да ублажи непосредне поремећаје које је проузроковао COVID-19 и да успостави приступе за развој отворенијих и флексибилнијих образовних система за будућност (UNESCO, 2020).

Како бисмо извукли закључке за будућност анализирали смо како је функционисало учење на даљину за време пандемије COVID-19 на примеру образовног система Србије. Посебно смо спровели истраживање међу студентима Економског факултета у Београду, о њивима ставовима према учењу на даљину уопште и током ванредне ситуације.

## 1. Учење на даљину

Учење на даљину (енгл. *Distance learning*), које се назива и образовање на даљину (енгл. *Distance education*), е-учење (енгл. *e-learning*) и онлајн учење (енгл. *Online learning*), облик је образовања у којем главни елементи укључују физичко раздвајање наставника и ученика током извођења наставе и употребу различитих технологија за олакшавање комуникације између ученика и наставника и ученика међусобно (Enciclopedia Britannica, 2020). Да би успешно користили ове технологије, наставници морају да упознају различите технике дизајна и слања порука које су специфичне за те технологије.

Студенти морају да науче како да уче и комуницирају користећи технологију. Администратори у образовним и наставним установама морају да организују своје ресурсе другачије, од онога како то раде за наставу у ученици (Moore and Kearsley, 2012. p.3).

## Системи за управљање процесом и садржајем електронског учења

Систем за управљање процесом учења *LMS* (*Learning Management System*) је софтверски пакет који омогућава управљање и испоруку садржаја за учење. Већина *LMS* система креирана је као *Web* решење које олакшава приступ и администрацију садржаја. *LMS* омогућава регистрацију, испоруку и праћење курсева е-учења и садржаја, тестирање, а такође и управљање курсом и заједничким учењем са инструктором. Већина система заснована је на самопослуживању и омогућава самосталну регистрацију учесника и приступ курсевима. Систем за управљање садржајем учења *LCMS* (*Learning Content Management System*) олакшава организацију садржаја и ауторинг алата, као и презентацију овог садржаја за учеснике преко *LMS*-а. Већина система развијена је за комерцијалну употребу. Међутим, постоје и бесплатни *open-source* модели.

## 2. Платформе и апликације за учење на даљину коришћене за време пандемије COVID-19 у образовном систему Србије

Услед пандемије изазване вирусом COVID-19, у Републици Србији проглашено је ванредно стање 15. марта 2020. године, а непосредна настава у школама је привремено обустављена. У циљу остваривања права ученика на образовање, у Министарству просвете, науке и технилошког развоја Србије био је припремљен оперативни план за наставак рада школа у отежаним условима (<https://www.rasporednastave.gov.rs>). Овај план уважавао је велики број различитих програма наставе и учења у свим разредима основне и средње школе и имао је фокус на организованом учењу на даљину које доприноси реализацији програмских садржаја општеобразовних предмета и стручних предметима са највећим фондом часова. Министарство је предвидело и подржало реализацију образовно-васпитних активности кроз различите канале и облике комуникације: емитовањем посебно припремљених и адаптиралих образовних садржаја за ученике основних и средњих школа на ТВ каналима РТС2 и РТС3 Јавног медијског сервиса Србије:

- успостављањем репозиторијума образовних видео-садржаја за ученике основних и средњих школа на бесплатној апликацији "РТС Моја школа" за мобилне телефоне, на интернет сајту РТС-а и на мултимедијској интернет платформи РТС Планета;
- стављањем на располагање сета алата за онлајн комуникацију ученика и наставника;

- стварањем услова за дигиталну солидарност – дељење ауторских наставних материјала међу практичарима.

За оне који немају другачији приступ интернету обезбеђен је бесплатан приступ преко сва три мобилна оператора.

#### **Портал „Моја школа“**

У намери да на педагошки одговоран начин употреби дигиталне ресурсе којима располаже, Министарство просвете, науке и технолошког развоја Србије пружило је додадатну подршку ученицима путем портала „Моја Школа“ (<https://www.mojaskola.gov.rs>).

#### **Онлајн платформа „Моја ћионика TeslaEDU“**

Компанија Comtrade је, у сарадњи са Канцеларијом за информационе технологије и еУправу и Министарством просвете, науке и технолошког развоја, обезбедила систем за учење на даљину који је локализован на српски језик, прилагођен ефикасном образовном систему и смештен на ресурсима у оквиру државног „дата центра“.

Платформа је обезбеђена за све ученике и наставнике у основним и средњим школама (<https://www.mojaucionica.gov.rs>). „Моја ћионика TeslaEDU“ је портал и мобилна апликација за m-Learning платформу. У питању је обједињен пакет функционалних модула, заснован на платформи Moodle LMS, који су пажљиво одабрани и интегрисани у циљу оптималног управљања целокупним истукством учења, у свакој од фаза процеса формалног образовања.

Платформа обухвата области писања курсева, уписа и присуства на курсу, предавања курсева, онлајн оцењивања, праћења напретка, евалуације курсева и извештавања. „Моја ћионика TeslaEDU“ омогућава да јој ученици приступе са сопствених рачунара, таблет-рачунара, или са својих паметних телефона. Са својих рачунара ученици могу проучавати материјале, полагати квизове, остварити сарадњу кроз дискусије на онлајн предавањима, примати и предавати задатке, као и користити календарске подсетнике везане за градиво.

Платформи се приступа путем корисничких налога који су обезбеђени од стране Министарства просвете, науке и технолошког развоја. Обезбеђена је подршка на порталу <https://www.mojaucionica.gov.rs>. У оквиру портала за наставнике и ученике су припремљени илустративни курсеви, као и детаљне смернице са видео материјалима за обуку у употреби платформе за наставу.

#### **Microsoft Teams**

Microsoft је за време трајања кризног периода омогућио бесплатно коришћење Office 365 платформе у оквиру које је доступна верзија Teams апликације прилагођена за образовање (<https://www.microsoft.com>).

Платформа ће школама и факултетима бити доступна бесплатно и касније и омогућиће свим наставницима, ученицима, професорима и студентима да организују удаљено извођење наставе путем интернета кроз групни видео позив у којем наставник/професор може са студентима да дели и садржај свог екрана, као и да снима читав ток часа и учини га доступним свим ученицима/студентима из одговарајуће групе.

Приступ платформи је прво обезбеђен за све ученике и наставнике у основним и средњим школама. Платформи је могуће приступити са рачунара и са мобилних уређаја.

За оне које немају доступан другачији приступ интернету обезбеђен је бесплатан приступ платформи посредством мобилних мрежа. Како би се наставници што боље припремили за коришћење платформе, Microsoft је организовао бесплатне онлајн обуке за наставнике.

#### **ZOOM**

ZOOM је доста једноставнији, одлично ради, али у бесплатној верзији има два битна ограничења: до 100 учесника (студента) и трајање до 40 мин (<https://zoom.us>). Ова апликација је намењена одржавању онлајн састанака.

За оне који немају доступан другачији приступ интернету обезбеђен је бесплатан приступ апликацији посредством мобилних мрежа. За употребу ове апликације није потребна посебна подршка од стране министарства, већ свака установа за себе креира налог и даље управља истим. Ова платформа је успешно коришћена на свим нивоима у образовном систему Србије, током трајања пандемије COVID-19.

#### **Viber Community**

У сарадњи са компанијом Viber омогућена је употреба и апликације Viber и услуге Viber Community која омогућава ефикасну групну комуникацију и размену информација, што може да буде корисно у датим условима (<https://www.viber.com/en/communities>).

За оне који немају доступан другачији приступ интернету обезбеђен је бесплатан приступ посредством мобилних мрежа. За апликацију није потребна посебна подршка.

## **Портал „Дигитална солидарност“**

Портал *Дигитална солидарност* (<https://www.digitalnasolidarnost.gov.rs>) намењен је свима који су услед пандемије коронавируса морали да буду у својим кућама. На једном mestu дате су све информације о бесплатним платформама за учење на даљину, рад од куће, бесплатним онлајн књигама, курсевима и другим садржајима за време пандемије COVID-19.

## **MOODLE платформа**

У образовном систему платформа *Moodle* је широко распрострањена, мада не и опште прихваћена. *Moodle* пружа наставницима пуну рачунарску подршку при организацији и извођењу *on-line* образовања. Неке од важнијих могућности *Moodle*-а су: планирање курсева – распоред активности, календар, управљање корисницима, корисничким улогама и групама корисника на курсу, провера знања и оцењивање корисника, праћење активности корисника, управљање системом, заштита садржаја креирањем сигурносних копија, вођење статистике и креирање извештаја (<http://www.moodle.org>, 2020).

RCUB *Moodle* отворен је за све чланице Универзитета у Београду, али и друге универзитетете и високе школе.

*Moodle* платформа се на Универзитета у Београду користи у настави на многим факултетима већ више од 10 година. Често се уз ову платформу користи и *open source* конференцијски систем *BigBlueButton*. Нова верзија верзија *BigBlueButton*-а омогућава снимање сесија, гласање и чување списка присутних.

Поред описаних платформи у образовном систему Србије за време трајања пандемије COVID-19 коришћене су и друге платформе: Cisco Webex Teams, G-Suite for Education, Google Classroom i druge.

### **3. Резултати истраживања о ставу студената о учењу на даљину**

За потребе овог рада припремљено је посебно истраживање, које се базира на резултатима анкете која је спроведена међу студентима Економског факултета у Београду, а након искуства које су имали у ситуацији ванредног стања проузрокованог пандемијом вируса COVID-19.

У анкети је учествовало 114 студената. Циљ истраживања је био да се добију генерални

ставови студената према учењу на даљину, као и њихово мишљење о квалитету онлајн наставе током трајања пандемије COVID-19. У том смислу питања у анкети су подељена на два дела. У првом делу су била заступљена питања о општим ставовима студената према онлајн учењу, као што су:

- Какав је ваш став према односу онлајн учења и традиционалног учења?
- Шта су по вама предности онлајн учења?
- Шта су по вама недостаци онлајн учења?
- Које су, по вашем мишљењу, најпогодније форме за презентовање градива у оквиру онлајн учења?

Други сет питања односио се на ставове студената према непосредном искуству које су имали током два месеца, када су пратили наставу искључиво путем онлајн платформи. У погледу става студената према онлајн и традиционалном учењу запажа се да највећи број студената (78,07% анкетираних студената) сматра да се онлајн учење може комбиновати, као додатна форма, са традиционалним учењем.

То нам указује да је традиционално учење и даље један од поузданых видова учења, а да могућности које пружа онлајн учење су додатне погодности које недостају традиционалном учењу.

У следећој табели је дата структура одговора студената (на нивоу узорка) на питање да ли више преферирају традиционално или онлајн учење.

**Табела 1.** Став студената према онлајн и традиционалном учењу

Одговори	Учешће (%)
Онлајн учење као додатак традиционалном учењу	78,07%
Искључиво настава као онлајн учење	15,79%
Нисам уопште заинтересован за онлајн учење	6,14%
Укупно:	100,00%

*Извор:* Анкета аутора, јун 2020.

Што се тиче предности и недостатака онлајн учења, добијени резултати нас упућују на следеће закључке: као главну предност онлајн учења студенти виде могућност сопствене организације времена за учење, учење од куће и једноставан приступ информацијама (видети табелу 2.)

**Табела 2.** Предности онлајн учења

Одговори	Учешће према броју одговора (%)
Учење од куће	25%
Све је организовано на једном месту	19%
Једноставан приступ информацијама	25%
Сопствена организација времена за термине учења	28%
Нема предности	2%
Остали одговори	1%
Укупно:	100%

*Извор: Анкета аутора, јун 2020.*

У погледу недостатака онлајн учења, резултати анкете нас наводе на закључак да је највећи недостатак онлајн учења чињеница да нема директне комуникације и интеракције студената са професорима, за шта се изјаснило 66,7% анкетираних студената. Следећи

значајан недостатак онлајн учења, за које су се студенти изјаснили, јесте недостатак мотивације за учење (22% анкетираних студената), као и недостатак директне интеракције међу студентима (19% анкетираних студената).

**Табела 3.** Недостаци онлајн учења

Одговори	Учешће према броју одговора (%)
Нема директне комуникације и интеракције са професорима	36%
Нема директне интеракције међу студентима	19%
Недостатак мотивације код студената	22%
Губи се ефекат традиционалног учења	16%
Нема недостатака	6%
Остали одговори	1%
Укупно:	100%

*Извор: Анкета аутора, јун 2020.*

Значајно питање организације онлајн наставе јесте питање начина презентације материје предвиђене предавањима и вежбама.

У том погледу могу се користити различите форме видео, аудио презентације, предавања преко Интернет платформи у реалном времену, као и постављање материјала на одређени сајт или платформу за учење.

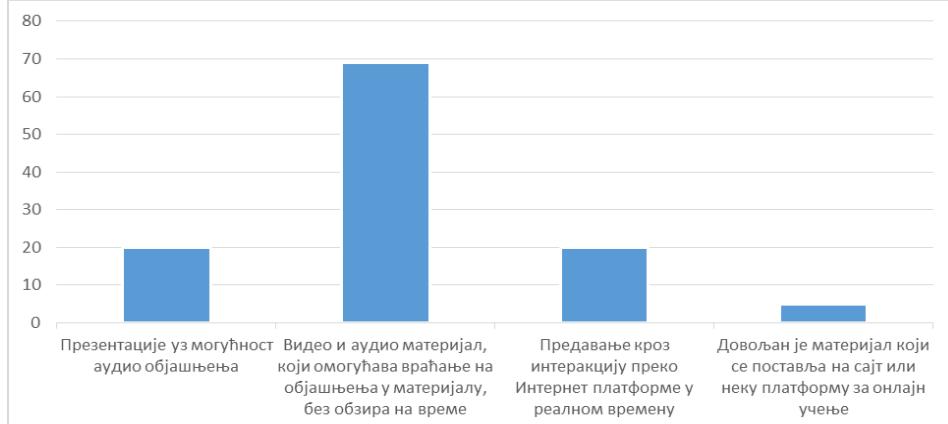
Резултати анкете нам показују да је студентима највише одговарало да користе видео и аудио материјале - 60,53% анкетираних студената се определило за ову опцију (графикон 1). Предност овог начина презентације градива се огледа у доступности материјала у било ком тренутку, као и могућности да се студенти врате на нека објашњења у материјалима приликом учења.

У нешто мањем броју студенти су се определили за коришћење презентација са аудио објашњењима (17,54% анкетираних студената), као и предавање преко Интернет платформе у реалном времену (17,54% анкетираних студената).

Мали број студената (4,39% анкетираних студената) је изабрао опцију да је доволно да је уобичајени материјал за предавања доступан на некој локацији којој се увек може приступити.

На основу претходно изнетих резултата, може се извести генералан закључак да се студенти и даље (до одређене мере) ослањају на традиционално учење, али увиђају и уважавају све погодности које могу добити путем Интернет технологија.

**Графикон 1.** Пожељне платформе за презентовање материјала у оквиру онлајн учења



*Извор: Анкета аутора, јун 2020.*

Друга групација питања у анкети била је фокусирана на конкретна искуства која су студенти стекли у онлајн настави током периода ванредне ситуације, проузроковане пандемијом.

Питања су била углавном припремљена у форми класичних оцена које су студенти давали за поједине аспекте онлајн учења.

Посебан изазов у процесу онлајн учења представља организација тестова и задатака за вежбе. Како се овом аспекту онлајн учења посветила значајна пажња у току ванредних околности, интересантно је било сагледати како су студенти оценили релевантност тестова и задатака, који су били организовани у онлајн форми, а који су имали циљ да их што боље припреме за завршне испите.

**Табела 4.** Оцена релевантност тестова и задатака за вежбе у току ванредних околности проузрокованих Covid-19 пандемијом

Оцена	Учешће у %
Оцена: 1	1,75%
Оцена: 2	7,02%
Оцена: 3	15,79%
Оцена: 4	28,95%
Оцена: 5	46,49%
Укупно:	100,00%

*Извор: Анкета аутора, јун 2020.*

Као што се може видети у табели 4, највећи број анкетираних студената (46,49%) је дало највишу оцену за релевантност тестова и задатака, док је нешто низу оцену- врло добар 4, дало 28,95% анкетираних студената. Најнижу оцену дао је незнатан број студената (1,75% анкетираних студената).

У разматрању улоге појединачних форми онлајн учења у ванредним околностима од посебног је значаја да се сагледа какво је мишљење студената о значају директне и личне интеракције у реалном времену, као и онлајн комуникације са наставним особљем.

Као што се може видети на графикону 2, резултати анкете показују да већина студената

(59,09% анкетираних студената) сматра да је код директне и личне интеракције лакше разумевање градива и да постоји опција додатног разјашњавања градива, а нешто мањи број (32,73% анкетираних студената) сматра да је довољна могућност онлајн комуникације (најчешће путем електронске поште) јер је материјал за учење већ доступан на некој локацији.

Најмањи број студената (8,18% анкетираних студената) сматра да није потребна комуникација са професором, уколико су материјали за учење довољно квалитетно припремљени.

**Графикон 2.** Значај директне, личне интеракције са наставним особљем у савладавању градива у току ванредних околности проузрокованих Covid-19 пандемијом



*Извор: Анкета аутора, јун 2020*

Најзад, у коришћењу разних форми онлајн учења не може се занемарити значај међусобне интеракције између студената путем разних платформи. У том смислу анкетирани студенти су оценили могућности за интеракцију са другим виртуелним учесницима. Резултати су приказани у табели 5. Половина анкетираних студената је дала највишу оцену за расположиве могућности за интерактивност са другим виртуелним учесницима. Оцену 4 је дало 25,45% анкетираних студената, док је две најниже оцене дало по 5,45% анкетираних студената. Ови резултати нас наводе на закључак да је могућност међусобне интеракције студената у процесу онлајн учење била на веома задовољавајућем нивоу. У том погледу студенти су у највећој мери користили групе које се најчешће праве путем viber или whatsapp апликација, што им омогућава међусобну комуникацију и добијање информација у реалном времену, али користили су и могућности такозваних "причаоница" на појединим онлајн платформама за учење.

**Табела 5.** Оцена могућности за интеракцију са другим виртуелним учесницима (онлајн платформе, viber или whatsapp групе) у току ванредних околности проузрокованих Covid-19 пандемијом

Оцена	Учење у %
Оцена: 1	5,45%
Оцена: 2	5,45%
Оцена: 3	13,65%
Оцена: 4	25,45%
Оцена: 5	50,00%
Укупно:	100,00%

*Извор: Анкета аутора, јун 2020.*

## ЗАКЉУЧАК

Пандемија COVID-19 снажно је уздрмала готово све значајне националне и глобалне системе – од здравствених па до економских. Јасно је да ће утицај пандемије COVID-19 бити далекосежан и да ће се значајно одразити и на образовне системе у свету, као и на образовни систем Србије.

Искуства стечена током трајања пандемије COVID-19 драгоцене су у одређивању места и улоге учења на даљину у образовном систему Србије. Показало се да је исправна претпоставка да би улагања у учење на даљину засновано на савремених технолошким решењима била вишеструко оправдана, како у економском смислу тако и у педагошко стручном смислу.

Имајући у виду да се разна технолошка решења већ користе у образовању и да ће наставити и даље да имају кључну улогу у образовању генерација које долазе неопходно је реално сагледати потребе за новим ИКТ вештинама у образовању. У свету где је знање удаљено кликом миша, улога наставника и васпитача мора да се промени.

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## SUMMARY

This paper examines the role of distance learning in the education system, with special reference to the extraordinary circumstances caused by the Covid-19 pandemic. It is clear that the COVID-19 pandemic has shaken almost all important national and global systems - from health to economic. And it is obvious that the impact of the Covid-19 pandemic will be far-reaching in the future. In this paper we focus on its impact on the education systems as a general, as well as on the education system of Serbia.

During the state of emergency in Serbia, caused by the Covid-19 pandemic, various platforms and applications for distance learning were used in the education system. The Ministry of Education, Science and Technological Development has supported the implementation of education activities through various channels and forms of communication, such as: broadcasting specially prepared and adapted education content for primary and secondary school students on TV channels RTS2 and RTS3 of the Public Media Service of Serbia. Further on, Ministry of Education provided support through the portal *My school*. Also, Comtrade company, in cooperation with the Office for Information Technology and e-government and Ministry of Education provided a distance learning system - *My classroomTeslaEDU*. At the same time, Microsoft offered the free use of the Office 365 platform, within which a version of Teams application adapted for education was available. In addition, it is worth noting that the following platforms and applications were used in education system of Serbia: Moodle platform, Digital Solidarity portal, Zoom and Viber applications, Cisco Webex Teams, G-Suite for education, Google Classroom platform and others.

For the purpose of this paper, a special research was conducted, which is based on a survey conducted among students of the Faculty of Economics in Belgrade. 114 students participated

in the survey. The most important conclusions of the research are the following:

- regarding the attitude of students towards online and traditional learning, it is noted that the largest number of students believe that the online learning can be combined, as an additional form, with traditional learning;
- as the main advantage of online learning students see the possibility of their own organization of learning time, learning from the home and easy access to information;
- regarding the shortcomings of online learning, the results of the survey lead us to the conclusion that the biggest shortcoming of online learning is the fact that there is no direct communication and interaction of students with professors. The other shortcoming is the lack of student's motivation to learn;
- among the different ways of presenting the material during the online learning, students preferred to use video and audio materials;
- finally, in terms of mutual interaction between students through various platforms for online learning, students rated the possibilities for interaction with other virtual participants with the highest marks.

## THE ROLE OF DISTANCE LEARNING DURING THE COVID-19 PANDEMIC

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*Paper presented at the 8th International Scientific Symposium „EkonBiz: Change management in the conditions of globalization“, Bijeljina, 18 – 19th June 2020.*

**Abstract:** The primary objective of this paper is to present the analysis of the functioning of distance learning in the educational system in Serbia during Covid-19 pandemic, and to draw conclusions on the readiness of the system for such and similar situations. More specific, the objective is to consider the role of distance learning in these circumstances, bearing in mind the fact that only in primary and secondary schools nearly 750,000 students and some 80,000 teachers were forced to use one or the other distance learning method. COVID-19 pandemic has affected educational systems in Serbia and worldwide alike, posing unimaginable logistic and technological challenges, forcing teachers to teach in new and unfamiliar ways. The paper first provides an overview of the most commonly used distance learning platforms and applications, in general and especially during a pandemic. In particular, research was conducted on students' attitudes about distance learning during the pandemic. The data obtained from a survey conducted at the Faculty of Economics, University of Belgrade is also analysed. The paper points out that the impact of the pandemic will clearly be far-reaching and widespread, raising the issue of its possible long-term significance for the education in general, and the educational system in Serbia in particular. The paper also points to the need of generation of new ICT skills in education. Technology has taken

roots in education and will continue to play the key role in educating generations to come. With knowledge just a click away, the role of teachers will inevitably change.

**Key words:** COVID-19 pandemic, education system, distance learning, software tools

### INTRODUCTION

The COVID-19 pandemic has affected the entire education system, worldwide and in Serbia alike, putting it in front of unprecedented logistical and technological challenges, forcing teachers and educators to teach in new and unknown ways, and parents to adapt ways of supervising children learning at home. Since World War II, not many countries around the world have been in a situation where schools and educational institutions close at the same time and for the same reason. About 1.2 billion students and youth across the planet, or about 60% of that population, are affected by the closure of schools and universities due to the COVID-19 epidemic (UNESCO, 2020). In Serbia alone, over 750,000 students and 80,000 teachers are forced to use some form of distance learning in primary and secondary schools. It is clear that the impact of this pandemic will be far-reaching and widespread, so the question is what could it mean in the long run for education in general, and for the education system of Serbia in particular?

As teachers and educators face new ways of communicating with students far from their classrooms, it is time to consider the following: how can this devastating crisis help us define what learning should look like for future generations, as well as what needs to be changed in the educational system in order for the system to function smoothly and efficiently in such and other crises, for the transition from the regular state to the state of emergency to be almost imperceptible.

*The Global Education Coalition*, launched by UNESCO, wants to facilitate learning opportunities for children and youth during this sudden and unprecedented disruption in education. Investing in distance learning should alleviate the immediate disruptions caused by COVID-19 and establish approaches to developing more open and flexible education systems for the future (UNESCO, 2020).

In order to draw conclusions for the future, we analyze how distance learning works during the COVID-19 pandemic on the example of the Serbian education system. In particular, we conduct a survey among students of the Faculty of Economics in Belgrade, about their attitudes towards distance learning in general and during an emergency situation.

## **1. Distance learning**

*Distance learning*, also known as *distance education*, *e-learning* and *online learning*, is a form of education in which the main elements include the physical separation of teachers and students during teaching and the use of different technologies to facilitate communication between students and teachers and students with each other (Encyclopedia Britannica, 2020). To use these technologies successfully, teachers need to learn about different design and messaging techniques that are specific to these technologies. Students must learn how to learn and communicate using technology. Administrators in educational and teaching institutions must organize their resources differently than they do for classroom teaching (Moore and Kearsley, 2012. p.3).

## **E-learning process and content management systems**

*The Learning Management System (LMS)* is a software package that enables the management and delivery of learning content. Most *LMS* systems are created as a Web solution that facilitates content access and administration. *LMS* enables registration, delivery and monitoring of e-learning and content courses, testing, as well as course management and joint learning with an instructor. Most systems are self-service and allow participants to register independently and access

courses. *The Learning Content Management System (LCMS)* facilitates the organization of content and authoring tools, as well as the presentation of this content to participants through the *LMS*. Most systems are developed for commercial use. However, there are also free open-source models.

## **2. Distance learning platforms and applications used during the COVID-19 pandemic in the Serbian education system**

Due to the pandemic caused by the COVID-19 virus, the Republic of Serbia declared a state of emergency on 15 March 2020, temporarily suspending direct classes in schools. In order to exercise students' right to education, the Ministry of Education, Science and Technological Development of Serbia prepared an operational plan for the continuation of schools' work in difficult conditions (<https://www.rasporednastave.gov.rs>). This plan took into account a large number of different teaching and learning programs in all grades of primary and secondary school and had a focus on organized distance learning that helps realize program contents of general education subjects and vocational subjects with the largest number of classes.

The Ministry envisaged and supported the implementation of educational activities through various channels and forms of communication: by broadcasting specially prepared and adapted educational content for primary and secondary school students on RTS2 and RTS3 TV channels of the Public Media Service of Serbia:

- By establishing a repository of educational video content for primary and secondary school students on the free "RTS My School" mobile phone application, on the RTS website and on the RTS Planet multimedia internet platform;
- By making available a set of tools for online communication between students and teachers;
- By creating conditions for digital solidarity – sharing authors' teaching materials among practitioners.

For those who do not have Internet access, free access was provided through all three mobile operators.

### **"My school" Portal**

In order to use the digital resources at its disposal in a pedagogically responsible way, the Ministry of Education, Science and Technological Development of Serbia provided additional support to students through the "My School" portal (<https://www.mojaskola.gov.rs>).

### **"My classroom TeslaEDU" online platform**

Comtrade, in cooperation with the Office for Information Technology and eGovernment and the Ministry of Education, Science and Technological Development, provided a distance learning system that is localized in Serbian, adapted to an efficient education system and located on resources within the state "data center". The platform is provided for all students and teachers in primary and secondary schools (<https://www.mojaucionica.gov.rs>). "My classroom TeslaEDU" is a portal and mobile application for the m-Learning platform. It is a unified package of functional modules, based on the Moodle LMS platform, which are carefully selected and integrated in order to optimally manage the entire learning experience, in each of the formal education process phases. The platform covers the areas of course writing, course enrollment and attendance, course teaching, online assessment, progress monitoring, course evaluation and reporting. "My TeslaEDU classroom" allows students to access it from their own computers, tablets, or from their smartphones. From their computers, students can study materials, take quizzes, collaborate through discussions in online lectures, receive and teach assignments, and use calendar reminders related to the material. The platform is accessed through user accounts provided by the Ministry of Education, Science and Technological Development. Support is provided on the <https://www.mojaucionica.gov.rs> portal. Illustrative courses have been prepared within the portal for teachers and students, as well as detailed guidelines with video materials for training in the use of the teaching platform.

### **Microsoft Teams**

During the crisis period, Microsoft provided free use of the Office 365 platform, within which a version of the Teams application adapted for education is available (<https://www.microsoft.com>). The platform will be available to schools and faculties free of charge now and later and will allow all teachers, pupils, professors and students to organize remote teaching via the Internet through a group video call in which the teacher can share the content of their screen with students and record the whole course of the class and make it available to all pupils/students from the appropriate group. Access to the platform is first provided for all students and teachers in primary and secondary schools. The platform can be accessed from computers and mobile devices. For those who do not have Internet access, free access to the platform is provided via mobile networks. In order to better prepare teachers to use the platform, Microsoft has organized free online training for teachers.

### **ZOOM**

ZOOM is much simpler, it works great, but its free version has two important limitations: up to 100 participants (students) and duration of up to 40 minutes (<https://zoom.us>). This application is intended for online meetings. For those who do not have Internet access, free access to the application is provided via mobile networks. The use of this application does not require special support from the ministry, but each institution creates an account for itself and manages it. This platform was successfully used at all levels in the education system of Serbia, during the COVID-19 pandemic.

### **Viber Community**

In cooperation with Viber, the use of both the Viber application and the Viber Community service is enabled, which enables efficient group communication and information exchange, which can be useful in given conditions (<https://www.viber.com/en/communities>). For those who do not have Internet access, free access is provided through mobile networks. No special support is required for the application.

### **The "Digital Solidarity" portal**

The *Digital Solidarity* portal (<https://www.digitalnasolidarnost.gov.rs>) is intended for everyone who had to be in their homes due to the coronavirus pandemic. All information on free platforms for distance learning, work from home, free online books, courses and other contents during the COVID-19 pandemic is given in one place.

### **The MOODLE platform**

The *Moodle* platform is widespread in the education system, though not generally accepted. *Moodle* provides teachers with full computer support in organizing and conducting online education. Some of the more important features of *Moodle* are: course planning – activity schedule, calendar, user management, user roles and user groups on the course, knowledge testing and user evaluation, monitoring user activities, system management, content protection by backing up, keeping statistics and report creation (<http://www.moodle.org>, 2020). RCUB *Moodle* is open to all members of the University of Belgrade, but also other universities and colleges. The *Moodle* platform has been used in teaching at many faculties at the University of Belgrade for more than 10 years. The open source conferencing system *BigBlueButton* is often used in addition to this platform. The new version of the *BigBlueButton* version allows you to record sessions, vote and save the attendance list.

In addition to the described platforms, other platforms were used in the Serbian education system during the COVID-19 pandemic: Cisco Webex Teams, G-Suite for Education, Google Classroom and others.

### **3. Research results on students' attitudes towards distance learning**

For the purposes of this paper, a special research was prepared, based on the results of a survey conducted among students of the Faculty of Economics in Belgrade, after the experience they had in a state of emergency caused by the COVID-19 virus pandemic. 114 students participated in the survey. The aim of the research was to get the general attitudes of students towards distance learning, as well as their opinion on the quality of online teaching during the COVID-19 pandemic. In that sense, the questions in the survey are divided into two parts. The first part presented questions about the general attitudes of students towards online learning, such as:

- What is your attitude towards the relationship between online learning and traditional learning?
- What do you think are the advantages of online learning?
- What do you think are the disadvantages of online learning?
- In your opinion, what are the most suitable forms for presenting materials within online learning?

The second set of questions referred to the students' attitudes towards the immediate experience they had during the two months, when

they followed the classes solely through online platforms.

Regarding the attitude of students towards online and traditional learning, it is noted that the largest number of students (78.07% of surveyed students) believe that online learning can be combined, as an additional form, with traditional learning. This indicates that traditional learning is still one of the most reliable forms of learning, and that the opportunities provided by online learning are additional benefits that traditional learning lacks. The following table shows the structure of students' responses (at the sample level) to the question of whether they prefer traditional or online learning.

**Table 1.** Attitudes of students towards online and traditional learning

Answers	Share (%)
Online learning in addition to	78.07%
Online learning only	15.79%
I'm not at all interested in online	6.14%
Total:	100.00%

*Source: Author survey, June 2020*

Regarding the advantages and disadvantages of online learning, the obtained results lead us to the following conclusions: students see the possibility of their own organization of learning time, learning from home and easy access to information as the main advantage of online learning (see Table 2).

**Table 2.** Advantages of online learning

Answers	Share by number of answers (%)
Learning from home	25%
Everything is organized in one place	19%
Easy access to information	25%
Own organization of time for learning	28%
No advantages	2%
Other responses	1%
Total:	100%

*Source: Author survey, June 2020*

Regarding the disadvantages of online learning, the results of the survey lead us to the conclusion that the biggest disadvantage of online learning is the fact that there is no direct communication and interaction of students with professors, which 66.7% of surveyed students stated. The next

significant disadvantage of online learning, which students stated, is the lack of motivation to learn (22% of surveyed students), as well as the lack of direct interaction among students (19% of surveyed students).

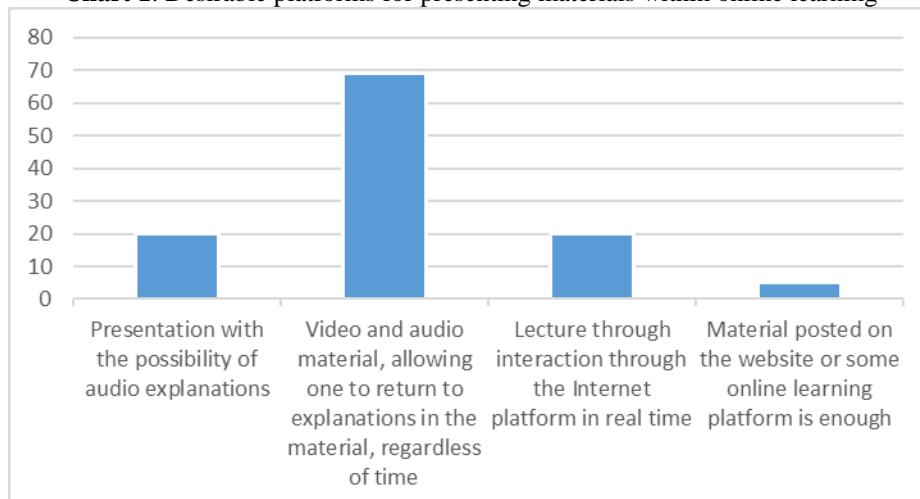
**Table 3.** Disadvantages of online learning

Answers	Share by the number of answers (%)
No direct communication and interaction with professors	36%
No direct interaction among students	19%
Lack of motivation among students	22%
The effect of traditional learning is lost	16%
No disadvantages	6%
Other answers	1%
Total:	100%

*Source: Author survey, June 2020*

An important issue in the organization of online teaching is the question of how to present the material provided in lectures and exercises. In this regard, various forms of video, audio presentations, lectures via Internet platforms in real time, as well as posting materials on a particular site or learning platform can be used. The results of the survey show that it was most suitable for students to use video and audio materials – 60.53% of surveyed students opted for this option (Chart 1). The advantage of this way of presenting the material is reflected in the

availability of materials at any time, as well as the possibility for students to return to some explanations in the materials while learning. A slightly smaller number of students opted for the use of presentations with audio explanations (17.54% of surveyed students), as well as lectures via the Internet platform in real time (17.54% of surveyed students). A small number of students (4.39% of the surveyed students) chose the option that it is sufficient that the usual lecture material is available in a location that can always be accessed.

**Chart 1.** Desirable platforms for presenting materials within online learning

*Source: Author survey, June 2020*

Based on the previously presented results, a general conclusion is that students still (to some extent) rely on traditional learning, but recognize and appreciate all the benefits that can be obtained through Internet technologies.

The second group of questions in the survey focused on the specific experiences that students gained in online teaching during the emergency period caused by the pandemic. The questions were mostly prepared in the form of classic grades

that students gave for certain aspects of online learning.

A special challenge in the process of online learning is the organization of tests and assignments. As this aspect of online learning received significant attention during extraordinary circumstances, it was interesting to see how students assessed the relevance of tests and assignments, which were organized in online form, and which aimed to better prepare them for final exams.

**Table 4.** Grading the relevance of tests and assignments during emergencies caused by the Covid-19 pandemic

Grade	Share in %
Grade: 1	1.75%
Grade: 2	7.02%
Grade: 3	15.79%
Grade: 4	28.95%
Grade: 5	46.49%
Total:	100.00%

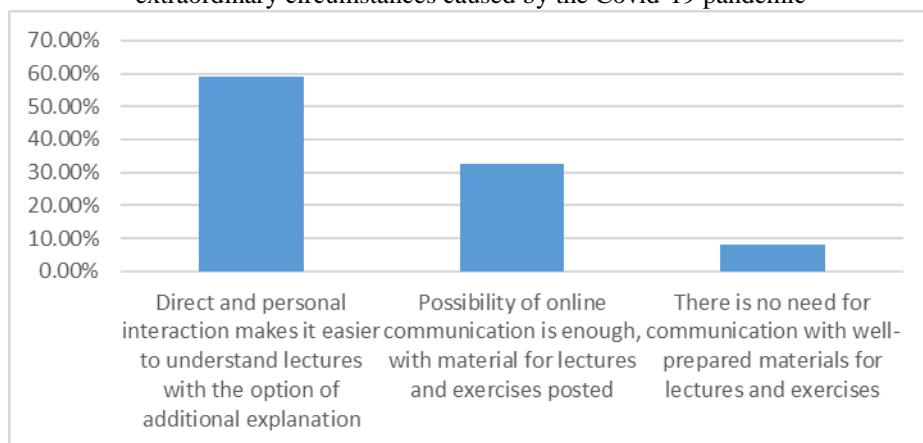
*Source: Author survey, June 2020*

As can be seen in Table 4, the largest number of surveyed students (46.49%) gave the highest grade for the relevance of tests and assignments, while a slightly lower score – a very good 4 – was given by 28.95% of surveyed students. The lowest grade was given by a small number of students (1.75% of surveyed students).

In considering the role of certain forms of online learning in extraordinary circumstances, it is of special importance to consider the opinion of students about the importance of direct and personal interaction in real time, as well as online communication with teaching staff.

As can be seen in Chart 2, the survey results show that the majority of students (59.09% of surveyed students) believe that direct and personal interaction is easier to understand the material and that there is an option to further clarify the material, and a slightly smaller number (32.73 % of surveyed students) believe that the possibility of online communication is sufficient (usually via e-mail) because the learning material is already available at a location. The smallest number of students (8.18% of surveyed students) believe that communication with the professor is not necessary, if the learning materials are well prepared.

**Chart 2.** Importance of direct, personal interaction with teaching staff in mastering the material during extraordinary circumstances caused by the Covid-19 pandemic



*Source: Author survey, June 2020*

Finally, in the use of various forms of online learning, the importance of mutual interaction between students through various platforms cannot be neglected. In that sense, the surveyed students evaluated the possibilities for interaction with other virtual participants. The results are shown in Table 5.

Half of the surveyed students gave the highest grade for the available opportunities for interactivity with other virtual participants. Grade 4 was given by 25.45% of the surveyed students, while the two lowest grades were given by 5.45% of the surveyed students. These results lead us to the conclusion that the possibility of mutual interaction of students in the online learning process was at a very satisfactory level. In this regard, students mostly used groups that are most often created via Viber or Whatsapp applications,

which allows them to communicate with each other and get information in real time, but they also used the capabilities of so-called “chat rooms” on some online learning platforms.

**Table 5.** Grading opportunities to interact with other virtual participants (online platforms, Viber or Whatsapp groups) during emergencies caused by the Covid-19 pandemic

Grade	Share in %
Grade: 1	5.45%
Grade: 2	5.45%
Grade: 3	13.65%
Grade: 4	25.45%
Grade: 5	50.00%
Total:	100.00%

*Source: Author survey, June 2020*

## CONCLUSION

The COVID-19 pandemic has shaken almost all important national and global systems – from health to economic. It is clear that the impact of the COVID-19 pandemic will be far-reaching and will have a significant impact on the education systems in the world, as well as on the education system of Serbia. The experience gained during the COVID-19 pandemic is valuable in determining the place and role of distance learning in the Serbian education system. It turned out that the assumption that investment in distance learning based on modern technological solutions would be justified in many ways was correct, both in the economic sense and in the pedagogical-professional sense. Bearing in mind that various technological solutions are already used in education and that they will continue to play a key role in the education of future generations, it is necessary to realistically consider the needs for new ICT skills in education. In a world where knowledge is a click away, the role of teachers and educators must change.

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## SUMMARY

This paper examines the role of distance learning in the education system, with special reference to the extraordinary circumstances caused by the Covid-19 pandemic. It is clear that the COVID-19 pandemic has shaken almost all important national and global systems - from health to economic. And it is obvious that the impact of the Covid-19 pandemic will be far-reaching in the future. In this paper we focus on its impact on the education

systems as a general, as well as on the education system of Serbia. During the state of emergency in Serbia, caused by the Covid-19 pandemic, various platforms and applications for distance learning were used in the education system. The Ministry of Education, Science and Technological Development has supported the implementation of education activities through various channels and forms of communication, such as: broadcasting specially prepared and adapted education content for primary and secondary school students on TV channels RTS2 and RTS3 of the Public Media Service of Serbia. Further on, Ministry of Education provided support through the portal *My school*. Also, Comtrade company, in cooperation with the Office for Information Technology and e-government and Ministry of Education provided a distance learning system - *My classroomTeslaEDU*. At the same time, Microsoft offered the free use of the Office 365 platform, within which a version of Teams application adapted for education was available. In addition, it is worth noting that the following platforms and applications were used in education system of Serbia: Moodle platform, Digital Solidarity portal, Zoom and Viber applications, Cisco Webex Teams, G-Suite for education, Google Classroom platform and others. For the purpose of this paper, a special research was conducted, which is based on a survey conducted among students of the Faculty of Economics in Belgrade. 114 students participated in the survey. The most important conclusions of the research are the following:

- regarding the attitude of students towards online and traditional learning, it is noted that the largest number of students believe that the online learning can be combined, as an additional form, with traditional learning;
- as the main advantage of online learning students see the possibility of their own organization of learning time, learning from the home and easy access to information;
- regarding the shortcomings of online learning, the results of the survey lead us to the conclusion that the biggest shortcoming of online learning is the fact that there is no direct communication and interaction of students with professors. The other shortcoming is the lack of student's motivation to learn;
- among the different ways of presenting the material during the online learning, students preferred to use video and audio materials; finally, in terms of mutual interaction between students through various platforms for online learning, students rated the possibilities for interaction with other virtual participants with the highest marks.

# STRATEGIJA UPRAVLJANJA BANKARSKIM SISTEMIMA U ZEMLJAMA CENTRALNE I ISTOČNE EVROPE U USLOVIMA GLOBALIZACIJE

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*Članak je izlagan na VIII Internacionalnom naučnom skupu „EkonBiz: Upravljanje promjenama u uslovima globalizacije“, Bijeljina 18. i 19. jun 2020. godine*

**Apstrakt:** Finansijska kriza je negativno uticala na sve zemlje sveta u uslovima globalizacije sa različitim intezitetom, bez razlike da li se radi o višem ili nižem nivou razvijenosti i različitim privrednim strukturama. U uslovima globalizacije u zemljama u tranziciji izvršena je reforma bankarskog sistema i na taj način je započeto stvaranje novog finansijskog tržišta. Međunarodni monetarni fond uzeo je aktivno učešće u procesu tranzicije zemalja istočne Evrope pružanjem saveta i odobravanjem finansijskih aranžmana. Razvijene zemlje sveta su radi prevazilaženja svetske finansijske krize primenile mere nestandardne monetarne politike. Zemlje centralne i istočne Evrope su u određenom delu pored opštег korporativnog identiteta (naziv banke, skraćenog imena, zaštitnog znaka i slogan-a banke) primenjivale i kvalitativna obeležja korporativnog identiteta (imidž, reputacije i gudvila) banke. Ulaskom u 21. vek banke razvijenih zemalja sve više stavljaju naglasak na korporativnu kulturu i stil poslovanja banke. U praksi banaka najčešće su prisutne sledeće performanse: finansijske, marketing, menadžment performanse, performanse zaposlenih, poslovne filozofije, ugleda, reputacije i imidža banke. Analiza performansi banaka obuhvatila je 13 zemalja centralne i istočne Evrope podeljenih u tri grupe. Analizirane su performanse u vremenskom periodu od 2008-2018. godine koje se odnose na: učešće ukupne aktive u BDP-u, učešće ukupnih kredita u BDP-u, učešće ukupnog depozita u BDP-u i nivo adekvatnosti

kapitala zemalja centralne i istočne Evrope. Analiza pokazuje da su dominantne banke zemalja centralne Evrope, a da se njima u određenim performansama približavaju banke zemalja istočne Evrope (članice Evropske Unije i zapadnog Balkana).

**Ključne riječi:** globalizacija, finansijska kriza, performanse banaka, bankarska aktiva, krediti, depozit, adekvatnost kapitala.

## UVOD

Svetska ekonomsko-finansijska kriza nastala je iz fiktivnih finansijskih transakcija i transakcija sa razvijenim i nerazvijenim zemljama u svetu. Finansijska kriza koja se pojavila u SAD-e inicirana je kolapsom tržišta nekretnina koja je preneta efektom "zaraze" na celi svet, a zatim na realni sektor razvijenih zemalja i zemalja u razvoju. Finansijska kriza je pogodila sve zemlje sveta u uslovima globalizacije sa različitim jačinom i intezitetom bez razlike da li se radilo o višem ili nižem nivou razvijenosti i različitim privrednim strukturama. Finansijska kriza je u uslovima globalizacije negativno delovala na sve društvene slojeve i izazvala smanjenje svih makroekonomskih agregata i indikatora u svim zemljama sveta. Razvijenije zemlje su spašavale svoje banke ulazeći u velike budžetske deficitne, dok su zemlje u razvoju premašile sve granice budžetskog deficit-a i ulazile u krizu spoljnog javnog duga i ukupne zaduženosti. Zemlje

centralne Evrope uspele su većim delom odupreti se finansijskoj krizi korišćenjem budžetskog deficit-a, dok su zemlje istočne Evrope (posebno zemlje zapadnog Balkana) tražile izlaz u monetarnoj i fiskalnoj politici, čije mere su još uvek nedovoljne za generisanje rasta i pokretanje privredne aktivnosti.

Strukturalnim promenama i reformama u privredi i bankarskim sistemima jednim delom je ublažena finansijska kriza. Međutim, bankarske sisteme i dalje karakteriše nedovoljna kreditna aktivnost, niska profitabilnost i rast problematičnih (NPL) kredita. Bankarski sistemi su se više okrenuli ka smanjenju rizika i povećanju kapitala, saglasno Bazelskim standardima, zbog manje potražnje za kreditnim sredstvima od strane privrede i stanovništva, jer je još uvek prisutna njihova velika zaduženost.

Udeo nekvalitetne aktive u ukupnim kreditima je i dalje visoka. Posebno je zabrinjavajuće visok nivo učešća nekvalitetne aktive klasifikovane u kategorijama D i E (teško naplativih i nenaplativih potraživanja). Banke su u takvim uslovima bile prinuđene da sprovode strogu kreditnu politiku i mere oko reprogramiranja plasiranih kreditnih sredstava, kako bi se amortizovali potencijalni makroekonomski udari na zemlje istočne Evrope (zapadnog Balkana). Zbog smanjene kreditne aktivnosti Evropska centralna banka je preduzela mere smanjenja kamatnih stopa. U zavisnosti kako su se finansijski konsolidovali značajni spoljnotrgovinski partneri zamalja u razvoju, isto je direktno uticalo i na njihov oporavak od udara svetske finansijske krize. Zemlje istočne Evrope u posmatranom periodu od 2008 do 2018. godine zabeležile su pad ekonomske aktivnosti (sa negativnom stopom privrednog rasta), zbog smanjenja izvoza, povećanja uvoza, smanjenja direktnih stranih investicija, smanjenja domaće tražnje i prisustva prirodnih nepogoda (velikih poplava i sl.).

Privredni oporavak je prisutan sa blagim tempom od 2015 do 2019. godine poboljšanjem kreditnog rejtinga dotičnih zemalja. Zbog niskih kamatnih stopa banke su bile destimulisane da drže svoje depozite kod Evropske centralne banke i krenule su u odobravanje kredita stanovništvu, a delom i privrednom sektoru. Činjenica je da nakon smanjenja kamatnih stopa likvidnost nije više bila problem u Evrozoni, već slab kreditni rast koji je potiskivao slabu agrarnu tražnju. Kupovinom „pokrivenih“ obveznica i kupovinom hartija od vrednosti „pokrivenih“ imovinom uvedena je investiciona aktivnost u bankarskim sistemima zemalja centralne i istočne Evrope. Rast BDP-a i direktnih stranih investicija, povećanog izvoza uticao je u zemljama centralne Evrope na zemlje

istočne Evrope, posebno one koje nisu članice Evropske unije. U uslovima globalizacije i prisustva svetske finansijske krize izlaz se tražio u restrukturiranju bankarskih sistema razvijenih zemalja i zemalja u razvoju (tranziciji).

## 1. UTICAJ GLOBALIZACIJE I FINANSIJSKE KRIZE NA RESTRUKTURIRANJE BANAKA U ZEMLJAMA CENTRALNE I ISTOČNE EVROPE

Svetska finansijska kriza u uslovima globalizacije donela je zemljama u tranziciji veliki pad proizvodnje, smanjenu dobit i pokazala je da su privrede ovih zemalja još uvek lako „ranjive“ i prilično nestabilne. Sa pojavom finansijske krize većina ekonomista je zemljama u tranziciji predviđala kratkotrajnu recesiju. Na početku primene mera iz tranzisionog programa dotične zemlje su pokazivale veliki pad BDP-a, pad nivoa investicija, smanjenje industrijske proizvodnje, smanjenje realnih zarada, rast inflacije, nezaposlenost i siromaštvo. Uspeh u sprovođenju tranzicije i zadovoljavajuće makroekonomiske rezultate stvorile su zemlje centralne Evrope: Češka, Poljska, Slovačka, Slovenija i Mađarska. U tim zemljama privatni sektor je bio glavni generator rasta BDP-a i ustavljen je adekvatna institucionalna infrastruktura. Manje su bile uspešne zemlje istočne Evrope (posebno zemlje zapadnog Balkana) koje nakon više od dve decenije od početka tranzicije nisu upotpunosti dostigle navedene tržišne kriterijume, tako da su u većem delu izostali makroekonomski rezultati.

Paralelno sa tranzicijom u uslovima globalizacije izvršena je reforma bankarskog sistema, a na taj način je započeto stvaranje novog finansijskog tržišta. U globalnim uslovima privređivanja otvorile su se dileme, kako transformisati bankarske sisteme u zemljama centralne i istočne Evrope. Prva dilema je išla u pravcu zalaganja za kvalitetno nova bankarska rešenja, pri čemu bi se banke koje ne mogu da pokriju svoje gubitke iz svog kapitala smatrале nesolventnim uz primenu stečajnog postupka. Druga dilema se odnosila na statusne promene banaka prelaskom u akcionarska društva, gde bi preduzeća iz realnog sektora postala suvlasnici banaka, tako da se pojavilo beneficirano kreditiranje.

Koncentracija kredita nije imala svoju poslovnu aktivnost, jer je bila reč o kreditiranju preduzeća koja su imala u bankama velike udele u obliku akcija. Uloga banaka u procesu globalizacije bila je svedena na kreditiranje svojih klijenata ukoliko se isti nađu u teškoj finansijskoj situaciji. U takvim uslovima poslovanja banke, kod zemalja u tranziciji, nisu vodile računa o osnovnim

bankarskim principima (likvidnosti, solventnosti, sigurnosti i profitabilnosti) već su delile finansijsku sudbinu svojih klijenata. S obzirom da banke nisu imale za cilj maksimiziranje dobiti, već su bile finansijski servisi svojih klijenata, sve više su opterećene nenaplativim potraživanjima, lošom procenom rizika, zanemarivanjem troškova poslovanja, podložnećajima klijenata sa velikim vlasničkim udelima.

Za deo zemalja istočne Evrope (zapadnog Balkana) može se reći da su u poslednje dve decenije doživele ekonomsku transformaciju u uslovima globalizacije prvenstveno reformama u privredi, otvaranjem globalne trgovinske razmene, povećanjem izvoza, stranih direktnih investicija, povećanja privatnog sektora, rastu BDP-a i transformaciji bankarskih sistema prihvatanjem stranog kapitala. Investicije u bankarske sisteme zemalja u tranziciji omogućile su rast depozita (avista i oročenih) i povećanu kreditnu aktivnost usmerenu ka privredi i stanovništvu. Dolaskom stranih banaka uneti su novi principi poslovanja i primena međunarodnih standarda finansijskog poslovanja. Strane banke unele su sigurnost poslovanja posebno za klijente iz inostranstva.

U uslovima globalizacije Međunarodni monetarni fond je od samog početka bio angažovan u procesu ekonomске tranzicije zemalja zapadnog Balkana. Pored pružanja saveta, ponuđeni su i finansijski aranžmani u skoro svim zemljama u tranziciji. Finansijski aranžmani su imali zadatak da očuvaju makroekonomsku stabilnost zemalja u tranziciji. Isto tako, Međunarodni monterani fond pružao je obuke kadrova i tehničku pomoć zemljama u tranziciji (zemljama zapadnog Balkana). Na taj način su zemlje posmatranog regiona podigle na viši nivo investicije za kreiranje ekonomске politike, donele nove zakone, uredile oblast monetarne i fiskalne politike i uspostavile veću kontrolu nad radom banaka. Bez obzira na rast dohotka po glavi stanovnika ostvareni rezultati se još uvek ne mogu smatrati apsolutno zadovoljavajućim. Činjenica je, da je još uvek u zemljama u tranziciji prisutna hronična nedovoljna iskorišćenost ljudskih resursa (niska zaposlenost posebno među ženskim polom i mladim kadrovima). Prema projektovanim stopama privrednog rasta ekonomije zemalja zapadnog Balkana će do 2030. godine ostvariti mali deo razlike u odnosu na nivo dohotka po glavi stanovnika u naprednim ekonomijama Evropske unije. Napred navedeno ukazuje da je neophodno u zemljama zapadnog Balkana realizovati sistem fiskalne konsolidacije i smanjiti javni dug u odnosu na visinu BDP-a.

Otvorena pitanja koja su prisutna u drugoj deceniji 21-og veka odnose se na visok nivo

problematskih kredita (NPL) i njegov rast nakon pojave svetske finansijske krize. Bez obzira da su finansijski rizici većim delom ublaženi zadovoljavajućim nivoom kapitala i rezervisanjima u bankama, problematski krediti su nastavili negativno da utiču na kreditni rast i profitabilnost banaka. Da bi se eliminisalo ovo otvoreno pitanje, neophodno je sprovesti aktivnosti u pravcu: bolje realizacije sredstava obezbeđenja (hipoteka, cediranih potraživanja), unapređenja mera održavanja profitabilnog poslovanja, vansudskog restrukturiranja i efikasnijeg sudskega odlučivanja. S obzirom da su u određenom delu zapadnog Balkana prisutne birokratske procedure, koje usporavaju privrednu delatnost, korporativno upravljanje kao savremeni i efikasni oblik odlučivanja na nivou je projektovanog zadatka koga treba u narednom periodu realizovati.

Radi prevazilaženja svetske finansijske krize razvijene zemlje sveta primenile su mere nestandardne monetarne politike koje su u početku primene imale pozitivan efekat (videlo sa na primerima američkih investicionih banaka). U poslednje vreme sve veći broj ekonomista zastupa tezu, da se mere nestandardne monetarne politike treba da povuku nakon ublažavanja delovanja krize. S obzirom da su dotične mere izazvale previsoku likvidnost i niske kamatne stope banaka, njihov dalji nastavak može izazvati finansijsku nestabilnost, buduće probleme oko rasta inflacije i moralni hazard. Ukipanjem nestandardne monetarne politike izazvala bi se relativna ekspanzija bilansa centralnih banaka. To znači da bi centralne banke bile neutralne na finansijskom tržištu, pri čemu bi kamatne stope bile instrument monetarne politike.

S obzirom da su centralne banke mnogo efikasnije u kontrolisanju kretanja inflacije nego u posticaju privrednog rasta, neophodno je da nacionalne centralne banke postignu sporazum o zajedničkim komunikacionim strategijama i koordinisanim aktivnostima u vezi vođenja monetarne politike u zemljama Evropske Unije (isto se odnosi i na centralne banke zemalja zapadnog Balkana). Činjenica je da uspešnost poslovanja banaka zavisi od makro i mikro ekonomskih faktora koji su usmereni na kvalitet aktive banke. Kvalitet aktive banke iskazuje se rastom adekvatnosti kapitala koji predstavlja snagu svake banke da se suprostavi problematskim kreditnim plasmanima. Banke su u obavezi da definišu adekvatnu strukturu plasmana u kreditnom portfoliu, da obezbede prednosti u odnosu na konkurenčiju dobrim pozicioniranjem na finansijskom tržištu kako bi obezbedile profit za dalji rast banke i rezervacije za nepredvidive rizike. Posebno mesto u zemljama centralne i istočne Evrope (posebno zemalja zapadnog Balkana) uvođenje poslovne politike banaka

pripada kreditnoj funkciji, s obzirom da su krediti najviše prisutni u poslovanju banaka.

## **2. KORPORATIVNE PERFORMANSE BANAKA U ZEMLJAMA CENTRALNE I ISTOČNE EVROPE U USLOVIMA GLOBALIZACIJE**

Za bankarske sisteme zemalja centralne Evrope u uslovima globalizacije karakteristično je da su većim delom primenjivale oblik korporativnog upravljanja. Treba istaći da je u bankarskoj teoriji poznata činjenica da se korporativno upravljanje kao oblik upravljanja u bankama pojavljuje u uslovima nestabilnog finansijskog tržišta, zatim većeg prisustva konkurenkcije i pojave rizika u poslovanju. Upravo u uslovima globalizacije prisutna je povećana orientacija banaka ka tržišnim uslovima privređivanja, što je uticalo na redefinisanje tradicionalnog pristupa upravljanju, načelima i principima bankarskog poslovanja. Sve više je dolazio do izražaja kvalitet upravljanja bankama sa posebnim uticajem na upravljanje bankarskim rizicima (kreditnim, kamatnim, valutnim, tržišnim, finansijskim i operativnim). U zemljama centralne i istočne Evrope korporativno upravljanje u bankama se definiše kao način upravljanja sa poslovanjem banaka koji obuhvata upravljanje sa aktivom, pasivom, prihodima, rashodima i kapitalom banke. Primeri poslovanja banaka u uslovima globalizacije pokazuju da je prisutno neefikasno upravljanje sa bankom, ukoliko se nedefiniše nivo izloženosti prema rizicima, nivo organizacije banke i nivo ponašanja menadžmenta banke prema međunarodnim bankarskim standardima i međunarodnoj bankarskoj regulativi.

Veći broj banaka, posebno u zemljama centralne Evrope, prihvatio je činjenicu da korporativno upravljanje performansama banaka predstavlja opredelenje ka njihovoj manjoj ili većoj tržišnoj vrednosti. Svako merenje korporativnih performansi banaka stvara mogućnost menadžmenta u bankama (u zemljama centralne i istočne Evrope) da uspostave aktivan odnos u upravljačkom procesu radi ostvarivanja što povoljnijih tržišnih performansi. Primeri iz prakse analiziranih bankarskih sistema pružaju različite rezultate, odnosno performanse. U bankarskoj teoriji i praksi poznata je činjenica da se glavna obeležja opštег korporativnog identiteta banaka odnose na:a) pun naziv banke, b) skraćeno ime banke, c) zaštitni znak banke, d) slogan banke (Vunjak, Radović, Vitomir, i Štrbo,2019,str.235).

Za banke u zemljama centralne i istočne Evrope je karakteristično da imaju obeležja opštег korporativnog identiteta. Činjenica je da svaka banka ima svoje puno ime, sedište i adresu. Veći broj banaka ima i skraćeno ime kao bliže obeležje

suštine njenog poslovanja. Obično se pri poslovnoj registracijibanke u registar privrednih institucija pored punog imena registruje i skraćeno ime banke. Dotične banke se često sa skraćenim imenom pojavljuju u poslovnim komunikacijama sa poslovnim partnerima na finansijskom tržištu. Za banke je od posebne važnosti zaštitni znak koji služi za prepoznavanje banke i „na prvi pogled“. Zaštitni znak svake banke treba da je dobro dizajniran i da „na prvi pogled“ simbolizuje dotičnu banku. Napred navedeno je karakteristično i za banke centralne i istočne Evrope. Za slogan banke je karakteristično da predstavlja prihvaćenu i usvojenu poslovnu izreku koja pokazuje glavni karakter svake banke u njenom poslovanju sa klijentima.

Pored navedenih opštih elemenata korporativnog identiteta banaka, sve više su na finansijskom tržištu zemalja centralne i istočne Evrope prisutna kvalitativna obeležja korporativnog identiteta, koja se odnose na:a) imidž banke, b) reputaciju banke, c) gudvil (good will) banke (Hunter&Zenaff,2005,str.35-36). Kvalitativna obeležja korporativnog identiteta se odnose na svakodnevno poslovanje banke, te su iz tih razloga različito zastupljena po bankarskim sistemima zemalja centralne i istočne Evrope. Dosadašnje analize korporativnog identiteta pokazuju da je isti u većoj meri prisutan u razvijenim zemljama centralne Evrope. Za korporativni identitet je karakteristično, da je promenljiv i da zavisi od opredeljenja korisnika bankarskih usluga. Korporativni identitet se ne ostvaruje u potpunosti već traje i može biti sve bolji. Imidž banke treba da predstavlja „sliku“ koju i budući klijenti imaju o banci. Činjenica je da svaka banka želi da stvori sopstveni imidž u „očima“ korisnika svojih prizvoda i usluga. Preko dobrog imidža menadžment banke „vezuje“ klijente za proizvode i usluge svoje banke. S obzirom da dobar imidž utiče na povećan broj klijenata banke, istovremeno utiče i na njeno stabilnije poslovanje i veće ostvarivanje dobiti. Banke koje imaju dobar imidž i reputaciju stvaraju mogućnost gudvila (good will) kao neopipljive vrednosti banke na finansijskom tržištu.

Izgradnja dobrog imidža i reputacije banke zavisi od: a) poslovne filozofije banke b) poslovne politike banke i c) poslovne kulture banke. Upravo ovakav imidž i reputacija utiču na kvalitet odnosa na finansijskom tržištu, dugoročnu stabilnost sa klijentima i kontinuelno povećanje obima prodaje proizvoda i usluga dotične banke. Za banke zemalja centralne i istočne Evrope je karakteristično da se međusobno razlikuju po imidžu, reputaciji i gudvili, kao i po nastupima na finansijskom tržištu. Posebno je izražajna razlika u komunikaciji sa okruženjem i klijentima banke.

Tako je kod banaka centralne Evrope na visokom nivou imidž, reputacija i gudvil u prvom redu u bankama: Češke, Slovačke, Poljske i Mađarske. Korporativni identitet banaka na srednjem nivou razvoja je kod zemalja: Slovenije, Hrvatske, Rumunije, Bugarske i Srbije. Korporativni identitet banaka na nižem nivou je kod zemalja: Bosna i Hercegovina, Crna Gora, Makedonija i Albanija.

Ulaskom u 21. vek banke iz razvijenih zemalja sve više stavljaju naglasak na korporativnu kulturu i stil poslovanja. Za svaku banku je karakteristično da treba kao samostalni finansijski entitet da razvija performanse po kojima će biti prepoznatljiva među drugim bankama na finansijskom tržištu. Skup performansi se naziva korporativnom kulturom banke. U bankarskoj teoriji i praksi se smatra da je koncept korporativne kulture banaka vrlo važan jer omogućava korisno razmišljanje menadžmenta banke o pojedinim poslovnim aktivnostima i njihovoj opravdanosti.

Stil poslovanja banke (kao performansi banke) odnosi se na ponašanje menadžmenta banke u odnosu na poslovno okruženje dotočne banke (u prvom redu klijenata banke). Primeri iz dosadašnje prakse banaka iz razvijenih zemalja pokazuju da je prisutna jaka veza između stila poslovanja, poslovne kulture i organizacione strukture banke. Nivo razvijenosti korporativne kulture i stila poslovanja banke u zemljama u tranziciji, adekvatan je nivou izlaska dotočnih zemalja iz procesa tranzicije. To znači, da banke u većem delu istočne Evrope (zemalja zapadnog Balkana) još uvek nisu u celini ovladale korporativnom kulturom i savremenim profitabilnim stilom poslovanja.

Ukoliko se performanse banaka posmatraju kao konkurenčki odnos jedne banke prema grupi drugih banaka, tada performanse mogu biti u obliku: a) vrhunskih, b) srednjih, c) niskih performansi (Vunjak, Radaković, Dragosavac, i Antonijević, 2020, str.28). Vrhunske performanse banaka predstavljaju pokazatelje najvećeg stepena uspešnosti u poslovanju banke (likvidnost, solventnost, sigurnost, profitabilnost). Srednje performanse banaka predstavljaju pokazatelje koji se kreću oko prosečnog nivoa pokazatelja određene grupe banaka. Niske performanse banaka imaju pokazatelje čija je tendencija smanjenje od prosečnih ka minimalnim pokazateljima. Performanse banaka koje se iskazuju radi njihovog poređenja sa performansama drugih banaka odnose se na: a) finansijske performanse, b) marketing performanse, c) menadžment performanse, d) performanse poslovne kulture i stila poslovanja, g) performanse poslovnog ugleda i reputacije, h) performanse imidža banke, i) performanse gudvila banke (Vunjak, Ćurčić, i Kovačević, 2013, str.16)

Glavne karakteristike banaka sa visokim performansama odnose se na:

- a) maksimiranje profita (preko kredita sa visokim kamatom, prihoda od hartija od vrednosti oslobođenih poreza, održavanje fleksibilnosti u strukturi aktive i brzog reagovanja na promene kamatnih stopa),
- b) kontrolu troškova (preko manjih ulaganja u fiksnu aktivu i manjih izdataka efikasnijim korišćenjem manjeg broja zaposlenih),
- c) kontinuelno dobar menadžment (preko manjeg broja faktora koji se mogu kontrolisati, efikasnijeg upravljanja agregatima i resursima banke) (Ćurčić, 2003, str.98-103).

Banke sa visokim performansama imaju prednost nad bankama sa srednjim i niskim performansama. Prednosti se odnose na sledeće činjenice: a) ostvarenju korporativnu kulturu, b) veliko učešće vrednosti, c) pozitivne performanse kao vrednosti, d) korisnički usmerenu orijentaciju, e) želju za investicijama u nove bankarske proizvode i usluge, f) snažno i konzistentno liderstvo, g) spremnost angažovanja najboljih kadrova, h) investiranje u edukaciju i razvoj karijere kadrova, i) razvijen upravljačko informacioni sistem, j) čvrst i stabilan kreditni proces (Brown, 2000, str. 38-45).

### **3. ANALIZA ODABRANIH PERFORMANSI BANKARSKIH SISTEMA ZEMALJA CENTRALNE I ISTOČNE EVROPE**

Banke predstavljaju najznačajniju finansijsku instituciju koja ima glavnu ulogu u razvoju ekonomije jedne zemlje. Karakteristično je da se učešće banaka na svetskom finansijskom tržištu (a to se odnosi i na zemlje centralne i istočne Evrope) smanjuje iz godine u godinu usled pojave novih i razvoja već postojećih finansijskih institucija, pri čemu se posebno izdvajaju lizing kompanije, osiguravajuće kompanije, investicioni i penzioni fondovi. Smanjenje tržišnog učešća banaka i smanjenje ostvarenog profita posledica su povećane konkurenčije finansijskih institucija na finansijskom tržištu. Upravo zbog toga su prisutni slučajevi da banke pored bankarskih poslova obavljaju i poslove lizing usluga, osiguranja, berzanskog posredovanja, poslove investicionih i penzionih fondova.

Najznačajnija uloga banaka u poslovanju odnosi se na posredovanje i preuzimanje rizika (kreditnog, kamatnog, valutnog, finansijskog, tržišnog i sl.). Za bankarsko tržište centralne i istočne Evrope je u poređenju sa Evropskom Unijom karakteristično da je relativno slabo i nedovoljno razvijeno. Vodeće bankarske grupe zapadne Evrope su u poslednjih 10-ak godina u centralnoj i istočnoj Evropi doživele ekspanziju što se i može videti iz

veličine bankarske aktive i kapitala koji se nalaze u vlasništvu stranih banaka. Činjenica je, da je trenutno preko 70% bankarskog tržišta istočne Evrope pod nadzorom stranih banaka iz zapadne Evrope. Sa pojavom svetske finansijske krize i recesije smanjena je finansijska aktivnost zapadno evropskih banaka u regionu centralne i istočne Evrope.

Ovakav trend je i danas prisutan jer je smanjen broj domaćih aktivnih banaka koje su mogle biti preuzete od strane zapadno evropskih banaka. Na taj način je ukupan ekonomski rast usporen, dok je u domaćem finansijskom sistemu prisutan fluktuirajući deficit likvidnih sredstava (Dragosavac, 2017, str.120)

U analizi koja sledi obuhvaćeno je 13 zemalja centralne i istočne Evrope koje su podeljene u 3 grupe. Prvu grupu čine zemlje koje su duži vremenski period članice Evropske unije (Slovenija (SVN), Slovačka (SVK), Češka (CZE), Poljska (POL) i Mađarska (HUN)). Drugu grupu

čine zemlje istočne Evrope koje su među poslednjima primljene u Evropsku Uniju (Bugarska (BGR), Rumunija (ROU), Hrvatska (HRV)). Treću grupu čine zemlje istočne Evrope (tzv. zapadnog Balkana) koje se nalaze u procesu tranzicije i koje ulazu napore da bi pristupile članstvu u Evropskoj Uniji (Srbija (SRB), Bosna i Hercegovina (BIH), Crna Gora (MNE), Makedonija (MKD) i Albanija (ALB)).

Za treću grupu zemalja je karakteristično da imaju najniži nivo ekonomskog i privrednog razvoja, sa visokim bankarskim kamataima na odobrene kredite i prisutnoj promenljivoj političkoj stabilnosti.

U okviru analize, posebno će se posmatrati u periodu od 2008 do 2018. godine: a) učešće ukupne aktive u BDP-u, b) učešće ukupnih kredita u BDP-u, c) učešće ukupnog depozita u BDP-u, d) nivo adekvatnosti kapitala za zemlje regionalne centralne i istočne Evrope.

**Tabela1.** Učešće ukupne aktive u BDP-u za analizirane grupe zemalja centralne i istočne Evrope u periodu od 2008-2018. godine (%)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GRUPA 1											
SVN	131.6	128.5	130.0	126.4	125.5	112.2	100.4	92.9	85.0	97.2	94.3
SVK	97.4	84.1	83.0	80.9	81.7	82.6	83.4	86.5	88.1	91.4	90.2
CZE	108.0	112.2	114.3	120.7	124.2	135.2	126.3	124.0	127.9	137.1	130.6
POL	72.0	83.7	81.8	85.0	84.6	86.2	88.8	89.0	92.4	91.7	89.6
HUN	118.6	133.1	126.9	126.0	112.1	107.7	100.4	96.1	97.0	96.9	94.2
GRUPA 2											
HRV	107.5	115.1	120.9	123.9	121.8	120.8	122.7	120.2	115.5	125.1	125.6
BGR	104.2	103.7	104.6	102.0	105.5	106.8	103.6	98.8	99.4	98.1	100.6
ROU	66.0	72.7	73.6	70.5	69.0	64.7	60.6	58.7	56.3	49.8	49.1
GRUPA 3											
SRB	64.7	84.1	92.8	88.1	93.8	83.2	85.0	85.4	83.4	72.7	74.2
BIH	85.2	86.8	85.5	85.3	87.0	89.1	92.4	87.5	87.8	90.6	94.4
MNE	106.7	100.8	95.0	87.8	90.6	87.0	89.6	88.7	89.1	66.4	80.1
MKD	56.9	51.6	62.0	67.9	67.4	76.9	74.8	75.4	74.6	66.4	64.6
ALB	76.6	76.6	76.8	81.8	85.6	87.6	91.5	91.2	93.7	83.8	78.2

*Izvor: Izveštaji centralnih banaka, poslovnih banaka i međunarodnih institucija u periodu od 2008-2018. godine*

Nakon svetske finansijske krize i fluktuirajućih kretanja aktive banaka, zemlje centralne Evrope su od 2013. godine nastavile ekonomski rast, da bi 2016. godine ostvarile rast BDP-a od 3% koji prevazilazi rast Evropske Unije od 1,5%. Prezentirana tabela pokazuje da su veliko učešće aktive banaka u BDP-u imale: Češka, Hrvatska, Bugarska, Mađarska, Bosna i Hercegovina, Slovačka i Poljska. Srbija je zadržala prosečan nivo učešća aktive banaka u BDP-u. Prezentirani

podaci pokazuju uticaj bankarskog sektora na privredni rast i povezanost bankarskog sektora i sektora privrede u dotičnim zemljama. Ako se posmatra rast bankarske aktive u prezentiranih 11 godina tada najbolje rezultate ima: Češka, Bugarska i Slovenija. Na ovaj odnos značajan uticaj je imalo stanje i razvijenost privrede s jedne i bankarskog sektora s druge strane (Cocris i Nicu, 2013, str.83).

**Tabela 2.**Učešće kredita u BDP-u za analizirane zemlje centralne i istočne Evrope u periodu od 2008-2018. godine (%)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GRUPA 1											
SVN	96.9	92.7	95.9	91.5	89.4	74.5	62.3	57.3	54.2	44.9	43.5
SVK	49.1	50.6	50.8	53.1	53.3	55.3	56.6	59.4	62.4	60.1	60.8
CZE	53.9	55.9	57.4	60.3	61.4	65.3	61.8	62.1	62.7	52.0	51.1
POL	38.5	47.7	49.3	52.6	50.8	51.4	58.7	53.5	56.4	53.2	50.5
HUN	57.6	61.9	62.8	60.4	51.9	47.5	51.9	34.9	33.3	31.8	32.1
GRUPA 2											
HRV	72.0	78.0	84.3	88.1	86.2	86.6	86.1	83.7	77.6	53.1	53.1
BGR	72.4	76.8	76.4	74.4	74.1	74.9	67.7	61.1	58.8	52.4	53.0
ROU	38.7	40.1	40.3	40.4	38.9	34.9	31.8	31.0	29.4	26.1	25.9
GRUPA 3											
SRB	36.7	45.4	54.2	52.3	56.1	47.8	48.1	48.2	46.1	41.3	41.6
BIH	58.9	58.1	58.7	59.6	62.1	62.3	63.7	59.1	57.9	55.6	59.4
MNE	95.5	88.1	81.2	73.7	75.5	73.1	69.6	67.9	54.5	53.2	53.3
MKD	34.0	29.5	33.3	36.1	34.1	39.3	38.8	37.1	44.8	42.5	41.1
ALB	36.4	38.9	38.1	41.4	41.1	38.7	42.1	40.6	40.0	34.5	31.2

*Izvor: Izveštaji centralnih banaka, poslovnih banaka i međunarodnih institucija u periodu od 2008-2018. godine*

U zemljama centralne Evrope dominantno je učešće: Slovačke, Češke i Poljske. U zemljama istočne Evrope, članicama Evropske Unije dominantno je učešće: Hrvatske i Bugarske, dok je u ostalim zemljama istočne Evrope (zapadnog Balkana) dominantno učešće: Bosne i Hercegovine i Crne Gore. Srbija ima nešto manje učešće kredita u BDP-u od napred navedenih zemalja. Ako se

posmatra period od 2008 do 2018. godine sada najveće učešće kredita u BDP-u imaju: Slovenija, Hrvatska i Bugarska, u rasponu od 43.5% do 96.9%. Upravo ovaj pokazatelj ukazuje na nivo zaduženosti stanovništva i privrede i o malom učešću hartija od vrednosti u BDP-u. Za zemlje u tranziciji (zemlje zapadnog Balkana) se može reći da spadaju u grupu zemalja umerene zaduženosti.

**Tabela 3.**Učešće depozita u BDP-u u odabranim zemljama regionalne centralne i istočne Evrope u periodu od 2008-2018. godine (%)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GRUPA 1											
SVN	103.2	114.9	108.1	105.1	104.1	90.8	81.1	81.0	77.7	60.2	58.7
SVK	63.5	59.5	60.1	58.6	60.5	62.1	62.0	65.4	66.0	62.5	70.6
CZE	66.7	71.7	73.6	76.3	81.3	86.7	80.5	78.6	80.0	54.8	61.3
POL	31.9	42.2	43.8	45.9	45.4	47.5	49.5	52.2	55.5	56.7	54.1
HUN	41.8	46.5	44.7	45.5	44.5	43.1	39.6	39.9	41.5	44.3	43.0
GRUPA 2											
HRV	70.9	78.1	83.1	85.6	83.9	85.8	87.3	90.1	87.2	64.9	62.2
BGR	60.2	63.4	66.6	70.1	73.3	79.7	77.5	78.2	80.0	72.2	70.2
ROU	31.2	36.1	36.7	36.3	35.9	36.4	37.0	37.8	38.0	37.6	38.1
GRUPA 3											
SRB	30.0	39.4	42.5	41.6	45.0	41.3	43.4	44.8	46.3	49.2	46.0
BIH	48.1	50.0	50.6	50.6	51.9	54.1	58.3	58.0	59.8	74.6	65.2
MNE	64.19	60.8	57.7	56.8	63.9	63.5	67.9	66.0	64.0	70.2	62.9
MKD	8.8	9.0	10.9	11.1	10.3	10.5	12.1	11.8	11.3	13.3	11.7
ALB	59.2	60.0	63.4	67.5	70.5	69.9	75.8	76.2	77.1	78.1	63.5

*Izvor: Izveštaji centralnih banaka, poslovnih banaka i međunarodnih institucija u periodu od 2008-2018. godine*

Analiza podataka pokazuje da najveće učešće depozita u BDP-u kod zemlja centralne Evrope imaju: Slovenija, Slovačka i Češka. Kod Slovenije je nekoliko godina učešće prelazilo preko 100%. Kod zemalja istočne Evrope članice Evropske Unije najveće učešće su imale: Hrvatska i Bugarska, dok se kod ostalih zemalja istočne Evrope (zapadnog Balkana) najveće učešće imale: Albanija i Crna Gora. Za depozitni potencijal je karakteristično da zemlje u vodećim privredama posmatranog regiona imaju i najveće vrednosti. Ako se posmatra rast depozita na godišnjem nivou tada je isti dominantan kod: Srbije, Mađarske,

Albanije i Slovenije. Ako se stavi u odnos učešće kredita i depozita u BDP-u, tada je veće učešće depozita u odnosu na kredite u BDP-u u većem delu analiziranih zemalja centralne i istočne Evrope. Analiza osnovnih zakonitosti na tržištu depozita polazi sa makroekonomskog aspekta bankarskog poslovanja. Tržište depozita i njegove osnovne zakonitosti mogu se posmatrati kroz "prizmu" savršene konkurenциje, bankarskog monopola, monopolističke konkurenциje i oligopola uz liderstvo (Cota, 2002, str.107).

**Tabela 4.** Nivo adekvatnosti kapitala za analizirane zemlje u periodod 2008-2018. godine.

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GRUPA 1											
SVN	11.7	11.6	11.3	11.6	11.5	11.8	15.8	18.8	21.4	2	20.6
SVK	11.1	12.6	12.7	13.4	16.0	16.6	17.4	17.7	18.2	18.8	18.2
CZE	12.3	14.1	15.5	15.3	16.4	17.3	17.8	18.4	18.5	19.3	19.6
POL	11.2	13.3	13.9	13.1	14.8	15.2	15.0	15.6	17.5	19.0	19.0
HUN	12.3	13.9	13.9	14.2	15.9	16.9	17.0	19.9	20.1	16.8	17.1
GRUPA 2											
HRV	15.1	16.4	18.8	19.2	20.5	20.9	21.4	21.0	22.5	23.3	21.1
BGR	14.9	17.0	17.5	17.5	16.5	16.6	21.9	22.2	22.2	22.1	20.4
ROU	13.8	14.7	15.0	13.4	14.6	13.9	17.6	19.2	19.6	20.0	19.7
GRUPA 3											
SRB	27.9	21.9	21.4	19.9	19.1	19.9	20.4	20.9	21.2	22.6	22.3
BIH	16.3	16.1	16.2	17.2	17.0	17.0	16.3	14.9	15.8	15.7	17.5
MNE	15.0	15.8	15.9	16.5	16.5	14.7	16.2	16.7	17.1	16.9	16.5
MKD	16.2	16.4	16.1	16.8	17.1	16.8	15.7	15.9	16.4	15.7	16.5
ALB	17.2	16.2	15.4	15.6	15.6	17.9	16.8	15.7	15.7	16.6	18.2

*Izvor: Izveštaji centralnih banaka, poslovnih banaka i međunarodnih institucija u periodu od 2008-2018. godine*

U 2018. godini u zemljama centralne Evrope nivo adekvatnosti kapitala je bio dominantan u Sloveniji sa 20.6%, Češka sa 19.6% i Poljskoj sa 19.0%. U zemljama istočne Evrope članicama Evropske Unije najveći nivo adekvatnosti kapitala u 2018. godini bio je kod Hrvatske u iznosu od 21.1%. Nešto manji nivo su imale Bugarska i Rumunija. U ostalim zemljama istočne Evrope (zapadnog Balkana) najveći nivo adekvatnosti kapitala u 2018. godini imala je Srbija sa 22.3%. Približno iste nivoe su imale Albanija sa 18.2%, Bosna i Hercegovina sa 17.6%, Crna Gora i Makedonija sa 16.5%.

S obzirom da Bazelski sporazum predviđa stopu adekvatnosti kapitala od 8%, a Regulatorni minimum predviđa stopu adekvatnosti kapitala od 12%, može se izvesti zaključak da su sve zemlje centralne i istočne Evrope dobro kapitalizovane i zaštićene od potencijalnih rizika.

## ZAKLJUČAK

Činjenica je da je svetska finansijska kriza negativno uticala u uslovima globalizacije na sve zemlje sveta, a posebno na zemlje u tranziciji. Uticaj finansijske krize je smanjio makroekonomski pokazatelje, koji su razvijene zemlje pokrivale budžetskim deficitom, dok su zemlje u tranziciji ulazile u sopstveno povećanje javnog duga i ukupno zaduživanje. Učešće nenaplative aktive u ukupnim kreditnim plasmanima je na niskom nivou. Zato je neophodno od strane menadžmenta u bankama posvetiti pažnju naplati potraživanja. Treba istaći da je upravljanje naplatom potraživanja složen deo kreditnog posla u koji su uključeni različiti organizacioni delovi unutar banke zajedno sa svojim specijalizovanim jedinicama koje se sastoje od različitih profila zaposlenih, po različitim organizacionim i hijerarhijskim nivoima.

Banke u zemljama u tranziciji opredeljene su da realizuju kreditnu politiku usmerenu ka reprogramiranju plasiranih kreditnih sredstava kako bi zaustavile smanjenje svojih makroekonomskih pokazatelja. U zemljama istočne Evrope u poslednje dve decenije prisutna je ekonomska tranzicija vezana za strukturalnu reformu privrede, otvaranje trgovinske razmene, prihvatanje direktnih stranih investicija, rast privatnog sektora, rast BDP-a i transformaciju bankarskih sistema uz pomoć stranog kapitala. Poseban doprinos u razvoju zemalja centralne i istočne Evrope pružio je Međunarodni monetarni fond finansijskim aranžmanima i savetima u vezi očuvanja makroekonomskog stabilnosti navedenog regiona.

Posebno mesto u uslovima globalizacije i prevazilaženja svetske finansijske krize pripada bankama, njihovom tržišnom privređivanju i razvoju njihovih korporativnih performansi. Rezultat takvog rada se odnosi na efikasno upravljanje aktivom, pasivom, prihodima i rashodima banaka i suprostavljanju rizicima na finansijskom tržištu. Pored razvoja opštih performansi od posebnog su značaja: finansijske, marketing i menadžment performanse. Zatim performanse zaposlenih, poslovne filozofije, poslovne kulture, stila, imidža i ugleda banke na finansijskom tržištu. Zemlje centralne Evrope razvlike su vrhunske performanse, dok su zemlje istočne Evrope razvile srednje i niske performanse banaka. Težnja je zemalja istočne Evrope da dostignu vrhunske performanse banaka koje njima garantuju kontinuelnu likvidnost, solventnost, sigurnost i profitabilnost.

Posebno mesto u analizi banaka zemalja centralne i istočne Evrope pripadaju indikatori koji se odnose na: a) učešće ukupne aktive banaka u BDP-u, b) učešće ukupnih kredita u BDP-u, c) učešće ukupnih depozita u BDP-u, d) nivo adekvatnosti kapitala u analiziranim zemljama. U delu, učešća ukupne bankarske aktive u BDP-u dominantno mesto pripada zemljama centralne Evrope (Češkoj, Sloveniji, Mađarskoj, Slovačkoj i Poljskoj). U delu učešća ukupnih kredita u BDP-u približno isto učešće imaju zemlje centralne i istočne Evrope. U delu učešća ukupnih depozita u BDP-u dominantne su zemlje centralne Evrope, zatim zemlje istočne Evrope članice Evropske Unije i ostale zemlje istočne Evrope (zapadnog Balkana). Prema nivou adekvatnosti kapitala pribлизно su iste zemlje centralne i istočne Evrope, čija je adekvatnost kapitala u proseku 60% više u odnosu na Regulatorni minimum bankarskih sistema posmatranih zemalja koji je propisan na 12% rizikom ponderisane aktive pojedinačne banke.

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## SUMMARY

The banking sector represents the most important financial institutions that play a significant role in the development of each country's economy. Unlike the emerging markets (Central and Eastern European region), banks' participation in the global financial market is diminishing year after year due to the emergence of new or existing financial institutions, with special emphasis on insurance companies, investment funds, pension funds and leasing companies. The declining market share of banks as well as the decrease in the realized profit are the consequences of increased competition of financial institutions in the financial market.

The banking market of Central and Eastern European countries is relatively weak and underdeveloped compared to the European Union (EU). At the beginning of 2005, a large number of foreign banks appeared in Serbia and countries in the region interested in entering this market. Leading Western European banking groups have experienced an expansion in Central and Eastern European countries in recent years, as evidenced by the size of foreign-owned banking assets and capital.

A specific scientific contribution relates to the comparative analysis of the business performance level of the banking sector of the Central and Eastern European countries. The analysis covers the period 2008-2018, where the relationship between assets, loans and deposits with GDP was analyzed separately, as well as the level of capital adequacy of banks. Thirteen observed countries will be divided into three groups. The first group consists of countries that are already largely members of the European Union, such as Slovenia (SVN), Slovakia (SVK), Czech Republic (CZE), Poland (POL) and Hungary (HUN). Therefore, this group is made up of the most developed countries in the region of Central and Eastern Europe.

The second group consists of Eastern European countries such as Bulgaria (BGR), Romania (ROU) and Croatia (HRV), which joined the EU a few years later. These are the countries that were last admitted to the EU, especially Croatia, which joined in 2013. Countries in the second group have succeeded in meeting the majority requirements set by the EU.

The third group consists of countries in Eastern Europe (or the Western Balkans) that are in the process of transition and are still making significant efforts to join the EU and become equal members. Among others are Serbia (SRB), Bosnia and Herzegovina (BiH), Montenegro (MNE), Macedonia (MKD) and Albania (ALB). Accordingly, the third group countries have the lowest levels of economic development. The countries of this part of Europe are experiencing slow economic activity, which is a consequence of lack of production. The price of banking products is much higher than in the rest of Europe. Interest rates on loans are high, especially when it comes to cash loans in local currencies. Banks are framed by the view that the region of Eastern Europe is very risky, especially when it comes to political instability. Unemployment rates exceeding 25% are high. The problem is also the public debt that countries have towards their creditors, moving over 70% of GDP.

## **STRATEGY FOR MANAGING BANKING SYSTEMS IN CENTRAL AND EASTERN EUROPE COUNTRIES UNDER GLOBALIZATION**

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*Paper presented at the 8th International Scientific Symposium „EkonBiz: Change management in the conditions of globalization“, Bijeljina, 18 – 19th June 2020.*

**Abstract:** The financial crisis has adversely affected all the countries of the world in the conditions of globalization with different intensity, no matter if it is higher or lower level of development and different economic structures. In the context of globalization in the countries in transition, the banking system was reformed, thus creating a new financial market. The International Monetary Fund has taken an active part in the transition process of Eastern European countries by providing advice and approving financial arrangements. Developed countries of the world have implemented measures of non-standard monetary policy to overcome the global financial crisis. In some parts of Central and Eastern Europe, in addition to the general corporate identity (bank name, abbreviated name, trademark and slogan of the bank), the countries also applied qualitative features of the bank's corporate identity (image, reputation and goodwill). As they enter the 21st century, banks in developed countries are increasingly emphasizing the corporate culture and style of business of the bank. In the practice of banks, the following performances are most often present: financial, marketing, performance management, employee performance, business philosophy, reputation and the image of the bank. The banks' performance analysis included 13

Central and Eastern European countries divided into three groups. Performance over the period 2008-2018 is analyzed, related to: share of total assets in GDP, share of total loans in GDP, share of total deposit in GDP and level of capital adequacy of Central and Eastern European countries. The analysis shows that the central banks of the countries of Central Europe are dominant, and that in certain performances they are approached by the banks of the countries of Eastern Europe (members of the European Union and the Western Balkans).

**Key words:** globalization, financial crisis, bank performance, banking assets, loans, deposit, capital adequacy.

### **INTRODUCTION**

The global economic and financial crisis arose from fictitious financial transactions and transactions with developed and underdeveloped countries in the world. The financial crisis that emerged in the United States was initiated by the collapse of the real estate market, which was transmitted by the effect of "contagion" to the whole world, and then to the real sector and developing countries. The financial crisis has

affected all countries of the world in the conditions of globalization with different strength and intensity, regardless of whether it was a higher or lower level of development and different economic structures. In the conditions of globalization, the financial crisis had a negative effect on all social strata and caused a decrease in all macroeconomic aggregates and indicators in all countries of the world. More developed countries have rescued their banks by entering large budget deficits, while developing countries have exceeded all budget deficit limits and entered a crisis of external public debt and total indebtedness.

Central European countries have largely resisted the financial crisis by using budget deficits, while Eastern European countries (especially the Western Balkans) have sought a way out of monetary and fiscal policies, whose measures are still insufficient to generate growth and drive economic activity.

Structural changes and reforms in the economy and banking systems have partially alleviated the financial crisis.

However, banking systems continue to be characterized by insufficient lending activity, low profitability and growth in non-performing loans (NPLs). Banking systems have turned more to reducing risk and increasing capital, in line with Basel standards, due to lower demand for credit by the economy and households, as their high indebtedness is still present.

The share of non-performing assets in total loans remains high. Of particular concern is the high level of participation of non-performing assets classified in categories D and E (difficult to collect and uncollectible receivables). In such conditions, banks were forced to pursue a strict credit policy and measures to reschedule loans, in order to amortize potential macroeconomic shocks to the countries of Eastern Europe (Western Balkans).

Due to reduced lending activity, the European Central Bank has taken measures to reduce interest rates. Depending on how financially consolidated significant foreign trade partners of developing countries, the same directly affected their recovery from the impact of the global financial crisis. Eastern European countries in the observed period from 2008 to 2018 recorded a decline in economic activity (with a negative rate of economic growth), due to reduced exports, increased imports, reduced foreign direct investment, reduced domestic demand and the presence of natural disasters (floods).

The economic recovery is present at a slow pace from 2015 to 2019, with the improvement of the credit rating of the respective countries. Due to

low interest rates, banks were discouraged from holding their deposits with the European Central Bank and started granting loans to households, and partly to the business sector. The fact is that after the reduction of interest rates, liquidity was no longer a problem in the Eurozone, but weak credit growth which suppressed weak agrarian demand. With the purchase of "covered" bonds and the purchase of securities "covered" with assets, investment activity was introduced in the banking systems of the countries of Central and Eastern Europe.

GDP growth and foreign direct investment, increased exports have affected the countries of Central Europe in the countries of Eastern Europe, especially those that are not members of the European Union. In the conditions of globalization and the presence of the world financial crisis, the way out was sought in the restructuring of the banking systems of developed and developing countries (transition).

## **1. THE IMPACT OF GLOBALIZATION AND THE FINANCIAL CRISIS ON BANK RESTRUCTURING IN THE COUNTRIES OF CENTRAL AND EASTERN EUROPE**

The global financial crisis in the context of globalization has brought countries in transition a large decline in production, reduced profits and has shown that the economies of these countries are still easily "vulnerable" and quite unstable. With the onset of the financial crisis, most economists have predicted a short-term recession for countries in transition.

At the beginning of the implementation of the measures from the transition program, the countries concerned showed a large decline in GDP, declining investment levels, declining industrial production, declining real wages, rising inflation, unemployment and poverty. Success in the implementation of the transition and satisfactory macroeconomic results were created by the countries of Central Europe: the Czech Republic, Poland, Slovakia, Slovenia and Hungary.

In these countries, the private sector has been the main generator of GDP growth and an adequate institutional infrastructure has been established.

Less successful were the countries of Eastern Europe (especially the countries of the Western Balkans) which, after more than two decades since the beginning of the transition, did not fully reach the stated market criteria, so that macroeconomic results were largely lacking.

In parallel with the transition in the conditions of globalization, the banking system was reformed,

and in that way the creation of a new financial market began. In the global business environment, dilemmas have opened up, how to transform the banking systems in the countries of Central and Eastern Europe. The first dilemma went in the direction of advocating for quality new banking solutions, whereby banks that could not cover their losses from their capital would be considered insolvent with the application of bankruptcy proceedings.

The second dilemma related to the status changes of banks by switching to joint stock companies, where companies from the real sector would become co-owners of banks, so that benefited lending appeared.

The concentration of loans did not have its own business activity, because it was about lending to companies that had large shares in banks in the form of shares. The role of banks in the process of globalization has been reduced to lending to their clients if they find themselves in a difficult financial situation. In such business conditions, banks in transition countries did not take into account the basic banking principles (liquidity, solvency, security and profitability) but shared the financial destiny of their clients.

Since banks did not aim to maximize profits, but were the financial services of their clients, they are increasingly burdened with uncollectible receivables, poor risk assessment, part of operating costs, subject to the influence of clients with large ownership stakes.

Part of the countries of Eastern Europe (Western Balkans) can be said to have undergone economic transformation in the last two decades in the context of globalization, primarily through economic reforms, opening of global trade, increasing exports, foreign direct investment, private sector growth, GDP growth and transformation of banking systems by accepting foreign capital. Investments in the banking systems of transition countries have enabled the growth of deposits (avista and term deposits) and increased lending activity directed towards the economy and households. With the arrival of foreign banks, new business principles and the application of international financial business standards were introduced. Foreign banks have introduced business security especially for clients from abroad.

In the conditions of globalization, the International Monetary Fund has been engaged in the process of economic transition of the countries of the Western Balkans from the very beginning. In addition to providing advice, financial arrangements have been offered in almost all countries in transition.

The financial arrangements were tasked with preserving the macroeconomic stability of countries in transition. The International Monetary Fund also provided staff training and technical assistance to countries in transition (Western Balkans). In this way, the countries of the observed region raised to a higher level investments for the creation of economic policy, passed new laws, regulated the area of monetary and fiscal policy and established greater control over the work of banks.

Regardless of the growth of per capita income, the achieved results still cannot be considered absolutely satisfactory. The fact is that chronic underutilization of human resources is still present in countries in transition (low employment, especially among women and young people). According to the projected rates of economic growth, the economies of the Western Balkan countries will achieve a small part of the difference in relation to the level of per capita income in the advanced economies of the European Union by 2030.

The above indicates that it is necessary to implement a system of fiscal consolidation in the countries of the Western Balkans and reduce public debt in relation to the level of GDP.

The open issues that are present in the second decade of the 21st century relate to the high level of non-performing loans (NPLs) and its growth after the onset of the global financial crisis. Despite the fact that financial risks were largely mitigated by a satisfactory level of capital and provisions in banks, problem loans continued to negatively affect credit growth and bank profitability. In order to eliminate this open issue, it is necessary to carry out activities in the direction of: better realization of collateral (mortgages, ceded receivables), improvement of measures to maintain profitable business, out-of-court restructuring and more efficient court decision-making.

Given that bureaucratic procedures are present in a certain part of the Western Balkans, which slow down economic activity, corporate governance as a modern and efficient form of decision-making is at the level of the projected task to be implemented in the coming period.

In order to overcome the global financial crisis, the developed countries of the world applied non-standard monetary policy measures, which initially had a positive effect (seen with the examples of American investment banks). Recently, an increasing number of economists advocate the thesis that measures of non-standard monetary policy should be withdrawn after the effects of the

crisis have been mitigated. Given that the measures in question caused too much liquidity and low interest rates for banks, their further continuation could cause financial instability, future problems with rising inflation and moral hazard.

Abolishing non-standard monetary policy would cause a relative expansion of central banks' balance sheets. This means that central banks would be financial market neutral, with interest rates being a monetary policy instrument.

Given that central banks are much more efficient in controlling inflation than in stimulating economic growth, it is necessary for national central banks to reach an agreement on joint communication strategies and coordinated monetary policy activities in the European Union (the same applies to central banks) countries of the Western Balkan. The fact is that the success of banks depends on macro and micro economic factors that are focused on the quality of the bank's assets. The quality of a bank's assets is expressed by the growth of capital adequacy, which represents the strength of every bank to resist problematic credit placements.

Banks are obliged to define an adequate structure of placements in the loan portfolio, to provide advantages over the competition by good positioning in the financial market in order to provide profit for further growth of the bank and provisions for unpredictable risks. A special place in the countries of Central and Eastern Europe (especially the countries of the Western Balkans), the introduction of business policy of banks belongs to the credit function, given that loans are most present in the operations of banks.

## **2. CORPORATE PERFORMANCE OF BANKS IN THE COUNTRIES OF CENTRAL AND EASTERN EUROPE IN THE CONDITIONS OF GLOBALIZATION**

It is characteristic of the banking systems of the countries of Central Europe in the conditions of globalization that they have mostly applied the form of corporate governance.

It should be noted that in banking theory, it is a known fact that corporate governance as a form of management in banks appears in conditions of unstable financial market, then a greater presence of competition and the emergence of business risks.

Precisely in the conditions of globalization, there is an increased orientation of banks towards market conditions, which has influenced the redefinition of the traditional approach to management, principles and principles of banking operations.

The quality of bank management with a special influence on the management of banking risks (credit, interest rate, currency, market, financial and operational) became more and more pronounced. In the countries of Central and Eastern Europe, corporate governance in banks is defined as a way of managing the operations of banks that includes the management of assets, liabilities, income, expenses and capital of the bank.

Examples of bank operations in the context of globalization show that there is inefficient management of the bank, if the level of risk exposure, the level of bank organization and the level of behavior of bank management according to international banking standards and international banking regulations are undefined.

A number of banks, especially in Central European countries, have accepted the fact that corporate performance management of banks is a commitment to their lower or higher market value. Each measurement of corporate performance of banks creates the possibility of management in banks (in the countries of Central and Eastern Europe) to establish an active relationship in the management process in order to achieve the most favorable market performance.

Examples from the practice of the analyzed banking systems provide different results, ie performance. In banking theory and practice, it is a known fact that the main features of the general corporate identity of banks relate to: a) full name of the bank, b) abbreviated name of the bank, c) trademark of the bank (Vunjak, Radović, Vitomir, i Štrbo, 2019, p.235).

It is characteristic of banks in the countries of Central and Eastern Europe that they have the characteristics of a general corporate identity. The fact is that each bank has its own full name, headquarters and address. A large number of banks also have an abbreviated name as a closer feature of the essence of its business.

Usually, during the business registration of a bank, in addition to the full name, the abbreviated name of the bank is registered in the register of business institutions. The banks in question often appear with abbreviated names in business communications with business partners in the financial market. Of particular importance for banks is a trademark that serves to identify the bank and "at first glance".

The trademark of each bank should be well designed and "at first glance" symbolize the bank in question. The above is also characteristic of the banks of Central and Eastern Europe. The slogan of the bank is characterized by the fact that it

represents an accepted and adopted business saying that shows the main character of each bank in its business with clients..

In addition to the above general elements of corporate identity of banks, there are more and more qualitative features of corporate identity in the financial market of Central and Eastern European countries, which relate to: a) bank image, b) bank reputation, c) goodwill banks (Hunter & Zenaff, 2005, p.35-36).

Qualitative features of corporate identity relate to the day-to-day operations of the bank, and for these reasons are differently represented in the banking systems of Central and Eastern Europe.

Previous analyzes of corporate identity show that it is more present in developed countries of Central Europe. It is characteristic of corporate identity that it is changeable and depends on the determination of the users of banking services. Corporate identity is not fully realized but lasts and can get better. The image of the bank should represent the "image" that future clients have of the bank. The fact is that every bank wants to create its own image in the "eyes" of the users of its products and services.

Through a good image, the bank's management "binds" customers to the products and services of its bank. Since a good image affects an increased number of the bank's clients, it also affects its more stable operations and higher profit. Banks that have a good image and reputation create the possibility of goodwill as a tangible value of the bank in the financial market.

Building a good image and reputation of the bank depends on: a) business philosophy of the bank b) business policy of the bank and c) business culture of the bank. It is this image and reputation that affect the quality of financial market relations, long-term stability with clients and the continuous increase in sales of the bank's products and services. It is characteristic of the banks of the countries of Central and Eastern Europe that they differ from each other in terms of image, reputation and goodwill, as well as in terms of their appearance on the financial market.

The difference in communication with the environment and the bank's clients is especially significant. Thus, the image, reputation and goodwill of the banks of Central Europe are at a high level, primarily in the banks of the Czech Republic, Slovakia, Poland and Hungary. The corporate identity of banks at the middle level of development is in the countries: Slovenia, Croatia, Romania, Bulgaria and Serbia.

The corporate identity of banks is at a lower level in the countries: Bosnia and Herzegovina, Montenegro, Macedonia and Albania.

As they enter the 21st century, banks from developed countries are increasingly placing emphasis on corporate culture and business style. It is characteristic of every bank that, as an independent financial entity, it should develop the performance by which it will be recognizable among other banks in the financial market.

The performance set is called the corporate culture of the bank. In banking theory and practice, it is considered that the concept of corporate culture of banks is very important because it allows useful thinking of the bank's management about certain business activities and their justification.

The bank's business style (as a bank's performance) refers to the behavior of the bank's management in relation to the business environment of the bank in question (primarily the bank's clients). Examples from the current practice of banks from developed countries show that there is a strong link between business style, business culture and organizational structure of the bank.

The level of development of the corporate culture and business style of the bank in transition countries is adequate to the level of exit of the respective countries from the transition process.

This means that banks in most of Eastern Europe (Western Balkans) have not yet fully mastered the corporate culture and modern profitable business style. If the performance of banks is viewed as a competitive relationship of one bank to a group of other banks, then the performance can be in the form of: a) top, b) medium, c) low performance (Vunjak, Radaković, Dragosavac, i Antonijević, 2020, p.28). The top performance of banks is an indicator of the highest degree of success in the bank's operations (liquidity, solvency, security, profitability).

The average performance of banks is indicators that move around the average level of indicators of a particular group of banks. Low performance banks have indicators that tend to decrease from average to minimum indicators.

The performance of banks that is reported for their comparison with the performance of other banks refers to: a) financial performance, b) marketing performance, c) performance manager, d) performance of business culture and business style, d) performance of business reputation h) bank image performance, i) bank goodwill performance (Vunjak, Ćurčić, i Kovačević, 2013, p.16)

The main characteristics of high-performance banks are:

- a) maximizing profits (through loans with high interest rates, income from securities exempt from taxes, maintaining flexibility in the structure of assets and quick response to changes in interest rates),
- b) cost control (through smaller investments in fixed assets and lower expenditures through more efficient use of fewer employees),
- c) continuously good management (through fewer controllable factors, more efficient management of the bank's aggregates and resources) (Ćurčić, 2003, p.98-103).

High-performance banks have an advantage over medium and low-performance banks.

The advantages relate to the following facts: a) achieved corporate culture, b) high share of values, c) positive performance as values, d) customer-oriented orientation, e) desire to invest in new banking products and services, f) strong and consistent leadership , g) willingness to hire the best staff, h) investing in education and career development of staff, i) developed management information system, j) solid and stable credit process (Brown, 2000, p. 38-45).

### **3. ANALYSIS OF SELECTED PERFORMANCES OF THE BANKING SYSTEMS OF THE CENTRAL AND EASTERN EUROPEAN COUNTRIES**

Banks are the most important financial institution that plays a major role in the development of a country's economy. It is characteristic that the participation of banks in the world financial market (and this also applies to the countries of Central and Eastern Europe) decreases from year to year due to the emergence of new and development of existing financial institutions, with special emphasis on leasing companies, insurance companies, investment and pension funds.

The decrease in the market share of banks and the decrease in the realized profit are a consequence of the increased competition of financial institutions on the financial market.

Precisely because of that, there are cases when banks, in addition to banking, also perform leasing services, insurance, stockbroking, investment and pension funds.

The most important role of banks in their operations is related to mediation and risk taking (credit, interest rate, currency, financial, market, etc.). Compared to the European Union, the

banking market of Central and Eastern Europe is relatively weak and underdeveloped.

The leading banking groups in Western Europe have experienced expansion in the last 10 years in Central and Eastern Europe, which can be seen from the size of banking assets and capital owned by foreign banks.

The fact is that currently over 70% of the Eastern European banking market is supervised by foreign banks from Western Europe.

With the onset of the global financial crisis and recession, the financial activity of Western European banks in the region of Central and Eastern Europe decreased.

This trend is still present today because the number of domestic active banks that could be taken over by Western European banks has decreased. In this way, overall economic growth has slowed down, while a fluctuating liquidity deficit is present in the domestic financial system (Dragosavac, 2017, p.120).

The analysis that follows includes 13 countries of Central and Eastern Europe, which are divided into 3 groups. The first group consists of countries that have been members of the European Union for a long time Slovenia (SVN), Slovakia (SVK), Czech Republic (CZE), Poland (POL) and Hungary (HUN). The second group consists of Eastern European countries that were among the last to join the European Union: Bulgaria (BGR), Romania (ROU), Croatia (HRV).

The third group consists of countries in Eastern Europe (Western Balkans) that are in the process of transition and which are making efforts to join the European Union: Serbia (SRB), Bosnia and Herzegovina (BIH), Montenegro (MNE), Macedonia (MKD) and Albania (ALB).

The third group of countries is characterized by having the lowest level of economic development, with high bank interest rates on approved loans and the present variable political stability.

Within the analysis, the following will be observed in the period from 2008 to 2018:

- a) share of total assets in GDP,
- b) share of total loans in GDP,
- c) share of total deposit in GDP,
- d) level capital adequacy for the countries of the Central and Eastern European region.

**Table 1.** Share of total assets in GDP for the analyzed groups of Central and Eastern European countries in the period from 2008-2018. years (%)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GRUPA 1											
SVN	131.6	128.5	130.0	126.4	125.5	112.2	100.4	92.9	85.0	97.2	94.3
SVK	97.4	84.1	83.0	80.9	81.7	82.6	83.4	86.5	88.1	91.4	90.2
CZE	108.0	112.2	114.3	120.7	124.2	135.2	126.3	124.0	127.9	137.1	130.6
POL	72.0	83.7	81.8	85.0	84.6	86.2	88.8	89.0	92.4	91.7	89.6
HUN	118.6	133.1	126.9	126.0	112.1	107.7	100.4	96.1	97.0	96.9	94.2
GRUPA 2											
HRV	107.5	115.1	120.9	123.9	121.8	120.8	122.7	120.2	115.5	125.1	125.6
BGR	104.2	103.7	104.6	102.0	105.5	106.8	103.6	98.8	99.4	98.1	100.6
ROU	66.0	72.7	73.6	70.5	69.0	64.7	60.6	58.7	56.3	49.8	49.1
GRUPA 3											
SRB	64.7	84.1	92.8	88.1	93.8	83.2	85.0	85.4	83.4	72.7	74.2
BIH	85.2	86.8	85.5	85.3	87.0	89.1	92.4	87.5	87.8	90.6	94.4
MNE	106.7	100.8	95.0	87.8	90.6	87.0	89.6	88.7	89.1	66.4	80.1
MKD	56.9	51.6	62.0	67.9	67.4	76.9	74.8	75.4	74.6	66.4	64.6
ALB	76.6	76.6	76.8	81.8	85.6	87.6	91.5	91.2	93.7	83.8	78.2

*Source:* Reports of central banks, commercial banks and international institutions in the period from 2008-2018. years (internet sources are listed in the literature)

After the global financial crisis and fluctuating movements in bank assets, the countries of Central Europe have continued economic growth since 2013, and in 2016 achieved GDP growth of 3%, which exceeds the growth of the European Union of 1.5%. The presented table shows that the following accounted for a large share of bank assets in GDP: Czech Republic, Croatia, Bulgaria, Hungary, Bosnia and Herzegovina, Slovakia and Poland. Serbia has maintained an average level of share of bank assets in GDP. The presented data

show the impact of the banking sector on economic growth and the connection between the banking sector and the corporate sector in the respective countries. If we look at the growth of banking assets in the presented 11 years, then the best results are: Czech Republic, Bulgaria and Slovenia. This relationship was significantly influenced by the state and development of the economy on the one hand and the banking sector on the other (Cocris i Nicu, 2013, p.83).

**Table 2.** Share of loans in GDP for the analyzed countries of Central and Eastern Europe in the period 2008-2018. years (%)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GRUPA 1											
SVN	96.9	92.7	95.9	91.5	89.4	74.5	62.3	57.3	54.2	44.9	43.5
SVK	49.1	50.6	50.8	53.1	53.3	55.3	56.6	59.4	62.4	60.1	60.8
CZE	53.9	55.9	57.4	60.3	61.4	65.3	61.8	62.1	62.7	52.0	51.1
POL	38.5	47.7	49.3	52.6	50.8	51.4	58.7	53.5	56.4	53.2	50.5
HUN	57.6	61.9	62.8	60.4	51.9	47.5	51.9	34.9	33.3	31.8	32.1
GRUPA 2											
HRV	72.0	78.0	84.3	88.1	86.2	86.6	86.1	83.7	77.6	53.1	53.1
BGR	72.4	76.8	76.4	74.4	74.1	74.9	67.7	61.1	58.8	52.4	53.0
ROU	38.7	40.1	40.3	40.4	38.9	34.9	31.8	31.0	29.4	26.1	25.9
GRUPA 3											
SRB	36.7	45.4	54.2	52.3	56.1	47.8	48.1	48.2	46.1	41.3	41.6
BIH	58.9	58.1	58.7	59.6	62.1	62.3	63.7	59.1	57.9	55.6	59.4
MNE	95.5	88.1	81.2	73.7	75.5	73.1	69.6	67.9	54.5	53.2	53.3
MKD	34.0	29.5	33.3	36.1	34.1	39.3	38.8	37.1	44.8	42.5	41.1
ALB	36.4	38.9	38.1	41.4	41.1	38.7	42.1	40.6	40.0	34.5	31.2

*Source:* Reports of central banks, commercial banks and international institutions in the period from 2008-2018. years (internet sources are listed in the literature)

In the countries of Central Europe, the dominant participation is: Slovakia, the Czech Republic and Poland.

In the countries of Eastern Europe, the members of the European Union are dominated by: Croatia and Bulgaria, while in other countries of Eastern Europe (Western Balkans) the dominant participation is: Bosnia and Herzegovina and Montenegro.

Serbia has a slightly smaller share of loans in GDP than the aforementioned countries. If we look at

the period from 2008 to 2018, now the largest share of loans in GDP have: Slovenia, Croatia and Bulgaria, ranging from 43.5% to 96.9%.

Precisely this indicator indicates the level of indebtedness of the population and the economy and the small share of securities in GDP.

Countries in transition (Western Balkan countries) can be said to belong to the group of moderately indebted countries.

**Table 3.** Share of deposits in GDP in selected countries of the Central and Eastern European region in the period 2008-2018. years (%)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GRUPA 1											
SVN	103.2	114.9	108.1	105.1	104.1	90.8	81.1	81.0	77.7	60.2	58.7
SVK	63.5	59.5	60.1	58.6	60.5	62.1	62.0	65.4	66.0	62.5	70.6
CZE	66.7	71.7	73.6	76.3	81.3	86.7	80.5	78.6	80.0	54.8	61.3
POL	31.9	42.2	43.8	45.9	45.4	47.5	49.5	52.2	55.5	56.7	54.1
HUN	41.8	46.5	44.7	45.5	44.5	43.1	39.6	39.9	41.5	44.3	43.0
GRUPA 2											
HRV	70.9	78.1	83.1	85.6	83.9	85.8	87.3	90.1	87.2	64.9	62.2
BGR	60.2	63.4	66.6	70.1	73.3	79.7	77.5	78.2	80.0	72.2	70.2
ROU	31.2	36.1	36.7	36.3	35.9	36.4	37.0	37.8	38.0	37.6	38.1
GRUPA 3											
SRB	30.0	39.4	42.5	41.6	45.0	41.3	43.4	44.8	46.3	49.2	46.0
BIH	48.1	50.0	50.6	50.6	51.9	54.1	58.3	58.0	59.8	74.6	65.2
MNE	64.19	60.8	57.7	56.8	63.9	63.5	67.9	66.0	64.0	70.2	62.9
MD	8.8	9.0	10.9	11.1	10.3	10.5	12.1	11.8	11.3	13.3	11.7
ALB	59.2	60.0	63.4	67.5	70.5	69.9	75.8	76.2	77.1	78.1	63.5

*Source: Reports of central banks, commercial banks and international institutions in the period from 2008-2018. years (internet sources are listed in the literature)*

The analysis of the data shows that the largest share of deposits in GDP in Central European countries are: Slovenia, Slovakia and the Czech Republic. In Slovenia, the share exceeded 100% for several years.

Among the countries of Eastern Europe, the members of the European Union had the largest share: Croatia and Bulgaria, while among other countries of Eastern Europe (Western Balkans), the largest share had: Albania and Montenegro. It is characteristic of the deposit potential that the countries in the leading economies of the observed region have the highest values. If the growth of deposits is observed on an annual level, then it is dominant in: Serbia, Hungary, Albania and Slovenia.

If the share of loans and deposits in GDP is compared, then the share of deposits in relation to loans in GDP is higher in most of the analyzed countries of Central and Eastern Europe.

The analysis of the basic laws on the deposit market starts from the macroeconomic aspect of banking operations.

The deposit market and its basic laws can be viewed through the "prism" of perfect competition, banking monopoly, monopolistic competition and oligopoly with leadership (Cota, 2002, p.107).

**Table 4.** Level of capital adequacy for analyzed countries in the period from 2008-2018. years.

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GRUPA 1											
SVN	11.7	11.6	11.3	11.6	11.5	11.8	15.8	18.8	21.4	2	20.6
SVK	11.1	12.6	12.7	13.4	16.0	16.6	17.4	17.7	18.2	18.8	18.2
CZE	12.3	14.1	15.5	15.3	16.4	17.3	17.8	18.4	18.5	19.3	19.6
POL	11.2	13.3	13.9	13.1	14.8	15.2	15.0	15.6	17.5	19.0	19.0
HUN	12.3	13.9	13.9	14.2	15.9	16.9	17.0	19.9	20.1	16.8	17.1
GRUPA 2											
HRV	15.1	16.4	18.8	19.2	20.5	20.9	21.4	21.0	22.5	23.3	21.1
BGR	14.9	17.0	17.5	17.5	16.5	16.6	21.9	22.2	22.2	22.1	20.4
ROU	13.8	14.7	15.0	13.4	14.6	13.9	17.6	19.2	19.6	20.0	19.7
GRUPA 3											
SRB	27.9	21.9	21.4	19.9	19.1	19.9	20.4	20.9	21.2	22.6	22.3
BIH	16.3	16.1	16.2	17.2	17.0	17.0	16.3	14.9	15.8	15.7	17.5
MNE	15.0	15.8	15.9	16.5	16.5	14.7	16.2	16.7	17.1	16.9	16.5
MKD	16.2	16.4	16.1	16.8	17.1	16.8	15.7	15.9	16.4	15.7	16.5
ALB	17.2	16.2	15.4	15.6	15.6	17.9	16.8	15.7	15.7	16.6	18.2

*Izvor: Reports of central banks, commercial banks and international institutions  
in the period from 2008-2018. years (internet sources are listed in the literature)*

In 2018, in the countries of Central Europe, the level of capital adequacy was dominant in Slovenia with 20.6%, the Czech Republic with 19.6% and Poland with 19.0%. In the countries of Eastern Europe, members of the European Union, the highest level of capital adequacy in 2018 was in Croatia in the amount of 21.1%. Bulgaria and Romania had a slightly lower level. In other countries of Eastern Europe (Western Balkans), Serbia had the highest level of capital adequacy in 2018 with 22.3%. Albania had approximately the same levels with 18.2%, Bosnia and Herzegovina with 17.6%, Montenegro and Macedonia with 16.5%. Given that the Basel Accord provides for a capital adequacy ratio of 8%, and the Regulatory Minimum provides for a capital adequacy ratio of 12%, it can be concluded that all Central and Eastern European countries are well capitalized and protected from potential risks.

## CONCLUSION

The fact is that the global financial crisis has negatively affected all countries in the world, especially countries in transition. The impact of the financial crisis has reduced macroeconomic indicators, which developed countries have covered by budget deficits, while countries in transition have entered their own increase in public debt and total borrowing. The share of non-performing loans in total credit placements is low. That is why it is necessary for the management in the banks to pay attention to the collection of receivables. It should be noted that receivables collection management is a complex part of the

credit business that includes various organizational units within the bank together with its specialized units consisting of different employee profiles, at different organizational and hierarchical levels.

Banks in transition countries are committed to implementing a credit policy aimed at rescheduling loans in order to stop the decline in their macroeconomic indicators. In the last two decades, the countries of Eastern Europe have seen an economic transition related to structural economic reform, opening trade, accepting foreign direct investment, private sector growth, GDP growth and the transformation of banking systems with the help of foreign capital. The International Monetary Fund has made a special contribution to the development of the countries of Central and Eastern Europe through financial arrangements and advice regarding the preservation of the macroeconomic stability of the said region.

A special place in the conditions of globalization and overcoming the global financial crisis belongs to banks, their market economy and the development of their corporate performance. The result of such work relates to the efficient management of assets, liabilities, revenues and expenditures of banks and countering risks in the financial market. In addition to the development of general performance, the following are of special importance: financial, marketing and performance management. Then the performance of employees, business philosophy, business culture, style, image and reputation of the bank in the financial market. Central European countries have developed top

performance, while Eastern European countries have developed medium and low bank performance. The aspiration of Eastern European countries is to achieve top performance of banks that guarantee them continuous liquidity, solvency, security and profitability.

A special place in the analysis of banks in Central and Eastern Europe belongs to the indicators related to: a) the share of total bank assets in GDP, b) the share of total loans in GDP, c) the share of total deposits in GDP, d) level of capital adequacy in the analyzed countries. In part, the share of total banking assets in GDP is dominated by Central European countries (Czech Republic, Slovenia, Hungary, Slovakia and Poland).

The countries of Central and Eastern Europe have approximately the same share in the share of total loans in GDP. In terms of the share of total deposits in GDP, the countries of Central Europe are dominant, followed by the countries of Eastern Europe, members of the European Union, and other countries of Eastern Europe (Western Balkans).

According to the level of capital adequacy, there are approximately the same countries in Central and Eastern Europe, whose capital adequacy is on average 60% higher than the Regulatory Minimum of Banking Systems of the observed countries, which is prescribed at 12% risk-weighted assets of individual banks.

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## SUMMARY

The banking sector represents the most important financial institutions that play a significant role in the development of each country's economy. Unlike the emerging markets (Central and Eastern European region), banks' participation in the global financial market is diminishing year after year due to the emergence of new or existing financial institutions, with special emphasis on insurance companies, investment funds, pension funds and leasing companies. The declining market share of banks as well as the decrease in the realized profit are the consequences of increased competition of financial institutions in the financial market.

The banking market of Central and Eastern European countries is relatively weak and underdeveloped compared to the European Union (EU). At the beginning of 2005, a large number of foreign banks appeared in Serbia and countries in the region interested in entering this market. Leading Western European banking groups have experienced an expansion in Central and Eastern European countries in recent years, as evidenced by the size of foreign-owned banking assets and capital.

A specific scientific contribution relates to the comparative analysis of the business performance level of the banking sector of the Central and Eastern European countries. The analysis covers the period 2008-2018, where the relationship between assets, loans and deposits with GDP was analyzed separately, as well as the level of capital adequacy of banks.

Thirteen observed countries will be divided into three groups. The first group consists of countries that are already largely members of the European Union, such as Slovenia (SVN), Slovakia (SVK), Czech Republic (CZE), Poland (POL) and Hungary (HUN). Therefore, this group is made up of the most developed countries in the region of Central and Eastern Europe.

The second group consists of Eastern European countries such as Bulgaria (BGR), Romania (ROU) and Croatia (HRV), which joined the EU a few years later. These are the countries that were last admitted to the EU, especially Croatia, which joined in 2013. Countries in the second group have succeeded in meeting the majority requirements set by the EU.

The third group consists of countries in Eastern Europe (or the Western Balkans) that are in the process of transition and are still making significant efforts to join the EU and become equal members. Among others are Serbia (SRB), Bosnia and Herzegovina (BiH), Montenegro (MNE),

Macedonia (MKD) and Albania (ALB). Accordingly, the third group countries have the lowest levels of economic development. The countries of this part of Europe are experiencing slow economic activity, which is a consequence of lack of production.

The price of banking products is much higher than in the rest of Europe. Interest rates on loans are high, especially when it comes to cash loans in local currencies. Banks are framed by the view that the region of Eastern Europe is very risky, especially when it comes to political instability. Unemployment rates exceeding 25% are high. The problem is also the public debt that countries have towards their creditors, moving over 70% of GDP.

## **PRIMENA CROWDFUNDING-A KAO ALTERNATIVNOG IZVORA FINANSIRANJA PROJEKATA U ZEMLJAMA EU - PRETPOSTAVKE NJEGOVOG RAZVOJA U BOSNI I HERCEGOVINI I HRVATSKOJ**

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*Članak je izlagan na VIII Internacionalnom naučnom skupu „EkonBiz: Upravljanje promjenama u uslovima globalizacije“, Bijeljina 18. i 19. jun 2020. godine*

**Apstrakt:** Novi ekonomski trend u finansiranju projekata, start-up preduzeća, inovativnih projekata i mnogih drugih projekata iz raznih oblasti (muzika, film, igrice) je danas širom sveta rasprostranjen i naziva se Crowdfunding ili grupno finansiranje. Razvojem novih tehnologija, a time i društvenih mreža širom sveta stvara mogućnost i potencijalnu prednost udruživanja širom sveta u prikupljanju sredstava na alternativni način. Crowdfunding može biti organizovan u više oblika, odnosno modela. Baznična podela je ona koju je izvršila Evropska komisija: Crowdfunding zasnovan na nagradama, Crowdfunding zasnovan na donacijama, Crowdfunding zasnovan na udelima i Crowdfunding zasnovan na investiranju. Tržište Crowdfunding-a je u stalnom porastu. Kako se uslovi kod tradicionalnih načina finansiranja sve više zaoštravaju, Crowdfunding bi mogao biti potencijalni ključ uspeha. Perspektive razvoja Crowdfunding-a u Bosni i Hercegovini i Hrvatskoj se ogledaju u zakonskom regulisanju ovog načina finansiranja, čime bi se olakšali administrativni poslovi, snizili manipulativni troškovi i stvorila pravna sigurnost. Nakon utvrđene regulative bi se trebalo intezivno posevetiti promociji Crowdfunding-a i „buđenja svesti“ građana, ukazivajući na moguće pogodnosti i prednosti koje on nudi. Za ovo je potrebno izvesno vreme, tako da će u doglednoj budućnosti alternativni način finansiranja Crowdfunding dobiti na značaju i u Bosni i Hercegovini i Hrvatskoj.

**Ključne riječi:** Crowdfundin, finansiranj, projekti, internet platforma.

### **UVOD**

Rad je segmentiran u tri dela: U prvom delu će se pokušati bliže pojmovno definisati termin „Crowdfunding“ uz pomoć relevantne akademske literature. U drugom delu rada će se prikazati kakva je zakonska regulativa Crowdfunding-a u Evropskoj Uniji, kao i trend uspešne primene Crowdfunding-a u zemljama Evropske Unije, najuspešniji projekti, kampanje. Treći deo rada prikazuje kakvo je trenutno stanje u vezi sa primenom Crowdfunding-a u Bosni i Hercegovini i Hrvatskoj, kao i ograničavajući faktori primene. Biće urađene SWOT analize za Bosnu i Hercegovinu i Hrvatsku kako bi se došlo do zaključka: kakvo je trenutno stanje u vezi sa primenom Crowdfunding-a u dve posmatrane zemlje, koje su potencijalne mogućnosti za njegov budući razvoj, kao i ograničavajući faktori za njegovu primenu.

**PREDMET ISTRAŽIVANJA:** Trend razvoja Crowdfundig-a u zemljama EU. Perspektive razvoja i ograničavajući faktori za primenu Crowdfunding-a kao alternativnog izvora finansiranja projekata u Hrvatskoj i Bosni i Hercegovini

### **PROBLEMSKA PITANJA:**

- 1) Od kojih faktora zavisi uspešnost finansiranja projekata putem Crowdfunding-a u zemljama EU?

2) Koje su ograničavajuće okolnosti i faktori za finansiranje putem *Crowdfunding-a* u Hrvatskoj i Bosni i Hercegovini?

**PRETHODNA ISTRAŽIVANJA:** Izveštaj Evropske komisije iz 2017. godine pod nazivom „*Identifying market and regulatory obstacles to cross-border development of crowdfunding in the EU*“ objašnjava koje su regulatorne prepreke i rešenja za primenu modela finansiranja *Crowdfunding-a* u zemljama Evropske Unije. Centar za društvene inovacije i održivi razvoj je sprovelo istraživanje 2014. godine u Hrvatskoj na temu „*Crowdfunding* u službi društvenih inovacija“. U Bosni i Hercegovini je pokrenuta prva „*Global Crowdfunding Academy*“ finansirana od strane Evropske Unije, u okviru projekta „Lokalni integrисани razvoј“ koji provodi UNDP u Bosni i Hercegovini. Cilj ovog projekta edukacija timova za uspešno vođenje *Crowdfunding* kampanja za prikupljanje kapitala za finansiranje projekata. „Na bazi Izveštaja Svetske banke „*Crowdfunding's Potential for the Developing World*“, jasno se uviđaju potencijalne šanse za primenu ove vrste finansiranja u zemlje u razvoju i koji su ograničavajući faktori za razvoj ove vrste finansiranja.

## 1. Pojmovno određenje *Crowdfunding-a*

### 1.1. Definicija *Crowdfunding-a*

Istraživanjem relevantne akademske literature pristune su mnoge definicije pojma „*Crowdfunding*“. Mnogi autori ovaj pojam definišu kao biznis model za investiranje, ali pošto je relativno nov termin, još uvek su otvorene diskusije na temu definicije ovog termina. Na Google Scholar ukucavanjem termina „*crowdfunding*“ dobijeno je 16500 rezultata (u opsegu od 2000-2018).

Evropska komisija *Crowdfunding* definiše kao grupno finansiranje - poziv otvoren široj javnosti - posebno preko internet stranice - za prikupljanje sredstava za određeni projekat ili poslovno ulaganje.

Kao odgovor na probleme pri finansiranju start-up kompanija, malih preduzeća ili projekata javlja se alternativni vid finansiranja, poznat pod terminom *Crowdfunding* (*Crowdfunding* eng. - zajedničko ili grupno finansiranje). *Crowdfunding* se može definisati kao praksa prikupljanja finansijskih sredstava za start-up kompanije ili male firme ili projekte na način da veliki broj ljudi putem socijalnih medija (*Facebook*, *Twitter*, *LinkedIn* ili specijalizovani blogovi) ulažu male svote novca. Ovo je organizovano kao kolektivni napor neprofesionalaca koji ulažu svoje finansije na bazi poverenja putem interneta. (Hulme M; Wright C;

2006) „Ovakva vrsta finansiranja firmi kojima nedostaje kapital za rast i razvoj je poznat pod nazivom socijalno pozajmljivanje“. Jeff Howe i Mark Robinson su 2006. godine prvi put upotrebili termin „*Crowdsourcing*“ u izdanju časopisa „*Wired Magazine*“. Tako da se *Crowdfunding* može tretirati kao proizvod koji je nastao od razvoja informacionih tehnologija.

### 1.2. Modeli *Crowdfunding-a*

S obzirom na različite karakteristike lansiranih internet platformi za prikupljanje sredstava putem *Crowdfunding-a*, prisutne su razne podele tipova ili modela *Crowdfunding-a*. Tako da u relevantnoj literaturi postoji mnogo klasifikacija vrsta ili modela *Crowdfunding-a*. U poslednjih par godina razvili su se razni pristupi pri sistemskom definisanju tipova *Crowdfunding-a*.

Tako Beyond Bradford (2012) ističe da u zavisnosti od pravne regulacije, istraživača i praktikanata zavisi i sama definicija klasifikacije *Crowdfunding-a*. Prema Bishnu; Kenji i Takaaki (2018) „*Crowdfundig* se može klasifikovati u dve grupe: prva grupa se odnosi na *Crowdfunding* zasnovan na prikupljanju sredstava u okviru zajednice i druga grupa se odnosi na vrstu *Crowdfunding-a* zasnovanu na finansijskom povratu“. Prva grupa se odnosi na prikupljanje sredstava putem donacija i nagrada. Druga grupa se može podeliti u tri kategorije: 1) *Crowdfunding* zasnovan na zajmovima ili tzv. *peer-to-peer (P2P)*, 2) *Crowdfunding* zasnovan na udelima u kapitalu i 3) *Royalty-based Crowdfunding*.

Postoje različiti modeli *Crowdfundig-a*, tako i vrsta aktivnosti koja se preduzimaju variraju od modela do modela. U dokumentu Evropske komisije (Predlog uredbi Evropskog parlamenta i saveta) iz 2018. godine navode se četiri glavne kategorije *Crowdfunding* platformi odnosno modela:

- 1) Model zasnovan na donacijama (*Donation Crowdfunding*);
- 2) Model zasnovan na investiranju (*Investment-based Crowdfuning*);
- 3) Model zasnovan na pozajmljivanju (*Lending Crowdfunding - peer-to-peer finance*);
- 4) Model zasnovan na nagradama (*Reward-based Crowdfunding*).

## 2. Primeri uspešne primene *Crowdfunding-a* u zemljama EU

### 2.1. Zakonska regulativa primene *Crowdfunding-a* u zemljama EU

Budući da se u zemljama članicama primenjuje tri velike grupe modela *Crowdfunding-a*, u odnosu na

specifičnosti koje se vezuju za svaki model ponaosob, tako i različita pravila i regulative se moraju primeniti. Tako da opšti pravni akti kojima se reguliše *Crowdfunding* u EU su sledeći (Linas S. 2017):

- ✓ Direktiva o sprečavanju pranja novca (*AMLD - Anti-Money Laundering Directive*);
- ✓ Pravilnik o regulaciji informacija onog ko plaća, odnosno vrši prenos sredstava;
- ✓ Pravilnik o jedinstvenoj zaštiti patenata;
- ✓ Direktiva o elektronskoj trgovini;
- ✓ Direktiva o varljivom i komparativnom oglašavanju;
- ✓ Direktiva o nepoštenoj trgovinskoj praksi i mnoge druge.

Ostali propisi se donose na bazi toga koji se model *Crowdfunding-a* primenjuje i koja je zemlja članica EU je u pitanju. Tako da ovo sve uključuje ažurno pravila tržišta finansijskih instrumenata kao što su MiFID 2, zatim Direktiva o alternativnim investicionim fondovima, Direktiva o platnim uslugama i mnoge druge. Dakle, sve ove zakonodavne mere i propisi zavise od jurisdikcije zemlje članice EU, njihovih nacionalnih zakona u vezi sa mogućim problemima regulacije prenošenja novca.

## 2.2. Razvoj *Crowdfunding-a* i primeri njegove uspešne primene u zemljama EU

Mlade kompanije imaju ograničen pristup izvorima finansiranja. Iz ovih razloga, najviši

prioritet Evropske komisije koji se navodi u Akcionom planu *CMU (Capital Market Union)*, jeste stimulisanje investicija koja će doprineti do stvaranja novih radnih mesta, a koje će u krajnjem povećati konkurentnost Evrope.

Na osnovu izveštaja Evropske komisije (2017) „*Crowdfunding - mapiranje tržišta EU i studija slučaja*“ koji je objavljen 2015. godine, identifikovano je 510 Internet platformi koje posluju u EU, sa povećanjem njihovog broja o 23,2% u 2014. godini u odnosu na 2013. godinu. Velika Britanija ima najveći broj platformi, što čini 28% od ukupnog broja EU, što čini preko 90% od 2 milijarde EUR. Zatim, Francuska koja je imala najveći broj platformi (77 platformi), Nemačka (65 platformi), Holandija (58 platformi) i Italija (42 platforme).

U odnosu na ostala tržišta *Crowdfunding-a* u svetu, evropsko tržište alternativnih finansija je za 6 puta manje u odnosu na američko, a 17 puta manje u odnosu na azijsko tržište. Takođe, tržište *Crowdfunding-a* koje rapidno raste je kinesko tržište, koje je u 2015. godini poraslo čak 312%, što je premašilo 100 milijardi dolara.

Tržište *Crowdfunding-a* u Evropi rapidno raste. Tako sa početnih 1.127 miliona eura u godini 2013. je već u 2014. godini poraslo za 151% u odnosu na 2013. godinu i sve do 2016. godine, prema dostupnim podacima poraslo na 7.671 miliona evra, što znači da je u poslednjoj prikazanoj godini 2016. skoro 7 puta tržište poraslo u odnosu na 2013. godinu.

**Tabela br. 1 - Tržište *Crowdfunding-a* po vrednostima transakcija po pojedinim zemljama EU u 2018. godini**

Zemlja	Vrednost transakcija (u mil. EUR)	Broj pokrenutih kampanji (u hiljadama)	Rast vrednosti u odnosu na 2017. godinu
<b>Njemačka</b>	33,1	8,5	10,7%
<b>Francuska</b>	84,4	23,7	13,2%
<b>Austrija</b>	7,2	1,7	21,7%
<b>Hrvatska</b>	1,2	1,1	16,6%
<b>Danska</b>	25,4	5	26,9%
<b>Finska</b>	10,8	2,7	24,2%
<b>Italija</b>	31,9	11,4	25,5%
<b>Holandija</b>	31,7	7,4	24,3%
<b>Norveška</b>	2,2	0,3	1,7%
<b>Španija</b>	13,7	5,4	9,4%
<b>Švedska</b>	11,8	2,5	20,2%

*Izvor:* Autori na osnovu dostupnih podataka na sajtu: <https://www.statista.com/>

Najveću ostvarenu vrednost transakcija putem Crowdfunding-a u 2018. godini ostvarila je Francuska sa 84,4 milion evra, zatim Njemačka sa 33,1 milion evra, Italija sa 31,9 miliona evra, Holandija sa 31,7 milion evra, a dalje hronološki slijede: Danska, Španija, Švedska, Finska, Austrija, Norveška i na kraju Hrvatska.

### **3. Perspektive i ograničavajući faktori primene Crowdfunding-a u Bosni i Hercegovini i Hrvatskoj**

#### **3.1. Bosna i Hercegovina**

U Bosni i Hercegovini „Crowdfunding“ je relativno nov pojam. U oktobru 2017. godine je započet projekat „Lokalni integrisani razvoj“ LIR, koji se finansira iz budžeta Evropske unije EU, a provodi ga Razvojni program Ujedinjenih nacija UNDP, zajedno sa Terra Hub Croatia i AltFinLab. Ovim putem je osnovana i pokrenuta prva „Global Crowdfunding Academy“ u Bosni i Hercegovini.

Javni poziv za učešće u trening programu vezan za provođenje i implementaciju „crowdfunding“ kampanja u Bosni i Hercegovini. Cilj ovog poziva je prezentacija novog oblika alternativnog finansiranja posebno inovativnih projekata na području Bosne i Hercegovine. U smislu „inovativnih“ projekata u pozivu je naglasak (ali ne isključivo) na one projekte koji su povezani sa zelenom energijom i zaštitom životne sredine, inovativnim start-up kompanijama, IT i hardeverskim rešenjima itd.

Popularnost *Crowdfunding-a* kao alternativnog izvora finansiranja raste brzo u mnogim zemljama. On može voditi ka stvaranju novih radnih mesta i to dugoročno.

Ovo je posebno značajno za Bosnu i Hercegovinu, koja pripada zemljama Zapadnog Balkana, gde se u većini zemalja stope nezaposlenosti za osobe mlade od 25 godina dvostruko veće od stope ukupne nezaposlenosti.

**Tabela br. 2 - SWOT analiza primene *Crowdfunding-a* kao alternativnog izvora finansiranja u Bosni i Hercegovini**

SNAGE	SLABOSTI
<ul style="list-style-type: none"> <li>✚ Upotreba Interneta;</li> <li>✚ Popularnost socijalnih mreža (Facebook, Instagram, LikendIn).</li> <li>✚ Mlada populacija;</li> <li>✚ Geografska rasprostranjenost stanovnika Bosne i Hercegovine u zemljama dijaspore;</li> </ul>	<ul style="list-style-type: none"> <li>✚ Ne postoji zakonska regulativa za primenu;</li> <li>✚ Nedovoljna promocija <i>Crowdfunding-a</i>;</li> <li>✚ Nedovoljno razvijena „svest“ o mogućnostima i prednostima <i>Crowdfunding-a</i>;</li> <li>✚ Nedovoljna informisanost u vezi finansiranja sa PayPal računa;</li> </ul>
ŠANSE	PRETNJE
<ul style="list-style-type: none"> <li>✚ Porast životnog standarda;</li> <li>✚ Mogućnost „brze“ zarade;</li> <li>✚ Mogućnost pribavljanja kapitala na jeftiniji način; posebno za male i srednje kompanije (koje čine 87% od ukupnog broja kompanija u BiH)</li> <li>✚ Finansiranje inovativnih projekata;</li> <li>✚ Dugoročno obezbeđenje novih radnih mesta;</li> </ul>	<ul style="list-style-type: none"> <li>✚ Nedovoljna informisanost o <i>Crowdfunding-u</i> kao alternativnom izvoru finansiranja;</li> <li>✚ Preterano oslanjanje na tradicionalne izvore finansiranja (pretežno banke tj. krediti);</li> <li>✚ Moguće „pranje“ novca;</li> <li>✚ Asimterične informacije;</li> </ul>

Izvor: Autori na osnovu: „*Crowdfunding from an investor perspective*“ - [www.oxera.com](http://www.oxera.com); World Bank: „*Crowdfunding's Potential for the Developing World*“ InfoDev 2013.

Na osnovu dobijene SWOT analize za primenu *Crowdfunding-a* kao alternativnog izvora finansiranja u Bosni i Hercegovini, može se doći do zaključka da je Bosna i Hercegovina trenutno najgora zemlja u regionu što se tiče primene *Crowdfunding-a*. Kako je navedeno da su snage Bosne i Hercegovine na šta bi trebalo da se osloni

u najvećoj meri veliki uticaj imaju razvijene i popularne socijalne ili društvene mreže koje se naširoko koriste u Bosni i Hercegovini, kao što su: *Facebook*, *Instagram*, *LikendIn*, i mnoge druge. Takođe, ovo bi značilo stvaranje novih radnih mesta, s obzirom da je veoma visoka stopa nezaposlenosti u Bosni i Hercegovini posebno

ljudi mlađe dobi. Takođe, stanovnici mlađe dobi bi trebali da probude svest, da se informišu i da se edukuju o prednostima *Crowdfunding-a* posebno putem pokrenutih *Crowdfunding* akademija u Bosni i Hercegovini. Sa druge strane, ono što je najveći trenutni problem, odnosno ograničavajući faktor primene *Crowdfunding-a* je svakako nepostojanje nikakve zakonske regulative koja bi obuhvatala pojedine modele *Crowdfunding-a* i bila uskladena sa jurisdikcijom zemlje, ali i harmonizacijom sa zakonskim merama i propisima Evropske Unije. Sve pretnje koje postoje u vezi sa primenom *Crowdfunding-a* u Bosni i Hercegovini se mogu povezati sa nedovoljnom informisanosću stanovnika ove zemlje, pa su prisutni brojni rizici koji se najviše odnose na tzv. „pranje“ novca, asimetričnih informacija itd. Takođe, bitno je napomenuti da je finansijsko tržište Bosne i Hercegovine, odnosno tržište kapitala veoma nerazvijeno i plitko, što znači da je i dalje kredit ili zajam od banke skoro jedini izvor finansiranja preduzeća, stanovništva, projekata.

Jedan od uspešno realizovanih projekata u Bosni i Hercegovini putem *Crowdfunding* platforme jeste finansiranje otvaranja restorana „Bistro Homie“ u

Sarajevu 2017. godine, putem platforme *GoGetFunding.com*. Putem ove kampanje prikupljeno je 8.000 švajcarskih franaka.

### 3.2. Hrvatska

Popularnost primene *Crowdfunding-a* raste intezivno pojavom prve hrvatske *Crowdfunding* platforme *Croinvest.eu*, osnovane 2014. godine. Osnivač ove platforme je Centar za društvene inovacije i održivi razvoj (Cedior). Prema istraživanju Cedior-a iz 2014. godine 99% hrvatskog stanovništva nije upoznato sa terminom *Crowdfunding* i njegovim značenjem. Hrvatska *Croinvest.eu* *Crowdfunding* platforma služi za prikupljanje finansijskih sredstava za preduzetničke ideje, infrastrukturne projekte i društveno korisne projekte, koji konkurišu za EU fondove.

Od 2014. godine u Hrvatskoj je pokrenuto oko 50 kampanja, od čega je uspešno realizovano 15. Traženi iznos novca je bio 1 milion evra, a sakupljeno je 386 hiljada USD od ukupno 6.650 ulagača.

**Tabela br. 3 - SWOT analiza primene *Crowdfunding-a* kao alternativnog izvora finansiranja u Hrvatskoj**

SNAGE	SLABOSTI
<ul style="list-style-type: none"> <li>✚ Razvijene društvene mreže;</li> <li>✚ Mlada populacija;</li> <li>✚ Za kratko vreme sprovedeno mnogo uspešnih kampanja za projekte;</li> <li>✚ Pokrenute direktive za zakonsko regulisanje ovog vida finansiranja i harmonizacije sa EU;</li> <li>✚ Osnovana <i>Crowdfunding Academy</i> kao glavni promotor i edukator <i>Crowdfunding-a</i>;</li> </ul>	<ul style="list-style-type: none"> <li>✚ Nedovoljno zakonski regulisan način finansiranja; Ovo bi bila ključna slabost i prepreka za razvoj <i>Crowdfunding-a</i> u Hrvatskoj;</li> <li>✚ Nedovoljan broj domaćih platformi;</li> </ul>
<ul style="list-style-type: none"> <li>✚ Razvoj novih domaćih crowdfunding platformi;</li> <li>✚ Povećana popularnost kod stanovništva (posebno mlade dobi);</li> <li>✚ Promovisanje poreskih olakšica;</li> </ul>	<ul style="list-style-type: none"> <li>✚ Davanje prednosti finansiranja putem zajmova (banke);</li> <li>✚ Preterane birokratizacije - procedure i propisi prilikom pokretanja kampanje, njenog sprovođenja i same realizacije projekta;</li> <li>✚ Poreska politika;</li> <li>✚ Moguće „pranje“ novca i prevare;</li> </ul>

Izvor: Autori na osnovu: World Bank: „*Crowdfunding's Potential for the Developing World*“ InfoDev 2013. Hrvoje Hafner: „*Vodič za Crowdfunding*“; Udruga za razvoj civilnog društva SMART; Rijeka; 2017

U 2015. godini je putem *Crowdfunding-a* prikupljeno 10 miliona kuna, što predstavlja procentualni porast od 90% u odnosu na 2014. godinu, gde je pokrenuto 63 projekta, a 23 od njih je ostvarilo svoj cilj. U 2016. godini došlo je do osetnog pada prikupljenih sredstava ovim putem (2,3 miliona kuna). Najuspešnija godina je bila 2017. godina, u kojoj je pokrenuto 78 projekata putem *Indiegogo* platformi, od kojih je 26 projekata prikupilo traženi novac. Takođe, porastao je i broj podržavalaca domaćih *Crowdfunding* kampanja u Hrvatskoj, koji je dostigao 13.351. Kampanje koje su bile pokrenute su većinom bile iz oblasti muzičke i umjetničke industrije. *Crowdfunding* platforma osnovana i pokrenuta u Hrvatskoj u 2016. godini od strane Vipnet-a i nazvana je Čini pravu stvar, a zasnovana na donacijama. U 2017. godini osnovana je i Hrvatska platforma za *Crowdfunding* *Croenergy.eu* koja je zasnovana na donacijama.

Jedan od uspešno realizovanih projekata putem *Crowdfunding-a* u Hrvatskoj bila je kampanja za *Baggizmo* projekt, koji je realizovan putem platforme *Kickstarter*. Putem ove uspešne kampanje prikupljeno 44.120 USD od traženih 35.000 USD. Putem *Indiegogo* platforme u 2014. godini je finansirana je knjiga „1000 dana proleća“ autora Tomsilava Perka, gde je sakupljeno 13.133USD.

SWOT analiza urađena za Hrvatsku u vezi sa primenom *Crowdfunding-a* ukazuje na to da iako je Hrvatska članica EU ona je po svemu što se tiče primene i regulacije *Crowdfunding-a* dosta daleko od drugih zemalja članica EU. To znači da je ovo najveća slabost što se tiče trenutnog stanja u vezi sa primenom *Crowdfunding-a* kao alternativnog izvora finansiranja. U Hrvatskoj trenutno ne postoje nikakve zakonske regulative koje se posebno odnose na regulisanje *Crowdfunding-a* niti posebno zakonodavno telo koje se posebno bavi ovim pitanjima, za razliku od ostalih zemalja EU. Ono što je trenutno jako pozitivno je to da uprkos ovoj činjenici pokrenuto mnogo uspešnih *Crowdfunding* kampanja na području Hrvatske, što bi značilo da postoji izvesna informisanost u vezi toga šta su prednosti finansiranja putem raznih modela *Crowdfunding-a*. Takođe, ono što je pozitivno i u ovom momentu predstavlja snagu za Hrvatsku u vezi primene *Crowdfunding-a* je svakako osnovana *Crowdfunding* akademija kao glavni promoter i edukator. Pozitivna činjenica je svakako postojanje domaćih hrvatskih *Crowdfunding* platformi, ali njihov broj bi se trebao uvećati u skorijoj budućnosti. Takođe, pokrenuto je niz direktiva koje jednim svojim delom direktno i posebno regulišu *Crowdfunding* i koje su inkorporirane u hrvatsko zakonodavstvo. Nadležnost sprovodenja ovih akcija je na

Hrvatskoj agenciji za nadzor finansijskih usluga (HANFA).

## ZAKLJUČAK

Na osnovu dostupnih relevantnih podataka dobijenih na osnovu raznih istraživanja i izveštaja mnogih institucija Evropske Unije prikazan je razvoj i rast tržišta *Crowdfunding-a* u Evropskoj Uniji. Kako je u Bosni i Hercegovini prvi put predstavljen *Crowdfunding* 2017. godine, sam termin je nepoznat među ljudima. Na osnovu urađene SWOT analize za Bosnu i Hercegovinu zaključuje se da zbog nedovoljne promocije i nepoznanica koje nosi sa sobom ovaj način finansiranja, trenutno nema uspešnu primenu u praksi. Ono što bi bio ključni ograničavajući faktor je svakako nepostojanje nikakvog oblika zakonskog regulisanja. Perspektiva za Bosnu i Hercegovinu, u vezi sa primenom *Crowdfunding-a* bi svakako bila činjenica da se naširoko primenjuju društvene mreže, kao i rasprostranjenost stanovnika Bosne i Hercegovine širom zemalja dijaspore. Sa druge strane, iako je Hrvatska zemlja članica Evropske Unije, prisutni su brojni problemi u vezi sa uspešnom primenom ove vrste finansiranja. Na osnovu SWOT analize jasno je da kao i u Bosni i Hercegovini, problem vezan za nepostojanje nikakve zakonske regulative koja bi obuhvatala *Crowdfunding* u Hrvatskoj. Ono što je pozitivna činjenica u vezi sa ovim su svakako pokrenute incijijative HAFNE (Hrvatska agencija za nadzor finansijskih usluga) u vezi sa ovim pitanjem. Perspektive razvoja *Crowdfunding-a* u Bosni i Hercegovini i Hrvatskoj se ogledaju u zakonskom regulisanju ovog načina finansiranja, čime bi se olakašali administrativni poslovi, snizili manipulativni troškovi i stvorila pravna sigurnost. Nakon utvrđene regulative bi se trebalo intezivno posevetiti promociji *Crowdfunding-a* i „buđenja svesti“ građana, ukazivajući na moguće pogodnosti i prednosti koje on nudi.

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## SUMMARY

With the development of modern technologies in the 1990s, the expansive development of the modern form of crowdfunding began, with the launch of an internet platform to raise funds to finance various projects through campaigns. The European Commission document (Proposal for Regulations of the European Parliament and the Council) from 2018 lists four main categories of crowdfunding platforms, ie models: 1) Donation Crowdfunding model; 2) Investment-based Crowdfuning; 3) Lending Crowdfunding (peer-to-peer finance) model; 4) Reward-based Crowdfunding model. Compared to other Crowdfunding markets in the world, the European alternative finance market is 6 times smaller than the American market, and 17 times smaller than the Asian market. Also, the rapidly growing crowdfunding market is the Chinese market, which grew by as much as 312% in 2015, exceeding \$ 100 billion. Based on the obtained SWOT analysis for the implementation of Crowdfunding as an alternative source of funding in Bosnia and Herzegovina, it can be concluded that Bosnia and Herzegovina is currently the worst country in the region in terms of the implementation of Crowdfunding. A SWOT analysis done for Croatia regarding the implementation of Crowdfunding indicates that although Croatia is a member of the EU, it is far from other EU member states in terms of the implementation and regulation of Crowdfunding. Prospects for the development of crowdfunding in Bosnia and Herzegovina and Croatia are reflected in the legal regulation of this method of financing, which would facilitate administrative work, reduce handling costs and create legal certainty. Following the established regulations, intensive attention should be paid to the promotion of crowdfunding and "wake up call" of citizens, pointing out the possible benefits and advantages it offers.

# APPLICATION OF CROWDFUNDING AS AN ALTERNATIVE SOURCE OF PROJECT FINANCING IN EU COUNTRIES - ASSUMPTIONS OF ITS DEVELOPMENT IN BOSNIA AND HERZEGOVINA AND CROATIA

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*Paper presented at the 8th International Scientific Symposium „EkonBiz: Change management in the conditions of globalization“, Bijeljina, 18 – 19th June 2020.*

**Abstract:** A new economic trend in the financing of projects, start-ups, innovative projects and many other projects from various fields (music, film, games) is widespread today and it is called crowdfunding or group financing. With the development of new technologies, and thus social networks around the world, it creates the possibility and potential advantage of associating around the world in raising funds in an alternative way. Crowdfunding can be organized in several forms or models. The basic division is the one that is carried out by the European Commission: Reward-based crowdfunding, Donation-based crowdfunding, Share-based crowdfunding and Investment-based crowdfunding. The crowdfunding market is constantly growing. As conditions for traditional funding become more stringent, crowdfunding could be a potential key to success. Prospects for the development of crowdfunding in Bosnia and Herzegovina and Croatia are reflected in the legal regulation of this method of financing, which would facilitate administrative work, reduce handling costs and create legal certainty. Following the established regulations, intensive attention should be dedicated to the promotion of crowdfunding and "raising awareness" of citizens, pointing out the possible benefits and advantages that it offers. This will take some time, so that in the foreseeable future, alternative financing of crowdfunding will

gain in importance in Bosnia and Herzegovina and Croatia.

**Key words:** Crowdfunding, financing, projects, internet platform

## INTRODUCTION

The article is segmented into three parts: *In the first part*, an attempt will be made to define the term „Crowdfunding“ in a more detail way with the help of relevant academic literature. *The second part* of the article will present the Legislation of Crowdfunding in the European Union, as well as the trend of successful implementation of Crowdfunding in the countries of the European Union, the most successful projects, campaigns. *The third part* of the article shows the current situation regarding the implementation of crowdfunding in Bosnia and Herzegovina and Croatia, as well as the limiting factors of implementation. A SWOT analysis will be done for Bosnia and Herzegovina and Croatia to reach a conclusion: what is the current situation regarding the implementation of crowdfunding in the two observed countries, what are the potential opportunities for its future development, as well as limiting factors for its implementation.

**SUBJECT OF RESEARCH:** Crowdfunding development trend in EU countries. Development perspectives and limiting factors for the

application of Crowdfunding as an alternative source of project financing in Croatia and Bosnia and Herzegovina

#### **RESEARCH ISSUES:**

- 1) Which are the key factors of success of project financing through crowdfunding in EU countries?
- 2) What are the limiting circumstances and factors for crowdfunding in Croatia and Bosnia and Herzegovina?

**PREVIOUS RESEARCH:** The European Commission's (2017) report entitled "Identifying market and regulatory obstacles to cross-border development of crowdfunding in the EU" explains what are the regulatory barriers and solutions for the application of crowdfunding financing models in European Union countries. The Center for Social Innovation and Sustainable Development conducted a survey in 2014 in Croatia on "Crowdfunding in the service of social innovation." The first "Global Crowdfunding Academy" funded by the European Union was launched in Bosnia and Herzegovina, within the project "Local Integrated Development" implemented by UNDP in Bosnia and Herzegovina. The aim of this project is to educate teams to successfully run crowdfunding campaigns to raise capital to finance projects. Based on the World Bank's report "Crowdfunding's Potential for the Developing World" (2013), it is obvious that the potential chances for the application of this type of financing in developing countries and what are the limiting factors for the development of this type of financing.

### **1. Conceptual definition of crowdfunding**

#### **1.1. Definition of Crowdfunding**

Many definitions of the term "crowdfunding" are present in the research of the relevant academic literature. Many authors define this term as a business model for investing, but since it is a relatively new term, discussions on the definition of this term are still open. By typing the term "crowdfunding" on Google Scholar, 16,500 results were obtained (in the range from 2000-2018).

The European Commission defines crowdfunding as group funding - a call open to the general public - especially through a website - to raise funds for a specific project or business investment. In response to problems in financing start-up companies, small businesses or projects, there is an alternative form of financing, known as Crowdfunding (joint or group financing). Crowdfunding can be defined as the practice of raising funds for start-up companies or small

businesses or projects by a large number of people investing small amounts of money through social media (Facebook, Twitter, LinkedIn or specialized blogs).

This is organized as a collective effort of non-professionals who invest their finances on the basis of trust via the Internet. (Hulme M; Wright C; 2006) "This type of financing for companies that lack capital for growth and development is known as social lending." In 2006, Jeff Howe and Mark Robinson first used the term "Crowdsourcing" in Wired Magazine (2020). So Crowdfunding can be treated as a product that has emerged from the development of information technology.

### **1.2. Crowdfunding models**

Due to the different characteristics of the launched fundraising platforms through Crowdfunding, there are various divisions of Crowdfunding types or models. So there are many classifications of Crowdfunding types or models in the relevant literature. In the last few years, various approaches have been developed in the systematic definition of types of crowdfunding.

Thus Beyond Bradford (2012) points out that depending on the legal regulation, the definition of Crowdfunding classification itself depends on the researchers and practitioners. According to Bishnu, Kenji and Takaaki (2018) "Crowdfundig can be classified into two groups: the first group refers to community-based crowdfunding and the second group refers to the type of crowdfunding based on financial return".

The first group refers to fundraising through donations and awards. The second group can be divided into three categories: 1) Crowdfunding based on loans or so-called peer-to-peer (P2P), 2) Equity-based crowdfunding and 3) Royalty-based Crowdfunding.

There are different models of CrowdFundig, so the types of activities that are undertaken vary from model to model.

The European Commission document (Proposal for Regulations of the European Parliament and the Council) (2018) lists four main categories of crowdfunding platforms or models:

- 1) Donation Crowdfunding model;
- 2) Investment-based Crowdfuning;
- 3) Lending Crowdfunding (peer-to-peer finance) model;
- 4) Reward-based Crowdfunding model.

## **2. Examples of successful implementation of crowdfunding in EU countries**

### **2.1. Legislation on the application of crowdfunding in EU countries**

Since three large groups of Crowdfunding models are applied in the European member states, in relation to the specifics attached to each model individually, different rules and regulations must be applied. So the general legal acts regulating crowdfunding in the EU are as follows (Linas S. 2017):

- Anti-Money Laundering Directive (AMLD);
- Rulebook on regulation of information of the one who pays, ie transfers funds;
- Rulebook on unitary patent protection;
- E-Commerce Directive;
- Directive on deceptive and comparative advertising;
- Unfair Commercial Practices Directive and many others.

Other regulations are adopted on the basis of which crowdfunding model is applied and which EU member state is in question. So this all includes up-to-date rules of the market of financial instruments such as MiFID 2, then the Directive on Alternative Investment Funds, the Directive on Payment Services and many others. Thus, all these legislative measures and regulations depend on the jurisdiction of the EU member state, their national

laws regarding possible problems of money transfer regulation.

### **2.2. Development of crowdfunding and examples of its successful application in EU countries**

Young companies have limited access to funding sources. For these reasons, the highest priority of the European Commission stated in the CMU (Capital Market Union) Action Plan is to stimulate investments that will contribute to the creation of new jobs, and which will ultimately increase Europe's competitiveness.

Based on the report of the European Commission "Crowdfunding - EU market mapping and case studies" (2015), 510 Internet platforms operating in the EU were identified, with an increase in their number of 23.2% in 2014 compared to 2013. The UK has the largest number of platforms, accounting for 28% of the total EU, accounting for over 90% of the € 2 billion. Then, France, which had the largest number of platforms (77 platforms), Germany (65 platforms), the Netherlands (58 platforms) and Italy (42 platforms). Compared to other Crowdfunding markets in the world, the European alternative finance market is 6 times smaller than the US and 17 times smaller than the Asian market. Also, the rapidly growing crowdfunding market is the Chinese market, which grew by as much as 312% in 2015, exceeding \$ 100 billion.

The crowdfunding market in Europe is growing rapidly. Thus, from the initial 1,127 million euros in 2013, it increased by 151% in 2014 compared to 2013, and until 2016, according to available data, it increased to 7,671 million euros, which means that in the last shown year In 2016, the market increased almost 7 times compared to 2013.

**Table no. 1** -Crowdfunding market by transaction values in EU by country, in 2018.

Country	The value of transactions (in MIL EUR)	The number of campaigns launched (in the thousands)	Value growth compared to 2017. (%)
Germany	33,1	8,5	10,7
France	84,4	23,7	13,2
Austria	7,2	1,7	21,7
Croatia	1,2	1,1	16,6
Finland	10,8	5	26,9
Denmark	25,4	2,7	24,2
Finland	10,8	11,4	25,5
Italy	31,9	7,4	24,3
Norway	2,2	0,3	1,7
Spain	13,7	5,4	9,4
Sweden	11,8	2,5	20,2

*Source:* Authors based on available data on the site: <https://www.statista.com/>

### **3. Perspectives and limiting factors of Crowdfunding implementation in Bosnia and Herzegovina and Croatia**

#### **3.1. Bosnia and Herzegovina**

In Bosnia and Herzegovina, "crowdfunding" is a relatively new term. In October 2017, the project "Local Integrated Development" LIR, funded by the EU budget, and implemented by the United Nations Development Program UNDP, together with Terra Hub Croatia and AltFinLab. This is how the first "Global Crowdfunding Academy" in Bosnia and Herzegovina was founded and launched. Public call for participation in the training program related to the implementation and implementation of "crowdfunding" campaigns in Bosnia and Herzegovina. The aim of this call is to

present a new form of alternative financing of particularly innovative projects in Bosnia and Herzegovina ([www.hocu.ba](http://www.hocu.ba)). In terms of "innovative" projects, the call emphasizes (but not exclusively) those projects that are related to green energy and environmental protection, innovative start-up companies, IT and hardware solutions, etc. The popularity of crowdfunding as an alternative source of funding is growing rapidly in many countries. It can lead to the creation of new jobs in the long run. This is especially important for Bosnia and Herzegovina, which belongs to the countries of the Western Balkans, where in most countries the unemployment rates for people under the age of 25 are twice as high as the total unemployment rate.

**Table no. 2 - SWOT analysis of the application of crowdfunding as an alternative source of funding in  
Bosnia and Herzegovina**

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>⊕ Use of the Internet;</li> <li>⊕ Popularity of social networks (Facebook, Instagram, LikendIn).</li> <li>⊕ Young population;</li> <li>⊕ The geographical distribution of the population of Bosnia and Herzegovina in the Diaspora;</li> </ul>	<ul style="list-style-type: none"> <li>⊕ There is no legal regulation for implementation;</li> <li>⊕ Insufficient promotion of crowdfunding;</li> <li>⊕ Insufficiently developed "awareness" of the possibilities and benefits of crowdfunding;</li> <li>⊕ Insufficient information regarding financing from PayPal accounts;</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>⊕ The rise in living standards;</li> <li>⊕ Possibility of "fast" earnings;</li> <li>⊕ Possibility of obtaining capital in a cheaper way; especially for small and medium companies (which make up 87% of the total number of companies in BiH)</li> <li>⊕ Financing of innovative projects;</li> <li>⊕ Long-term provision of new jobs;</li> </ul>	<ul style="list-style-type: none"> <li>⊕ Insufficient information about crowdfunding as an alternative source of funding;</li> <li>⊕ Excessive reliance on traditional sources of financing (mostly banks / loans);</li> <li>⊕ Possible "money laundering";</li> <li>⊕ Asymmetric information;</li> </ul>

**Source:** Authors based on: "Crowdfunding from an investor perspective" - [www.oxera.com](http://www.oxera.com); World Bank: „Crowdfunding's Potential for the Developing World., InfoDev 2013.

Based on the obtained SWOT analysis for the implementation of Crowdfunding as an alternative source of funding in Bosnia and Herzegovina, it can be concluded that Bosnia and Herzegovina is currently the worst country in the region in terms of the implementation of Crowdfunding. As stated, the strengths of Bosnia and Herzegovina, on which it should rely to the greatest extent, have a great influence on the developed and popular social networks that are widely used in Bosnia and Herzegovina, such as: Facebook, Instagram, LikendIn, and many others. Also, this would mean the creation of new jobs, given that the

unemployment rate in Bosnia and Herzegovina is very high, especially for younger people. Also, younger residents should raise awareness, be informed and educated about the benefits of Crowdfunding, especially through the launched Crowdfunding academies in Bosnia and Herzegovina. On the other hand, the biggest current problem, is the limiting factor of Crowdfunding application, is certainly the lack of any legislation that would include certain Crowdfunding models and be harmonized with the country's jurisdiction, but also harmonization with European Union legislation and regulations. All

the threats that exist in connection with the application of crowdfunding in Bosnia and Herzegovina can be related to the insufficient information of the inhabitants of this country, so there are numerous risks that are mostly related to the so-called. „Money laundering“, asymmetric information, etc. Also, it is important to note that the financial market of Bosnia and Herzegovina, in the capital market is very underdeveloped and shallow, which means that a loan from a bank is still almost the only source of financing for companies, individuals, projects. One of the successfully implemented projects in Bosnia and Herzegovina through the Crowdfunding platform is the financing of the opening of the restaurant "Bistro Nomie" in Sarajevo in 2017, through the GoGetFunding.com (<https://gogetfunding.com>) platform. Through this campaign, 8,000 Swiss francs were raised.

### 3.2. Croatia

The popularity of Crowdfunding is growing intensively with the appearance of the first Croatian Crowdfunding platform Croinvest.eu (<https://croinvest.eu>), founded in 2014. The founder of this platform is the Center for Social Innovation and Sustainable Development (Cedior) (<https://cedior.org>). According to the study from the Cedior (2014), 99% of the Croatian population is unfamiliar with the term Crowdfunding and its meaning. Croatia Croinvest.eu Crowdfunding platform is used to raise funds for entrepreneurial ideas, infrastructure projects and socially useful projects, which apply for EU funds.

Since 2014, about 50 campaigns have been launched in Croatia, of which 15 have been successfully implemented. The requested amount of money was 1 million euros, and 386 thousand USD were collected from a total of 6,650 investors (Rajn, 2015). In 2015, HRK 10 million was raised through crowdfunding, which is a percentage increase of 90% compared to 2014, where 63 projects were launched, and 23 of them achieved their goal. In 2016, there was a significant drop in funds raised this way (2.3 million kuna). The most successful year was 2017, in which 78 projects were launched through the Indiegogo platform, of which 26 projects raised the requested money ([www.netokracija.com](http://www.netokracija.com)). Also, the number of supporters of domestic crowdfunding campaigns in Croatia increased, reaching 13,351. The campaigns that were launched were mostly from the field of music and art industry. Crowdfunding platform founded and launched in Croatia in 2016 by Vipnet was called „Make the right thing“, and based on donations (<https://cinipravustvar.hr>). In 2017, the Croatian Crowdfunding platform Croenergy.eu (<https://croenergy.eu>) was established, which is also based on donations. One of the successfully realized projects through Crowdfunding in Croatia was the campaign for the Baggizmo project, which was realized through the Kickstarter platform (<https://kickstarter.com>). Through this successful campaign, \$ 44,120 of the requested \$ 35,000 was raised. In 2014, the book "1000 Days of Spring" by Tomsilav Perk was financed through the Indiegogo platform, where 13,133USD was collected ([www.indiegogo.com](http://www.indiegogo.com)).

**Table no. 3 - SWOT analysis of the application of crowdfunding as an alternative source of funding in Croatia**

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>⊕ Developed social networks;</li> <li>⊕ Young population;</li> <li>⊕ Many successful project campaigns were conducted in a short time;</li> <li>⊕ Initiated directives for legal regulation of this type of financing and harmonization with the EU;</li> <li>⊕ Crowdfunding Academy established as the main promoter and educator of Crowdfunding;</li> </ul>	<ul style="list-style-type: none"> <li>⊕ Insufficiently legally regulated way of financing; This would be a key weakness and obstacle to the development of crowdfunding in Croatia;</li> <li>⊕ Insufficient number of domestic platforms;</li> </ul>
OPPORTUNITIES	THERATS
<ul style="list-style-type: none"> <li>⊕ Development of new domestic crowdfunding platforms;</li> <li>⊕ Increased popularity among the population (especially younger);</li> <li>⊕ Promoting the tax relief;</li> </ul>	<ul style="list-style-type: none"> <li>⊕ Giving priority to financing through loans (banks);</li> <li>⊕ Excessive bureaucratization - procedures and regulations during the launch of the campaign, its implementation and the implementation of the project;</li> <li>⊕ Tax policy;</li> <li>⊕ Possible "money laundering" and fraud;</li> </ul>

*Source: Authors based on: World Bank: "Crowdfunding's Potential for the Developing World" InfoDev 2013. Hrvoje Hafner: "Guide to Crowdfunding"; SMART Civil Society Development Association; Rijeka; 2017*

A SWOT analysis for Croatia regarding the implementation of Crowdfunding indicates that although Croatia is a member of the EU, it is far from other EU member states in terms of the implementation and regulation of crowdfunding. This means that this is the biggest weakness in terms of the current situation regarding the application of crowdfunding as an alternative source of funding. At the moment, there are no legal regulations in Croatia that specifically refer to the regulation of crowdfunding, not a special legislative body that deals specifically with these issues, unlike other EU countries. What is currently very positive is that despite this fact, many successful crowdfunding campaigns have been launched in Croatia, which would mean that there is some information about the benefits of financing through various models of crowdfunding. Also, what is positive and at this moment is a strength for Croatia regarding the implementation of Crowdfunding is certainly established Crowdfunding Academy as the main promoter and educator. A positive fact is certainly the existence of domestic Croatian crowdfunding platforms, but their number should increase in the near future. Also, a number of directives have been launched, which in part directly and specifically regulate crowdfunding and which have been incorporated into Croatian legislation. The Croatian Financial Services Supervisory Agency (HANFA) is responsible for implementing these actions ([www.hanfa.hr](http://www.hanfa.hr)).

## CONCLUSION

Available relevant data obtained from the various researches and reports of many institutions of the European Union are presented the development and growth of the Crowdfunding market in the European Union. As Crowdfunding was first presented in Bosnia and Herzegovina in 2017, the term itself is unknown among people. Based on the SWOT analysis for Bosnia and Herzegovina, it is concluded that due to insufficient promotion and the unknowns that this method of financing brings, it is currently not successfully applied in practice. What would be a key limiting factor is certainly the absence of any form of legal regulation. The perspective for Bosnia and Herzegovina, regarding the implementation of crowdfunding would certainly be the fact that social networks are widely used, as well as the distribution of the population of Bosnia and Herzegovina throughout the diaspora. On the other hand, although Croatia is a member state of the European Union, there are numerous problems related to the successful implementation of this type of financing. Based on the SWOT analysis, it is clear that, as in Bosnia and Herzegovina, the problem is related to the lack

of any legislation that would include crowdfunding in Croatia. What is a positive fact in this regard is certainly the initiatives launched by HANFA (Croatian Financial Services Supervisory Agency) in relation to this issue. Prospects for the development of crowdfunding in Bosnia and Herzegovina and Croatia are reflected in the legal regulation of this method of financing, which would facilitate administrative work, reduce handling costs and create legal certainty. Following the established regulations, intensive attention should be paid to the promotion of crowdfunding and "raising awareness" of citizens, pointing out the possible benefits and advantages it offers.

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## SUMMARY

With the development of modern technologies in the 1990s, the expansive development of the modern form of crowdfunding began, with the launch of an internet platform to raise funds to finance various projects through campaigns. The European Commission document (Proposal for Regulations of the European Parliament and the Council) from 2018 lists four main categories of crowdfunding platforms, ie models: 1) Donation Crowdfunding model; 2) Investment-based Crowdfuning; 3) Lending Crowdfunding (peer-to-peer finance) model; 4) Reward-based Crowdfunding model. Compared to other Crowdfunding markets in the world, the European alternative finance market is 6 times smaller than the American market, and 17 times smaller than the Asian market. Also, the rapidly growing crowdfunding market is the Chinese market, which grew by as much as 312% in 2015, exceeding \$ 100 billion. Based on the obtained SWOT analysis for the implementation of Crowdfunding as an alternative source of funding in Bosnia and Herzegovina, it can be concluded that Bosnia and Herzegovina is currently the worst country in the region in terms of the implementation of Crowdfunding. A SWOT analysis done for Croatia regarding the implementation of Crowdfunding indicates that although Croatia is a member of the EU, it is far from other EU member states in terms of the implementation and regulation of Crowdfunding. Prospects for the development of crowdfunding in Bosnia and Herzegovina and Croatia are reflected in the legal regulation of this method of financing, which would facilitate administrative work, reduce handling costs and create legal certainty. Following the established regulations, intensive attention should be paid to the promotion of crowdfunding and "wake up call" of citizens, pointing out the possible benefits and advantages it offers.

## GRANICE RASTA I EVROPSKI FIDUCIJARNI NOVAC

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*Članak je izlagan na VIII Internacionalnom naučnom skupu „EkonBiz: Upravljanje promjenama u uslovima globalizacije“, Bijeljina 18. i 19. jun 2020. godine*

**Apstrakt:** U ovom radu razmatramo fenomen rasta na globalnom nivou, apostrofirajući usporavanje i (granice) rasta BDP Zapada. Komparacijom SAD kao najzrelije ekonomije na svijetu, Kine kao novog hegemonu, zemalja OECD-a, zatim zemalja BRICS-a, te ostatka svijeta, predočava se rast i nejednaki razvoj pet „regionalnih budućnosti,” globalnog svijeta. Pored imanentnih ekonomskih razloga zaostajanja zapadnih ekonomija i društava, krize strukture i funkcionisanja demokratskog kapitalističkog sistema, i ekološke granice održivosti, ističemo i dva neekonomска momenta, kraj liberalizma kao fundamentalne ideologije zapadnog svijeta i gubitak povjerenja kao temeljne moralne kategorije. Prema prognozama futurista, Zapad je posustao, finansijski sistem je oštećen, oporavak je spor i neizvjestan. Predmet razmatranja su: paradigma rasta, vjera u trajni napredak, kraj liberalizma i gubitak povjerenja, oporavak zapadnih ekonomija, neke mjere monetarne politike, te Evropski prekarni novac i usporavanje rasta evrozone. Monetarna ekonomija evra kao dogovorene jedinstvene valute izazvala je snažne promjene u evrozoni i Evropskoj uniji uhvaćenoj u „zamku.“ Ekonomija evra, između ostalog, odgovorna je za oštru podjelu zemalja članica evrozone na zemlje suficita i zemlje deficitia, te krizu evrozone, stagnaciju i usporavanja ekonomskog (neekonomskog) rasta.

**Ključne riječi:** granice rasta, evropski fiducijarni novac, liberalizam, gubitak povjerenja, finansijski sistem, zapadne ekonomije

### UVOD

U nizu neekonomskih faktora zapadnog usporavanja, stagnacije i zaostajanja dva su

najvažnija, propast liberalizma kao političke ideologije kapitalizma i gubitak povjerenja kao temeljne ljudske i poslovne etičke kategorije. Na pitanje zašto propada liberalizam, (kao vodeća ideologija zapadnog svijeta) Denin odgovara kratko „zato što je uspio“, ostvario je sve suprotno od onog što su mu bile proklamovane vrijednosti i ideje (Denin, 2019, str.23). Ključna kategorija moderne ekonomske i ekološke paradigmе je pojam rasta kao sredstva i (cilja) koji je nošen liberalnom vjerom u neupitnu ideju trajnog napretka. Finansijska kriza i recesija 2008. u Americi svjedoči da je Zapad posustao, finansijski sistem je oštećen, „inherentna stopa ekonomskog rasta počela se usporavati,, (King, 2015, str 3).

### 1. Paradigma rasta - vjera u trajni napredak

Jorgen Randers vjeruje da će SAD, kao druga regionalna supersila i najzrelija ekonomija na svijetu imati usporen rast BDP, stagnaciju rasta ukupne potrošnje i ukupnu materijalnu stagnaciju, u odnosu na rast Kine, (čiji rast BDP će do 2052. biti 2,5 puta veći) te rast zemalja BRICS a, što će izazvati znatnu frustraciju gubitkom prvog mjeseta svjetske supersile (Randers, 2014, str 267). Patrik Dž. Denin navodi da 70 odsto Amerikanaca smatra da njihova zemlja ide u pogrešnom pravcu, bar polovina vjeruje da su njeni „najbolji“ dani prošli, „da će njihova djeca biti manje uspješna i „da imaju manje mogućnosti od ranijih generacija,“ raste sumnja u liberalizam i američki politički sistem, američke demokratske vrijednosti.

Indikatori usporavanja rasta su: demografija, obrazovanje, nejednakost, globalizacija, ekologija, prekomjerni privatni i javni dug. Posrtanje i ekonomska stagnacija Zapada u 21. vijeku, u uslovima kad svjetska ekonomija jača sa naglim

rastom novonastalih tržišta, zahtijeva razumijevanje istorijskog i političkog konteksta u kome su, primjera radi, Japan i Argentina u 20 vijeku od prosperitetnih ekonomija uhvaćeni u zamku nazadovanja i sporog oporavka. Uprkos očekivanjima novonastala tržišta nisu djelovala podsticajno na rast Zapada čije su nacije podbacile u rezultatima. Imanentni ekonomski rast se počeo usporavati i prije američke finansijske krize (tržišta akcija u kolapsu, tehnološki sektor nije u stanju prikupiti sredstva). Kao odgovor slijede mјere monetarne i fiskalne politike kao što su drastičan pad kamatnih stopa, rast budžetskih deficitova, prijetnja dugovne deflacija. Udjeli vlasnika, porasli su, na stambenom tržištu SAD koje je naglo procvjetalo, a potom se stambeno ohladilo. Zatim je uslijedila finansijska kriza i poznati bankarski kolapsi, golin okom vidljiv pad povjerenja, drugorazredni klijenti su „masovno napuštali kuće, a rejting agencije su se osramotile., (King, 2015, str 31). Evidentno je da se vlasnička prava na hartije od vrijednosti i politička obećanja „data u dobroj vjeri,“ temelje se na premisama „budućeg ekonomskog uspjeha.“ Međutim, šta ako ekonomskog rasta i budućeg dohotka ne bude bilo. To bi vodilo kraju američkog društva i ekonomije i kraju liberalizma. Dodatne teškoće su, da li je kontinuiran privredni rast na fizički konačnoj planeti Zemlji moguć. Odgovor je potvrđan, „ako prateći učinak na okolinu ostane unutar granica kapaciteta nosivosti svijeta,,granice održivosti“. (Randers, 2014 str. 23). Stephen D. King daje lucidnu analizu problema „bola izazvanog stagnacijom“. Naime, riječ je o nesnalazeњu zapadnog svijeta da odgovori na otvorena pitanja koja izaziva usporen ekonomski rast, (stagnacija rasta produktivnosti, pad tražnje i „ludilo potrošnje,“)

Na značaju dobija Maltusova teorija o principima stanovništva, posebno u svjetlu ekološkog problema i granica rasta determinisanog „ekološkim otiskom,. Dominantna zapadna paradigma (pojednostavljivanje) sadrži vjerovanje u djelotvornost tržišne privrede, u neprekinuti privredni rast na fosilnim gorivima, demokratski kapacitet odgovorne vlade te pozitivan uticaj spoljne trgovine i globalizacije na ukupan rast. Po Adamu Smitu ekonomski rast je nužan, bez njega je društvo u opasnosti da se raspade i fragmentizuje. U prosperitetnoj državi u kojoj se stiče bogatstvo položaj najvećeg dijela stanovništva će biti „najbolji i najudobniji.“ U „stacionarnoj državi“ ne postoji rast, život je bijedan. Ona je umrтvljena, jer u „njоj se nalazi melanholija opadanja,, (A. Smit, Bogatstvo naroda, cit. po Stephen D. King, 2015, str. 40).

Na primjeru države u opadanju moguće je uočiti psihološki ukorijenjenu „averziju prema gubitku,,

koja vodi daljoj stagnaciji i gubitku kohezije, monopolu, sukobu. King uočava na djelu psihološki fenomen zvani „budućnost iluzije,“ izazvane činjenicom da smo i pored rasta bogatstva, rasta dohotka per capita, putem finansijskih spekulativnih tržišta potrošili novac „koji tek moramo zaraditi.“ Izuzev Njemačke, gotovo sve evropske države su povećale udio javne potrošnje u nacionalnom dohotku. Iluziji trajne ekonomiske ekspanzije i zavaravanju, podlegli su kreditori, dužnici i finansijski posrednici o čemu svjedoči prekomjerno zaduživanje na svim nivoima, što vodi stagnaciji, slabom učinku na tržištima kapitala i slabljenju socijalnih prava.

Jorgen Randers u „Globalnoj prognozi za sljedećih četvero deset godina, 2052“ naglašava dva fenomena:

1. zrele privrede će u budućnosti imati niže stope rasta,( Kinezi će biti sve produktivniji, dok će Evropljani i Amerikanci zaostajati), i
2. ekološki problem nastao iz ekonomске uspješnosti,, da smo već sada prešli granicu fizičkog kapaciteta nosivosti svijeta,, (granice održivosti, dobar i loš rast) (Randers, 2014, str 72).

Herman Dali vjeruje da je privredni rast koji donosi profit završio, nastavlja se neprivredni rast koji je skuplji i koji materijalno osiromašuje. Naime, treba poći od premise da je makroekonomija dio „veće ekonomije prirodnog ekosistema,. Dakle, rast makroekonomije nameće rastući „opportunitetni trošak,, smanjenog prirodnog kapitala „koji će u nekom trenutku ograničiti dalji rast,, (Randers, 2014, str. 75). Pošto postoji i loš proizvod, loša roba i usluga koja nema cijenu u izračunu BDP, potrebno je asimetrično računovodstvo. Treba imati na umu i rast dobrovoljnih i prinudnih ulaganja koja su nastala iz ekološkog problema.(otklanjanje štete).

Pojaviće se i novi troškovi:

1. supstitucije za oskudne resurse,
2. rješenja za opasne materije,
3. troškovi nekada besplatnih ekoloških usluga,
4. štete nastale ljudskom aktivnošću,
5. štete nastale ekstremnim promjenama klime,
6. za obnovu uništene infrastrukture, te
7. troškovi vojske za borbu protiv imigracije, obezbjeđenja resursa i ljudstva u vanrednim situacijama.

Ključni problem u definisanju troškova na globalnom i lokalnom nivou tiče se političkih kratkoročnih odluka, jer će se brojni problemi rješavati kad već nastanu nesagledive štete. Naime, i političke i ekonomski odluke imaju kratkoročan karakter (Randers, 2014, str. 81).

## **2. Kraj liberalizma i gubitak povjerenja**

Ekonomski uspon i usporavanje američkog društva u napredovanju ka slobodi temelji se na ideologiji liberalizma. Patrik Dž. Denin vjeruje da je američki politički sistem čija je filozofija liberalizam doživio slom i da se američki konstitucionalizam bliži kraju. Liberalizam je politička filozofija koja proklamuje veću jednakost, pluralizam kultura i vjerovanja, ljudsko dostojanstvo i ljudsku slobodu. U rezultatu, vjeran samom sebi stvara patologiju kao deformaciju „njegovih načela i ostvarenje liberalne ideologije“, (Denin, 2019 str. 24). Nasuprot, proklamovanih principa u praksi, liberalizam stvara ogromnu nejednakost, bezličnost i homogenost, podstiče materijalno i duhovno propadanje i „potkopava slobodu“, (Ibidem).

U politici razvijene liberalne demokratije građani, zabavljeni privatnim stvarima, bune se protiv sopstvene vlasti i države, protiv vlade koja se čini udaljenom i neodgovornom. Liberalizam je pojam slobode redukovao na slobodu konzumiranja roba i usluga (potrošač) u globalizaciji koja nema alternativu. Sloboda u ekonomiji je redukovana na ekonomsku nužnost (četiri slobode u EU). Sa klimaksom liberalizma dolazi do „strmoglavog pada“, slobodnih (humanističkih) nauka, što svjedoči o pomanjkanju vizije, i alternative postojećim modelima rasta i razvoja. Deformacije liberalizma ne otklanaju se njegovim ostvarenjem, koji se moralno istrošio, već „oslobodenjem“, od samog liberalizma (Denin, 2019, str. 37).

Očito je da glavne ciljeve i osnovne težnje liberalizma, političke slobode i ljudsko dostojanstvo treba sačuvati, a ideologiju i lažnu antropologiju treba odbaciti. Dok je kraj liberalizma i kraj ideologije američkog političkog i društvenog sistema, gubitak povjerenja shvaćen kao gubitak fundamentalne moralne i ekonomske činjenice kapitalističke ekonomije zasnovane na kreditu (povjerenju). King tvrdi gubitak povjerenja je gubitak rasta. Finansijska kriza ruši povjerenje kao temelj ljudske interakcije i poslovne komunikacije. Manjak povjerenja slabti šanse i vodi gubitku prilika, poslova i smanjivanju transakcija.

Na finansijskim tržištima pojavljuje se gubitak povjerenja u kapitalne efekte, u poslovni model banke i druge finansijske institucije, u solventnost banke i sredstva obezbjeđenja kredita, te u sigurnost novca uloženog u finansijske institucije i tržišta.

Povjerenje je „eksternalija“, koja pojačava ekonomsku efikasnost, vrijednost koja ima praktičnu ekonomsku korist, to je pouzdanost u riječ drugoga. Nepovjerenje unutar finansijskog

sektora širi se i na javni sektor, povjeriocu gube povjerenje u dužnike, povjerilačke nacije u dužničke nacije, građani u kredibilitet države i javne vlasti. Demokratski deficit pokazuje da građani nemaju povjerenje u vlast koju su izabrali, ali i nepovjerenje izabranih u građane koji su ih birali.

Nepovjerenje u državu i sistem, o čemu svjedoče brojni istorijski argumenti, biva snažno kad pojedinci i grupe izgube već osvojene pozicije, privilegije, dohotke. King apostrofira tri relevantne konsekvence stagnacije i gubitka povjerenja (rasta), i to dohodovnu nejednakost, međugeneracijski konflikt i sukob na relaciji povjerilac dužnik. Gubitak povjerenja i ekonomsko razočarenje put je političkoj nestabilnosti.

## **3.Oporavak zapadnih ekonomija, granice rasta i održivi razvoj**

Zapadni kapitalistički svijet, nošen liberalnom idejom slobode i neupitnog progresa, nije pripremljen za opciju stalne stagnacije i usporavanja, (ekonomski, politički, ekološki, kulturološki, duhovno). Kapitalizam je stvorio globalno bogatstvo, korporativni oblik privredne organizacije, kontinuirano restrukturira i raspodjeljuje resurse i dohotke i obezbjeđuje ekonomski rast i održivi razvoj. Međutim, nekontrolisani ekonomski rast otvorio je put dramatično nejednakoj raspodjeli prilika i dohotka, moći i bogatstva kao i povećavanju stope siromaštva i nezaposlenosti kao i gubitka posla.

Američka kriza i kriza u Evropskoj uniji kandidovale su u 21 vijeku pitanja veće društvene, privredne, kulturološke i ekološke polarizacije na zrelim tržištima. Evidentno je izražen demokratski deficit u doноšenju odluka, odgadanje doноšenja je pogubno, kao i kratkoročnost u odlučivanju i sporost u provođenju procedura. Postupak odlučivanja zahtijeva odgovarajući nivo koordinacije doноšenja odluka, snažnu ulogu države i tržišta u nastajanju „zelene privrede“, bolni prelaz sa „fossilnim gorivima proganjeg rasta na održivi razvoj“, kao i održive modele poslovanja, te efikasne tehnološke odluke i metode procjene vrijednosti (Randers, 2014, str.35).

Kineski nedemokratski model odlučivanja pokazao se boljim, bržim i svršishodnjim u doноšenju državnih političkih i ekonomskih odluka u odnosu na zapadni „demokratski“ sistem. Zapadna demokratija treba pristati u ekonomiji, politici i ekologiji na „jaču državu“, i brže doноšenje odluka „dok ne bude kasno...“. Budućnost je neizvjesna, moći predviđanja koja se temelji na indukciji krajnje je nepouzdana. Sposobnost predviđanja u ekonomskoj nauci ima smisla kad su u pitanju

tendecije i trendovi, ali ne kad su u pitanju događaji.

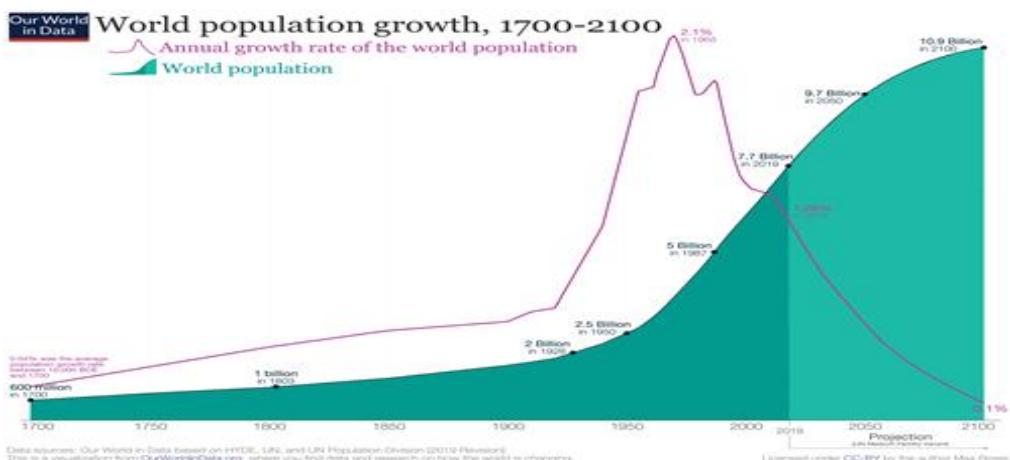
Naime, smanjivanje stope ekonomskog rasta, rasta BDP-a „potražnje, potrošnje, smanjivanje standarda do 2052 je veoma izvjesno, ali kada, gdje i koliko teško je predviđjeti, kao i rijetke događaje (crni labud), neizvjesnosti i rizike koji bitno određuju razvoj i drastično mijenjaju ekonomski tok.

U razmatranju oporavka zapadne kapitalističke ekonomije i društva uključili smo i neke globalne prognoze „o našoj zajedničkoj budućnosti,“ o svjetskom socioekonomskom, kulturno-ekonomskom prirodnom sistemu, koje je dao J.Randers. To su pitanja granice i usporavanja rasta, ekonomskog „laganog zelenog,“ i neekonomskog rasta, granica kapitalizma, planetarnog ekosistema, kraja

generacijske slove (međugeneracijskog sukoba), rasta stanovništva, prizvodnje hrane i biogoriva, „ekološkog otiska,“ zatim, urbanizacije, (bjekstvo u gradove), klimatskih promjena, prelaza sa rasta utemeljenog na fosilnim gorivima na održivi rast utemeljen na „čistim,“ tehnologijama te sukobi i tenzije.

I na globalnom i na lokalnom nivou, svijet je „opasno mjesto življjenja,“ izložen novim rizicima i porastu neizvjesnosti. Po predviđanjima Randersa, ograničenja „u dostupnosti resursa,“ vodiće društvenim nemirima, propadanju valuta, rastu nelikvidnosti, nekontrolisanim dugovanjima i to mnogo prije nego što dođe do „ekološkog sloma.“ Dakle, krucijalno pitanje je pristup i upravljanje resursima kao i kontrola, kako na nacionalnom, tako i na globalnom nivou.

Slika1: Porast svjetske populacije( 1700-2100)



Izvor: <https://ourworldindata.org/future-population-growth>

Matematička formulacija i kvantifikacija obuhvata indikatore, budući broj globalnog stanovništva, potencijalna radna snaga i njena bruto produktivnost, godišnja proizvodnja, visina i priroda ulaganja, potrošnja, intenzitet korišćenja energije u proizvodnji, po osobi, udjeli energije, emisije CO<sub>2</sub>, intenzitet CO<sub>2</sub>, koncentracija CO<sub>2</sub>, proizvodnja hrane (obradiva zemlja i urod), neto klimatski učinak na proizvodnju hrane, porast temperature, količina neiskorišćenog biokapaciteta (Randers, 2014, str.60). Navedeni indikatori determinišu ne samo oporavak zapadnih ekonomija i društava već i njihov budući rast i održivi razvoj.

#### 4. Neke mjere monetarne politike

Savladavanje finansijske krize i ekonomski oporavak zavisi od odgovarajućih programa ekonomskih reformi, mjera i politika, monetarne i

fiskalne politike posebno, ali i od nosilaca javne vlasti i političke volje da se reformski ciljevi realizuju. Evidentno je da monetarna politika nije politički neutralna, ali i da nema „stari potencijal,“ da rješava probleme. Dakle, novac se ne može odvojiti od politike. Zapadni monetarni sistemi stvaraju pobednike i gubitnike, a mogu voditi i socijalnoj fragmentaciji. Monetarna politika ne vodi do oživljavanju rasta, već prevashodno redistribuciji imovine i dohotka i to kao „prikriveni oblik redistributivnog oporezivanja,“ (King, 2015, str. 119).

Neke mjere poput rezanja kamatnih stopa, kvantitativno popuštanje i fiskalni stimulansi u funkciji pokretanja ekonomske aktivnosti nisu dali očekivani rezultat. To su mjeru poput analgetika na koje su se navukle zapadne nacije (King, 2015 str. 71). Niski troškovi posuđivanja banaka nisu znatno pokrenuli rast, i odražavaju izostanak kapitalnih

ulaganja. Centralni bankari su se našli u „zamci likvidnosti,“ (povećanje u ponudi novca ne dovodi do promjene u preovladavajućem nivou kamatnih stopa). Kvantitativno popuštanje se očituje u ubrizgavanju novca u ekonomiju bez „obaveze prolaženja kroz bankarski sistem,“ ( King, 2015 str. 72)

U američkom slučaju, novim novcem koji stvara (ne emituje) centralna banka kupuju se obveznice u posjedu ulagača, koje su obično uključivale veliku količinu „potrošačkog duga,“ i kredita. Intenzivnije nabavke bankarske imovine vode povećanoj potražnji i većoj cijeni, što implikuje niže prinose. Imaoci hartija od vrijednosti osiguranih hipotekom tragaju za većim povratom na uloženo kupujući rizičniju imovinu. Kvantitativno popuštanje ne pruža pojedincima intuitivnu poruku da im je bolje, koristi od kvantitativnog popuštanja u globalnoj ekonomiji finansijskih transakcija ne ostaju „kod kuće,“ Kvantitativno popuštanje približava državu centralnoj banci i obratno, te daje mogućnost državi da bude u prvom redu za kredite i jeftino posudi novac. Po Kingu, kvantitativno popuštanje vodi fiskalnoj zamci,, kursnoj zamci, zamci „zombi,, te regulativnoj zamci. Fiskalna zamka svjedoči o izostanku preuzimanja ekonomskog rizika i niskoj kapitalnoj potrošnji, uprkos veće dobiti. Kompanije izbjegavaju ulaganja u nove poduhvate i usmjeravaju se na,,izbjegavanje gubljenja novca,, vraćajući gotovinu svojim akcionarima, a svoj novac ulažu u sigurne državne obveznice. Državni dug kao udio nacionalnog dohotka ima tendenciju rasta. Kvantitativno popuštanje trebalo bi umanjiti vrijednost valute na deviznom tržištu, što se pokazuje kao „skriveni porez,, na domaći dohodak i u krajnjem osiromašuje privredu.

Kvantitativno popuštanje vodi preživljavanju „zombi kompanija,, na račun zdravih kompanija koje teže dolaze do bankarskih sredstava. Kvantitativno popuštanje i regulacija mogu izazvati neželjene posljedice. Regulativa Bazela 3 omogućuje državama da lakše prikupe sredstva iz bankarskog sistema u odnosu na druge dužnike (King, 2015, str. 83).

Kvantitativno popuštanje je mehanizam redistribucije bogatstva i dohotka. Po mišljenju Kinga centralni bankari donose političke odluke o pobjednicima i gubitnicima, jer su postali „moći u sjeni prijestolja,. Ovaj fenomen napetosti između političke legitimnosti i moći ECB evidentan je i posebno izošten u evrozoni. Pitanje je, kojim putem usmjeriti evro, uz uslov delegiranja fiskalne suverenosti sa nacionalnog na komunitarni nivo. Nesporno je da je evro naizvjesnija činjenica Evropske unije.

## 5. Evropski fiducijni novac i kriza rasta evrozone

Ranije smo naglasili da ne postoji, ma koliko vjerovali u ideju napretka, linearan i jednosmjerni progresivni tok globalnog svijeta. Globalizacija nedvosmisleno opovrgava tu ideju izvjesnog napredovanja. J. Randers govori o pet regionalnih budućnosti, SAD i Kina (regionalne civilizacije), zatim Zemlje OECD-a unutar kojih je i Evropa), Zemlje BRICS-a i ostatak svijeta. Indikativno je da među navedenim regionalnim budućnostima nema Evropske unije (Randers, 2014, str. 265).

Evropska unija, (iako nije naznačena kao jedna od regionalnih budućnosti) nije imperija nastala ratom i osvajanjem već je ugovorna komunitarna zajednica nastala mirnim putem, dogovorom evropskih država nacija. Ciljevi dobrovoljnog nastanka ove komunitarne političke tvorevine su politički,(osiguranje mira i bezbjednosti , pacifikacija Evrope kojoj su prethodila dva svjetska rata) te ekonomski, pravni, odbrambeni i moralni razlozi.

Zemlje članice evrozone dobrovoljno su pristupile jedinstvenoj valuti evru kao evropskom dogovorenom novcu poštujući evropska monetarna pravila. Prekarnost evra i kriza koju je prouzrokovao i pokrenuo u državama evrozone i Evropskoj uniji, po mišljenju Klausu Ofea dovela je Evropu da bude,, uhvaćena u zamku,, (Ofe, 2016, str 2). *Status quo* je neodrživ, povratak na staro nemoguć,a iskorak u novo neizvjesan. U Evropskoj uniji se kumulativno gomilaju, krize finansijskog tržišta, krize javnog duga, ekonomske krize, krize zaposlenosti i institucionalne krize (Ibidem). Pomanjkanje vizije i spremnosti da se djeluje po principu,uradimo pa diskutujmo, nije više dostatno i djelotvorno.

Ukoliko se ne dogovore principi koji omogućuju Evropskoj uniji da izade iz zamke u koju je uhvaćena, a koja je pogubnija i od same krize, stradaće veliki politički projekt mirnog ujedinjavanja i ekonomske integracije, benefiti socijalne države, posebne štete će pretrpjeti zemlje evropske periferije, a tektonske poremećaje osjetit će i zemlje kandidati Zapadnog Balkana.

Dakle, na evropskoj agendi je pitanje vizije (strategije stvarnog i mogućeg) demokratskog deficitia i legimiteta institucija i aktera, kao i političke spremnosti i volje da se u uslovima jačanja nacionalne suverenosti nađe optimum zajedničkog evropskog interesa.

Međutim i pored svih problema, sama činjenica da je, mirmim, nenasilnim putem stvorena nova sui generis politička zajednica sa tri grane vlasti, komunitarnim pravom, golemin regionalnim tržistem sa četiri temeljne slobode i evrom kao

prekarnom valutom zaslužuje najveći stepen pažnje. U vremenu krize u evrozonu i samoj Uniji pokazale su se mnoge pukotine institucionalnog ustrojstva i funkcionisanja evrozone. Sa grčkom krisom evidentno se pokazalo evropsko nejedinstvo i pukotina između zemalja Sjevera kao kreditora i zemalja Juga kao dužnika, zatim zemalja „stare Evrope“, i novih pridošlica bivših socijalističkih zemalja, te napokon napuštanja Evropske unije od strane Velike Britanije.

Ekonomsko nazadovanje Evropske unije, problemi vođstva, loše kordinacije i sporog (konsenzualnog) donošenja odluka, kao i nepostojanje adekvatnih mehanizama za njihovo provođenje vodi političkom ekstremizmu i sporenjima. U monetarnom sistemu evra članice ne upravljaju nacionalnim valutama koje i ne postoje, nacionalni monetarni suverenitet je prenešen na komunitarni nivo kojim takođe ne mogu da upravljaju kako bi obudzali nekontrolisanu moć finansijskog sektora. Međutim, problem nije prevashodno novac, već konsenzus, nepostojanje valjanih rješenja u izgradnji i dolaženju do konsenzusa. Dakle, evropska monetarna unija i evro mogu biti realna prijetnja dezintegraciji Evropske unije. Krhkost evrozone i evra kao dogovorene fiduciarne valute pokazuje kriza u evrozonu, dijelom uvezena kao američka kriza nenaplativih stambenih kredita, a dijelom kao kriza u privatnom bankarskom sektoru, kao i imantentna kriza evrozone.

Sama finansijska tržišta, za razliku od realnog sektora su specifična, na tim tržištima kupci kupuju robu, efekte, za koju misle da će sutra u budućnosti drugi biti spremni da kupe (spekulativni poslovi, aleatorni ugovori). Finansijske institucije su dužnici koji duguju velikom broju privatnih i javnih povjerilaca. Velike i sistemske banke dužnike u krizi, koje su bile od strane vlade deregulisane i liberalizovane spasila je država i u Evropskoj uniji i u SAD, a da pri tom nije se dogodila ozbiljna reforma bankarskog i finansijskog sistema. Krizi u evrozonu pogodovao je jeftin novac centralnih banaka, „lakomisleno preuzimanje rizika,“ kod kreditiranja velikih banaka, privredni rast u najrazvijenim privredama i finansijalizacija, finansiranje kroz zaduživanje (Ofe, 2016, str.22). Uvođenje evropskog novca motivisano je vjerom da će evro putem konkurenčije obezbijediti konvergenciju zemalja u pogledu obima proizvodnje i produktivnosti. Problem je što je evrozona isuviše heterogena o čemu svjedoče ekonomski indikatori, pa djelovanje jedinstvene valute uz neadekvatnu mobilnost faktora proizvodi dobitnike i gubitnike.

Valutna zona evra je veoma heterogena i u pogledu plata i produktivnosti. Jedno je neosporno, evro

omogućuje njemačkoj ekonomiji da njen suficit izvoza ostaje beskonačno održiv, dakako „na račun drugih“. Zemlje gubitnici, lišene instrumenata nacionalne monetarne politike fokusiraju se isključivo na mjere fiskalne politike, iako je većina tih zemalja prezadužena. Istini za volju, Evropska unija proklamuje fiskalnu disciplinu, ali nema instrumente da, oporezuje i raspodjeljuje javne prihode (Ofe, 2016, str. 24). Monetarni sistem evra za razliku od sistema dolara, jena, funte ili juana ne obuhvata skup političkih mera koje omogućuju vođenje konzistentne ekonomске politike, (rast, zaposlenost, socijalna davanja i raspodjela). Tako da Evropskoj Komisiji, bez demokratskog kapaciteta i instrumenata, stoje na raspolaganju jedino diskreciona pravila.

Po Klausu Ofeu, monetarni sistem evra ima dva bitna nedostatka:

1. izgrađen je na pogrešnoj, suboptimalnoj valutnoj zoni, i
2. institucionalno je manjkav, kao što je manjkav institucionalni sistem Unije i evrozone.

Evro nije u funkciji da omogući prilagođavanje ravnoteže između regionala i učini ih podnošljivim. Pod režimom ECB evro uopštava monetarnu politiku na raznorodne ekonomije, umjesto „jedne veličine koja paše svima,“ na djelu je „jedna veličina koja ne paše nikome,“ (Ofe, 2016, str.27). Monetarna ekonomija evra nema institucionalna sredstva da apsorbuje mjejhure, asimetrične šokove, da suzbija inflaciju i fiskalnu ekspanziju zemalja članica evrozone. Umjesto toga evro dijeli Evropsku uniju na zemlje „jezgra,“ ili suficita i zemlje periferije „deficitarne države,“

On preferira zemlje „jezgra,“ koje profitiraju u režimu evra od „jedinstvenog spoljašnjeg deviznog kursa,“ i onemogućuje zemljama periferije da izadu iz zone evra. To je moguće samo ukoliko bankrotiraju i tako izgube kredibilnost banaka od kojih zavise (Ofe, 2016, str. 28).

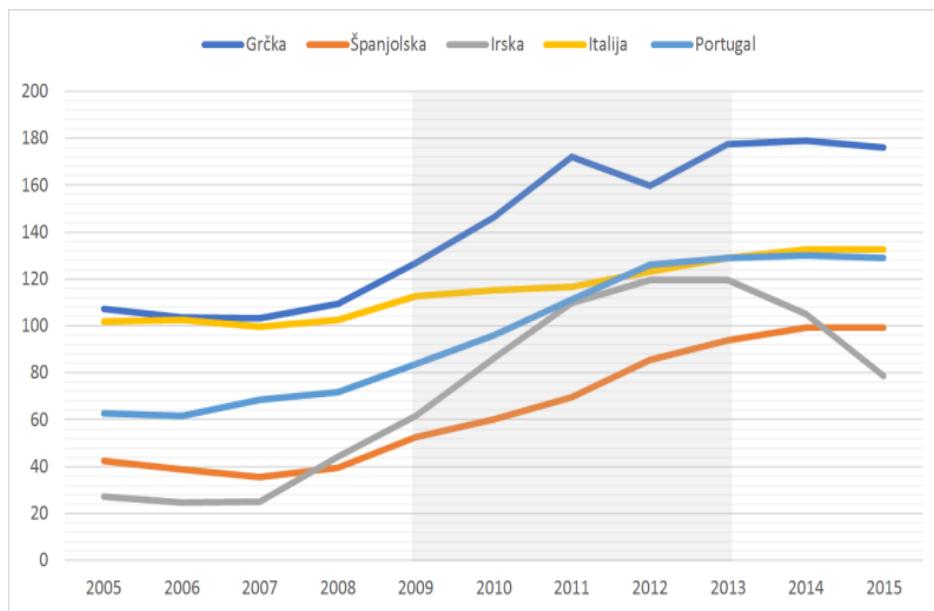
Zemlje periferije u zamci zajedničke valute omogućuju jeftine kredite zemljama „jezgra,“ sa jedinstvenim kamatnim stopama za novac ECB (kamatne stope tendiraju nuli) pod motom da se pomogne rast zemalja periferije. Nepovjerenje u oporavak prezaduženih zemalja juga ne dopušta da im privatni kreditori pozajmili jeftin novac, koji se pretežno plasira u ekonomski rast zemalja „sjevera,“

Zbog nedostatka demokratskog legitimитета, komunitarne institucije ne mogu prinuditi vlade država članica da se drže normi o zaduživanju.

Naime, striktno držanje normi o zaduživanju i mjera štednje dovodi u goleme teškoće zemlje juga da rješavaju nagomilane ekonomske i socijalne probleme. Dakle, u postojećem institucionalnom

ustrojstvu Evropske unije, i njenom monetarnom sistemu i politici je instalisan javni dug kao pogonsko gorivo,, deficitarne države,,.

**Slika 2:** Udio javnog duga u BDP-u odabralih zemalja (2005-2015)



*Izvor: International Monetary Fund*

Institucionalni i politički razlozi (kratkoročne odluke i izbori) ne dopuštaju da alternativa zaduživanju država bude „finansijska opcija oporezivanja bogatstva i korporativnog kapitala,, (Ofe, 2016, str.29). Da bi doble kredit izdavanjem državnih obveznica, države deficitu u podsticanju rasta realnog sektora, prinudene su da znatan dio poreskih prihoda troše na servisiranje dugova. Da bi države deficitu mogle polagati pravo na finansijsku pomoć i otpisivanje duga, prema strategiji uslovljavanja „Trojke,, moraju provesti strukturne reforme i rigorozne mjere štednje. Međutim, restriktivne mjere, poput mjera štednje imaju negativne efekte po rast i zapošljavanje. Strukturne reforme nemaju proaktivno i progresivno dejstvo već znače smanjivanje socijalnih davanja, deregulaciju tržišta za robe i usluge i smanjivanje radnih mjesta. U vremenu stagnacije i sporog rasta, u ekonomiji evra teško je provoditi ekonomske reforme koje su po definiciji restriktivne, smanjuju potražnju i destimulišu razvoj. Primjena istih mjer na nejednakne uslove daje nejednake rezultate, izvjesno je da monetarna ekonomija evra ne štiti deprivilegovane.

## ZAKLJUČAK

Četiri su bitna razloga usporavanja ekonomskog rasta BDP-a Zapada:

1. imanentna logika usporavanja rasta BDP i nižih stopa, koje korespondiraju sa zrelom ekonomijom i krizom sistema,
2. ekološki razlozi planetarne održivosti zdravog razvoja i „zelene ekonomije“,
3. kraj liberalizma kao fundamentalne ideologije kapitalističkog Zapada (raspad i fragmentacija) i
4. gubitak povjerenja.

Analiza regionalne budućnosti pod imenom Evropska unija i njene valutne zone, (evrozone) svjedoči da su na djelu sva četiri navedena razloga stagnacije i usporavanja rasta, uz dodatak petog razloga, uvođenja evra kao dogovorenog valute „bez roditelja.“ Da rezimiramo, ekonomija evra usporava rast evrozone, pogotovo rast zemalja periferije, pa i nekih zemalja sjevera, izuzev,, evropske Njemačke,. Međutim, uprkos njegovoj potencijano subverzivnoj prirodi, i činjenici da je izgrađen u „pogrešnoj,“ valutnoj zoni, on je prešao tačku,, bez povratka,, i postao „praktično nepovratan aranžman,, Zemlje „sjevera,“ profitiraju u ekonomiji evra zbog priliva jeftinog kapitala, zbog potcijenjenog spoljnog kursa evra ostaju neto izvoznici i u trgovini s partnerima izvan Evropske unije. Jeftini krediti pogoduju budžetskoj ravnoteži zemalja suficita. Međutim, napuštanjem zone evra od strane zemlje suficita,

bile bi pogodjene i zemlje periferije, jer usled devalvacije ne bi bile sposobne da „uvoze ono što zemlje jezgra izvoze.“ Paradoks je da evro „iz različitih razloga“ podržavaju i dobitnici i gubitnici. Dakle, ukidanje evra bi danas bilo enormno skupo, a rizici sa kojima bi se suočila periferija nemjerljivi. Dakle, „evro je greška čije bi ispravljanje bilo još veća greška.“

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## SUMMARY

According to futurist forecasts, the West has slowed down, the financial system has been damaged, and the recovery is slow and uncertain. The following subjects are being considered: the growth paradigm, the belief in lasting progress, the end of liberalism and the loss of confidence, the recovery of Western economies, some monetary policy measures, and European fiduciary money and the slowdown of the growth in the Eurozone. The monetary economy of the euro as an agreed single currency has caused strong changes in the Eurozone and has “trapped” the European Union. The euro economy, among other things, is responsible for the sharp division of the Eurozone member states into surplus and deficit countries, and the Eurozone crisis, stagnation, and slowdown in economic (non-economic) growth.

## GROWTH LIMITS AND EUROPEAN FIDUCIARY MONEY

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*Paper presented at the 8th International Scientific Symposium „EkonBiz: Change management in the conditions of globalization“, Bijeljina, 18 – 19th June 2020.*

**Abstract:** This paper considers the phenomenon of global growth, emphasizing the slowdown and (limits) of the Western GDP growth. By comparing the United States as the most mature economy in the world, China as the new hegemon, the OECD countries, the BRICS countries, and the rest of the world, we show the growth and unequal development of the five "regional futures" of the global world. In addition to the imminent economic reasons for the backwardness of Western economies and societies, the crisis of the structure and functioning of the democratic capitalist system, and the ecological limits of sustainability, we emphasize two non-economic moments: the end of liberalism as a fundamental ideology of the Western world, and the loss of trust, which is a fundamental moral category. According to futurist forecasts, the West has slowed down, the financial system has been damaged, and the recovery is slow and uncertain. The following subjects are being considered: the growth paradigm, the belief in lasting progress, the end of liberalism and the loss of confidence, the recovery of Western economies, some monetary policy measures, and European fiduciary money and the slowdown of the growth in the Eurozone. The monetary economy of the euro as an agreed single currency has caused strong changes in the Eurozone and has "trapped" the European Union. The euro economy, among other things, is responsible for the sharp division of the Eurozone member states into surplus and deficit countries, and the Eurozone crisis, stagnation, and slowdown in economic (non-economic) growth.

**Key words:** growth frontiers, European fiduciary money, liberalism, loss of confidence, financial system, western economies

### INTRODUCTION

Among number of non-economic factors of Western slowdown, stagnation and backwardness are the two most important, the collapse of liberalism as the political ideology of capitalism and the loss of trust as fundamental human and business ethical categories. When asked why liberalism is failing (as the leading ideology of the Western world), Denin answers briefly, "because it succeeded", it achieved everything contrary to what his values and ideas were proclaimed (Denin, 2019, p. 23). A key category of the modern economic and environmental paradigm is the notion of growth as a mean and (goal) carried by a liberal faith in the unquestionable idea of lasting progress. The financial crisis and recession of 2008 in America testifies that the West has slowed down, the financial system has been damaged, "the inherent rate of economic growth has begun to slow down" (King, 2015, p. 3).

### 1. Growth Paradigm – belief in lasting progress

Jorgen Randers believes that the United States, as the second regional superpower and the most mature economy in the world, will have slower GDP growth, stagnation in total consumption growth and overall material stagnation, compared to China's growth, whose GDP growth will be 2.5 times higher by 2052) and the growth of the BRICS countries, which will cause considerable frustration with the loss of the first place of the world superpower (Randers, 2014, p. 267). Patrick J. Denin states that 70 percent of Americans believe that their country is going in the wrong direction, at least half believe that its "best days are over", that their children will be less successful and "have fewer opportunities than previous

"generations" there is growing doubt in liberalism and the American political system, American democratic values.

Indicators of growth slowdown are: demography, education, inequality, globalization, ecology, excessive private and public debt. The stagnation and economic stagnation of the West in the 21st century, as the world economy strengthens with the rapid growth of emerging markets, requires an understanding of the historical and political context in which, for example, Japan and Argentina in the 20th century as prosperous economies have been caught in the trap of setbacks and slow recovery. Despite expectations, emerging markets have not stimulated the growth of the West, whose nations have failed in the results. Immanent economic growth began to slow even before the US financial crisis (stock markets are collapsing, the technology sector is unable to raise funds). As the response monetary and fiscal policy measures have followed such as a drastic fall in interest rates, rising budget deficits, and the threat of debt deflation. Owners' shares, however, rose in the U.S. housing market, which flourished sharply and then cooled. This was followed by the financial crisis and the well-known banking collapses, a drop in confidence visible to the naked eye, second-class clients "left their homes en masse, and rating agencies were embarrassed" (King, 2015, p. 31). It is evident that ownership rights to securities and political promises, "given in good faith," are based on the premises of "future economic success." However, what if there is no economic growth and future income. That would lead to the end of American society and economy and the end of liberalism. Additional difficulties are whether continuous economic growth on the physically finite planet Earth is possible. The answer is yes, "if the accompanying impact on the environment remains within the limits of the world's carrying capacity, the limits of sustainability." (Randers, 2014 p. 23). Stephen D. King gives a lucid analysis of the problem of "pain caused by stagnation." Namely, it is about the inability of the Western world to answer open questions that cause slow economic growth, (stagnation of productivity growth, falling demand and "madness of consumption")

Malthus' theory of the principles of population gained importance, especially in the light of the ecological problem and the limits of growth determined by the "ecological footprint". The dominant Western paradigm (simplification) contains a belief in the efficiency of a market economy, uninterrupted economic growth on fossil fuels, the democratic capacity of a responsible government, and the positive impact of foreign trade and globalization on overall growth.

According to Adam Smith, economic growth is necessary, without it, society is in danger of disintegrating and fragmenting. In a prosperous state where wealth is acquired, the position of the largest part of the population will be "the best and most comfortable." In a "stationary state" there is no growth, life is miserable. It is numb, because "there is a melancholy of decline" (A. Smith, Wealth of Nations, quoted by Stephen D. King, 2015, p. 40).

On the example of a declining state, it is possible to observe a psychologically rooted "aversion to loss", which leads to further stagnation and loss of cohesion, monopoly, conflict. King sees a psychological phenomenon called "the future of illusion" caused by the fact that despite the growth of wealth, income growth per capita, through financial speculative markets we have spent money "that we have yet to earn." Except Germany, almost all European countries have increased the share of public spending in national income. Creditors, debtors and financial intermediaries have succumbed to the illusion of lasting economic expansion and deception, as evidenced by excessive borrowing at all levels, leading to stagnation, poor performance in capital markets and weakening social rights.

Jorgen Randers in "Global Forecast for the Next Forty Years, 2052" highlights two phenomena:

1. mature economies will have lower growth rates in the future, (the Chinese will be more productive, while Europeans and Americans will lag behind), and
2. environmental problem arising from economic success, "that we have already crossed the limit of the physical capacity of the world" (limits of sustainability, good and bad growth) (Randers, 2014, p. 72).

Herman Dali believes that the economic growth that brings profit has ended, the non-economic growth that is more expensive and that is materially impoverished continues. Namely, we should start from the premise that macroeconomics is part of the "larger economy of the natural ecosystem". Thus, the growth of macroeconomics imposes a growing "opportunity cost" of reduced natural capital, "which will at some point limit further growth" (Randers, 2014, p. 75). Since there is also a bad product, bad goods and services that have no price in the calculation of GDP, asymmetric accounting is needed. We should also keep in mind the growth of voluntary and forced

investments that arose from the environmental problem (elimination of damage).

New costs will also appear:

1. substitutions for scarce resources,
2. solutions for hazardous substances,
3. costs of once free environmental services,
4. damage caused by human activity,
5. damage caused by extreme climate change,
6. for the reconstruction of destroyed infrastructure, and
7. military expenditures to combat immigration, provide resources and manpower in emergencies.

The key problem in defining costs at the global and local levels deals with short-term political decisions, as a number of problems will be addressed once inconceivable damages occur. Namely, both political and economic decisions have a short-term character (Randers, 2014, p. 81).

## **2. The end of liberalism and the loss of trust**

The economic rise and slowdown of American society in its progress toward freedom is based on the ideology of liberalism. Patrick J. Denin believes that the American political system, whose philosophy is liberalism, has collapsed and that American constitutionalism is coming to an end. Liberalism is a political philosophy that proclaims greater equality, pluralism of cultures and beliefs, human dignity and human freedom. As a result, the faithful in itself create pathology as a deformation of "its principles and the realisation of liberal ideology" (Denin, 2019, p. 24). In contrast to the proclaimed principles in practice, liberalism creates enormous inequality, impersonality and homogeneity, encourages material and spiritual decay and "undermines freedom" (Ibidem).

In the politics of a developed liberal democracy, citizens, amused by private matters, rebel against their own government and state, against a government that seems remote and irresponsible. Liberalism has reduced the notion of freedom to the freedom to consume goods and services (consumer) in a globalization that has no alternative. Freedom in the economy has been reduced to economic necessity (four freedoms in the EU). With the climax of liberalism, there is a "steep decline" of free (humanistic) sciences, which testifies to the lack of vision, and alternatives to existing models of growth and development. The deformations of liberalism are

not removed by its realization, which has become morally worn out, but by "liberation" from liberalism itself (Denin, 2019, p. 37).

It is obvious that the main goals and basic aspirations of liberalism, political freedom and human dignity should be preserved, and ideology and false anthropology should be rejected. While the end of liberalism and the end of the ideology of the American political and social system, the loss of trust is understood as the loss of the fundamental moral and economic fact of a capitalist economy based on credit (trust). King argues a loss of confidence is a loss of growth. The financial crisis is destroying trust as the foundation of human interaction and business communication. Lack of trust weakens chances and leads to loss of opportunities, jobs and reduction of transactions.

In the financial markets, there is a loss of confidence in capital effects, in the business model of banks and other financial institutions, in the solvency of banks and loan collateral, and in the security of money invested in financial institutions and markets.

Trust is "externality" that enhances economic efficiency, a value that has practical economic benefit, that is, reliability in the word of another. Distrust within the financial sector is spreading to the public sector, creditors are losing trust in debtors, trust nations in debt nations, citizens in the credibility of the state and public authorities. The democratic deficit shows that the citizens do not have confidence in the government they elected, but also the distrust of the elected in the citizens who elected them.

Distrust in the state and the system, as evidenced by numerous historical arguments, becomes strong when individuals and groups lose already won positions, privileges, incomes. King emphasizes the three relevant consequences of stagnation and loss of trust (growth), namely income inequality, intergenerational conflict and conflict between the debtor and the creditor. Loss of confidence and economic disappointment is the path to political instability.

## **3. Recovery of western economic, growth frontiers and sustainable development**

The Western capitalist world, driven by the liberal idea of freedom and unquestionable progress, is not prepared for the option of constant stagnation and slowdown (economically, politically, ecologically, culturally, spiritually). Capitalism has created global wealth, the corporate form of economic organization, continuously restructures and distributes resources and income, and ensures

economic growth and sustainable development. However, uncontrolled economic growth has paved the way for a dramatically unequal distribution of opportunities and income, power and wealth as well as an increase in the poverty and unemployment rates as well as job losses.

The American crisis and the crisis in the European Union have candidated in the 21st century for discussion issues of greater social, economic, cultural and environmental polarization in mature markets. The democratic deficit in decision-making is evident, delays in decision-making are disastrous, as is short-term decision-making and slow implementation of procedures. The decision-making process requires an appropriate level of decision-making coordination, a strong role for the state and the market in the emerging green economy, a painful transition from "fossil fuels to growth" to sustainable development, (Randers, 2014, p.35).

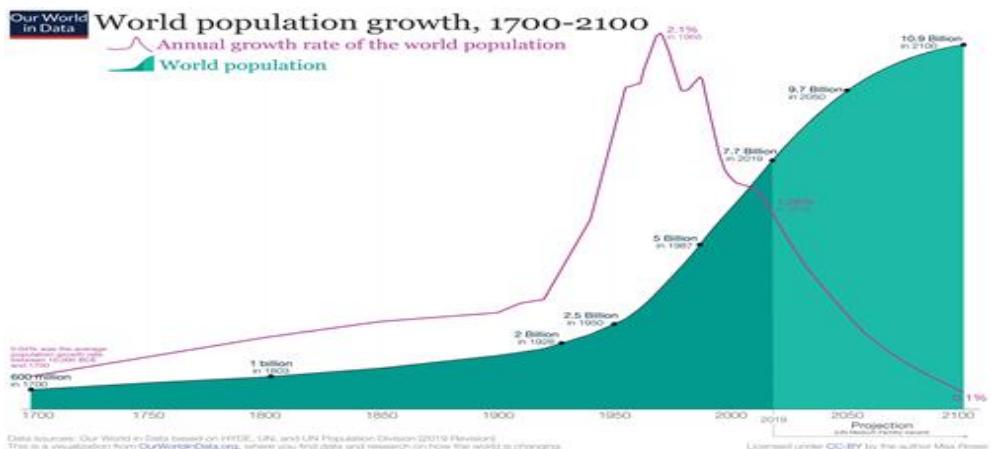
China's undemocratic model of decision-making has proven to be better, faster and more purposeful in making state political and economic decisions than the Western "democratic" system. Western democracy should agree in the economy, politics and ecology to a "stronger state" and faster decision-making "until it is too late". The future is uncertain, the power of prediction based on induction is extremely unreliable. The ability to predict in economics makes sense when it comes to trends and tendencies, but not when it comes to events. Namely, the reduction of the rate of

economic growth, GDP growth, demand, consumption, reduction of standards by 2052 is very certain, but when, where and how difficult it is to predict, as well as rare events (black swan), uncertainties and risks that significantly determine development and drastically change the economic flow.

In considering the recovery of the Western capitalist economy and society, we have included some global forecasts, "about our common future", about the world socio-economic, cultural-natural system, given by J. Randers. These are the issues of borders and growth retardation, economic "light green" and non-economic growth, borders of capitalism, planetary ecosystem, end of generational harmony (intergenerational conflict), population growth, food and biofuel production, "ecological footprint", then, urbanization (escape to cities), climate change, the transition from growth based on fossil fuels to sustainable growth based on "clean" technologies, and conflicts and tensions.

Both globally and locally, the world is a "dangerous place to live", exposed to new risks and growing uncertainty. According to Randers' predictions, restrictions "on the availability of resources" will lead to social unrest, currency degradation, rising illiquidity, uncontrolled debt, long before there is an "environmental collapse". Thus, a crucial issue is access to and management of resources as well as control, both nationally and globally.

**Picture 1:** Growth of world population (1700-2100)



*Source:* <https://ourworldindata.org/future-population-growth>

Mathematical formulation and quantification includes indicators, future global population, potential labor force and its gross productivity, annual production, amount and nature of investment, consumption, energy intensity in

production, per person, energy shares, CO<sub>2</sub> emissions, CO<sub>2</sub> intensity, CO<sub>2</sub> concentration, food production (arable land and yield), net climatic effect on food production, temperature rise, amount of unused biocapacity (Randers,

2014, p.60). These indicators determine not only the recovery of Western economies and societies, but also their future growth and sustainable development.

#### **4. Some monetary policy measures**

Overcoming the financial crisis and economic recovery depends on appropriate programs of economic reforms, measures and policies, monetary and fiscal policy in particular, but also on public authorities and the political will to achieve reform goals. It is evident that monetary policy is not politically neutral, but also that it does not have the "old potential" to solve problems. So money cannot be separated from politics. Western monetary systems create winners and losers, and can lead to social fragmentation. Monetary policy does not lead to a revival of growth, but primarily to the redistribution of property and income as a "disguised form of redistributive taxation" (King, 2015, p. 119).

Some measures such as interest rate cuts, quantitative easing and fiscal stimuli in the function of initiating economic activity did not yield the expected result. These are measures like analgesics that Western nations have become addicted to (King, 2015 p. 71). Low bank borrowing costs did not significantly boost growth, and reflect a lack of capital investment. Central bankers found themselves in a "liquidity trap" (an increase in the money supply does not lead to a change in the prevailing level of interest rates). Quantitative easing is manifested in the injection of money into the economy without the "obligation to pass through the banking system" (King, 2015, p. 72).

In the US case, new money generated (not issued) by the central bank buys bonds held by investors, which usually included a large amount of "consumer debt" and credit. More intensive purchases of bank assets lead to increased demand and higher prices, which implies lower yields. Holders of mortgage-backed securities are looking for a higher return on investment by buying riskier assets. Quantitative easing does not provide individuals with an intuitive message that they are better off, the benefits of quantitative easing in the global economy of financial transactions do not stay "at home". Quantitative easing brings the state closer to the central bank and vice versa, and gives the state the opportunity to be primarily for loans and borrow money cheaply. According to King, quantitative easing leads to a fiscal trap, an exchange trap, a zombie trap, and a regulatory trap. The fiscal trap testifies to the lack of economic risk-taking and low capital spending,

despite higher profits. Companies avoid investing in new ventures and focus on "avoiding losing money", returning cash to their shareholders, and investing their money in safe government bonds. Government debt as a share of national income tends to grow. Quantitative easing should reduce the value of the currency in the foreign exchange market, which proves to be a "hidden tax" on domestic income and ultimately impoverishes the economy.

Quantitative easing leads to the survival of "zombie companies" at the expense of healthy companies that have a harder time accessing bank funds. Quantitative relaxation and regulation can cause unwanted consequences. Basel 3 regulations allow states to more easily raise funds from the banking system than other debtors (King, 2015, p. 83).

Quantitative easing is a mechanism of redistribution of wealth and income. According to King, central bankers make political decisions about winners and losers, because they have become "power in the shadow of the throne". This phenomenon of tension between the political legitimacy and power of the ECB is evident and especially sharpened in the euro area. The question is which way to direct the euro, with the condition of delegating fiscal sovereignty from the national to the community level. It is indisputable that the euro is the most certain fact of the European Union.

#### **5. European fiduciary money and the eurozone growth crisis**

We emphasized earlier that there is no, no matter how much we believe in the idea of progress, a linear and one-way progressive flow of the global world. Globalisation unequivocally refutes this idea of some progress. J. Randers talks about five regional futures, the USA and China (regional civilizations), then the OECD countries within which Europe is included), the BRICS countries and the rest of the world. It is indicative that there is no European Union among the mentioned regional futures (Randers, 2014, p. 265).

The European Union (although not designated as one of the regional futures) is not an empire created by war and conquest, but a contractual community of communities created by peaceful means, by agreement of European nations. The goals of the voluntary emergence of this community political creation are political, (ensuring peace and security, pacification of Europe preceded by the two world wars) and economic, legal, defense and moral reasons.

Eurozone member countries have voluntarily acceded to the single currency, the euro, as

European agreed money, respecting European monetary rules. According to Klaus Ofe, the precariousness of the euro and the crisis it caused and initiated in the countries of the Eurozone and the European Union led Europe to be "trapped" (Ofe, 2016, p. 2). The status quo is unsustainable, a return to the old is impossible, and a step into the new is uncertain. In the European Union, financial market crises, public debt crises, economic crises, employment crises and institutional crises are accumulating cumulatively (*Ibidem*). Lack of vision and willingness to act on the principle, let's do and discuss, is no longer sufficient and effective.

If the principles that enable the European Union to get out of the trap it is caught in, and which is more devastating than the crisis itself, are not agreed upon, the great political project of peaceful unification and economic integration will suffer, the welfare state will suffer special damage. Tectonic disturbances will also be felt by the candidate countries of the Western Balkans.

Therefore, the issue of vision (strategy of real and possible) democratic deficit and legitimacy of institutions and actors, as well as political readiness and will to find the optimum of common European interest in the conditions of strengthening national sovereignty, is on the European agenda.

However, despite all the problems, the fact that a new *sui generis* political community with three branches of government, community law, a huge regional market with four fundamental freedoms and the euro as a precarious currency was created in a peaceful, non-violent way deserves the greatest attention. During the crisis in the Eurozone and the Union itself, many cracks in the institutional structure and functioning of the Eurozone were shown. The Greek crisis evidently showed European disunity and the rift between the countries of the North as creditors and the countries of the South as debtors, then the countries of "old Europe" and newcomers of former socialist countries, and finally the leaving of the European Union by Great Britain.

The economic decline of the European Union, problems of leadership, poor coordination and slow (consensual) decision-making, as well as the lack of adequate mechanisms for their implementation lead to political extremism and controversy. In the monetary system of the euro, members do not manage national currencies that do not exist, national monetary sovereignty has been transferred to the community level, which they also cannot manage in order to curb the uncontrolled power of the financial sector. However, the problem is not primarily money, but

consensus, the lack of valid solutions in building and reaching consensus. Thus, the European Monetary Union and the euro can be a real threat to the disintegration of the European Union. The fragility of the eurozone and the euro as agreed fiduciary currencies is shown by the crisis in the eurozone, partly imported as the American crisis of non-performing housing loans, and partly as the crisis in the private banking sector, as well as the imminent crisis of the eurozone.

The financial markets themselves, unlike the real sector, are specific, in those markets buyers buy goods, effects, which they think that tomorrow in the future others will be ready to buy (speculative deals, aleatory contracts). Financial institutions are debtors who owe a large number of private and public creditors. Large and systemic banks in debt in the crisis, which were deregulated and liberalized by the government, were saved by the state in both the European Union and the United States, without a serious reform of the banking and financial system. The crisis in the eurozone has been affected by cheap money from central banks, "reckless risk-taking" in lending to large banks, economic growth in the most developed economies and financialization, financing through borrowing (Ofe, 2016, p. 22). The introduction of European money is motivated by the belief that the euro, through competition, will ensure the convergence of countries in terms of production volume and productivity. The problem is that the eurozone is too heterogeneous, as evidenced by economic indicators, so the action of the single currency with inadequate mobility of factors produces winners and losers.

The currency zone of the euro is very heterogeneous in terms of wages and productivity. One thing is indisputable, the euro enables the German economy to keep its export surplus infinitely sustainable, of course, "at the expense of others". Losing countries, deprived of national monetary policy instruments, focus exclusively on fiscal policy measures, although most of these countries are over-indebted. Truth be told, the European Union proclaims fiscal discipline, but has no instruments to "tax and distribute public revenues" (Ofe, 2016, p. 24). The monetary system of the euro, unlike the system of the dollar, yen, pound or yuan, does not include a set of policy measures that enable a consistent economic policy (growth, employment, social benefits and distribution). only discretionary rules are available.

According to Klaus Ofeu, the monetary system of the euro has two important shortcomings:

1. It is built on the wrong, suboptimal currency zone, and

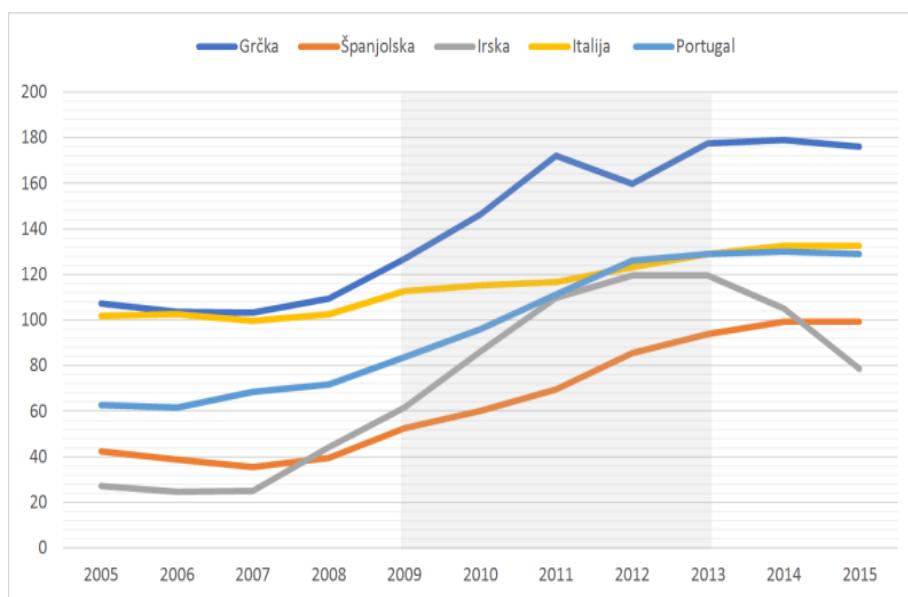
2. It is institutionally flawed, as is the flawed institutional system of the Union and the eurozone.

The euro is not in a position to make it possible to adjust the balances between the regions and make them bearable. Under the ECB regime, the euro generalizes monetary policy to diverse economies, instead of "one size that suits everyone", "one size that does not suit anyone" is at work (Ofe, 2016, p. 27). The monetary economy of the euro does not have the institutional means to absorb bubbles, asymmetric shocks, to suppress inflation and the fiscal expansion of eurozone member states. Instead, the euro divides the European Union into "core" or surplus countries and peripheral countries, "deficit countries". He prefers "core" countries that profit in the euro regime from a "single external exchange rate" and prevents peripheral countries from leaving the euro zone. This is possible only if they go bankrupt and thus lose the credibility of the banks on which they

depend (Ofe, 2016, p. 28). Peripheral countries in the common currency trap provide cheap loans to "core" countries with single interest rates for ECB money (interest rates tend to zero) under the motto to help the growth of peripheral countries. Distrust in the recovery of the over-indebted countries of the south does not allow private creditors to lend them cheap money, which is mostly placed in the economic growth of the countries of the "north".

Due to the lack of democratic legitimacy, community institutions cannot force member state governments to adhere to borrowing norms. Namely, strict adherence to the norms of borrowing and austerity measures leads to enormous difficulties for the countries of the south to solve the accumulated economic and social problems. Therefore, in the existing institutional structure of the European Union, and its monetary system and policy, public debt has been installed as the fuel of the "deficit state".

**Picture 2:** Share of public debt in GDP of selected countries (2005-2015)



*Source: International Monetary Fund*

Institutional and political reasons (short-term decisions and elections) do not allow the alternative to government borrowing to be a "financial option of taxing wealth and corporate capital" (Ofe, 2016, p. 29). In order to obtain credit by issuing government bonds, deficit states in stimulating real sector growth are forced to spend a significant portion of tax revenues on debt servicing. In order for deficit countries to be able to claim the right to financial assistance and debt write-off, according to the strategy of conditioning the "Troika", they must implement structural

reforms and rigorous austerity measures. However, restrictive measures, such as austerity measures, have negative effects on growth and employment. Structural reforms do not have a proactive and progressive effect, but mean a reduction in social benefits, deregulation of the market for goods and services and a reduction in jobs. In a time of stagnation and slow growth, it is difficult to implement economic reforms in the euro economy that are by definition restrictive, reduce demand and discourage development. Applying the same measures to unequal conditions gives unequal

results, it is certain that the monetary economy of the euro does not protect the deprived.

## CONCLUSION

There are four important reasons for the slowdown in Western GDP growth:

1. the immanent logic of slowing GDP growth and lower rates, which correspond to a mature economy and a systemic crisis,
2. ecological reasons for the planetary sustainability of healthy development and the "green economy",
3. the end of liberalism as a fundamental ideology of the capitalist West (disintegration and fragmentation) and
4. loss of confidence.

The analysis of the regional future under the name of the European Union and its currency zone (eurozone) testifies that all four stated reasons for stagnation and slowdown of growth are at work, with the addition of the fifth reason, the introduction of the euro as an agreed currency, "without parents." To summarize, the euro economy is slowing down the growth of the eurozone, especially the growth of peripheral countries, and even some northern countries, with the exception of "European Germany". However, despite its potentially subversive nature, and the fact that it was built in the "wrong" currency zone, it crossed the "no return" point and became a "virtually irreversible arrangement." The countries of the "north" profit in the euro economy due to the inflow of cheap capital, due to the underestimated foreign exchange rate of the euro, they remain net exporters and in trade with partners outside the European Union. Cheap loans affect the budget balance of surplus countries. However, by leaving the euro zone by the surplus country, the peripheral countries would also be affected, because due to the devaluation they would not be able to "import what the core countries export," the paradox is that the euro, for various reasons, supports both winners and losers. So, the abolition of the euro would be enormously expensive today, and the risks that the periphery would face are immeasurable. So, "the euro is a mistake whose correction would be an even bigger mistake."

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## SUMMARY

According to futurist forecasts, the West has slowed down, the financial system has been damaged, and the recovery is slow and uncertain. The following subjects are being considered: the growth paradigm, the belief in lasting progress, the end of liberalism and the loss of confidence, the recovery of Western economies, some monetary policy measures, and European fiduciary money and the slowdown of the growth in the Eurozone. The monetary economy of the euro as an agreed single currency has caused strong changes in the Eurozone and has "trapped" the European Union. The euro economy, among other things, is responsible for the sharp division of the Eurozone member states into surplus and deficit countries, and the Eurozone crisis, stagnation, and slowdown in economic (non-economic) growth.

## ГЕНЕРАЛНО ПЛАНИРАЊЕ ТРОШКОВА ПРОИЗВОДЊЕ МИНЕРАЛНИХ СИРОВИНА И ЕКОНОМСКА ОЦЕНА РУДНИХ ЛЕЖИШТА

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Чланак је излаган на VIII Интернационалном научном скупу „ЕконБиз: Управљање промјенама у условима глобализације“, Бијељина 18. и 19. јун 2020. године

**Апстракт:** Материјалну производњу минералних сировина прате специфични трошкови, чије је генерално сагледавање неопходно у склопу дугорочног планирања производње. Посебан проблем који прати дефинисање ових трошкова је што се њихово планско сагледавање мора вршити знатно раније пре почетка предметне производње. Већ у фази геолошких истраживања и проналажења рудног лежишта мора се правити пројекција економске исплативости, која треба да омогући сагледавање односатржине цене минералне сировине и трошкова производње, јер од таквог позитивног резултата зависи наставак истраживања. Посебан проблем се појављује у случају када због ниског степена истражености нема доволно елемената за трошковно дефинисање будуће производње. У раду се анализира примена методе економске оцене лежишта, као сложеног система сета фактора и сета показатеља, која омогућује директно, или у комбинацији са методом аналогије, генерално сагледавање трошкова будуће минералне производње.

**Кључне ријечи:** трошкови, планирање, економска оцена, рудно лежиште.

### УВОД

Савремени променљиви и турболентни услови производње металничких, неметаличних и енергетских минералних сировина, посебно у делу са економским параметрима будуће производње, захтевају посебну планску озбиљност, аналитичност и одговорност. Постојећи транзициони и економски трендови економије минералних ресурса усмерни су на тржишно оријентисане принципе и

критеријуме планирања и реализације производње привреди потребних минералних сировина (Тошовић, 2016a, 2017a, 2019). Предузећа, као основни привредни субјекти минералног сектора, нарочито у дугорочном планирању обезбеђења минерално - сировинске базе за минералну производњу морају обављати одговарајућу функцију планирања, кроз утврђивање производних и пословних циљева, постављање стратегије остваривања циљева и припреме планова, како би се организациони ради управљање ресурсима за производњу интегрисали и успешно остварили (Robbins&Coutler, 2005; Тошовић, 2019).

У условима бржих и већих тржишних промена у минералном сектору неопходно је адекватно реаговање предузећа у остваривању планираних производних резултата и учинака. Прирасполагању специфичним и ограниченим производним ресурсима, зависно од деловања интерних и екстерних фактора, може доћи до битнијих промена у њиховим утрошцима, као натуралном изразу, и трошковима, као финансијском изразу. Али за исте постоје гранични износи, који не треба да угрожавају позитивне економске резултате и ефекте минералне производње. Ради остваривања успешног пословања и подизања нивоа конкурентности, у односу на друга предузећа минералног сектора, посебан значај има планирање и остваривање одређеног нивоа предметних трошкова. С друге стране, значајна је тржишна цена минералне сировине, која трпи мање или веће осцилације, зависно од делујућих локалних или глобалних фактора, нарочито на берзама минералних сировина.

Проблеми планирања трошкова производње минералних сировина, као и других елемената

производње специфичног су стручног геолошко-економског типа (Тошовић, 2019) и могу се релативно повољније решавати кроз посебан аналитичко-синтетички и економски приступ, применом геолошко-економске оцене, као главног оквира и економске оцене, као коначног израза са вредносним показатељима. Шире посматрано планирање трошкова захтева примену елемената ефикасног менаџмента (Robbins&Coutler, 2005; Тошовић, 2010; Тошовић&Milovanović, 2008; Машић&Целетовић, 2015), менаџмента минералних ресурса, затим стратегијског менаџмента, концепта одрживог развоја (Tošović, 2010), као и тржишног дефинисања кључних карактеристика рудних лежишта (Тошовић, 2006). У домаћој пракси економске геологије, економски критеријуми и методе оцене земаља са развијеним минералним економијама (Rudenno, 2012; Rundge, 1998; Torgies, 1998; Wellmer, Dalheimer&Wagner, 2010), омогућили су значајно унапређење домаће економске оцене (Tošović, 2011) и савремене праксе у предузећима минералног сектора. Основни циљ овог рада је, да на основу досадашњег нивоа предметне проблематике (Tošović, 2017a, 2017b, 2016, 2014, 2013a, 2013b, 2012) аналитично-истраживачки истакне место, улогу и значај економске оцене у успешном генералном планирању трошкова, као основи доношења одговарајућих пословних одлука у предузећима минералног сектора.

## 1. ТРОШКОВИ ПРОИЗВОДЊЕ МИНЕРАЛНИХ ПРОИЗВОДА

Планирање трошкова, као планских елемената и основе за буџетирање на годишњем нивоу у предузећима минералног сектора, директно је зависно од фазе третирања минералне сировине (Tošović, 2008). Са становишта планирања и поузданости трошкова генерално се могу издвојити три карактеристичне фазе, и то: (а) фаза истраживања минералне сировине; (б) фаза изградње рудника/припреме за производњу; и (в) фаза производње минералног производа. Прву фазу прати највиши степен генералне процене трошкова, јер не постоје потребни сигурнији плански елементи у фази истраживања и дефинисања минералног лежишта, као објекта будуће производње. Другу фазу прати нижи степен генералне процене, јер су оквирно познати планско-производни елементи, али су из текућих геолошко-рударских разлога могућа одређена одступања. Трећа фаза са постојањем актуелне производње је, у погледу планирања трошкова,

најсигурнија, јер као основ служе реални трошкови, констатовани у постојећој производњи.

Кључни оперативни и економски проблем је планско одређивање нивоа трошкова са довољним степеном поузданости, тако да, у поређењу са тржишном ценом минералне сировине, не доводи у питање позитиван економски резултат пословања. Уосталом такав резултат прати, са стручног геолошког становишта и дефинисање комерцијално исплативих, односно билансних резерви минералне сировине у лежишту, на основу којих се планира: (а) производни капацитет; (б) годишњи обим производње; и (в) количине минералног производа за понуду на тржишту. Наведени показатељи директно утичу на приходе и расходе предузећа, односно економски резултат пословања.

У ранијим фазама планирање нивоа трошкова је много сложеније, одговорније и менаџерски компликованије због деловања специфичног временског фактора. Наиме у случајевима већих и геолошки и генетски сложенијих минералних лежишта, нарочито металничких минералних сировина, геолошка истраживања су дужа, сложенија, скупља и економски мање известна. Код појединих таквих лежишта, од почетка геолошких истраживања и проналажења до почетка експлоатације, односно производње и почетка остваривања прихода може да протекне 10-15, па и више година. То је прилично дуг период у коме се дешавају значајне технолошке, економске и тржишне промене, а могу се битно одразити на процену економске исплативости минералних резерви са почетком експлоатације (Tošović&Milovanović, 2008).

Свака од наведених фаза, на одређен начин је обухваћена геолошко-економском анализом и коначном економском оценом, као засебним завршним поглављем, у оквиру посебног документа, као што је: (а) Пројекат геолошких истраживања, који се припрема пред реализацију геолошких истраживања; (б) Извештај о резултатима геолошких истраживања, који се ради након реализације геолошких истраживања; или (в) Елаборат о минералним резервама лежишта. У овиру пројекта се аналитички припрема и приказује економско образложење исплативости пројекта, кроз планиране трошкове истраживања и очекивану вредност резултата пројекта. У извештају и елаборату се раде посебне економске оцене дефинисане структуре. У оквиру ове оцене, као сложеног система, у комплетној поставци, постоји 9

сетова фактора и 3 сета показатеља, који са различитих аспеката обухватају геолошку и економску анализу елемената значајних за полазно планирање производње. Сетови фактора обухватају следеће факторе (Тошовић 2006, 2019): (1) металогенетске; (2) геолошке; (3) техничко-експлоатационе; (4) технолошке; (5) тржишне; (6) регионалне; (7) социјално-политичко-економско-стратегијске; (8) геоколошке и (9) законодавно-правне факторе. Сетови показатеља обухватају следеће три групе: (а) натуране, (б) вредносне и (в) синтетске показатеље. Према постављеним циљевима научно-стручне и аналитичке обраде у овом раду посебно су значајни Тржишни фактори и Вредносни показатељи, и то у делу који обухвата одговарајуће трошкове. Предметни подаци из економске оцене су директно економски и менаџерски искористиви за генерално планирање трошкова у разним фазама истраживања лежишта и експлоатације минералних сировина.

## 2. ПЛАНИРАЊЕ ТРОШКОВА У РАЗЛИЧИТИМ ФАЗАМА ТРЕТИРАЊА МИНЕРАЛНИХ СИРОВИНА

Сложеност, поузданост и сигурност планирања предметних трошкова директно зависи од актуелне геолошке, рударске или технолошке активности у којој се налази освајање минералне сировине, односно припрема планска пројекција трошкова. Целовито и свеобухватно посматрано са становишта трошкова треба нарочито имати у виду специфичне производне фазе третирања минералних сировина, и то: (а) фазу геолошких истраживања; (б) фазу експлоатације; (в) фазу припреме и прераде; и (г) фазу тржишне валоризације. У каснијим фазама планирање нивоа трошкова је једноставније, јер се базира на реалним, односно оствареним трошковима, али нарочито у почетним фазама, оно је много сложеније, одговорније и менаџерски компликованије. Практични значај и последице наведене констатације посебно долазе до изражаја у случајевима већих и сложенијих лежишта, код којих, од почетка геолошких истраживања и проналажења до почетка експлоатације, односно производње и почетка остваривања прихода може да протекне дужи временски период. Као илустративан пример може се навести истраживање бора и литијума на локалности Јадар, у западној Србији, које је почело 2004. године (Рио Тинто 2020), почетак експлоатације одлаган више пута, а према садашњем плану започеће крајем 2024. и почетком 2025. године.

Планирање трошкова у фази геолошких истраживања је најсложенији праћено највећим ризицима по процену економске исплативости (Тошовић, 2018). Осим тога наведено значи и потребу планирања трошкова на крају различитих стадијума геолошких истраживања, и то: (а) регионалних металогенетских; (б) проспекцијских; (в) претходних; и (г) детаљних истраживања. Са напредовањем наведених стадијума истраживања добија се више поузданих података, на основу којих се може давати боља економска пројекција. Позитивна практична и економска околност је што се, са стручног становишта, на крају сваког од наведених стадијума ради геолошко-економска оцена, односно економска оцена. При томе се на основу одговарајуће структуре анализираних фактора изражавају одређени показатељи. Кључни показатељи су трошкови извршених геолошких истраживања и вредност добијеног резултата, односно пронађених минералних резерви.

Базично правило у економској геологији је да, од првог корака геолошких истраживања, осим геолошких истраживачких аспеката, иста морају бити праћена и одговарајућом економском анализом будуће исплативости, која укључује пројекције тржишне цене минералне сировине и упоређивање са трошковима њене будуће производње (Тошовић, 2006). Кључни геолошки елементи и показатељи геолошко-економске оцене са оперативног аспекта су: (а) пронађене минералне резерве и (б) дубина минералног лежишта. Уколико су пронађене минералне резерве мале, нарочито испод минималних резерви, оне су недовољне за економско покривање инвестиција у истраживање и изградњу рудника, односно трошкови по 1 t су већи у односу на тржишну цену 1 t минералне сировине. У погледу дубине посебно је важан натурани показатељ прохигитивна дубина, односно дубина до које је могућа површинска експлоатација, а преко које се мора прећи на скупљу подземну експлоатацију. Економска димензија трошкова по овом аспекту анализе је веома важна, јер су трошкови површинске експлоатације знатно мањи, док се преласком на подземну експлоатацију може угрозити економска исплативост, поготову ако је тржишна цена минералне сировине низка, и тиме читав инвестициони подухват може бити економски неисплатив. При томе треба посебно имати у виду менаџерску и корпоративну одговорност за одлуку о реализацији истраживања, по којој

ће се на крају испоставити економска неисплативост.

Планирање трошкова у стадијуму претходних и проспекцијских истраживања је крајње оријентационо и везује се за процене трошкова у реду величине, првенствено кроз методу аналогије са истраживањима сличних терена, на којима је касније било експлоатације минералне сировине. За исто се такође користе подаци геолошко-економске оцене, која се ради на крају сваког стадијума. Услов преласка на наредни стадијум и реализацију даљег инвестицирања је позитивна оцена резултата добијених кроз претходна истраживања. У случају негативне оцене даља истраживања се обустављају, а следи менаџерска и финансијска одлука о њиховом прекиду. Економски оваква ситуација је непожељна, али у економској геологији има један позитиван аспект. Наиме он указује да на одређеном истраживаним простору не треба даље улагати финансијска средства и беспотребно иста трошити, већ их инвестицирати у истраживања неког другог истражног простора.

У предметној анализи посебно значајно место заузима пројекција трошкова на крају претходних геолошких истраживања, која се завршавају економском оценом да ли се економски исплати прелазак на наредна детаљна истраживања, што уједно значи и одлуку о отварању рудника. Економски посматрано профитабилност таквог рада касније не би смела да буде доведена у питање ни на који начин.

У свим овим случајевима основна метода, која се примењује у планирању трошкова је метода аналогије, односно сличности са неким другим сличним лежиштем, али комбинована са методом геолошко-економске оцене (Tošović, 2016б, 2017б). Најповољнија варијанта је уколико исто предузеће, које реализује истраживања и планира почетак експлоатације на пронађеном лежишту, већ има у активном експлоатационом процесу лежиште истог типа и исте врсте минералне сировине. На тај начин се подаци о реалним трошковима експлоатације директно могу користити у полазној анализи, при чему се итетако морају имати у виду специфичности анализираног лежишта у односу на лежиште аналог. Сходно специфичностима и разликама минералних лежишта, које се испольавају и кроз показатеље, нарочито вредносне, мора се извршити одговарајућа корекција, у складу са реалним условима анализираног лежишта. Некритичко и неаналитичко узимање износа трошкова лежишта аналога може довести до

крупних грешака и великих економских последица (Tošović, 2016б, 2017б). У економској оцени у економској геологији је познат принцип уникатности, односно непоновљивости сваког лежишта, које представља засебан објекат, за који се морају, у сваком појединачном случају, посебно одређивати трошкови и други вредносни показатељи. У различитим лежиштима они ће имати различите вредности, чак и за исту врсту минералне сировине, а које се у конкретном случају морају посебно анализирати, појединачно одређивати и прилагођавати лежишним приликама.

Трошкове треба оперативно сагледати са становишта могућности примене у планирању укупних трошкова производње, али и односу према тржишној цени минералне сировине. Исти ће у овом раду бити практично анализирани на основу конкретног практичног примера и подацима релативно једноставних лежишта песка (Tošović 2020а), као минералне сировине примењиве у грађевинарству и нарочито актуелно на просторима Републике Српске и Републике Србије у путоградњи, односно изградњи великих путних коридора. Из практичних разлога и објективних ограничења у овом раду, предмет конкретног илустровања начина решавања практичног проблема, предметне економске анализе и елемената економске оцене биће усмерена на издвајање само кључних вредносних показатеља геолошко-економске, односно економске оцене.

Предметни подаци из економске оцене минералног лежишта могу послужити као основне и полазне планске величине за планирање производње, коју пројекционо треба сагледавати у складу са утицајем интерних и екстерних фактора, у краћем или дужем временском периоду, и евентуално кориговати.

У конкретном анализираном случају техничко-економске оцене мањег лежишта песка, коме предстоји почетак експлоатације (Tošović 2020а), урађена је полазна калкулација цене коштања  $1 \text{ m}^3$  песка на 262,50 дин/ $\text{m}^3$  (2,2325EUR/ $\text{m}^3$ ), која обухвата следеће појединачне трошкове: (а) Трошкови геолошких истраживања, који износе 1.392.000 дин (11.838,78EUR), што након поделе са  $175.287\text{m}^3$  резерви даје специфичне трошкове од 7,94 дин/ $\text{m}^3$  (0,0672 EUR/ $\text{m}^3$ ); (б) Трошкови изrade пројектне документације у укупном износу од 1.900.000 дин (16.159,25EUR), односно 10,84 дин/ $\text{m}^3$  (0,0922EUR/ $\text{m}^3$ ); (в) Трошкови дозвола и накнада за добијање услова истраживања и експлоатације, који

износе 132.000 дин (1.122,64 EUR), односно 5,28 дин/  $m^3$ (0,0449 EUR); (г) Трошкови експлоатације, који обухватају трошкове материјала (предмете рада), производних средстава и зарада радника, тако да износе 207,30 дин/  $m^3$ (1,7630EUR/ $m^3$ ). Ови трошкови се добијају кроз посебну калкулацију у оквиру анализе и разматрања Рударских фактора оцене, а појединачно обухватају: Трошкове амортизације у износу од 11,10 дин/ $m^3$ (0,0944EUR/ $m^3$ ). Трошкове основних радова на експлоатацији песка, заједно са нормативним трошковима материјала у износу од 120,64 дин/ $m^3$ (1,0260EUR/  $m^3$ ). Трошкове помоћних радова на допреми горива, геодетског снимања, контроле квалитета и сл. у износу од 9,60 дин/ $m^3$ (0,0816EUR/ $m^3$ ). Трошкови бруто зарада за планирана запослена лица износе 60,00 дин/ $m^3$ (0,5103EUR/  $m^3$ ). При томе се посебно појединачно анализирају трошкови механизације, односно хидрауличког багера и камиона на дневном, месечном и годишњем нивоу. С друге стране појединачно се врши анализа и приказ норматива потрошње дизел горива, мазива, уља и гума камиона. (д) Трошкови одржавања су анализирани на нивоу 5% набавне вредности опреме, односно 5,50 дин/ $m^3$ (0,0468EUR/ $m^3$ ). (ђ) Трошкови осигурања су анализирани на нивоу 1% набавне вредности опреме, односно 1,10 дин/ $m^3$ (0,0093EUR/ $m^3$ ). (е) Трошкови накнаде за коришћење минералне сировине, су анализирани на нивоу 5% укупног прихода, односногодишење 560.000 дин (4.762,73EUR), што уз годишњу експлоатацију од 25.000  $m^3$  значи 22,40 дин/ $m^3$ (0,1905EUR/ $m^3$ ). (ж) Трошкови очувања и унапређења животне средине, заједно са трошковима рекултивације исткуствено су рачунати на око 3% трошкова основних радова експлоатације, што износи 3,60 дин/ $m^3$ (0,0306EUR/ $m^3$ ). (з) Остали непредвиђени трошкови су анализирани на нивоу 2% укупних трошкова, односно 5,15 дин/ $m^3$ (0,0438EUR/ $m^3$ ).

Полазно дефинисана тржишна цена песка износи 320 дин/ $m^3$ (2,7215 EUR/ $m^3$ ), што након исказивања ПДВ-а и пореза на добит значи коначну тржишну цену од 429,45 дин/ $m^3$ (3,6524 EUR/ $m^3$ ). Предметне релације указују на рентабилност од 15,50%. На тај начин нето вредност јединице резерви износи 57,50 дин/ $m^3$ (0,4890 EUR/ $m^3$ ). Укупна вредност резерви песка предметног лежишта са резервама од 175.287  $m^3$ , довољних за планирану експлоатацију у периоду од 7 година, износи 10.079.002 дин (85.720,59EUR).

Сви наведени вредносни показатељи су одређени приликом израде геолошко-економске оцене лежишта, примерено планираним условима производње, специфичностима квалитета минералне сировине, пројекцијама трошкова и тржишне цене песка, као коначног производа. Без конкретне техничко-економске анализе, примерено карактеристикама предметног лежишта песка, не може се урадити правилно планирање вредносних показатеља, посебно трошкова и њиховог односа са тржишном ценом. Као веома илустративан може се навести пример другог лежишта песка(Тошовић, 2020а), код кога трошкови производње износе 479,33 дин/ $m^3$  (4,0766EUR/ $m^3$ ), а с друге стране просечна продајна цена 550,00 дин/ $m^3$  (4,6777EUR/ $m^3$ ), односно нето вредност јединице резерви од 70,67 дин/ $m^3$ (0,6010 EUR/ $m^3$ ). Неаналитичко некритичко коришћење методе аналогије са применом наведених трошкова производње на прво лежиште, значила би економски неисплативу производњу песка, односно некомерцијални карактер или ванбилиансност предметних минералних резерви песка. Отуда се знатно сигурнијом и поузданјом показује метода геолошко-економске, односно економске оцене предметног лежишта, за примену у процесу планирања трошкова производње, односно буџетирања за потребе пословног планирања и пословног одлучивања.

Планирање трошкова производње минералних сировина у случају активног лежишта, на коме се одвија експлоатација, сигурнија је и једноставнија. Тада се за полазну анализу и планирање користе реално остварени трошкови. Међутим и у том случају је неопходно коришћење података везаних за геолошко-економску оцену. То се нарочито односи на промену квалитета минералне сировине у деловима лежишта планираним за експлоатацију. Нарочито је симптоматичан случај снижења садржаја корисне компоненте у делу лежишта (нпр. садржаја олова и цинкаса 6% на гранични садржај од 3%), због чега је неопходно откопавање веће количине сиромашније ровне руде ради испуњења плана количине концентрата, односно метала која се мора произвести. У том случају су такође повећани и трошкови транспорта, али и припреме и прераде до добијања коначног производа за тржиште. Примена методе аналогије у оваквим ситуацијама неће омогућити успешније планирање, чак може довести до крупних економских грешака. Планирање се мора базирати на аналитичкој примени методе геолошко-економске оцене и

одговарајућих натуранлних и вредносних показатеља у склопу оцене, уз комбиновање са подацима добијеним методом аналогије.

У одређеним периодима са појављивањима привредних, економских и криза другог типа, долази до непланираног повећања трошкова, али и промене тржишне цене минералне сировине. Као посебно интересантан и актуелан пример најновијих догађања у минералном сектору може се навести утицај актуелне промене цена минералних сировина у садашњим тржишним, производним и привредно-економским проблемима насталим услед пандемије вируса COVID19. Нпр. Цена бакра на берзи (Тошовић, 2020б) је са 5.737 USD/t од 14.02.2020. год, смањена на 4.855 USD/t од 20.03.2020. год, а потом на 4.617 USD/t од 23.03.2020. год, што значи пад од 20%. Још је илустративнија промена цене нафте (Тошовић, 2020в), нпр. типа Urals, чија цена је са 53,05 USD/bbl од 14.02.2020. год, смањена на 19,90 USD/bbl од 19.03.2020. год, а потом на 16,40 USD/bbl од 21.04.2020. год, што значи пад од 70%. Као посебно илустративна и ценовно симптоматична се издваја цена нафте типа WTI, која је 20.04.2020. године износила - 37,63 USD/bbl. Крајње необична производна и економска ситуација у којој су нафтне компаније, уместо прихода и профита од продате нафте, приморане на додатне непланиране трошкове, да плаћају купцима да исту преузму, због проблема смештајног простора за произведене количине нафте. За комплетну економску анализу треба имати у виду повратни утицај који цена минералне сировине има на обим производње, економске ефекте производње и ефекте пословања предузећа минералног сектора. При томе нарочито треба узети у обзир дужину периода, у коме цена предметне минералне сировине може угрожавати билансност резерви, и преко тога утицати на продуктивност предузећа минералног сектора. Од посебног утицаја су најаве о значајној економској кризи, која ће нарочито уследити по завршетку COVID19 пандемије. То ће се итекако надаље одразити и на повећање трошкова производње, као и потребан обим производње минералних сировина, с обзиром на најављено значајно смањење производње бројних привредних грана које их троше. Наведено доводи у питање и степен профитабилности рада, као и потребу улагања посебних финансијских средстава у истраживање нових минералних резерви, без претходног сагледавања сада расположивих производних капацитета и производних количина по појединим минералним врстама. Све ове промене захтевају посебан геолошко-

економски мониторинг, кроз који ће се кључни фактори и показатељи геолошко-економске оцене анализирати и кориговати, сходно кризним утицајима. Као такви они су добра полазна основа за корекције трошкова, као и планско сагледавање и предвиђање успешности пословања у краћем и дужем временском периоду.

Практични аспекти елемената економске оцене лежишта показују директну применљивост у планирању трошкова у предузећима минералног сектора. Менаџери и лица која врше планирање трошкова и доносе одлуке, треба да узму у обзир вредносне показатеље економске оцене минералног лежишта, како би квалитетније и поузданije дефинисали полазне, планиране, предвиђене, нормиране или очекиванетрошкове као планске елеменате у пословању. Менаџерски, кадровски и организационо посматрано најбоља је пракса да се, у припрему планирање трошкова, као израза елемената производње, укључи економски геолог, који је по академском образовању компетентан за израду геолошко-економске оцене. На тај начин се могу добити најбоље планске основе за планирање трошкова, планирање производње, планирање профитабилности, значајне за економску успешност предузећа и успешан рад и функционисање минералне економије и минералног сектора Републике Српске и Републике Србије у предстојећем привредном и развојном периоду.

## ЗАКЉУЧАК

Савремени променљиви и турболентни услови производње минералних сировина, посебно у делу са економским параметрима будуће производње, захтевају посебну планску озбиљност, аналитичност и одговорност. Планирање трошкова, као планских елемената и основе за буџетирање у предузећима минералног сектора, директно зависи од фазе третирања минералне сировине.

Кључни економски проблем је планско одређивање нивоа трошкова са довољним степеном поузданости да у односу на цену минералне сировине, не доводи у питање позитиван економски резултат пословања. Сложеност, поузданост и сигурност планирања предметних трошкова директно зависи од актуелне геолошке, рударске или технолошке активности у освајању металичне, неметаличне и енергетске минералне сировине.

Планирање трошкова у фази геолошких истраживања је најсложеније и праћено највећим ризицима по процену економске исплативости, нарочито у почетним стадијумима истраживања. Позитивна економска околност је што се, на крају сваког стадијума истраживања ради геолошко-економска оцена, односно економска оцена. Међу кључним показатељима оцене су трошкови геолошких истраживања и вредност пронађених минералних резерви.

Подаци из економске оцене минералног лежишта могу послужити као полазне планске величине за трошковно планирање производње, коју пројекционо треба сагледавати у складу са утицајем интерних и екстерних фактора, у краћем или дужем временском периоду. Планирање се мора базирати на аналитичкој примени методе геолошко-економске оцене и одговарајућих натуралистичких и вредносних показатеља у склопу оцене, уз комбиновање са подацима добијеним методом аналогије.

У одређеним кризним периодима, долази до непланираног повећања трошкова, али и промене тржишне цене минералне сировине. Овакве промене захтевају сталан геолошко-економски мониторинг, кроз који ће се кључни фактори и показатељи геолошко-економске оцене пратити, анализирати и кориговати, сходно кризним утицајима. Као такви они су добра полазна основа за корекције трошкова, као и планско предвиђање у краћем и дужем временском периоду.

Практични аспекти елемената економске оцене лежишта показују директну применљивост у планирању трошкова у предузећима минералног сектора. На тај начин се могу добити најбоље планске основе за планирање трошкова, планирање производње, планирање профитабилности, значајних за економску успешност појединачних предузећа и успешан рад и функционисање минералне економије и минералног сектора Републике Српске и Републике Србије у предстојећем привредном и развојном периоду.

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## SUMMARY

In the conditions of faster and bigger market changes in the mineral sector, it is necessary for the companies to react adequately in achieving the planned production results and effects. In order to achieve successful business and raise the level of competitiveness in relation to other companies in the mineral sector, it is of special importance to plan and realize a certain level of the subject costs of mineral production.

Cost planning, as planning elements and basis for annual budgeting in mineral sector enterprises, is directly dependent on the treatment phase of the mineral resource, including: (a) the mineral exploration phase; (b) mine construction / production preparation phase; and (c) the mineral production stage.

In the earlier phases, the planning of cost levels is managerially more complicated due to the action

of a specific time factor in the period from the discovery to the beginning of the exploitation of the mineral raw material. Cost planning in the geological exploration phase is the most complex and is accompanied by the greatest risks in terms of assessing economic viability. As the research stage progresses, more reliable data are obtained, on the basis of which a better economic projection of costs can be given. A positive economic circumstance is that, at the end of each of the above stages, a geological-economic evaluation is made, ie an economic evaluation, with value indicators, on the basis of which appropriate costs can generally be successfully planned.

The costs should be considered operationally from the point of view of the possibility of application in the planning of the total production costs, but also the relation to the market price of the mineral raw material. According to the specifics and differences of mineral deposits, which are also manifested through indicators, especially values, an appropriate correction must be made, in accordance with the real conditions of the analyzed deposit. Uncritical and non-analytical taking of the amount of analogue deposit costs can lead to major errors and major economic consequences.

In practice, the method of geological-economic, ie economic evaluation of the subject deposit, for application in the process of planning production costs, ie budgeting for the needs of business planning and business decision-making, has proven to be more reliable. Planning must be based on the analytical application of the method of geological-economic evaluation and appropriate natural and value indicators within the evaluation, combined with the data obtained by the method of analogy.

Crisis changes in the conditions of mineral production require special geological and economic monitoring, through which the key factors and indicators of geological and economic evaluation will be analyzed and corrected, in accordance with the crisis effects. As such, they are a good starting point for cost corrections, as well as a planned forecast of business success in a shorter and longer period of time.

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## **GENERAL PLANNING OF MINERAL RAW MATERIALS PRODUCTION COSTS AND ECONOMIC EVALUATION OF ORE DEPOSITS**

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*Paper presented at the 8th International Scientific Symposium „EkonBiz: Change management in the conditions of globalization“, Bijeljina, 18 – 19th June 2020.*

**Abstract:** Material production of mineral raw materials is accompanied by specific costs, the general consideration of which is necessary as part of long-term production planning. A special problem that accompanies the definition of these costs is that their planned consideration must be performed much earlier before the start of the production in question. Already in the phase of geological exploration and finding of the ore deposit, a projection of economic profitability must be made, which should enable the relationship between the market price of mineral raw materials and production costs, because the continuation of exploration depends on such a positive result. A special problem arises in the case when due to the low level of exploration there are not enough elements for cost definition of future production. This paper analyzes the application of the method of economic evaluation of deposits, as a complex system of sets of factors and sets of indicators, which allows direct, or in combination with the method of analogy, general view of the costs of future mineral production.

**Key words:** costs, planning, economic evaluation, ore deposit.

### **INTRODUCTION**

Modern variable and turbulent conditions of production of metallic, non-metallic and energetic mineral raw materials, especially in the part with economic parameters of future production, require special planning seriousness, analyticalness and responsibility. The existing transitional and economic trends in the economics of mineral resources are focused on market-oriented principles and criteria for planning and implementation of the production of mineral resources which are needed for the economy.

(Tošović, 2016a, 2017a, 2019). Companies, as the basic economic entities of the mineral sector, especially in long-term planning of providing mineral resources for mineral production must perform the appropriate planning function, through setting production and business goals, setting strategies for achieving goals and preparing plans, so that organizational work and resource management for production become integrated and successfully achieved (Robbins&Coutler, 2005; Тошовић, 2019).

In the conditions of faster and bigger market changes in the mineral sector, it is necessary for the companies to react adequately in achieving the planned production results and effects. When specific and limited production resources are available, depending on the action of internal and external factors, there may be significant changes in their costs, as a natural expression, and costs, as a financial expression. But there are limits for those, which should not jeopardize the positive economic results and effects of mineral production. In order to achieve successful business and raise the level of competitiveness, in relation to other companies in the mineral sector, it is of special importance to plan and realize a certain level of relevant costs. On the other hand, the market price of mineral raw material is significant, which is subject to oscillations, depending on the acting of local or global factors, especially on the mineral resource exchanges.

Problems of planning the costs of production of mineral raw materials as well as other elements of production are of a specific professional geological-economic type (Тошовић, 2019) and can be solved relatively better through a special analytical-synthetic and economic approach, using geological-economic evaluation as the main framework and economic evaluation as a final

expression with value indicators. Broadly observed, cost planning requires the application of elements of efficient management (Robbins & Coutler, 2005; Tošović, 2010; Tošović & Milovanović, 2008; Mašić & Dželetović, 2015), mineral resource management, then strategic management, the concept of sustainable development (Tošović, 2010), as well as key definitions of characteristics of ore deposits (Тошовић, 2006). In the domestic practice of economic geology, economic criteria and evaluation methods of countries with developed mineral economies (Rudenno, 2012; Rundge, 1998; Torries, 1998; Wellmer, Dalheimer & Wagner, 2010), have enabled a significant improvement in domestic economic evaluation (Tošović, 2011). and modern practices in mineral sector companies. The main goal of this paper is, based on the current level of the subject matter (Tosovic, 2017a, 2017b, 2016, 2014, 2013a, 2013b, 2012) to analytically emphasize the place, role and importance of economic evaluation in successful general cost planning, as a basis for adoption of appropriate business decisions in mineral sector companies.

## 1. Costs of production of mineral products

Cost planning, as planning element and the basis for budgeting on an annual basis in the companies of the mineral sector is directly dependent on the phase of treatment of mineral raw materials (Tošović, 2008). From the point of view of cost planning and reliability, three characteristic phases can generally be distinguished, namely: (a) the mineral exploration phase; (b) mine construction / production preparation phase; and (c) the mineral production stage. The first phase is accompanied by the highest level of general cost estimation, because there are no necessary safer planning elements in the phase of exploration and definition of the mineral deposit, as an object of future production. The second phase is accompanied by a lower level of general evaluation, because the planning and production elements are approximately known, but certain deviations are possible due to current geological and mining reasons. The third phase with the existence of current production is, in terms of cost planning, the safest, because the basis is the real costs, stated in the existing production.

The key operational and economic problem is the planned determination of cost levels with a sufficient degree of reliability, so that, compared to the market price of mineral raw materials, it does not call into question the positive economic result of operations. After all, such a result is accompanied, from an expert geological point of view, by the definition of commercially viable, ie

balance reserves of mineral resources in the deposit, on the basis of which the following is planned: (a) production capacity; (b) annual production volume; and (c) the quantities of the mineral product on the market. These indicators directly affect the income and expenses of the company, ie the economic result of business.

In the earlier stages, cost level planning is much more complex, responsible and managerially complicated due to the action of a specific time factor. Namely, in the case of larger and geologically and genetically more complex mineral deposits, especially metallic mineral raw materials, geological exploration is longer, more complex, more expensive and economically less certain. In some such deposits, it can take 10-15 or even more years from the beginning of geological exploration and discovery to the beginning of exploitation, ie production and the beginning of income generation. This is a fairly long period in which significant technological, economic and market changes are taking place, and they can significantly affect the evaluation of the economic viability of mineral reserves when it comes to the beginning of exploitation. (Tošović& Milovanović, 2008).

Each of these phases is in some way covered by geological-economic analysis and final economic evaluation, as a separate final chapter, within a separate document, such as: (a) Geological exploration project, which is prepared before the implementation of geological exploration; (b) Report on the results of geological exploration, which is done after the realization of geological exploration; or (c) Study on mineral reserves of the deposit. Within the project, the economic justification of the project cost-effectiveness is analytically prepared and presented, through the planned exploration costs and the expected value of the project results. The report and the study make special economic evaluations of the defined structure. Within this evaluation, as a complex system, in the complete set, there are 9 sets of factors and 3 sets of indicators, which from different aspects include geological and economic analysis of elements important for the initial production planning. Factor sets include the following factors (Тошовић, 2006, 2019): (1) metallogenetic; (2) geological; (3) technical-exploitation; (4) technological; (5) market; (6) regional; (7) socio-political-economic-strategic; (8) geoecological and (9) legislative and legal factors. Indicator sets include the following three groups: (a) natural, (b) value, and (c) synthetic indicators. According to the set goals of scientific-professional and analytical processing, in this paper, Market Factors and Value Indicators are especially important, in the part that includes the

corresponding costs. The subject data from the economic evaluation are directly economically and managerially useful for general cost planning in various phases of deposit exploration and exploitation of mineral resources.

## **2. Cost planning in different phases of mineral resources treatment**

The complexity, reliability and security of planning the costs in question directly depends on the current geological, mining or technological activity in which there is the conquest of mineral resources, ie the preparation of a planned cost projection. Taken as a whole and comprehensively from a cost point of view, particular account should be taken of the specific production stages of the treatment of mineral resources, namely: (a) the geological exploration phase; (b) the exploitation phase; (c) preparation and processing phase; and (d) the market valorisation phase. In the later stages, planning the level of costs is simpler, because it is based on real, ie realized costs, but especially in the initial stages, it is much more complex, responsible and managerially complicated. The practical significance and consequences of this statement are especially pronounced in cases of larger and more complex deposits, where a longer period of time may elapse from the beginning of geological exploration and discovery to the beginning of exploitation, ie production and the beginning of income generation. An illustrative example is the exploration of boron and lithium in the Jadar area in western Serbia, which began in 2004 (Rio Tinto, 2020), the start of exploitation was postponed several times, and according to the current plan will begin in late 2024 and early 2025.

Cost planning in the geological exploration phase is the most complex and is accompanied by the greatest risks according to the evaluation of economic profitability (Tošović, 2018). In addition, this means that there is a need for cost planning at the end of the various stages of geological exploration, namely: (a) regional metallogenetic; (b) prospective; (c) previous ones; and (d) detailed exploration. With the progress of these stages of exploration, more reliable data are obtained, on the basis of which a better economic projection can be given. A positive practical and economic circumstance is that, from the professional point of view, at the end of each of the mentioned stages, a geological-economic evaluation, ie economic evaluation, is done. At the same time, based on the appropriate structure of the analyzed factors, certain indicators are expressed. The key indicators are the costs of

geological exploration and the value of the obtained result, ie the found mineral reserves.

The basic rule in economic geology is that, from the first step of geological exploration, apart from geological exploration aspects, it must be accompanied by an appropriate economic analysis of future profitability, which includes projections of market price of mineral raw materials and comparison with costs of its future production (Tošović, 2006). The key geological elements and indicators of geological-economic evaluation from the operational aspect are: (a) found mineral reserves and (b) depth of mineral deposit. If the found mineral reserves are small, especially below the minimum reserves, they are insufficient to economically cover investments in mine exploration and construction, ie the costs per 1 t are higher in relation to the market price of 1 t of mineral raw materials. In terms of depth, a particularly important natural indicator is the prohibitive depth, ie the depth to which surface exploitation is possible, and over which one must move to more expensive underground exploitation. The economic dimension of costs in this aspect of analysis is very important, because the costs of surface exploitation are much lower, while the transition to underground exploitation may jeopardize economic viability, especially if the market price of mineral resources is lower, and thus the entire investment venture may be economically unprofitable. In doing so, special attention should be paid to managerial and corporate responsibility for the decision on the implementation of exploration, which will ultimately prove to be an economic unprofitability.

Cost planning in the stage of previous and prospective exploration is indicative at best and is related to cost estimates in the order of magnitude, primarily through the method of analogy with exploration in similar fields, where there was later exploitation of mineral resources. Geological and economic evaluation data are also used for the same, which is done at the end of each stage. The condition for the transition to the next stage and the realization of further investment is a positive evaluation of the results obtained through previous exploration. In case of a negative evaluation, further exploration is suspended, followed by a managerial and financial decision to terminate it. Economically, this situation is undesirable, but there is one positive aspect in economic geology. Namely, it points out that in a certain exploration area it is not necessary to further invest financial resources and spend them unnecessarily, but to invest them in the exploration of some other exploration area.

In the given analysis, a particularly important place is occupied by the projection of costs at the end of previous geological exploration, which ends with an economic evaluation of whether the transition to the next detailed exploration is economically worthwhile, which also means the decision to open a mine. From an economic point of view, the profitability of such work should not later be questioned in any way.

In all these cases, the basic method, which is applied in cost planning, is the method of analogy, ie similarity with some other similar deposit, but combined with the method of geological-economic evaluation (Tošović, 2016b, 2017b). The most favorable variant is if the same company, which is conducting exploration and plans to start exploitation on the found deposit, already has a deposit of the same type and the same type of mineral raw material in the active exploitation process. In this way, the data on the real costs of exploitation can be used directly in the initial analysis, whereby the specifics of the analyzed reservoir in relation to the analogue reservoir must be taken into account. In accordance with the specifics and differences of mineral deposits, which are manifested through indicators, especially values, an appropriate correction must be made, in accordance with the real conditions of the analyzed deposit. Uncritical and non-analytical taking of the amount of costs of analog deposits can lead to major errors and major economic consequences (Tosovic, 2016b, 2017b). In economic evaluation in economic geology, the principle of uniqueness is known, ie the uniqueness of each deposit, which is a separate object, for which, in each individual case, costs and other value indicators must be determined separately. In different deposits, they will have different values, even for the same type of mineral raw material, which in this particular case must be separately analyzed, individually determined and adjusted to the deposit conditions.

The costs should be considered operationally from the point of view of the possibility of application in the planning of total production costs, but also the relation to the market price of mineral raw materials. In this paper, they will be practically analyzed on the basis of a concrete practical example and data of relatively simple sand deposits (Тошовић, 2020a), as mineral raw materials applicable in construction and especially in the Republic of Srpska and the Republic of Serbia in road construction, ie construction of large road corridors. For practical reasons and objective limitations in this paper, the subject of concrete illustration of the way of solving a practical problem, subject economic analysis and elements of economic evaluation will be focused on

highlighting only key value indicators of geological-economic, ie economic evaluation. The subject data from the economic evaluation of the mineral deposit can serve as basic and initial planning values for production planning, which should be considered in accordance with the influence of internal and external factors, in a shorter or longer period of time, and possibly corrected.

In the specific analyzed case of technical and economic evaluation of a smaller sand deposit, which is about to start exploitation (Тошовић, 2020a), the initial calculation of the cost price of 1 m<sup>3</sup> of sand at 262.50 dinars/m<sup>3</sup> (2.2325 EUR/m<sup>3</sup>) was made, which includes the following individual costs: (a) Costs of geological exploration, which amount to 1,392,000 dinars (11,838.78 EUR), which after division with 175,287 m<sup>3</sup> of reserves gives specific costs of 7.94 dinars/m<sup>3</sup> (0.0672 EUR/m<sup>3</sup>); (b) Costs of project documentation in the total amount of RSD 1,900,000 (EUR 16,159.25), ie RSD 10.84 / m<sup>3</sup> (EUR 0.0922 / m<sup>3</sup>); (c) Costs of permits and fees for obtaining conditions of exploration and exploitation, which amount to 132,000 dinars (1,122.64 EUR), or 5.28 dinars/m<sup>3</sup> (0.0449 EUR); (d) Exploitation costs, which include the costs of materials (objects of labor), means of production and wages of workers, so that they amount to 207.30 dinars/m<sup>3</sup> (1.7630 EUR/m<sup>3</sup>). These costs are obtained through a special calculation within the analysis and consideration of Mining evaluation factors, and individually include: Depreciation costs in the amount of 11.10 dinars/m<sup>3</sup> (0.0944 EUR/m<sup>3</sup>). Costs of basic works on sand exploitation, together with normative costs of materials in the amount of 120.64 dinars/m<sup>3</sup> (1.0260 EUR/m<sup>3</sup>). Costs of auxiliary works on fuel delivery, geodetic survey, quality control, etc. in the amount of 9.60 dinars/m<sup>3</sup> (0.0816 EUR/m<sup>3</sup>). Gross salary costs for the planned 2 employees amount to 60.00 dinars/m<sup>3</sup> (0.5103 EUR/m<sup>3</sup>). The costs of mechanization, ie hydraulic excavator and truck on a daily, monthly and annual level are analyzed separately. On the other hand, the analysis and presentation of consumption norms for diesel fuel, lubricants, oil and truck tires is performed individually. (e) Maintenance costs were analyzed at the level of 5% of the purchase value of the equipment, ie 5.50 dinars/m<sup>3</sup> (0.0468 EUR/m<sup>3</sup>). (f) Insurance costs were analyzed at the level of 1% of the purchase value of the equipment, ie 1.10 dinars/m<sup>3</sup> (0.0093 EUR/m<sup>3</sup>). (g) The costs of the fee for the use of mineral resources are analyzed at the level of 5% of the total income, ie 560,000 dinars per year (4,762.73 EUR), which with an annual exploitation of 25,000 m<sup>3</sup> means 22.40 dinars/m<sup>3</sup> (0.1905 EUR/m<sup>3</sup>). (h) The costs of

preserving and improving the environment, together with the costs of reclamation, have been empirically calculated at about 3% of the costs of basic exploitation works, which amounts to 3.60 dinars/m<sup>3</sup> (0.0306 EUR/m<sup>3</sup>). (i) Other unforeseen costs were analyzed at the level of 2% of total costs, ie 5.15 dinars/m<sup>3</sup> (0.0438 EUR/m<sup>3</sup>).

The initially defined market price of sand is 320 dinars/m<sup>3</sup> (2.7215 EUR/m<sup>3</sup>), which, after VAT and profit tax, means the final market price of 429.45 dinars/m<sup>3</sup> (3.6524 EUR/m<sup>3</sup>). The subject relations indicate a profitability of 15.50%. Thus, the net value of the reserve unit is 57.50 dinars/m<sup>3</sup> (0.4890 EUR/m<sup>3</sup>). The total value of sand reserves of the subject deposit with reserves of 175,287 m<sup>3</sup>, sufficient for the planned exploitation in a period of 7 years, is 10,079,002 dinars (85,720.59 EUR).

All these values are determined during the geological and economic evaluation of the deposit, in accordance with the planned production conditions, the specifics of the quality of the mineral raw material, cost projections and the market price of sand, as the final product. Without a specific technical and economic analysis, appropriate to the characteristics of the subject sand deposit, it is not possible to properly plan the value indicators, especially costs and their relationship with the market price. A very illustrative example is the second sand deposit (Тошовић, 2020a), when the production costs are 479.33 dinars/m<sup>3</sup> (4.0776 EUR/m<sup>3</sup>), and on the other hand the average selling price is 550.00 dinars/m<sup>3</sup> (4.6777 EUR/m<sup>3</sup>), ie the net value of the reserve unit of 70.67 dinars/m<sup>3</sup> (0.6010 EUR/m<sup>3</sup>). Non-analytical and uncritical use of the method of analogy with the application of the stated production costs to the first deposit, would mean economically unprofitable production of sand, ie non-commercial character or off-balance sheet of the subject mineral reserves of sand. Hence, the method of geological-economic, ie economic evaluation of the subject deposit, for application in the process of planning production costs, ie budgeting for the needs of business planning and business decision-making, proves to be much safer and more reliable.

Planning the costs of production of mineral raw materials in the case of an active deposit, on which exploitation takes place, is safer and simpler. Then the actual realized costs are used for the initial analysis and planning. However, even in that case, it is necessary to use data related to geological and economic evaluation. This especially refers to the change in the quality of mineral raw materials in the parts of the deposit planned for exploitation. Particularly symptomatic is the case of lowering the content of the useful component in the part of

the deposit (eg lead and zinc content from 6% to the limit content of 3%), which is why it is necessary to excavate a larger amount of poorer straight ore to meet the plan. produce. In that case, the costs of transport were also increased, as well as the preparation and processing until the final product was obtained for the market. Applying the method of analogy in such situations will not enable more successful planning, it can even lead to major economic mistakes. Planning must be based on the analytical application of the method of geological-economic evaluation and appropriate natural and value indicators within the evaluation, combined with the data obtained by the method of analogy.

In certain periods with the appearance of economic and other types of crises, there is an unplanned increase in costs, but also a change in the market price of mineral raw materials. As a particularly interesting and current example of the latest developments in the mineral sector, the impact of the current change in mineral prices in the current market, production and economic problems caused by the COVID19 pandemic can be cited. For example. The price of copper on the stock exchange (Тошовић, 2020б) is from 5,737 USD/t from February 14, 2020 reduced to 4,855 USD/t from 20.03.2020 and then to 4,617 USD/t from 23.03.2020 which means a drop of 20%. Even more illustrative is the change in the price of oil (Тошовић, 2020c), e.g. type Urals, whose price is from 53.05 USD/bbl from 14.02.2020. year, reduced to 19.90 USD/bbl from 19.03.2020 and then at 16.40 USD/bbl from 21.04.2020 which means a drop of 70%. The price of WTI oil, which is 20.04.2020, stands out as particularly illustrative and price-symptomatic. was -37.63 USD/bbl. Extremely unusual production and economic situation in which oil companies, instead of income and profit from sold oil, are forced to pay additional unplanned costs, to pay customers to take it over, due to the problem of accommodation for the produced quantities of oil. For a complete economic analysis, one should keep in mind the feedback effect that the price of mineral raw material has on the volume of production, the economic effects of production and the business effects of the companies in the mineral sector. In doing so, special account should be taken of the length of the period in which the price of the mineral in question may jeopardize the balance of reserves, and thereby affect the productivity of mineral sector enterprises. Of particular influence are the announcements of a significant economic crisis, which will especially follow the end of the COVID19 pandemic. This will have a further effect on the increase in production costs, as well as the required volume of production of mineral

raw materials, given the announced significant reduction in the production of many industries that consume them. This calls into question the degree of profitability of work, as well as the need to invest special funds in the exploration of new mineral reserves, without prior consideration of the currently available production capacity and production quantities by individual mineral species. All these changes require special geological and economic monitoring, through which the key factors and indicators of geological and economic evaluation will be analyzed and corrected, in accordance with the crisis effects. As such, they are a good starting point for cost corrections, as well as a planned view and prediction of business success in a shorter and longer period of time.

Practical aspects of the elements of economic evaluation of deposits show direct applicability in cost planning in companies in the mineral sector. Managers and persons who plan costs and make decisions, should take into account the value indicators of economic evaluation of the mineral deposit, in order to better and more reliably define the initial, planned, anticipated, standardized or expected costs as planning elements in business. From the managerial, personnel and organizational point of view, it is the best practice to include an economic geologist in the preparation and planning of costs, as an expression of the elements of production, who is competent for academic geological-economic evaluation. In that way, the best planning bases for cost planning, production planning, profitability planning, important for the economic success of the company and successful work and functioning of the mineral economy and mineral sector of Republika Srpska and the Republic of Serbia in the upcoming economic and development period can be obtained.

## CONCLUSION

Modern variable and turbulent conditions of mineral production, especially in the part with economic parameters of future production, require special planning seriousness, analyticalness and responsibility. Cost planning, as planning element and basis for budgeting in mineral sector companies, directly depends on the treatment phase of the mineral resource. The key economic problem is the planned determination of cost levels with a sufficient degree of reliability that in relation to the price of mineral raw materials, it does not jeopardize the positive economic result of business. The complexity, reliability and security of planning the costs directly depend on the current geological, mining or technological activity in the

development of metallic, non-metallic and energy minerals. Cost planning in the geological exploration phase is the most complex and is accompanied by the greatest risks in terms of assessing economic viability, especially in the initial stages of exploration. The positive economic circumstance is that, at the end of each stage of the exploration, a geological-economic evaluation is made, ie an economic evaluation. Among the key indicators of the evaluation are the costs of geological exploration and the value of the found mineral reserves. Data from the economic evaluation of the mineral deposit can serve as a starting point for cost planning of production, which should be considered in accordance with the influence of internal and external factors, in a shorter or longer period of time. Planning must be based on the analytical application of the method of geological-economic evaluation and appropriate natural and value indicators within the evaluation, combined with the data obtained by the method of analogy.

In certain crisis periods, there is an unplanned increase in costs, but also a change in the market price of mineral raw materials. Such changes require constant geological and economic monitoring, through which the key factors and indicators of geological and economic evaluation will be monitored, analyzed and corrected, in accordance with the crisis effects. As such, they are a good starting point for cost corrections, as well as for planned forecasting in a shorter and longer period of time. Practical aspects of the elements of economic evaluation of deposits show direct applicability in cost planning in companies in the mineral sector. In that way, the best planning bases for cost planning, production planning, profitability planning, important for the economic success of individual companies and successful work and functioning of the mineral economy and mineral sector of Republika Srpska and the Republic of Serbia in the upcoming economic and development period can be obtained.

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## SUMMARY

In the conditions of faster and bigger market changes in the mineral sector, it is necessary for the companies to react adequately in achieving the planned production results and effects. In order to

achieve successful business and raise the level of competitiveness in relation to other companies in the mineral sector, it is of special importance to plan and realize a certain level of the subject costs of mineral production.

Cost planning, as planning element and basis for budgeting on an annual basis in the enterprises of the mineral sector, is directly dependent on the phase of mineral raw material treatment, among which are: (a) the mineral exploration phase; (b) mine construction / production preparation phase; and (c) the mineral production phase.

In the earlier phases, the planning of cost levels is managerially more complicated due to the action of a specific time factor in the period from the discovery to the beginning of the exploitation of the mineral raw material. Cost planning in the geological exploration phase is the most complex and is accompanied by the greatest risks according to the evaluation of economic profitability. As the exploration stage progresses, more reliable data are obtained, on the basis of which a better economic projection of costs can be given. A positive economic circumstance is that, at the end of each of the above stages, a geological-economic evaluation is made, ie an economic evaluation, with value indicators, on the basis of which appropriate costs can generally be successfully planned.

The costs should be considered operationally from the point of view of the possibility of application in the planning of the total production costs, but also in the relation to the market price of the mineral raw material. According to the specifics and differences of mineral deposits, which are manifested through indicators, especially values, an appropriate correction must be made, in accordance with the real conditions of the analyzed deposit. Uncritical and non-analytical taking of the amount of costs of analog deposits can lead to major errors and major economic consequences.

In practice, the method of geological-economic, ie economic evaluation of the subject deposit, for application in the process of planning production costs, ie budgeting for the needs of business planning and business decision-making, has proven to be more reliable. Planning must be based on the analytical application of the method of geological-economic evaluation and appropriate natural and value indicators within the evaluation, combined with the data obtained by the method of analogy.

Crisis changes in the conditions of mineral production require special geological and economic monitoring, through which the key factors and indicators of geological and economic evaluation will be analyzed and corrected, in accordance with the crisis effects. As such, they are a good starting point for cost adjustments, as well as a planned forecast of business success in a shorter and longer period of time.