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Факултет пословне економије  
Бијељина

*Faculty of Business Economics  
Bijeljina*

# Нови Економист

часопис за економску теорију и праксу

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## PREDVIĐANJE PANDEMIJSKOG PRIHODA OD POREZA U MALOJ, OTVORENOJ EKONOMIJI: SLUČAJ BUGARSKE

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Članak je izlagan na IX Internacionalnom naučnom skupu „EkonBiz: Ekonomija i COVID 19“,  
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**Apstrakt:** Porezna analiza i predviđanje prihoda je od izuzetne (najveće) važnosti kako bi se osigurala održivost fiskalne politike. Međutim, mјere poduzete za suzbijanje širenja nedavne pandemije predstavljaju neviđeni izazov za ustaljene modele i pristupe. Ovaj rad predlaže model za predviđanje poreznih prihoda u Bugarskoj za fiskalne godine 2020-2022. izrađen u skladu s preporukama Međunarodnog monetarnog fonda o skupu podataka koji pokriva razdoblje između 1995. i 2019. Studija dalje razmazra stvarnu pouzdanost službenih bugarskih prognoza, suprotstavljajući te brojke odgovarajućim procijenjenim modelima. Kvantitativni rezultati ove studije potvrđuju pretpostavljeni negativni uticaj pandemije na porezne prihode i dokazuju da se statistika može prilagoditi kako bi se proizvele dosljedne prognoze prihoda čak i u relativno neistraženom slučaju Bugarske koja nudi nove uvide kreatorima politike i zagovornicima.

**Ključne riječi:** Prognoza, oporezivanje, PDV, porez na dohodak građana, Bugarska

### 1. UVOD

#### 1.1. Kako pandemija mijenja prognoze

Tijekom posljednjih godinu dana službene i akademske prognoze nisu mogle točno predvidjeti barem opći trend koji dolazi iza nadolazećih kretanja. Nagrizale su samopouzdanje toliko da je Odjel za fiskalne poslove (FDA) Međunarodnog monetarnog fonda (MMF) upozorio da najčešće korištene tehnike predviđanja poreznih prihoda neće biti dovoljne da se shvati glavni pad poreznih prihoda koji će pandemija prouzročiti u većini zemalja (IMF FAD 2020, 1).

Slična pitanja već neko vrijeme zbumuju ekonomsku politiku. Stoga novi modeli fiskalnog

predviđanja mogu iskoristiti važne korake prema novim modelima (Demertzis i Vieg 2008; Brubakk i Sveen 2009; Alessi i ostali 2014) u području predviđanja monetarne politike (Demertzis i Vieg 2020; Demertzis i Dominguez-Jimenez 2020). Ipak, ovo veliko znanje samo po sebi nije rješenje, jer ničim ne umanjuje novinu načina na koje pandemija utječe - i nastaviti će - na ekonomiju. Štoviše, pogled preko ograde ne može biti rješenje jer predviđanje poreznih prihoda očituje više od nekoliko osobitosti. Stoga ovaj rad pokušava uspostaviti izvediv pristup predviđanju poreznih prihoda kombinirajući FAD-ove preporuke i uvide iz nefiskalnih predviđanja.

#### 1.2 Pozadina studije

Ovaj se rad fokusira na Bugarsku, malo, otvoreno i relativno zaostalo gospodarstvo. Unatoč članstvu u EU, zemlja kova vlastitu valutu: bugarski lev (BGN). BGN je vezan za euro (€) po fiksnom tečaju (1,98 BGN za 1 €) (NS-RB 2020).

U 2019. BDP je bio oko 60 milijardi eura (NSI 2020b) ili 8.701 € po stanovniku (NSI 2020a). Bugarska je najsiromašnija zemlja EU-a po standardima kupovne moći, koja iznosi 53% prosjeka EU-a (EUROSTAT 2021a). Nadalje, dokumentirano gospodarstvo ne predstavlja cjelokupnu aktivnost Bugara s obzirom na to da procjene stavljaju sivu ekonomiju oko 21% BDP-a (Ivanov 2021), s vrhovima za zapošljavanje (Toteva 2021) i duhan do 50% (Mediapool.bg's Editors 2020).

U posljednjem desetljeću (2009- 2019) porezni prihodi rasli su u prosjeku za 2,45% na godišnjoj razini. Ove brojke znatno zaostaju za prosječnim godišnjim rastom BDP-a od 5,10% u istom razdoblju. Dakle, omjer poreza i BDP-a kontinuirano se smanjivao za više od 6,5%,

dodirujući dno u 2015. godini. Porezni prihodi Bugarske također su lošiji u odnosu na zemlje EU koje su članice OECD-a, ali ne i Eurozone. Tamo su 2010. godine nominalni porezni prihodi porasli kao udio u BDP-u za prosječno 3,25% godišnje.

Raščlanjivanje prihoda u tablici 1 pokazuje da je u 2019. došlo do djelomičnog poboljšanja poreznih prihoda. Međutim, ovaj je razvoj bio prijenos puke pozitivne dinamike GPD-a (NSI 2020b) a ne

vođena politikom. Štoviše, ovaj je dolazak donio relativno malo sredstava, a fiskalni multiplikatori u svakom će slučaju biti manji (Karagyzova-Markova, Deyanov, i Iliev 2013, 30). Neučinkovitost fiskalne politike dijelom je posljedica visokog stupnja neformalnosti, koji određuje poteškoće u naplati poreza (Rosser, Rosser, i Ahmed 2000, 160) kao i mobilizacija prihoda (Dellas i ostali 2017).

**Tabela 1: Propadanje poreza u Bugarskoj bilo je na putanji oporavka 2019, ali je još uvijek daleko od nivoa 2009**

Odnos prihoda i BDP-a za glavne poreze u Bugarskoj u periodu 2015-2019, u poređenju sa nivoom iz 2009.

Porezi	2015	2016	2017	2018	2019
Carine i porezi	67	69	70	79	98
Porez na osiguranje*	167	173	155	178	196
Izvršite dužnost	98	108	107	108	112
Porez na dodatnu vrijednost	83	89	85	93	104
Porezi za lične prihode	120	122	120	131	151
Porezi na dividende deonice za likvidaciju i prihod od pravnih subjekata	52	68	36	40	57
Korporativni porez	63	69	73	83	93
Manji porezi	56	59	55	61	66

\* 2009=100 za svaki indikator, osim poreza na premije osiguranja još nije uveden (2011=100).

**Tabela 1** Izvor: Zakon o državnom proračunu Republike Bugarske za 2010. godinu; 2016; 2017; 2018; i 2019.

Međutim, gotovo je sigurno da će kriza izazvana mjerama protiv zaraze prouzročiti značajne gubitke poreznih prihoda. Sa svim vjerojatnostima, oporavak neće biti na vidiku barem do 2021. Dakle, politički izbori prikladni za poticanje novog rasta trebaju hrabru srednjoročnu perspektivu koja obuhvaća fazu oporavka od krize (Demertzis 2021). Stoga je razumijevanje dinamike poreznih prihoda ključno za bugarske kreatore politike i građane.

### 1.3 Ciljevi istraživanja

Cilj ovog istraživanja je predvidjeti prihode ostvarene porezom na dodanu vrijednost (PDV) i porezom na dohodak (personal income tax, PIT) za fiskalne godine 2020-2022. Pritom je ovaj rad predviđao i indikacije dane od MMF-ovog FAD-a i nove metodologije ESB-a.

Drugi odjeljak opisuje osnovni scenarij zanemarivanja pandemije i u kojem se politike ne mijenjaju značajno. U osnovi ove prognoze je tehnika poznata kao autoregresivni integrirani pokretni prosjek (*Autoregressive integrated moving average*, ARIMA).

Treći odjeljak nalazi u realniji scenarij, priznajući utjecaj pandemije i nastojeći uključiti učinke proizašle iz politika usvojenih za njezino suzbijanje. Ovdje procjene priznaju veći stupanj samovolje i osporljivosti zbog potrebnih „subjektivnih prilagodb“ radi objašnjavanja događaja koji „nisu zabilježeni modelom“ (IMF FAD 2020, 8) za osnovni scenarij. nude se obrazložene procjene za niz parametara koji se zatim unose u multivarijacijski regresijski model za predviđanje prihoda. Te se dvije prognoze zatim uspoređuju jedna s drugom i službenim vladinim prognozama iz proteklih godina. Modeli su

provjereni pomoću nekoliko statistika pogrešaka – uglavno *korijena srednje kvadratne pogreške* (*root mean squared error*, RMSE) –, Diebold-Marianova (DM) testa i *Theil's U* statistike (U<sub>1</sub>).

## 2. PODACI I METODOLOGIJA

### 2.1 Prikupljeni podaci

Korištene vremenske serije obuhvaćaju godine od 1995. do 2019. Dva predviđena scenarija pokušavaju predvidjeti prihod od poreza na dohodak (porez na dohodak) i prihod od poreza na dodanu vrijednost (PDV) u razdoblju 2020.-2022. Gdje je to potrebno zbog oskudnih podataka (npr. U vezi s trošarinama i carinama), u tekstu su objašnjene potrebne približne vrijednosti.

Prvo, ARIMA model za obje vremenske serije procjenjuje se sljedeći sve naznake koje nude glavna djela u literaturi (Tiao i Box 1981; Harvey i Todd 1983; Box i ostali 2016). Ovaj se pristup produktivno koristio u procjeni poreznih prihoda općenito u gospodarstvima u nastajanju (Streimikiene i ostali 2018) a posebno tranzicijske ekonomije (Legeida i Sologoub 2003).

Kad god bi treća varijabla trebala utjecati na prihod, uzročno-posljeđišna povezanost i usmjerenošć dokazuju se primjenom Granger-ovog (*G-causality*) testa (Granger 1969). Ova tehnika također pronalazi široku primjenjivost na analizu oporezivanja (Heckelman 2000; Tosun i Abizadeh 2005).

Konačno, robustnost modela procijenjena je putem RMSE (Nau 2014; Streimikiene i ostali 2018), DM testovi (Diebold i Mariano 2002), i *Theil's U* statistike (DoT Australia 2008).

### 2.2 Jedinstveni test korijena

Prvi je korak provjera stacionarnosti niza podataka. Postoje različiti načini kojima se dokazuje je li skup podataka stacionaran traženjem jediničnog korijena. Ovdje korišteni test proširenog Dickey-Fullera (ADF) vjerojatno je najčešći od takvih dokaza u akademskim krugovima do danas. (Dickey i Fuller 1979; 1981; Streimikiene i ostali 2018, 728).

$$\Delta y_t = u_t + \alpha + \beta_t + (\rho - 1)y_{t-1} + \sum_{i=1}^k \vartheta_i \Delta y_{t-i} \quad (1)$$

### 2.3 Multivarijantna linearna regresija

Postoji nekoliko načina za opis multivarijantne linearne regresije. Ono što je najvažnije, može se birati između skalarnog oblika i matrica. Odlučivši se za potonje, takav se model može izgraditi u nekoliko koraka (Arminger, Clogg, i Sobel 1995, 97) i sažeti u sljedeću jednadžbu:

$$y_i = X_i \beta + E_i \quad \text{for } i \in \{1, 2, \dots, n\} \quad (2)$$

Stacionarnost je korisno svojstvo s obzirom na ispunjavanje (ili prepostavku) da su ispunjene tri prepostavke multivarijantne regresije (Isto, 98–99).

### 2.4 Autoregresivni model integriranog pokretnog prosjeka (ARIMA)

Jedna od najboljih tehnika za predviđanje budućih vrijednosti u vremenskim serijama je ARIMA model. Njegova je osnova mješoviti postupak koji uključuje autoregresivnu (*autoregressive*, AR) i komponentu pokretnog prosjeka (*moving average*, MA). Element AR je takav da se "trenutna vrijednost procesa izražava kao konačni, linearni agregat prethodnih vrijednosti procesa i slučajni šok" (Box i ostali 2016, 8–9). Stacionarni AR postupak se podrazumijeva vraćanje (Kirchgässner, Wolters, i Hassler 2013, 44). Suprotno tome, MA komponenta izražava svako odstupanje od prošlih vrijednosti kao "linearno ovisno o konačnom broju prethodnih" vrijednosti (Box i ostali 2016, 9). Očito je da se MA procesi ne vraćaju u prosjek. Dakle, ARMA postupak djelomično apsorbira egzogene šokove putem AR komponente, dok ih trajno modificira zbog one MA. Model ARMA (p, q) se može generalizirati kao ARIMA (p, q) model gdje d određuje koliko se puta proces mora integrirati prije nego što postane miran.

### 2.5 Pogreške u prognozi

Za procjenu relevantnosti pogreške predviđanja ARIMA modela koriste se razne tehnike u odnosu na službene prognoze i alternativne modele: RMSE, koji se smatra „najpouzdanijim“ takvih pokazatelja (Streimikiene i ostali 2018, 731), *Theil's U* (DoT Australia 2008, 7ff) i DM testovi.

### 2.6 Granger-ov test uzročnosti

U rješavanju kako promjene ponašanja i politike izazvane pandemijom utječu na porezne prihode, potrebno je utvrditi uzročnost između varijabli. Tehnika koja je usvojena za to je test *G-causality* koji se temelji na uobičajenoj regresiji najmanjih kvadrata (Granger 1969).

## 3. PROCJENE I RASPRAVA

### 3.1 Stacionarnost

Stacionarnost podataka ključna je za korištenje ARIMA modela i drugih analognih tehnika. ADF test pokazuje da su i PDV i PDV nestalni na razini. Korijen jedinice može se ukloniti jednom diferencijacijom.

### 3.2 Osnovna prognoza

ARIMA model koristi se za potrebe predviđanja uzimajući u obzir cijelokupnu vremensku razliku u skupu podataka koja ide od 1995. do 2019. i za

PDV i za porez na dohodak. Funkcija autokorelacijske (auto-correlation function, ACF) i djelomični ACF (partial ACF) pokazuju da je model ARIMA (1,1,1) koji najbolje odgovara.

Na taj bi se način prihodi od poreza na dohodak od poreza na dohodak prognozirali u iznosu od 1,92 milijarde eura, s prosječnim godišnjim rastom od 7,87% u razdoblju 2020.-2022. Analogno tome, prihodi od PDV-a bili bi 5,78 milijardi eura i u prosjeku bi imali 6,68% godišnjeg rasta.

### 3.3 Scenarij politike - Približavanje stvarnosti

Alternativne prognoze moraju uzeti u obzir činjenicu da su ljudi fizički sprjećeni da napuste svoje domove, s nepredvidivim učincima na njihovu sposobnost zarade. Štoviše, budući da je sama izazvana, kriza postavlja nove upitnike. Istina, neki su sektori profitirali od trenutne situacije.

Međutim, nova radna mjesta mogu osigurati manje od trećine otkaza u naprednim gospodarstvima (Barrero, Bloom, i Davis 2020, 11) i nejednakost ovog "oporavka u obliku slova K" (Telarico 2021) je neporeciv.

Sveukupno, utjecaj na potrošnju i dohotke vjerojatno će biti još veći u manje razvijenim zemljama (Estupinan i Sharma 2020) smanjenjem 'sivih' aktivnosti koje siromašnim kućanstvima donose prihode od preživljavanja (Narula 2020). Štoviše, vjerojatnije je da će kriza pogoditi mlade i ženske radnike (Blustein i ostali 2020; Chakraborty 2020; ILO 2020).

### 3.4 Porez na dodanu vrijednost

PDV je glavni izvor poreznih prihoda za bugarski proračun. Njegovi regresivni učinci, zbog veće sklonosti siromašnih kućanstava da konzumiraju (Carroll i Kimball 1996; Carroll i ostali 2017; Morozumi i Acosta Ormaechea 2019; Fisher i ostali 2020), dobro su poznati i proučavani (Tamaoka 1994, 60–69; Kato 2003, 3). Međutim, pandemija je pokazala koliko potrošnja može biti fleksibilna prema dolje (Brinca, Duarte, i Faria-e-Castro 2020) kada egzogeni šok istovremeno pogda i potražnju i ponudu u brojnim sektorima (Guerrieri i ostali 2020). U predviđanju bugarskih prihoda od PDV-a teško je točno procijeniti kako će kolaps dolazaka stranaca i unutarnji turizam utjecati na prihode od PDV-a - uglavnom zbog nedostatka podataka. Štoviše, vlada je intervenirala snižavanjem stopa PDV-a na knjige, dječju hranu i pelene na pola fiskalne godine (Lex.bg's Editors 2020). Jedini podaci koje Nacionalni zavod za statistiku (NSI) objavljuje u vezi s dodanom vrijednošću (AV) prikupljaju se prema NACE kriterijima (EUROSTAT 2008, 57). Dakle, sljedeća alternativa kao polazište uzima elastičnost prihoda od PDV-a prema BDP-u i konačnoj potrošnji. Zatim se prihodi od PDV-a za 2009.-2019. Procjenjuju hranjenjem multivarijatno-regresijskog modela sa sažetkom BDP-a (tablica 3.), konačna potrošnja (EU Commission 2020, 175) i predviđanja C-učinkovitosti (Proračuni autora zasnovani na formuli prikazanoj u Keen 2013, 427ff). Granger test dokazuje uzročnost između svake od ovih neovisnih varijabli i prihoda od PDV-a.

**Tabela 2: Predviđanja BDP-a za Bugarsku i Eurozonu u 2020.-2022 bili su sumirani i proslijedeni na model**

(3.A)	Prognoza	Godina	Eurozona	Bugarska
Stvarni podaci	2019		1	
Jesen 2020*	2020		8	-5
Jesen 2020*	2021		4	20
Jesen 2020*	2022		3	4
Proljeće 2020*	2020		8	
Proljeće 2020*	2021		6	

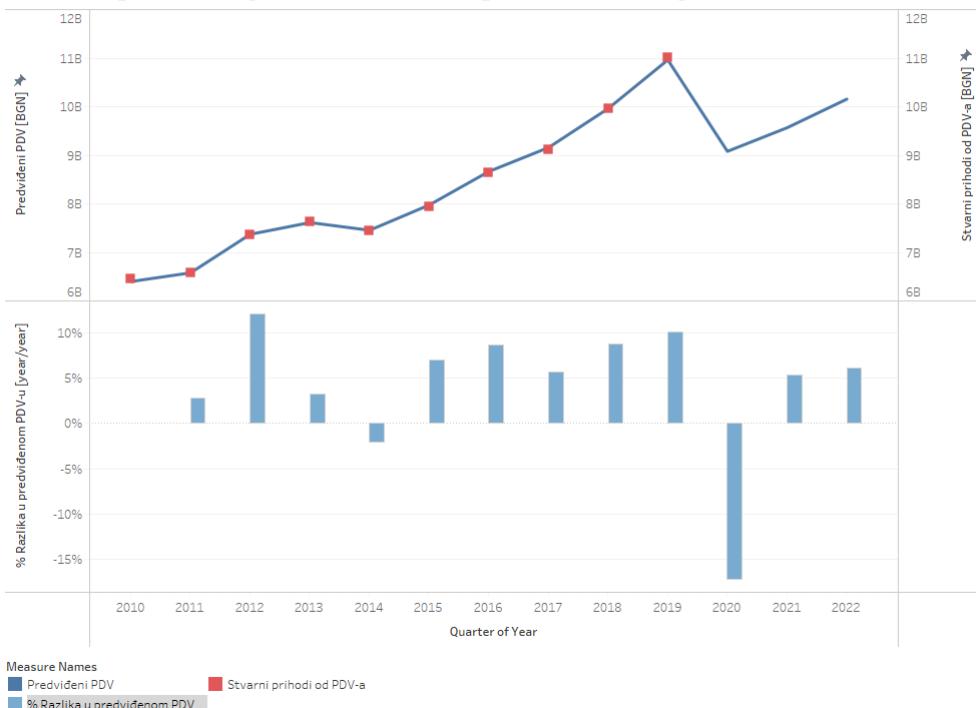
(3.B)	Prognozat	Godina	Eurozona (3.C)	Prognoza	godina
		2019			2019
Blago	2020	-5.90.%	Sažetak‡	2020	
Blago	2021	6.80%	Sažetak‡	2021	
Blago	2022	2.20%	Sažetak‡	2022	
Ozbiljne	2020	-12.60.%			
Ozbiljne	2021	3.30.%			
Ozbiljne	2022	3.80%			

**Tabela 2** Izvori: \* EUROSTAT (in EU Commission 2020, 172); ‡ ECB (2020); † Izračuni autora.

Na toj osnovi, prihodi od PDV-a u Bugarskoj mogli su pasti za čak 17% u 2020. Oporavak 2021. i 2022. bio bi prilično spor i nezadovoljavajući (5% odnosno 6%) , s prihodima koji su i dalje na 96% svojih 2019. razina do kraja 2022. Smanjenje usklađenosti i učinkovitost naplate - procijenjeno padom C-učinkovitosti - značilo bi pad prihoda od

PDV-a za 10% kao udio u BDP-u. U pozadini rastućih državnih izdataka (EU Commission 2020, 175) , pad prihoda od PDV-a vjerojatno bi doveo do proračunskih neravnoteža. Prema tome, trend rasta na koji su bugarski dug i deficit već postavljeni trebao bi se nastaviti.

**Grafikon 1:** Prema modelu multivarijatne regresije, očekuje se da će prihodi od PDV-a drastično pasti 2020. godine, a da se neće oporaviti do 2022. godine



**Grafikon 1** Izvori: Službeni podaci bugarske vlade, Izračuni autora.

### 3.5 Porez na dohodak

PIT je drugi najveći izvor poreznih prihoda za državni proračun. Jasno je da se odnos između dohotka i potrošnje ne odražava uvijek u većoj potrošnji; ipak, pad prihoda gotovo uvijek uzrokuje njegovo smanjenje (Diacon i Maha 2015; for transition economies see: Kolasa 2012) . U slučaju Bugarske, treba imati na umu da oko polovice kućanstava ovisi o dohotku od zaposlenja (47,2%) (EUROSTAT 2020b) . Dakle, pandemija je vjerojatno utjecala na život barem oko polovice bugarskih kućanstava.

Postoji samo nekoliko skupova podataka koji nude precizne podatke o utjecaju krize na razne vrste prihoda. Jedini takvi podaci za Bugarsku su EUROSTAT-ovi (2017) brze procjene o „nejednakosti dohotka i siromaštvo“. Zajedno sa strukturnim podacima o prihodima, mirovinama i socijalnim naknadama bugarskih kućanstava, ovi statistički podaci predstavljaju neovisne varijable

koje se koriste za model multivarijantne regresije. Ukupne mirovine (PEN) , ukupni socijalni transferi (SOC) i ukupni dohodak od zaposlenja (WAGE) izabrani su kao prediktori jer zajedno čine više od 99% prosječnog raspoloživog dohotka (NSI 2020c) .

Relativno je jednostavno da politike djeluju na čimbenike koji određuju prihode od poreza na dohodak. Zapravo je bugarska vlada uspostavila daljnji rad i druge programe zaštite plaća (Milcheva 2020; Draganov 2020) smanjenje negativnog utjecaja krize na dohodak od zaposlenja za otprilike trećinu (EUROSTAT 2020c) . Osim toga, Vlada je također ubrzala tempo povećanja mirovina (NOI 2020a; 2020b; see also Darik news' Editors 2020) . S obzirom na jasnu G-uzročnost PEN-a i SOC-a na prihodima od poreza na dohodak, poticaji pruženi putem ova dva kanala zasigurno će generirati porast potonjih. Štoviše, vrijedi napomenuti da ova dva izvora čine

više od polovice raspoloživog dohotka prosječnog bugarskog kućanstva (NSI 2020c).

Na kraju, nekoliko razmatranja o predviđanjima uloženo u model i prikazano u Table (on page 23). EUROSTAT (2020c; 2020a) predviđa pad bugarskih plaća u iznosu od 3,12% u 2020. S obzirom na to da su plaće povijesno vrlo elastične za rast, predviđene vrijednosti BDP-a koriste se za procjenu rasta WAGE: 1,43% u 2021. i 4,92% u 2022. Koristeći nedavne službene podatke (NOI 2021), rast mirovina predviđa se 15,79% u 2020. Pod pretpostavkom da će 2021. doći do

reindeksiranja mirovina (Trud's Editors 2020) ili drugi izraziti porast (Nikolova 2020; Blitz's Editors 2021), brojka se iznosi 18%. Zatim, prepostavljući povratak u normalu 2022. godine, rast PEN-a vezan je za rast BDP-a koji doseže 0,43%. Napokon, prepostavlja se da socijalni doprinosi prerastaju njihov trend rasta (EUROSTAT 2021b) opskrbiti za oko 30% pada plaća u 2020. Kako plaće postaju dinamičnije 2021. godine, trend se izravnava prema dolje, padajući sa 7,63% na 5,80%. Zbog održivog rasta BDP-a, pretkrizni trend trebao bi se nastaviti 2022. - kada će rast SOC-a biti 5,86%.

**Tabela 3 : Sažetak prognoza za tri odrednice prihoda od poreza na dohodak od poreza na dohodak u Bugarskoj**

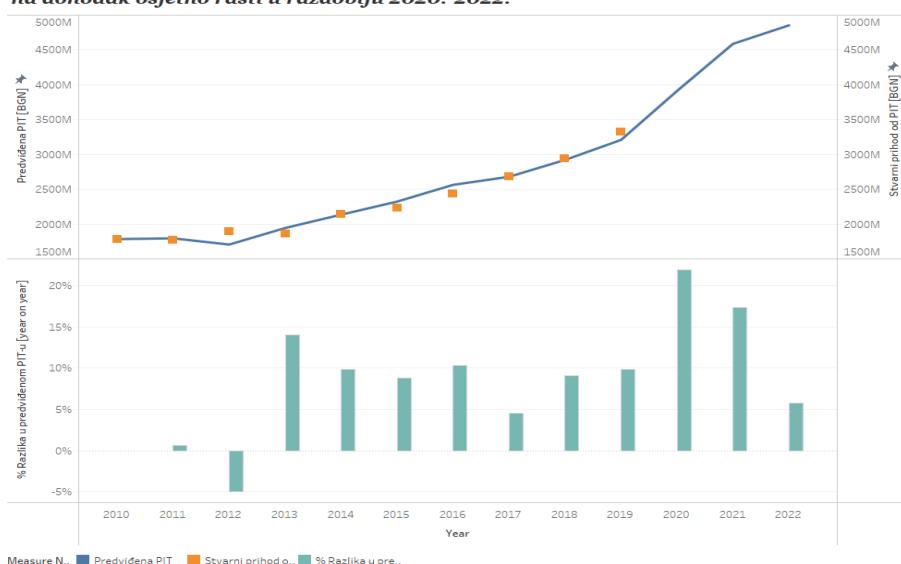
	$\Delta \text{SOC}$	$\Delta \text{WAGE}$	$\Delta \text{PEN}$	$\Delta \text{GDP}$
2010				
2011	1,15%	5,21%	0,73%	
2012	0,97%	13,30%	-1,54%	
2013	7,81%	9,86%	4,39%	
2014	4,94%	5,45%	4,41%	
2015	3,91%	10,12%	9,17%	
2016	3,77%	-6,16%	1,52%	
2017	2,95%	12,38%	7,25%	
2018	5,30%	-0,37%	0,86%	
2019	6,13%	8,24%	6,00%	
2020	7,63%	-3,27%	15,79%	-3,12%
2021	5,80%	1,43%	18,00%	1,36%
2022	5,86%	4,92%	0,43%	4,69%

**Tabela 2** Izvori: EUROSTAT (2020c; 2020a; 2021b), NOI (2021), NSI (2020c) Izračuni autora.

Na toj osnovi prihodi od poreza na dohodak u Bugarskoj mogli su narasti za čak 22% u 2020. Ekonomski oporavak 2021. i 2022. trebao bi omogućiti daljnji rast prihoda za oko 17%,

odnosno 20% u 2021. i 2022. godini. Do kraja trogodišnjeg razdoblja prihodi od poreza na dohodak bili bi 51% veći nego 2019.

**Grafikon 2: Prema modelu multivarijatne regresije, očekuje se da će prihodi od poreza na dohodak osjetno rasti u razdoblju 2020.-2022.**



**Grafikon 1** Izvor: Autorski izračuni.

### 3.6 Ukupna pogreška u predviđanju prihoda

Statistika prognoze i pogreške sažeta u Table 4 (on page 24) potvrđuju jasnu superiornost multivarijacijskih regresijskih modela i za porez na dohodak (ploča A) i za PDV (ploča B). U usporedbi sa službenim prognozama (MinFin na RB 2016), multivarijacijski regresijski modeli prolaze bolje od 'osnovne' ARIMA-e (1,1,1). Prvi ima manji RMSE, srednju pogrešku (ME), srednju kvadratnu pogrešku (MSE), srednju apsolutnu pogrešku (MAE), srednju postotnu pogrešku

(MPE), srednju apsolutnu postotnu pogrešku (MAPE) i standardizirani MAPE od bilo koje od dvije alternative. DM i Theil-ovi U testovi potvrđuju ove rezultate. Suprotno tome, ARIMA model ima slabiju službenu statistiku prema svim pokazateljima, osim MSE i RMSE. Zanimljivo je da službene prognoze ne pokazuju pristrandost prema gore za koju su neki tvrdili (Frankel 2011; Frankel i Schreger 2013).

**Tabela 4: Statistika pogrešaka u prognozi pokazuje da model multivarijatne regresije daje najpreciznije prognoze, nadmašujući čak i službene podatke**

(5.A)	Regresija	ARIMA(1,1,1)	Službeni podaci	(5.B)	Regresija	ARIMA(1,1,1)	Službeni podaci
ME	-18.854	-319.999	-239.283	ME	-10.389	711.099	649.652
MSE	7739.543	103010.139	105141.235	MSE	1075.783	551230.665	636294.484
RMSE	87.975	320.952	324.255	RMSE	32.799	742.449	797.681
MAE	71.670	319.999	287.667	MAE	29.892	711.099	649.652
MPE	-0.011	-0.119	-0.101	MPE	-0.001	0.075	0.065
MAPE	0.027	0.119	0.115	MAPE	0.003	0.075	0.065
SMAPE	0.027	0.112	0.107	SMAPE	0.003	0.078	0.068
U <sub>t</sub>	0.016	0.055	0.057	U <sub>t</sub>	0.002	0.041	0.044

**Tabela 4** Izvor: Autorski izračuni.

Da su i prognoze PDV-a i poreza na dohodak sustavno pouzdanije od sofisticiranih osnovnih procjena i službenih podataka, može dovesti do dva zapažanja. Prvo, uobičajena pretpostavka o rastu BDP-a može se gotovo sigurno održati u znaku i vjerojatno u redoslijedu veličine. Drugo, i što je još važnije, uključivanje još nekoliko varijabli vjerojatno će poboljšati točnost prognoza unatoč velikoj nesigurnosti gdje se razumne procjene za prvu mogu induktivno uspostaviti.

#### 4. ZAKLJUČCI

##### 4.1 Rasprava o stvarnim i predviđenim poreznim prihodima

Chart 1 (on page 22) i Chart 2 (on page 23) prikazuju stvarne i prognozirane prihode od PDV-a i poreza na dohodak za razdoblje 2010–2022. Isti podaci prikazani su u tablici 6 (dolje), gdje su jasno vidljivi neki trendovi.

**Tabela 5: Rezultati multivarijantne regresijske procjene za PIT (6.A) i PDV (6.B)**

(6.A)	Predviđena PIT	Ostaci	Δ Predviđena PIT	Δ SOC	Δ PEN	(6.B)	Predviđena VAT	Ostaci
2010	1.78B	-192,088,057				2010	6.4B	-52.5M
2011	1.8B	-1,935,716	10.65M	101.56M	55.85M	2011	6.6B	4.2M
2012	1.71B	21,089,318	-89.25M	87.02M	-119.55M	2012	7.4B	1.8M
2013	1.94B	85,976,532	238.56M	706.38M	334.33M	2013	7.6B	-9.8M
2014	2.14B	-7,312,450	191.21M	481.33M	350.81M	2014	7.5B	4.4M
2015	2.32B	88,225,181	187.48M	400.16M	761.98M	2015	8B	36.2M
2016	2.56B	134,736,768	240.2M	401.03M	138.3M	2016	8.7B	26.5M
2017	2.68B	3,347,237	116.26M	325.15M	667.88M	2017	9.2B	38M
2018	2.92B	-21,121,157	242.19M	601.72M	84.57M	2018	10B	-5.2M
2019	3.21B	-110,917,657	286.69M	733.83M	597.5M	2019	11B	-43.5M
2020	3.91B		702.55M	968.54M	1.67B	2020	9.1B	
2021	4.59B		677.69M	793.17M	2.2B	2021	9.6B	
2022	4.85B		265.27M	847.63M	61.41M	2022	10.2B	

**Tabela 5** Izvori: Službeni podaci bugarske vlade, Izračuni autora

Za početak, prihodi od poreza na dohodak ne moraju nužno biti dobre vijesti za sve one kojima jeстало до uravnoveženja proračuna. Zapravo, procijenjeni rast socijalnih transfera i mirovinata znatno bi nadoknadio ove dobitke i čak prouzročio

rupu od 2,5 milijardi eura na rashodnoj strani. Kao što je gore primjećeno u vezi sa padom prihoda od PDV-a, izgledna je mogućnost da će Bugarski dug i deficit porasti u sljedećim godinama. Istina, reputacija Bugarske kao 'fiskalno odgovorne'

zemlje (Petkov 2014) , njegova je još uvijek mala zaliha obveza (Hsing 2020) i valutni odbor čine kratkoročne deficite održivima. Međutim, ako bi se dug povećao i - kako se očekuje - međunarodno niska kamatna stopa bi pukla (Amadeo 2021; Domm 2021; Mackenzie 2021) , rizik valutne krize uzrokovane dugom mogao bi ponovno postati veliki. Štoviše, smanjenje poreznih prihoda može uzrokovati ili povišenje stope. S obzirom na izrazitu regresivnost bugarskog poreznog režima (due to the adoption of flat-rate taxation across the board — Cf. Gaddy i Gale 2005; ECB 2007; OECD 2020) , takav postupak može prejudicirati sposobnost siromašnih kućanstava da se oporave od krize.

## ZAKLJUČAK

Ova studija omogućuje usporedbu učinkovitosti dva različita modela vremenskih serija i nagovještaj multivarijatne regresije kao boljeg alata za predviđanje tijekom pandemije radi veće fleksibilnosti. Štoviše, gore prikazane procjene pružaju perspektivni pogled na budućnost zemlje - zasigurno okvirnu, ali bez obzira na to zabrinjavajuću. Neki od tih podataka zapravo ne daju ništa osim davanja uvida u mjeru u kojoj je pandemija suočena s ionako hitnim strukturnim pitanjima bila neizbjegna za bilo koju političku silu. Da modeli multivarijacijske regresije nude bolje prognoze od vladinih službenih izvora, pokazuje neispravnost alata kojima bugarski kreatori politike stoje na raspolaganju u tako osjetljivom trenutku.

## Ograničenja studije

Poduzeta studija ima nekoliko ograničenja. Primjerice, zbog valutnog odbora, slučaj Bugarske nudi prednost ignoriranja egzogenih šokova koji se mogu probiti de- ili aprecijacijom tečaja. Dakle, buduće istraživačke studije mogu uključiti monetarne čimbenike u svoje procjene.

Nadalje, nije bilo moguće slijediti mnoge preporuke FF-a MMF-a zbog nedostatka podataka. Što je najvažnije, kada je riječ o prihodima od PDV-a, bilo je nemoguće pridržavati se sektorske procjene porezne osnovice jer ni poštivanje NSI-a i EUROSTAT-a kriterija NASE-a ne otežava prepoznavanje konkretnih klastera djelatnosti (npr. turizma). Nedostatak skupova podataka visoke frekvencije također je prepreka u pokušaju razmatranja drugih makroekonomskih pokazatelja poput inflacije i nezaposlenosti. Ovu su zapreku djelomično zaobišli preusmjeravanjem analize na korelirane varijable (tj. dohodak od zaposlenja kao zamjenski pokazatelj za nezaposlene i nedovoljno zaposlene). Ipak, daljnja istraživanja mogu nastojati istražiti ovo područje.

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## SUMMARY

Tax analysis and forecasting of revenues is of paramount importance to ensure the viability and sustainability of fiscal policy. However, the measures taken to contain the spread of the recent pandemic pose an unprecedented challenge. This paper proposes a model to forecast tax revenues in Bulgaria for the fiscal years 2020–2022 built in accordance with the International Monetary Fund's recommendations. This study allows to compare two different time series models' effectiveness. The outcomes hint at multivariate regression as a better tool for forecasting during the pandemic for its greater flexibility. Moreover, the estimates shown above provide a perspective look at the country's future — surely a sketchy one, but troubling nonetheless. Some of these data actually do nothing but offer insights into the extent to which the pandemic has made facing already-pressing structural issues unavoidable for any political force. That the multivariate regression models offer better forecasts than the government's official sources demonstrates the inaptness of the tools at Bulgarian policymakers' disposal in such a delicate juncture.

## FORECASTING PANDEMIC TAX REVENUES IN A SMALL, OPEN ECONOMY: THE CASE OF BULGARIA

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**Abstract:** Tax analysis and forecasting of revenues are of paramount importance to ensure fiscal policy's viability and sustainability. However, the measures taken to contain the spread of the recent pandemic pose an unprecedented challenge to established models and approaches. This paper proposes a model to forecast tax revenues in Bulgaria for the fiscal years 2020–2022 built in accordance with the International Monetary Fund's recommendations on a dataset covering the period between 1995 and 2019. The study further discusses the actual trustworthiness of official Bulgarian forecasts, contrasting those figures with the model previously estimated. This study's quantitative results both confirm the pandemic's assumed negative impact on tax revenues and prove that econometrics can be tweaked to produce consistent revenue forecasts even in the relatively-unexplored case of Bulgaria offering new insights to policymakers and advocates.

**Key words:** Forecast, taxation, VAT, personal income tax, Bulgaria

### 1. INTRODUCTION

#### 1.1. How the pandemic is changing forecasts

Over the last year or so, official and academic forecasts' inability to correctly predict at least the general trend behind upcoming developments has eroded confidence. So much that the Fiscal Affairs Department (FAD) of the International Monetary Fund (IMF) warned that the most often employed techniques to forecast tax revenue will not suffice to grasp the major decline in tax revenue that the pandemic will cause in most countries. (IMF FAD 2020, 1).

Similar issues have already puzzled the economic-policy establishment for a while now. Hence, new fiscal-forecasting models can take advantage of the

important steps towards new models (Demertzis and Viegi 2008; Brubakk and Sveen 2009; Alessi et al. 2014) in the area of monetary-policy forecasting (Demertzis and Viegi 2020; Demertzis and Dominguez-Jimenez 2020). Yet, this vast knowledge is not a solution *per se* as it does nothing to reduce the novelty of the ways in which the pandemic is – and will continue – affecting the economy. Moreover, looking across the fence cannot be the solution since tax-revenue forecasting manifests more than a few peculiarities. Hence, this paper tries to put in place a workable approach to tax revenue forecasting by combining the FAD's recommendations with insights from non-fiscal forecasting.

#### 1.2 Background of the study

This paper focuses on Bulgaria, a small, open and relatively backward economy. Despite EU membership, the country coins its own currency: The Bulgarian Lev (BGN). The BGN is pegged to the Euro (€) at a fixed exchange rate (BGN 1.98 for €1) (NS-RB 2020).

In 2019, GDP was around €60bln (NSI 2020b) or €8,701 per-capita (NSI 2020a). Bulgaria is the poorest EU country in Purchasing Power Standards, standing at 53% of the EU average (EUROSTAT 2021a). Furthermore, the documented economy does not represent the entirety of Bulgarians' activities given that estimates put the grey economy around 21% of GDP (Ivanov 2021), with peaks for employment (Toteva 2021) and tobacco up to 50% (*Mediapool.bg*'s Editors 2020).

In the past decade (2009–2019), tax revenues grew on average by 2.45% on a yearly basis. These figures lag far behind the average 5.10% yearly GDP growth over the same period. Thus, the tax-to-GDP ratio has decreased steadily by more than 6.5% touching the bottom in 2015. Bulgaria's tax

revenues are also underperforming in comparison to EU countries which are members of the OECD, but not of the Eurozone. There, in the 2010s, nominal tax revenues have risen as a share of GDP by an average 3.25% annum.

The revenue disaggregation in TABLE 1 **Error! Bookmark not defined.** shows that there was a partial improvement in tax revenues across the board in 2019. However, this development was a carry-over of the GPD's sheer positive dynamics

(NSI 2020b) rather than being driven by policy. Moreover, this pick-up brought relatively few funds and the fiscal multipliers are going to be smaller in any case (Karagyozova-Markova, Deyanov, and Iliev 2013, 30). Fiscal policy's ineffectiveness is partly due to the high degree of informality, which determines difficulties in tax collection (Rosser, Rosser, and Ahmed 2000, 160) as well as revenue mobilisation (Dellas et al. 2017).

**Table 1: The decay of Bulgaria's tax revenue was on a recovery trajectory in 2019, but still far from 2009 levels**

Revenue-to-GDP ratio for the main taxes in Bulgaria in 2015-2019 compared to their 2009 level

Taxes	2015	2016	2017	2018	2019
Customs duties and taxes	67	69	70	79	98
Tax on insurance premiums*	167	173	155	178	196
Excise duty	98	108	107	108	112
Value added tax	83	89	85	93	104
Personal income taxes	120	122	120	131	151
Taxes on dividends, liquidation shares and income of legal entities	52	68	36	40	57
Corporate tax	63	69	73	83	93
Minor taxes	56	59	55	61	66

\* 2009=100 for each indicators, except for the tax on insurance premiums had not been introduced yet (2011=100).

**TABLE 3** Source: *Law on the State Budget of the Republic of Bulgaria* for 2010; 2016; 2017; 2018; and 2019.

However, the crisis induced by anti-contagion measures is almost certain to cause significant tax revenue losses. With all probability, no recover will be in sight until at least 2021. Thus, policy choices apt to spur new growth need a brave mid-term perspective embracing the postcrisis *recovery* phase (Demertzis 2021). Thus, understanding tax revenues' dynamics is vital for Bulgarian policymakers and citizens.

### 1.3 Research's aims

The objective of this research is to forecast the revenues generated by the value added tax (VAT) and the personal income tax (PIT) for the fiscal years 2020–2022. In doing so, this paper is

prescient of both the indication provided by the IMF's FAD and the ECB's new methodology.

The second section describes a *baseline* scenario ignoring the pandemic and in which policies do not change significantly. The technique known as Autoregressive Integrated Moving Average (ARIMA) underlies this forecast.

The third section dives into a more *realistic* scenario, acknowledging the pandemic's impact and endeavouring to incorporate the effects stemming from the policies adopted to contain it. Here, estimates admit a greater degree of arbitrariness and contestability because of the necessary "subjective adjustments" to account for events which "are not captured by the model" (IMF FAD 2020, 8) for the baseline scenario.

Reasoned estimates are offered for a series of parameters then fed into a multivariate regression model to forecast revenues. These two forecasts are then compared to one another and to official governmental forecasts from the past years. The models are verified by several error statistics (mainly *root mean squared error*, RMSE), the *Diebold-Mariano* (DM) test, and *Theil's U* statistic ( $U_1$ ).

## 2. Data and methodology

### 2.1 Collected data

The time series used cover the years from 1995 to 2019. The two forecasted scenarios attempt to predict personal income tax revenue (PIT) and value added tax revenue (VAT) in 2020–2022. Where needed because of scarce data (e.g., regarding excises and customs duties), necessary approximations are explained in the text.

First, the ARIMA model for both time series is estimated following all indications offered by the main works in the literature (Tiao and Box 1981; Harvey and Todd 1983; Box et al. 2016). This approach has been employed productively in the estimation of tax revenue for emerging economies in general (Streimikiene et al. 2018) and transition economies in particular (Legeida and Sologoub 2003).

Whenever a third variable is supposed to effect revenue, causation and directionality are proved applying the Granger (G-causality) test (Granger 1969). This technique also finds wide applicability to the analysis of taxation (Heckelman 2000; Tosun and Abizadeh 2005).

Finally, models' robustness were evaluated through RMSE (Nau 2014; Streimikiene et al. 2018), DM tests (Diebold and Mariano 2002), and Theil's U (DoT Australia 2008).

### 2.2 Unit root test

The first step is to verify the data series' stationarity. There are various means to proves whether a set of data is stationary by looking for a unit root. The Augmented Dickey–Fuller (ADF) test used here is probably the most widely of such proofs in academia to date (Dickey and Fuller 1979; 1981; Streimikiene et al. 2018, 728).

$$\Delta y_t = u_t + \alpha + \beta_t + (\rho - 1)y_{t-1} + \sum_{i=1}^k \vartheta_i \Delta y_{t-i} \quad (1)$$

### 2.3 Multivariate linear regression

There are several ways to describe a multivariate linear regression. Most notably, one can choose

between the scalar form and matrixes. Opting for the latter, such a model can be built in a few steps (Arminger, Clogg, and Sobel 1995, 97) and summarised in the following equation:

$$y_i = X_i \beta + E_i \quad \text{for } i \in \{1, 2, \dots, n\} \quad (2)$$

Stationarity is a useful property in regard to meeting (or supposing) the three assumptions of multivariate regression are met (*Ibid.*, 98–99).

### 2.4 Autoregressive integrated moving average (ARIMA) model

One of the best techniques to forecast future values in time series is the ARIMA model. Its basis is a mixed process including an autoregressive (AR) and a moving average (MA) component. The AR element is such that “the current value of the process is expressed as a finite, linear aggregate of previous values of the process and a random shock” (Box et al. 2016, 8–9) A stationary AR process is by *mean reverting* (Kirchgässner, Wolters, and Hassler 2013, 44). By contrast, the MA component expresses each deviation from past values as “linearly dependent on a finite number  $q$  of previous” values (Box et al. 2016, 9). Obviously, MA processes are not mean-reverting. Thus, ARMA process partially absorb exogenous shocks via the AR component while being permanently modified by them due to the MA one. The  $ARMA(p, q)$  model can be generalised as an  $ARIMA(p, q)$  model where  $d$  determines the number of times the process has to be integrated before becoming stationary.

### 2.5 Forecast errors

Various techniques are employed to assess the relevance of the ARIMA model's forecasting error in comparison to official forecasts and alternative models: RMSE, which is considered as the “most reliable” of such indicators (Streimikiene et al. 2018, 731), Theil's U test (DoT Australia 2008, 7ff), and the DM test.

### 2.6 Granger causality test

In addressing how the behavioural and policy changes induced by the pandemic affect tax revenues it is necessary to establish causality between variables. The technique adopted to do so is the G-causality test, which is based on ordinary least squares regression (Granger 1969).

## 3. Estimations and discussion

### 3.1 Stationarity

Data stationarity is essential to then employ the ARIMA model and other analogous techniques.

The ADF test shows that both VAT and PIT are non-stationary at level. The unit root can be removed by differencing once.

### 3.2 Baseline forecast

The ARIMA model is used for forecasting purposes by taking into account the entire time first difference of the dataset going from 1995 to 2019 for both VAT and PIT. The auto-correlation function (ACF) and the partial ACF shows the best-fitting model is an **ARIMA(1,1,1)**.

In this way, PIT revenues in 2020 would be forecasted at €1.92bln, with an average yearly growth of 7.87% in 2020–2022. Analogously, VAT revenues would be €5.78bln and average a 6.68% yearly growth.

### 3.3 Policy scenario — Approximating reality

The alternative forecasts need to account for the fact that people were physically prevented from leaving their homes, with unpredictable effects on their capability to earn an income. Moreover, being self-induced, the crisis poses novel interrogatives. True, some sectors are benefitting from the current situation. However, new jobs can supply for less than a third of total dismissals in advanced economies (Barrero, Bloom, and Davis 2020, 11) and the unequalness of this “K-shaped recovery” (Telarico 2021) is undeniable.

Overall, the impact on consumption and incomes is likely to be even bigger for less-developed countries (Estupinan and Sharma 2020) by the reduction of ‘grey’ activities which grant survival incomes to poorer households (Narula 2020). Moreover, young and female workers are more

likely to be hit by the crisis (Blustein et al. 2020; Chakraborty 2020; ILO 2020).

#### 3.4 Value-added tax

The VAT is the main source of tax revenue for Bulgaria’s budget. Its regressive effects, due to poor households’ higher propensity to consume (Carroll and Kimball 1996; Carroll et al. 2017; Morozumi and Acosta Ormaechea 2019; Fisher et al. 2020), are well-known and studied (Tamaoka 1994, 60–69; Kato 2003, 3). However, the pandemic has shown how downward-flexible consumption can be (Brinca, Duarte, and Faria-e-Castro 2020) when an exogenous shock strikes at the same time both demand and supply across a number of sectors (Guerrieri et al. 2020). In forecasting Bulgaria’s VAT revenues, it is difficult to estimate exactly how the collapse in foreigners’ arrivals and internal tourism will affect VAT revenues — mainly because of a lack of data. Moreover, the government has intervened by lowering VAT rates on books, children’s food, and diapers halfway into the fiscal year (Lex.bg’s Editors 2020). The only data the National Statistical Institute (NSI) releases regarding added value (AV) are aggregated according to NACE criteria (EUROSTAT 2008, 57).

Thus, the following alternative takes as a starting point VAT revenues’ elasticity to GDP and final consumption. Then, VAT revenues for 2009–2019 are estimated by feeding a multivariate-regression model with a summary of GDP (TABLE 3), final-consumption (EU Commission 2020, 175) and C-efficiency forecasts (Author’s calculations based on the formula shown in Keen 2013, 427ff). The granger test proves causality between each of these independent variables and VAT revenues.

**Table 3: GDP forecasts for Bulgaria and the Euro Area in 2020–2022 were summarised and fed to a multivariate-regression model**

(3.A)	Forecast	Year	Euro Area	Bulgaria
Actual data	2019		1%	
Autumn 2020*	2020		-8%	-5%
Autumn 2020*	2021		4%	3%
Autumn 2020*	2022		3%	4%
Spring 2020*	2020		-8%	
Spring 2020*	2021		6%	

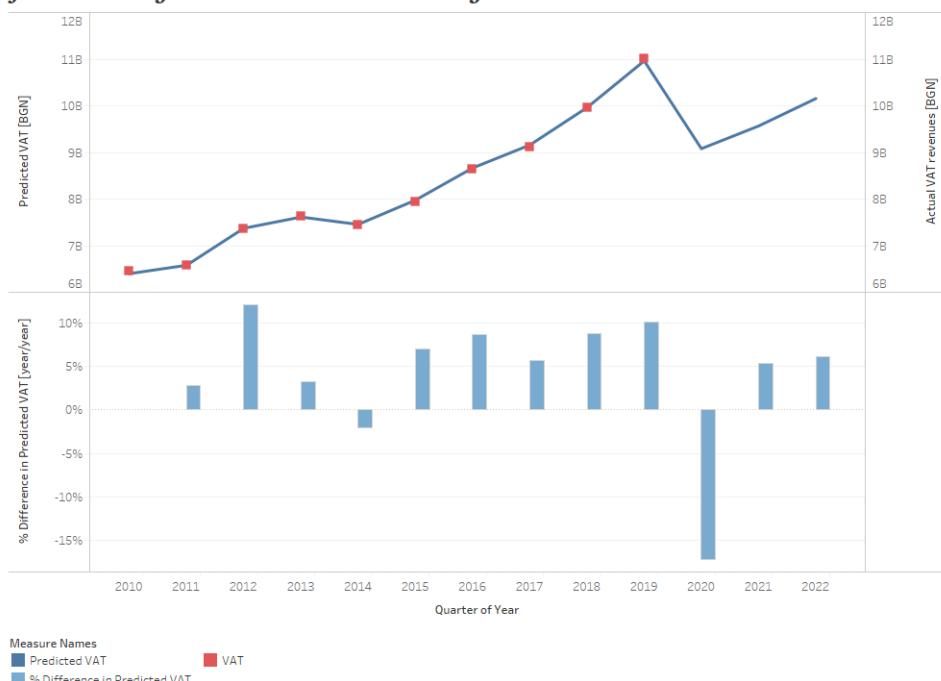
(3.B)	Forecast	Year	Euro Area	(3.C)	Forecast	Year	BGR
		2019				2019	
Mild†	2020		-6%	Summary‡	2020	-3%	
Mild†	2021		7%	Summary‡	2021	1%	
Mild†	2022		2%	Summary‡	2022	5%	
Severe†	2020		-13%				
Severe†	2021		3%				
Severe†	2022		4%				

**TABLE 2** Sources: \*EUROSTAT (in EU Commission 2020, 172); † ECB (2020); Author’s calculations.

On this basis, VAT revenues in Bulgaria could have fallen by as much as 17% in 2020. The recovery in 2021 and 2022 would be rather slow and unsatisfying (5% and 6% respectively), with revenues still at 96% of their 2019 level by the end of 2022. A reduction in compliance and collection efficiency – estimated through a drop in C-Efficiency – would mean a 10% fall in VAT

revenues as a share of GDP. Against the background of growing government expenditures (EU Commission 2020, 175), a decline in VAT revenues would probably lead to budget disbalances. Thus, the upward trend on which Bulgaria's debt and deficit were already set should persist.

**Chart 2:** According to the multivariate-regression model, VAT revenues are expected to fall drastically in 2020 and not to recover by 2022



**Chart 1** Sources: Official data of the Bulgarian government, Author's calculations.

### 3.5 Personal Income Tax

PIT is the second largest source of tax revenue for the State's budget. Clearly, the relation between income and consumption does not always translate in more consumption; yet, falling incomes almost always cause the latter's contraction (Diacon and Maha 2015; for transition economies see: Kolasa 2012). In the case of Bulgaria, one needs to remember that about half of the households depend on employment income (47.2%) (EUROSTAT 2020b). Thus, the pandemic has likely impacted the livelihood of, at least, about half of Bulgarian households.

There are only a few datasets offering fine-grained data on the crisis's impact on various sorts of income. The only such data for Bulgaria are EUROSTAT's (2017) *flash estimates* on "income inequality and poverty". Together with structural data on Bulgarian households' income, pension and social benefits, these statistics represent the

independent variables used to feed a multivariate-regression model. Total pensions (PEN), total social transfers (SOC) and total employment income (WAGE) were chosen as predictors because taken together, they account for over 99% of average disposable income (NSI 2020c).

It is relatively easy for policies to act on the factors determining PIT revenues. In fact, the Bulgarian government established a furlough and other wage-protection schemes (Milcheva 2020; Draganov 2020) reducing the crisis's negative effect on employment incomes by about a third (EUROSTAT 2020c). Besides that, the government has also accelerated the tempo of pensions' increase (NOI 2020a; 2020b; see also Darik news' Editors 2020). Given PEN's and SOC's clear G-causality on PIT revenues, the stimuli provided through these two channels are sure to generate an increase in the latter. Moreover, it is worth noting that these two sources account

for more than half of the average Bulgarian household's disposable income (NSI 2020c).

Lastly, a few considerations on the forecasts fed into the model and shown in TABLE (below). EUROSTAT (2020c; 2020a) foresees Bulgarians' wages falling 3.12% in 2020. Given that wages are historically very elastic to growth, forecasted GDP

values are employed to estimate WAGE's growth: 1.43% in 2021 and 4.92% in 2022. Using the recent official data (NOI 2021), pensions' growth is posited to be 15.79% in 2020. Assuming that in 2021 there will be a reindexing of pensions (Trud's Editors 2020) or another marked increase (Nikolova 2020; Blitz's Editors 2021), the figure is put at 18%.

**Table 4: Summary of forecasts for the three determinants of PIT revenues in Bulgaria**

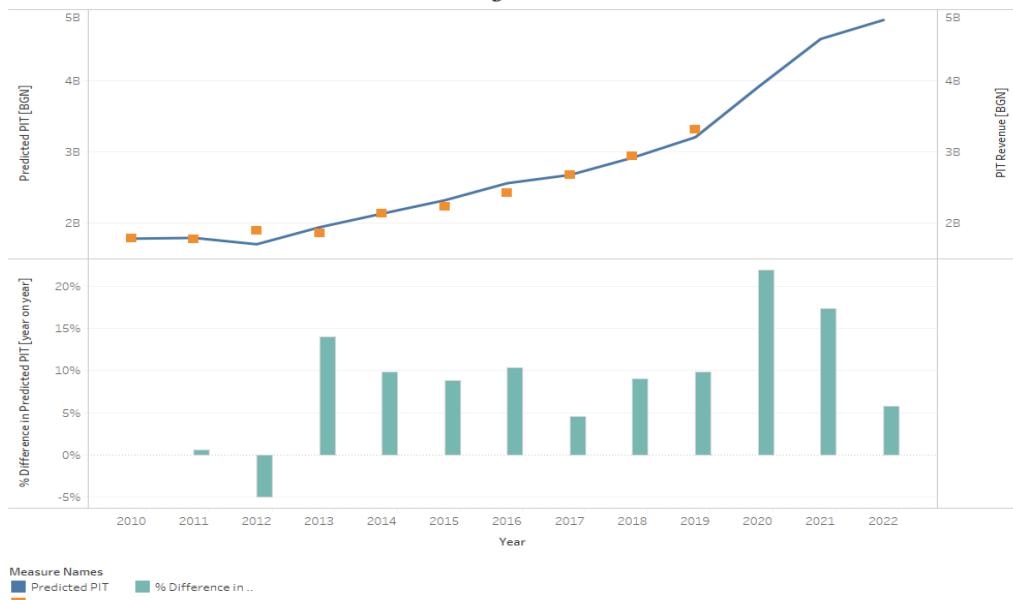
	$\Delta \text{SOC}$	$\Delta \text{WAGE}$	$\Delta \text{PEN}$	$\Delta \text{GDP}$
2010				
2011	1.15%	5.21%	0.73%	
2012	0.97%	13.30%	-1.54%	
2013	7.81%	9.86%	4.39%	
2014	4.94%	5.45%	4.41%	
2015	3.91%	10.12%	9.17%	
2016	3.77%	-6.16%	1.52%	
2017	2.95%	12.38%	7.25%	
2018	5.30%	-0.37%	0.86%	
2019	6.13%	8.24%	6.00%	
2020	7.63%	-3.27%	15.79%	-3.12%
2021	5.80%	1.43%	18.00%	1.36%
2022	5.86%	4.92%	0.43%	4.69%

**TABLE 3** Sources: EUROSTAT (2020c; 2020a; 2021b), NOI (2021), NSI (2020c) Author's calculations.

Then, supposing a return to normality in 2022, PEN's growth is pegged to GDP growth reaching 0.43%. Finally, social contributions are assumed to overgrow their upward trend (EUROSTAT 2021b) to supply for about 30% of the fall in salaries in 2020. As wages get more dynamic in 2021, the trend is smoothed somewhat downward, falling from 7.63% to 5.80%. Due to sustained GDP growth, the precrisis trend should resume in 2022

— when SOC's growth will be 5.86%. On this basis, PIT revenues in Bulgaria could have grown by as much as 22% in 2020. The economic recovery in 2021 and 2022 should allow for a further increase in revenues by about 17% and 6% in 2021 and 2022, respectively. By the end of the triennium, PIT revenues would be 51% higher than in 2019.

**Chart 4: According to the multivariate-regression model, PIT revenues are expected to rise sensibly in 2020-2022**



**Chart 2** Source: Author's calculations.

### 3.6 Total revenue forecasting error

The forecast-error statistics summarised in TABLE 4 (below) affirm the multivariate regression models' clear superiority for both PIT (panel A) and VAT (panel B). In comparison with official forecasts (MinFin na RB 2016), the multivariate regression models fare better than the 'baseline' ARIMA(1,1,1). The former has a smaller RMSE, median error (ME), median square error (MSE),

mean absolute error (MAE), mean percentage error (MPE), mean absolute percentage error (MAPE) and standardised MAPE than either of the two alternatives. The DM and Theil's U tests confirm these results. Conversely, the ARIMA model underperforms official statics under all indicators but MSE and RMSE. Interestingly, official forecasts do not show the upwards bias alleged by some (Frankel 2011; Frankel and Schreger 2013).

**Table 5: Forecast errors statistics show that the multivariate-regression model is the most precise of the alternatives presented here**

(5.A)	Regression	ARIMA(1,1,1)	Official data	(5.B)	Regression	ARIMA(1,1,1)	Official data
ME	-18.854	-319.999	-239.283	ME	-10.389	711.099	649.652
MSE	7739.543	103010.139	105141.235	MSE	1075.783	551230.665	636294.484
RMSE	87.975	320.952	324.255	RMSE	32.799	742.449	797.681
MAE	71.670	319.999	287.667	MAE	29.892	711.099	649.652
MPE	-0.011	-0.119	-0.101	MPE	-0.001	0.075	0.065
MAPE	0.027	0.119	0.115	MAPE	0.003	0.075	0.065
SMAPE	0.027	0.112	0.107	SMAPE	0.003	0.078	0.068
U <sub>1</sub>	0.016	0.055	0.057	U <sub>1</sub>	0.002	0.041	0.044

**TABLE 4** Source: Author's calculations.

That both VAT and PIT forecasts are systematically more reliable than both sophisticated baseline estimates and official data may lead to two observations. First, the common assumption as regards GDP growth may hold true almost surely in the sign and probably in the order of magnitude. Second, and more importantly, incorporating a few more variables are likely to improve forecasts' accuracy despite high uncertainty where reasonable estimates for the former can be inductively established.

## 4. Conclusions

### 4.1 Discussion of actual and forecasted tax revenue

CHART 1 (on page 22) and CHART 2 (on page 23) shows the actual and forecasted VAT and PIT revenues for the period 2010–2022. The same data are shown in TABLE 6 (below), where some trends are clearly evidenced.

**Table 6: Results of the multivariate-regression estimate for PIT (6.A) and VAT (6.B)**

(6.A)	Predicted PIT	Residuals	Δ Predicted PIT	Δ SOC	Δ PEN	(6.B)	Predicted VAT	Residuals
2010	1.78B	-192,088,057				2010	6.4B	-52.5M
2011	1.8B	-1,935,716	10.65M	101.56M	55.85M	2011	6.6B	4.2M
2012	1.71B	21,089,318	-89.25M	87.02M	-119.55M	2012	7.4B	1.8M
2013	1.94B	85,976,532	238.56M	706.38M	334.33M	2013	7.6B	-9.8M
2014	2.14B	-7,312,450	191.21M	481.33M	350.81M	2014	7.5B	4.4M
2015	2.32B	88,225,181	187.48M	400.16M	761.98M	2015	8B	36.2M
2016	2.56B	134,736,768	240.2M	401.03M	138.3M	2016	8.7B	26.5M
2017	2.68B	3,347,237	116.26M	325.15M	667.88M	2017	9.2B	38M
2018	2.92B	-21,121,157	242.19M	601.72M	84.57M	2018	10B	-5.2M
2019	3.21B	-110,917,657	286.69M	733.83M	597.5M	2019	11B	-43.5M
2020	3.91B		702.55M	968.54M	1.67B	2020	9.1B	
2021	4.59B		677.69M	793.17M	2.2B	2021	9.6B	
2022	4.85B		265.27M	847.63M	61.41M	2022	10.2B	

**TABLE 5** Sources: Official data of the Bulgarian government, Author's calculations

For a start, that PIT revenues could increase is not necessarily good news for anyone who cares about balancing the budget. As a matter of fact, the estimated growth in social transfers and pensions would vastly offset these gains and even cause a

€2.5bln hole on the expenditure side. As observed above in relation to falling VAT revenues, the prospect of Bulgaria's debt and deficit skyrocketing in the next years is highly likely. True, Bulgaria's reputation as a 'fiscally

responsible' country (Petkov 2014), its still small stock of liabilities (Hsing 2020) and the currency board make short-term deficits sustainable. However, if the debt were to balloon and – as it is expected – the internationally-low interest rate to burst (Amadeo 2021; Domm 2021; Mackenzie 2021), the risk of a debt-induced currency crisis could loom large again. Moreover, decreasing tax revenues may cause either a rate hike. Given the Bulgarian tax regime's marked regressivity (due to the adoption of flat-rate taxation across the board — Cf. Gaddy and Gale 2005; ECB 2007; OECD 2020), such a course of action may prejudice poorer households' capability of recovering from the crisis.

## CONCLUSION

This study allows to compare two different time series models' effectiveness and hint at multivariate regression as a better tool for forecasting during the pandemic for its greater flexibility. Moreover, the estimates shown above provide a perspective look at the country's future — surely a sketchy one, but troubling nonetheless. Some of these data actually do nothing but offering insights into the extent to which the pandemic has made facing already-pressing structural issues unavoidable for any political force. That the multivariate-regression models offer better forecasts than the government's official sources demonstrates the inaptness of the tools at Bulgarian policymakers' disposal in such a delicate juncture.

## Limitations of the study

The undertaken study has a few limitations. For instance, because of the currency board, the case of Bulgaria offers the advantage of ignoring exogenous shocks that may passthrough via the de- or appreciation of the exchange rate. Thus, future research studies may incorporate monetary factors in their estimates.

Furthermore, it was not possible to follow many of the IMF FAD's recommendations due to a lack of data. Most importantly, when it comes to VAT revenues it was impossible to adhere to the standard of a sectorial estimate of the tax base because neither the NSI's and EUROSTAT's adherence to NASE criteria make it difficult to identify concrete clusters of activities (e.g., tourism). The lack of high-frequency datasets is also an obstacle in attempting to consider other macroeconomic indicators such as inflation and unemployment. This hinderance was partly bypassed by diverting the analysis to correlated variables (i.e., employment income as a proxy for

un- and under-employment). Yet, further studies may endeavour to explore this area.

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## SUMMARY

Tax analysis and forecasting of revenues is of paramount importance to ensure the viability and sustainability of fiscal policy. However, the measures taken to contain the spread of the recent pandemic pose an unprecedented challenge. This paper proposes a model to forecast tax revenues in Bulgaria for the fiscal years 2020–2022 built in accordance with the International Monetary Fund’s recommendations. This study allows to compare two different time series models’ effectiveness. The outcomes hint at multivariate regression as a better tool for forecasting during the pandemic for its greater flexibility. Moreover, the estimates shown above provide a perspective look at the country’s future — surely a sketchy one, but troubling nonetheless. Some of these data actually do nothing but offer insights into the extent to which the pandemic has made facing already-pressing structural issues unavoidable for any political force. That the multivariate regression models offer better forecasts than the government’s official sources demonstrates the inaptness of the tools at Bulgarian policymakers’ disposal in such a delicate juncture.

# СОЦИЈАЛНИ КАПИТАЛ, ЊЕГОВЕ ПАРАДИГМЕ И ОСТВАРИВАЊЕ ДОСТОЈАНСТВА ЉУДСКЕ РАДНЕ ДЕЛАТНОСТИ

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**Апстракт:** Развој производних снага у дадесетом, а посебно у дадесет првом веку, одвија се у знаку афирмације знања, као основног ресурса развоја друштва и промена у његовој цивилизацији која поприма нову епоху у његовом еволутивном развоју. Значај знања израстао је захваљујући променама у садржају и карактеру човекове радне делатности, исказаној у њеној интелектуализацији, а која се остварује пре свега не у ангажовању и трошењу снаге човекових мислића, већ у активирању, испољавању и потврђивању његових интелектуалних способности. Промене у садржају и карактеру човекове радне делатности захтевају и промене у парадигмама његовог менаџмента на свим нивоима њеног испољавања од конкретних облика организованости до глобалног устројства друштва. Те промене, положећи од промена у њеном садржају, треба да означе усаглашавање захтева њене сврсисходно-циљне делатности са одређеним позитивним последицама, стваралачко-профитерским аспектима и човековим особинама као мислећег и вредносног бића на линији схватања, промишљања и третирања човека у радној делатности у све мањој мери као бића способног да испољи захтеве извршиоца радних налога, а све више као стваралачког бића. Оваквим развојем еволуција љуског друштва означила би његов развој у правцу остваривања човека као ствараоца што је у складу са развојем човека као бића *sui generis*.

**Кључне речи:** социјални капитал, интелектуализација, радне делатности, пристојан рад, достојанство рада.

## 1. УВОД

Пораст значаја знања у остваривању људске радне делатности настало је са променом у њеном садржају која својом интелектуализацијом добија карактер интелектуалног или социјалног капитала у друштвено-економским односима насталим у еволуцији људског друштва.

Парадигме интелектуалног и социјалног капитала треба да изразе остваривање захтева за превазилажење супротности између њене потребе да искаже своју сврсисходну економску рентабилност (профитабилност) стварајући одређене промене задовољавањем људских потреба и њеног карактера којим се човек као свесно биће исказује својим стваралаштвом у коме има своје место и његова способност и потреба да се исказује као биће одређене маштовитости у избору свог циљног понашања. Захтев за усаглашавање ове супротности у основи се своди на потребу очувања смислености људске радне делатности и у условима на научним основама развојних производних снага у форми дигиталних система, на начин да роботизација прети да људе претвори у роботе, чиме, ако се то деси, људска цивилизација губи свој смисао.

Овим радом се жели скренути пажња на неке од ових проблема који су на одређен начин присутни и у савременој људској цивилизацији, често несхватени озбиљно.

## 2. Социјални капитал и нова парадигма менаџмента

Социјални капитал представља врло сложену и динамичну друштвену категорију која добија глобални карактер, што се рефлектује и на менаџмент и тражи његово прилагођавање овом капиталу, то јест, развијању новог типа менаџмента са нагласком на афирмацију и испољавање човека као мислећег, слободног и вредносног бића у радној делатности. Промене у концепту новог менаџмента треба да представљају допринос остваривању пристојног (достојног) рада човека као слободног бића које својом делатношћу задовољава потребе уз очување индивидуалног интегритета и достојанства.

У савременим, посебно друштвеним, и нарочито економским и организационим наукама све више пажње се поклања разматрању и промишљању нових парадигми менаџмента који је условљен променама у садржају и карактеру капитала и који добија обим социјалног капитала. Међутим, та разматрања нових парадигми капитала, односно социјалног капитала, не могу бити успешна ако се не одвијају у контексту остваривања текућег процеса глобализације.

Глобализација је друштвена реалност глобалног карактера уједињујући друштво тако да се говори о „глобалном друштву“ о „мегадруштву“ са многим противречностима. Процес глобализације проучавају многе науке означавајући сложеност и комплексност проблема глобалног карактера и феномена глобализације, а настаје и нова академска и научна дисциплина Глобалистика (Чумаков, 2009, стр. 60-89).

У социолошком промишљању глобализације она се разматра пре свега као процес настанка глобалног привредно-економског система и исказује се ширењем подручја економске моћи, освајањем нових територија као извора сировина и тржишта без употребе рата (Григорьев, 2006, стр. 60-61), а употребом новца (Борико, 2002, стр. 25). Као процес је омогућен развојем високе технологије (која је омогућила сужимање простора и времена) и тржишним силама (исказане тржишном конкуренцијом и доминантним обликом кретања капитала у облику новац-новац који доноси профит, чиме је омогућено оформљење

опште човечанске финансијско-информационе технологије (Ушкун, 2003, стр. 185).

Глобални систем који настаје глобализацијом као нова информационо-техничка, економско-еколошка, научно-политичка, социо-културна стварност и друштвена реалност, са специфичним структурама и процесима, развијајући се у границама човечанства, пројект је сложеним светско-привредним и међународним односима мењајући се по мери новонасталих околности, природног и социјалног окружења човека, стварајући материјалну и духовну културу те формирајући идивидуалне интересе и вредности и различите циљеве развоја (Лейбин, 2003, стр. 57). Тај систем састоји се од подсистема који су међусобно повезани и показују одговарајући утицај једних на друге. Глобална економија јавља се као подсистем глобалног система. Она означава свеукупност националних економија. То је јединствен противуречан систем богатих и сиромашних држава. У њега су земље улазиле неједнако развијене и та неједнакост у систему се одржава (Reitnet, 2006, стр. 57). У ствари, глобална економија на одређен начин представља освајање планете од стране транснационалних корпорација које доминирају над националним економијама (Марковић, 2008, стр. 37-90).

Са глобализацијом неолиберални капитализам добија глобалне размере, те постаје глобални капитализам. У њему доминирају транснационалне корпорације, смањена је улога државе, распострањена масовна култура и остварена информациона реалност (Бабков, 2003, стр. 69-103). Извршено је умрежавање свега на основама приватизације, дерегулације и либерализације, у име „слободног тржишта“, а ствара се богатство уз обећање „да ће сви који се подвргавају захтевима светског тржишта бити благословени земаљским богатством“ (Beck, 2004, стр. 117). Међутим, остваривање овог обећања није реално, а камоли оствариво. Јас између начела профита и начела хуманизма постоји у основи капитализма било којег нивоа развијености, па и у глобалном неолибералном капитализму (Ђорђевић, 2006, стр. 69). У њему се новац позиционира као врховни владалац. Од ефикасности и максимализације профита ствара се апсолутна вредност и мит. Моћ новца гази човеково достојанство, врећа његову част и уништава наду. Ново тројство „тржиште-конкуренција-новац“ појављује се на светској сцени с намером да се уздигне у врховну власт, која ће владати пословима планете, намењући своја правила државама и своје уједначавајуће норме упркос културним вредностима и идентитету (Мајор, 1977, стр. 53).

Глобализација и глобални капитализам (настао са њом) захтевају нове (научно засноване) одговоре, не само на традиционално филозофско питање о положају човека у свету и космосу, већ и о положају човека у свакодневници, пре свега у глобалној економији и радној средини која се уобличава у њој (Видјанин, 1997, стр. 63).

У оваквом приступу треба истраживати глобални неолиберални капитализам са тржиштем као одлучујућим механизмом регулисања робне размене и последицама које из тога произилазе у контексту сазнања да је од савременог тржишног механизма угрожена већина привреда, углавном због неуважавања друштвеног фактора. Јер, тржиште не постоји без људи, а оно је укључено у структуру друштвених односа (Гозабов, 2007, стр. 283). У оваквом приступу и промишљању, треба критички размотрити и одбацити схватања да су људи средства чија радна делатност (само) доприноси друштвеном напретку, а уважити и теоријски унапредити схватања по којима радна делатност људи доприноси друштвеном напретку, где се људи исказују као стваралачка и слободна бића, остварујући услове своје материјалне егзистенције и социјални статус стварајући међусобне односе (Шарков, 2007, стр. 52). У тим односима људи изражавају своја идејно-политичка определења и улогу у политичкој организацији друштва.

### 3. Разматрања о суштини глобализације

Промишљање суштине глобализације као глобалног друштвеног процеса и основних обележја глобалног неолибералног капитализма као система конципираног на знању као основном развојном ресурсу, означава се као „knowledge capitalism“, те га треба разматрати у контексту развоја техничке основе рада и промена у његовом садржају са последицама које га прате. Наиме, развој производних снага представља основу фазног развоја капитализма, али је и капитализам, тежећи што већој рационалности и продуктивности у циљу присвајања што вишег профита, подстицајно погодовао развоју производних снага. У таквом приступу и технолошка глобализација доводи до замене рада човека радом машина. У овом следу развоја упоредо са глобализацијом и њеним ширењем повећавао се значај знања као развојног ресурса. Човек се радном делатношћу исказује све мање својом физичком снагом, а све више својим мисаоним способностима. На овај начин у одређеном смислу врши се интелектуализација човекове радне (посебно

производне) делатности, а интелектуални капитал постаје реалност привредног и друштвеног живота. Наиме, сада са променама у садржају рада, капитал се означава као интелектуални људски ум социјалног капитала.

Са компјутерско-информационом технологијом настају значајне промене у садржају људског рада (Козловескиј, 1996, стр. 68). Оне имају за последицу губљење осећања о његовој сврсисходности и на њој заснованом осећању самопоштовања и самовредновања, коју, по правилу, у мањој или већој мери поседују сва људска бића (Марковић, 2005, стр. 31-39). Међутим, поред негативних последица, промене у садржају и карактеру рада имају и позитивне последице које омогућавају да знање постаје основни развојни ресурс у условима глобалног неолибералног капитализма, у тој мери да оно такво постаје и његово главно обележје. То је капитализам конципиран (и одређен) више на интелектуалном капиталу, а мање на новчано-физичком капиталу (богатству). Основу овог модела капитализма представља веровање у тржиште и појединца. Централна вредност и значај појединца је испорука знања, а не снага мишића. У овом моделу се признаје организација процеса, рутине и директиве које су садржај експлицитног знања које се дисеминира.

Са аспекта неспорно доказаних тврдњи да садашњи концепт глобалног економског концепта садржаног у закономерностима неолибералног модела капитализма, као неприкосновеног владара светске економске доктрине, отвара се простор за озбиљно разматрање једног готово оптички лако видљивог феномена. Потенцирање на стицању и експлоатацији неопходног квантума знања у свим друштвеним сегментима, готово да поприма облик чисто реторичке природе.

Ако изузмемо нераскидиву синтезу између употребе савремених техничко технолошких достигнућа у свакодневном раду и дискурс разматрања померимо на општу примену знања, долазимо до парадокса прве врсте.

Он се састоји у строгом каналисању милиона радно способног становништва и тачно одређеном степену њиховог позиционирања унутар мултинационалних корпорација у којој освешћеност и појачавање личне интелектуалне својине, према креаторима експлоатације радне снаге, могу у будућности озбиљно направити дисбаланс у прерасподели структуре стеченог или потенцијално

створеног богатства мале групе људи у чијем су тренутно власништву.

Власнике крупног капитала занима само ниво знања довољан да оствари зацртане бизнис пројекције, које се одавно не базирају на остваривању профита, профит је уступио место екстрапрофиту као доминантној категорији у економији и најмањих предузећа.

Зато је померање клатна са аспекта имплементације знања у производним процесима строго каналисано, до мере која не угрожава јасно избалансирана конта. У супротном, дошло би до померања новчане масе у сразмери са знањем и интелектуалним услугама, те би се део пројектованих прихода неизоставно морао пребацити на образовану радну снагу и њихове креативне и стручне способности.

Ако искључимо на тренутак чисто економски ниво овакве тврдње и пребацимо подстицање знања као могућност да се унапређени потенцијали експлоатишу по невидљивом концепту и између садашње економске доктрине и актуелне глобалне политичке елите ставимо знак једнакости, разумећемо шири контекст овог разматрања.

Сведоци смо свеопште колаборације економских и политичких елита заснованих на новцу као господару свих токова савременог света, из чега произише клаузулни однос са јасним и неписаним одредбама. Политичким титуларима није у интересу да њихово гласачко тело достигне ниво препознавања нужних културних и вредносних образца, исто тако то није потреба ни власника мултинационалних компанија. Дакле, оно што политика скривеним методама деловања намеће (лош образовни систем, минимум издвојених средстава за подстицање културне политике, критичку свест у социјалном деловању, разумевању потпуне дихотомије између друштвених група, маргинализовање духовних потреба, ускраћивање општег стандарда, немогућност школовања, раслојавања друштвених група, подстицање и нерешавање друштвених конфликтака), заправо је идеал доминантног економског концепта. Зато се неолиберализам данас суочава са озбиљним губљењем сопственог увида у реално стање. И само због недостатка алтернативе, он се на економском и политичком плану одржава на пиједесталу моћи. Тада економски модел свесрдно подржан од политичких елита виси над амбијом сопствене амбиције да уз помоћ јефтине радне снаге људе претвори у конзументе изобиља у

којем се суштина не види од опште, декларативне формулатије. У обиљу свега, неманичега, лепо је приметио Бодријар. Управо анализом односа између економског и политичког, иако је то учињено са општег аспекта, дакле глобално, неохондо је у даљем разматрању оба концепта јасно одредити заједничке именитеље како би се у даљем разматрању презентовали нови концепти који високим научним интензитетом сугеришу излазне моделе како би се употреба људског знања асимилисала на обострано задовољство.

У ствари, у капитализму (knowledge capitalism) знање и умеће су једини извори одрживе и дугорочне компатибилне предности корпорација, и ширих друштвених структура (Марковић, 2003, стр. 1-11). Зато људе - носиоце знања и умећа, суштине друштва и капитализма знања - треба третирати као бића која мисле, способна да произведу и усавршавају свој живот у историјски конкретном животном пространству, захваљујући својој животној сили. Ова сазнања условљавају промене у парадигмама менаџмента.

Са становишта овог сазнања у најновијим истраживањима положаја човека (људи) у глобалној економији и у корпорацијама (у којима остварују радну делатност - испољавајући своје знање и умеће) нашли су своје место и два релативно нова приступа у промишљању људског потенцијала: „индекс развитка људског потенцијала (ИРЉП) и индекс животне силе човека (ИЖСЧ)“.

Индекс развитка људског потенцијала има четири показатеља: продуктивност-раст; рационалност-могућност за реализацију способности и коришћење добара; стабилност-сигурност приступа тековинама цивилизације садашњих и будућих поколења; ширење могућности-развитак који се остварује не само због интереса људи, већ и њиховог напрезања.

Показатељи индекса животне силе човека су: очекивано трајање живота и реални бруто национални производ по глави становника. Узети заједно, ови показатељи одражавају три главна својства: здрав живот, знање и ниво живота достојан човека (Марковић, 2005, стр. 1-16). Полазећи од карактеристика глобалне економије и новог приступа у промишљању људског фактора у њој, сматрамо да треба допунити четири показатеља ИРЉП петим-исказом о условима рада у којима није угрожен интегритет човека. Индикатори животне силе човека (ИЖСЧ) су категорије социологије која

је развила систем показатеља развитка животне сile човека као психосоцијалног бића искazuјући његове способности производње и усавршавања свог живота у конкретним социоисторијским и социокултурним условима који одговарају потребама прогресивног развоја друштва. Сагласно традицији примене ИЖСЧ и еволуцији животне сile човека формулисани су индикатори њене развијености. Прво, средња вредност показатеља развијености физичких, психичких и социјалних способности човека. Друго, постојање основних група показатеља физичког, психичког и социјалног здравља које изражавају најбоље постојање и развој основних снага човека, формираних у свим основним сферама друштвеног живота, економији, политици, социјалном и духовно-културном развоју. Интеграција ових фактора омогућава оптимализацију напора о оцени развоја животне снаге човека у целини и посебним сферама друштвеног живота (Миличић, 2006, стр. 229).

Разматрања о индексу развитка људског потенцијала и индексу развитка животне сile човека настају у контексту потреба за што продуктивнијом и профитабилнијом људском делатношћу када се она интелектуализује и из тога произилази захтев да се људи-носиоци знања и умећа (интелектуалног капитала) у организовању радне средине и радног процеса третирају као мислећа и слободна бића са заштићеним интегритетом у свим његовим међусобно условљеним и повезаним компонентама (Григорье, 2006, стр. 95-96). Овим разматрањима је претходила, пратила и прати, активност Међународне организације рада (МОР). У овом смислу МОР је на Филаделфијској конференцији (одржаној 1944. године) преuzeо обавезу да припреми програм чија примена ће обезбедити услове рада у којима ће запослени осећати задовољство радом, искazuјући у пуној мери своје способности доприносећи општем благостању. Полазећи од ових и сличних ставова у документима МОР-а, у тежњи да се успостави склад између садржаја „пристојног и достојног рада“.

Пристојан рад се дефинише као високоефективан рад у добрым производним, социјално-радним и безбедним условима са попуњеним капацитетима, који чини сваког радника задовољним омогућавајући му да у пуној мери испољи своје способности и вештине. То је добро плаћен рад у коме су заштићена права и достојанство радника, рад у коме се радници активно ангажују у делатности

организације (Жуков, 2007, стр. 9-11). Остваривање овако схваћеног многоаспектно одређеног пристојног рада у условима противуречног глобалног система, разматрано је више пута и са више становишта, а најсвестраније у Извештају генералног директора Међународног бироа рада (1999. године). У том извештају, речено је да пристојан рад представља глобални захтев и политичку директиву и да много шта у нашој будућности зависи од наше способности да пронађемо решење овог проблема, тј. остваривања пристојног рада. Тај рад-пристојан рад, речено је у извештају, представља више орјентир него остварен циљ, и указано је на могућност његовог претварања у глобални циљ. Уз то указано је и на потребу остваривања четири стратеџиска задатка као предуслове за претварање пристојног рада у глобални циљ. Ти задаци, предуслови су: ширење могућности запошљавања; утврђивање система социјалног запошљавања; развој и учвршћивање система социјалног дијалога и права на једнакост (Марковић, 2008, стр. 308-338).

Економска активност се одвија у оквиру глобалне економије, у глобалном систему са јединственим тржиштем, али и разликама међу државама у погледу њихове економске развијености и образца организовања, што утиче на остваривање концепта „пристојан рад“ као глобалног процеса. На остваривање, тачније неостваривање или отежано остваривање тог концепта, значајно утичу два глобална проблема савременог друштва: запосленост и сиромаштво. Ова два проблема су међусобно условљена и повезана и препозната је потреба њиховог решавања на глобалном плану (у глобалним размерама) као предуслов остваривања „пристојног рада“. У овом смислу треба схватити и ставове Генералне скупштине Уједињених нација (2000. године) о социјалном развоју и подршици Програму МОР-а о пристојном раду, те ставове њене седнице одржане 1990. године о спремности да подржи праведну глобализацију обезбеђивања циљева потпуне и продуктивне запослености и пристојног рада уз обезбеђивање поштовања основних принципа и права у области рада. Полазећи од потребе да се остваривање „пристојног рада“ промишља и остварује као глобални проблем, комбинацијом исказа о индексима развоја људског потенцијала, животне сile човека и садржају „пристојног рада“, могућа је формулатија теорије о новом схватању управљања друштвом које карактерише пораст динамике и сложености друштвених односа чије решавање

тражи маштовитост за реорганизацију укључујући ту и промену концепта, на прелазак из друштва људи-произвођача у друштво стваралаца.

Та маштовитост основних проблема савременог света рада треба да буде усмерена на изналажење нових парадигми менаџмента у условима промена у садржају и карактеру људске делатности праћене њеном интелектуализацијом, хомогенизацијом, стандардизацијом и захтевима за њеном достојанственошћу и пристојношћу да бисмо били продуктивни и профитабилни, за коју нећемо да мислимо да сами контролишемо своје животе, а заправо смо робови нашег властитог делања „отуђени од сопствене природе и препуштени на милост и немилост силама које нисмо у стању да контролишемо“ (Варуфакис, 2015, стр. 57-77).

### УМЕСТО ЗАКЉУЧКА

Дакле, цивилизација створена на основама капиталистичке филозофије развоја ударила је на границе свог развоја. Она нема и не показује могућност свог даљег развоја на основама стваралачких могућности и потреба развоја. Друштво постаје глобално, или је у својој уједињености ограничено да даље развија људске слободе и богатства у сваком делу свог уједињења. Напротив, све је у друштву развијених материјалних могућности не само наглашених између богатих и сиромашних грађана, која добија глобалне размере и прети да прерасте глобалне размере до којих доводи њихов сукоб. У први план као да избија сукоб између сиромаштва и богатства, који може довести до катастрофалних последица, уколико промишиљање тог сукоба не омогући његово решавање на маштовит начин у границама и могућностима развоја нових промена у садржају и карактеру људске радне делатности. Та маштовитост треба да омогући превазилажење супротности између масовног богатства и сиромаштва у глобалним размерама, на линији изналажења концепта друштвеног развоја људи као произвођача и људи као стваралаца у њиховом људском достојанству.

„Капиталистичка филозофија развоја“ у чијој основи се налази човек као произвођач који ствара материјална и сва остала добра, која се сматрају продуктивним и рационалним у мери у којој исказују мањи утрошак ангажованих чинилаца у њиховом стварању, па и мањи утрошак ангажовања људског фактора, пре свега у ангажовању физичке снаге, као да је ударила на своје границе развоја. Цивилизација

која је изграђена, и развијала се на тој филозофији развоја, као да не показује наше могућности тог развоја јер је запоставила људску способност и потребу за стваралаштвом као специфичну потребу човека као бића *sui generis*. Дакле, друштво постаје уједињено и глобално али и разједињено, како је говорио академик Радомир Лукић. Друштво постаје глобално, али у својој уједињености остаје ограничено да даље развија људске слободе, пре свега због ограничења да у процесу радне делатности развија човеково стваралаштво у сваком делу свог постојања, а пре свега у процесу његовог остваривања у радној делатности. Тако добијамо друштво развијених материјалних могућности у смислу повећања богатства, али и друштва неједнакости у коришћењу тог богатства и супротних интереса између богатих и сиромашних на микро и макро плану друштвене организованости и битисања. У први план као да избија супротност између сиромаштва и богатства, са пратећим последицама, које треба промишљати, и са становишта супротности између човека-производиоца богатства и његових способности као ствараоца. Решавање ове противуречности захтева маштовитост у изналажењу концепта друштвеног развоја који ће омогућити на микро и макро плану друштвеног постојања превазилажења супротности сиромаштва и богатства између човека као производиоца и ствараоца у јединству његовог људског достојанства, односно достојанства његовог рада, или радне делатности.

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## SUMMARY

The paper discusses the connection between globalization as a social process and the intellectualization of labor and changes in the content and character of labor that lead to the manifestation of capital in the form of intellectual capital. In this process, man manifests himself through his knowledge through his work. In this context, the conceptual definition of decent work and perspective and the consequences of its realization are considered, as a given goal in the evolutionary development of human society. In addition, human activity is pointed out from the point of view of homogenization and standardization, and their significance and influence are shown. Changes in the content and character of human labor activity also require changes in the paradigms of its management at all levels of its manifestation, from concrete forms of organization to the global structure of society. Those changes, starting from changes in its content, should mark harmonization of requirements of its purposefully targeted activity with certain positive consequences of creatively profitable aspects and human characteristics as a thinking and valued being on the line of understanding, thinking and treating man in labor activities to a lesser extent as a being capable of expressing the demands of the executor of work orders, but more as a creative being. With such a development, the evolution of human society would mark its development in the direction of the realization of man as a creator, which is in accordance with the development of man as *sui generis*.

## SOCIAL CAPITAL, ITS PARADIGM AND REALIZATION OF DIGNITY OF HUMAN LABOR ACTIVITIES

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**Abstract:** The development of productive forces in the twentieth, and especially in the twenty-first century, takes place in the sign of the affirmation of knowledge, as a basic resource of the development of society and changes in its civilization that is taking on a new era in its evolutionary development. The importance of knowledge has grown thanks to changes in the content and character of human labor activities expressed in its intellectualization, which is realized primarily not in the engagement and spending of human muscle power, but in activation, manifestation and confirmation of his intellectual abilities. Changes in the content and character of human labor activity also require changes in the paradigms of its management at all levels of its manifestation, from concrete forms of organization to the global structure of society. Those changes, starting from changes in its content, should mark harmonization of requirements of its purposefully targeted activity with certain positive consequences of creatively profitable aspects and human characteristics as a thinking and valued being on the line of understanding, thinking and treating man in labor activities to a lesser extent as a being capable of expressing the demands of the executor of work orders, but more as a creative being. With such a development, the evolution of human society would mark its development in the direction of the realization of man as a creator, which is in accordance with the development of man as *sui generis*.

**Key words:** social capital, intellectualization of labor activity, decent work, dignity of labor.

### 1. INTRODUCTION

The increase in the importance of knowledge in the realization of human labour activity occurred with a change within its content, which with its intellectualization acquired the character of intellectual or social capital in socio-economic relations created in the evolution of human society.

Paradigms of intellectual and social capital should express the realization of the requirement to overcome the contradiction between its need to express its purposeful economic effectiveness (profitability), creating certain changes by meeting human needs and its character, by which man as a conscious being, expresses his creativity in which he has his place and the ability and need to express oneself as a being of a certain imagination when choosing one's target behaviour.

The demand for harmonization of this contradiction basically comes down to the need to preserve the meaning of human labour activity and in conditions on a scientific basis of developmental productive forces in the form of digital systems, in such a way that robotics threatens to turn people into robots, whereby if that happens, human civilization loses its meaning.

This paper seeks to draw attention to some of these problems that are in some way present in the

modern human civilization, but often not taken seriously.

## **2. SOCIAL CAPITAL AND A NEW MANAGEMENT PARADIGM**

Social capital represents a very complex and dynamic social category that acquires a global character, which is reflected in management and requires its adaptation to this capital, that is, the development of a new type of management with emphasis on affirmation and manifestation of the man as a thinking, free and valuable being in the labour activities. Changes in the concept of new management should represent a contribution to the realization of decent (worthy) work of a man as a free being, who by his activity satisfies the needs while preserving individual integrity and dignity.

In modern, especially social and particularly economic and organizational sciences, more and more attention is paid to the consideration and reflection of new paradigms of management, which is conditioned by changes in the content and character of the capital and which gained the scope of the social capital. However, these considerations of new paradigms of capital, i.e. social capital, cannot be successful if it does not take place in the context of the realization of the current process of globalization.

Globalization is a social reality of a global character that unifies the society by talking about a "global society" or a "mega society" with many contradictions. The process of globalization is studied by many sciences, signifying the complexity and intricacies of problems of global character and the phenomenon of globalization, resulting also in a new academic and scientific discipline, Global Studies (Chumakov, 2009, pp. 60-89).

In the sociological thinking of globalization, it is considered primarily as a process of emergence of the global economic system and is expressed by expanding the area of economic power, conquering new territories as a source of raw materials and markets, without the use of war (Grigoriev, 2006, pp. 60-61), but then again with the use of money (Boriko, 2002, p. 25). As a process, it is enabled by the development of high technology (which enabled the compression of space and time) and market forces (expressed by market competition and the dominant form of capital movement in the form of money-money that brings profit, thus enabling the formation of overall human financial information technology) (Ushkin 2003, p. 185).

The global system that emerges from globalization as a new information-technical, economic-ecological, scientific-political, socio-cultural reality and social reality, with specific structures and processes, developing within the borders of humanity, is imbued with complex world economic and international relations and modifies according to the newly created circumstances, the natural and social environment of man, thus creating the material and spiritual culture hence forming the individual interests and values and different development goals (Leibin, 2003, p. 57). This system consists of subsystems that are mutually interconnected and show the appropriate influence on each other. The global economy appears as a subsystem of the global system. It signifies the totality of national economies. It is the individual contradictory system of rich and poor countries. The countries entered it unequally developed and this inequality in the system has been maintained (Reirnet, 2006, p. 57). In fact, the global economy in a certain way represents the conquest of the planet by transnational corporations that dominate national economies (Marković, 2008, pp. 37-90).

With globalization, the neoliberal capitalism acquired global proportions and became the global capitalism. It is dominated by transnational corporations, the role of the state is reduced, the mass culture is widespread and information reality is accomplished (Babkov, 2003, pp. 69-103). Everything is networked on the basis of privatization, deregulation and liberalization, in the name of the "free market", while the wealth is generated with the promise "that all who submit to the demands of the world market will be blessed with earthly wealth" (Beck, 2004, p. 117). However, the accomplishment of this promise is not realistic, let alone achievable. There is a gap between the principle of profit and the principle of humanism, on the basis of capitalism at any level of development, even in the global neoliberal capitalism (Đorđević, 2006, p. 69). In there, the money is positioned as the supreme ruler. The efficiency and profit maximization create the absolute value and myth. The power of money walks over man's dignity insults his honour and destroys hope. The new trinity "market-competition-money" appears on the world stage with the intention of rising to the supreme power, which will rule the affairs of the planet, imposing its rules and its unifying norms on the national states despite cultural values and identity (Major, 1977, p. 53).

Globalization and global capitalism (created with it) require new (scientifically based) answers, not only to the traditional philosophical question about

the position of man in the world and the universe, but also about the position of man in everyday life, primarily in the global economy and the work environment that is taking shape within it (Vidyanin, 1997, p. 63).

This approach should explore the global neoliberal capitalism with the market as a decisive mechanism for regulating commodity exchange and the consequences that arise from that, in the context of comprehending that majority of economies are endangered by the modern market mechanism, mainly due to disregard of the social factor. For, the market does not exist without people, and it is included in the structure of social relations (Gozabov, 2007, p. 283). With this approach and reflection, one should critically consider and reject the notion that people are means whose labour (self) contributes to the social progress, and at the same time, should respect and theoretically improve the notions that people's labour activities contribute to social progress, where people express themselves as creative and free beings, accomplishing the conditions of their material existence and the social status by establishing mutual relations (Sharkov, 2007, p. 52). In these relations, people express their ideological and political orientations and their role in the political organization of society.

### **3. CONTEMPLATIONS ON THE ESSENCE OF GLOBALIZATION**

Thinking about the essence of globalization as a global social process and the basic features of global neoliberal capitalism as a system based on knowledge as a basic development resource, is referred to as "knowledge capitalism", and it should be studied in the context of the development of the technical basis of the labour and changes in its content with the consequences that accompany it. Namely, the development of productive forces represents the basis of the phased development of the capitalism, but capitalism too, aiming for the greatest possible rationality and productivity in order to take hold of the highest possible profit, stimulated the development of productive forces. In such an approach, the technological globalization also leads to the replacement of human labour with machine labour. In this sequence of development, along with globalization and its expansion, the importance of knowledge as a development resource has increased. Man expresses himself with labour activity less and less with his physical strength, and more and more with his intellectual abilities. In this way, in a certain sense, the intellectualization of human labour (especially production) activity is performed, and intellectual

capital becomes the reality of economic and social life. To be precise, now with the modifications in the content of labour, the capital is designated as the intellectual human mind of social capital.

With computer-information technology, significant changes occur in the content of human labour (Kozlovsky, 1996, p. 68). They result in the loss of a sense of its purposefulness and a sense of self-esteem and self-worth based on it, which, as a rule, is more or less possessed by all human beings (Marković, 2005, pp. 31-39). However, in addition to the negative consequences of changes in the content and character of labour, there are also positive consequences that enable knowledge to become the basic development resource in the conditions of global neoliberal capitalism, to the extent that it becomes its main feature, as well. It is the capitalism conceived (and determined) more on intellectual capital, and less on monetary-physical capital (wealth). The basis of this model of capitalism represents the belief in the market and the individual. The central value and significance of an individual is the delivery of knowledge, and not the strength of muscles. This model recognizes the organization of the processes, routines, and directives that are the content of explicit knowledge that is being disseminated.

From the aspect of indisputably proven claims that the current perception of the global economic concept contained in the laws of the neoliberal model of capitalism as the undisputed ruler of the world economic doctrine, there is an open space for serious consideration of an almost optically easily visible phenomenon. Emphasizing the acquisition and exploitation of the necessary quantum of the knowledge in all social segments, practically takes the form of a merely rhetorical nature.

If we exclude the inseparable synthesis between the use of modern technical and technological achievements in everyday labour and shift the discourse of observation to the general application of knowledge, we come to a paradox of the first kind.

It consists of the strict channelling of millions of working-age population and a precise degree of their positioning within multinational corporations in which awareness and strengthening of a personal intellectual property, according to the originators of labour force exploitation, may create, in future, the severe imbalance in the redistribution of acquired or potentially acquired wealth of a small group of people who currently own it.

The owners of large capital are only interested in the level of knowledge sufficient to achieve the set business projections, which for a long time now, have not been based on making a profit; profit has given way to extra profit, as the dominant category in the economy and in the smallest of companies.

Therefore, the shifting of the pendulum from the aspect of knowledge implementation in the production processes is strictly channelled, to the extent that it does not jeopardize clearly balanced accounts. Otherwise, there would be a shift in the money supply in proportion to knowledge and intellectual services, so that the part of the projected income would inevitably have to be transferred to the educated workforce and their creative and professional abilities.

If for a moment, we exclude the purely economic level of such a claim and transfer the acquisition of knowledge as an opportunity to exploit the enhanced potentials according to an invisible concept and put an equal sign between the current economic doctrine and the current global political elite, we will understand the broader context of this observation.

We are witnessing an overall collaboration of economic and political elites based on money as the master of all currents of the modern world, which results in a clause relationship with clear and unwritten provisions. It is not in the interest of political incumbents for their electorate to reach the level of recognizing the necessary cultural and valuable patterns, nor is it the need of owners of multinational companies. Hence, what politics imposes through concealed methods of action (poor education system, insignificant funds allocated to encourage political culture, critical awareness in social action, understanding of the complete dichotomy between social groups, marginalization of spiritual needs, renunciation of general standard, inability to educate, stratification of social groups, encouraging and not resolving the social conflicts), is in fact the ideal of the dominant economic concept. That is why neoliberalism today is facing a serious loss of its own insight into the real situation. And only because of the lack of an alternative, it is being kept on the pedestal of power, economically and politically. This economic model, wholeheartedly supported by political elites, lingers over the abyss of its own ambition to turn people into consumers of abundance with the help of cheap labour, in which the essence cannot be seen from the general, declarative formulation. In the abundance of everything, there is nothing, Baudrillard noticed nicely. Just there, in the analysis of the relationship between economic and political, although it is

done from a general aspect, i.e. globally, it is necessary in further observation of both concepts, to define clearly the common denominators, in order to present new concepts that suggest output models with high scientific intensity whereby the use of human knowledge would be assimilated to mutual satisfaction.

In fact, in capitalism (knowledge capitalism), knowledge and skills are the only sources of sustainable and long-term compatible advantages of corporations and wider social structures (Marković, 2003, pp. 1-11). That is why people - bearers of knowledge and skills, the essence of society and knowledge capitalism, should be treated as intellectual beings, capable of producing and perfecting their life in a historically concrete living space, on account of their life force. This recognition develops changes in the management paradigms.

From the point of view of this recognition, in the latest research on the position of man (people) in the global economy and in corporations (in which they perform labour activities - expressing their knowledge and skills) two relatively new approaches in contemplating about human potential have also found their place: Human Potential Development Index (HPDI) and the Human Life Force Index (HLFI).

The Human Potential Development Index has four indicators: productivity - growth; rationality - possibility for fulfilment of abilities and use of goods; stability - security of access in the achievements of civilization of present and future generations; expansion of opportunities - development that is achieved not only because of the interests of people, but also because of their efforts.

The indicators of the Human Life Force Index are: lifetime expectancy and real gross national product per capita. Taken together, these indicators reflect three main characteristics: a healthy life, knowledge and a living standard worthy of a human being (Marković, 2005, pp. 1-16). Starting from the characteristics of the global economy and the new approach in contemplating about the human factor in it, we believe that four indicators of the HPDI should be supplemented with the fifth - the statement on working conditions in which the human integrity is not endangered. Human life force indicators (HLFI) belong to the category of sociology that has developed a system of indicators for life force development of a human as a psycho-social being, expressing his ability to produce and improve his life within specific socio-historical and socio-cultural conditions, which

correspond with the needs of progressive development of the society. In accordance with the tradition of the implementation of the HLFI and the evolution of the human life force, the indicators of its development have been formulated. Firstly, the average value of indicators of the development of physical, mental and social abilities of a person. Secondly, the existence of basic groups of indicators of physical, mental and social health that express the best existence and development of basic human strengths, formed in all basic spheres of social life, economy, politics, social and spiritual - cultural development. The integration of these factors enables the optimization of efforts necessary to assess the development of human life force as a whole and in particular spheres of social life (Miličić, 2006, p. 229).

Deliberations on the index of human potential development and the index of human life force development arise out of the context of the necessity for more productive and profitable human activity when it is intellectualized, and hence the requirement that people - bearers of knowledge and skills (intellectual capital) in organizing the work environment and the work process, are treated as intellectual and free beings with protected integrity in all its mutually conditioned and connected components (Grigoriev, 2006, pp. 95-96). These deliberations were preceded, followed and are still pursued by the activity of the International Labour Organization (ILO). In this sense, the ILO, at the Philadelphia Conference (held in 1944), undertook an obligation to prepare the program which implementation would provide the working conditions in which employees would feel satisfied with their work, fully expressing their abilities and contributing to the general well-being. Instituting these and similar views in the ILO documents, represents the effort to establish harmony between the content of "decent and deserving work".

Decent work is defined as highly efficient work in good productive, social-working and secured conditions with full capacities, which makes every worker satisfied, enabling him to fully express his abilities and skills. It is a well-paid labour where the rights and dignity of workers are protected, the labour in which workers are actively engaged in the activities of the organization (Zhukov, 2007, pp. 9-11). The accomplishment of such a well-understood multifaceted, decent work in the conditions of a contradictory global system has been studied on several occasions and from several points of view, and most comprehensively in the Report of the Director General of the International Labour Office (1999). In that report, it is said that

the decent work represents a global demand and a political directive, and that much in our future depends on our ability to find a solution to this problem, that is, achieving the decent work. That work – the decent work, as said in the report, represents more of a benchmark than an accomplished goal, and the possibility of turning it into a global goal was also pointed out. In addition, the requirement to accomplish the four strategic tasks as a precondition for turning decent work into a global goal was pointed out. These tasks, these prerequisites are as follows: expansion of the employment opportunities; foundation of a social employment system; development and strengthening of the system of social dialogue and the right to equality (Marković, 2008, pp. 308-338).

The economic activity takes place within the global economy, in the global system with a single market, but also with differences between countries in terms of their economic development and patterns of organization, which affect the accomplishment of the concept of "decent work" as a global process. The accomplishment, more precisely the non- accomplishment or arduous achievement of that concept, is influenced significantly by the two global problems of modern society: employment and poverty. These two problems are mutually interdependent and connected, where the necessity to solve them on a global level (on a global scale) is recognized as a precondition for achieving "decent work". In this sense, the views of the United Nations General Assembly (2000) on social development and support to the ILO Decent Work Agenda should be understood, as well as the views of its 1990 session on its readiness to support unbiased globalization in ensuring the goals of complete and productive employment, as well as of the decent work, while ensuring respect for the basic principles and rights in the field of work. Taking into account the necessity to comprehend, achieve and recognise "decent work" as a global problem, within a combination of statements on human potential development indexes, human life force and the content of "decent work" it is possible to formulate the theory of a new perception of social management, that is characterized by the increase of dynamics and complexity of social relationships, of which solution requires imagination for reorganization, including thereof the change of concept, into the transition from a society of people - producers to a society of creators.

That imagination of the basic problems of the modern world of work should be aimed at finding new paradigms of management in the conditions of

changes in the content and character of human activity, accompanied by its intellectualization, homogenization, standardization and requirements for its dignity and decency, in order to be productive and profitable and where we would not think that we ourselves control our own lives, while in fact, we are slaves to our own actions "alienated from our own nature and left at the mercy of forces we are unable to control" (Varufakis, 2015, pp. 57-77).

### AS A SUBSTITUTE FOR A CONCLUSION

Thus, a civilization created on the basis of the capitalistic philosophy of development has hit the limits of its development. It does not have, and does not demonstrate the possibility of its further development on the basis of creative possibilities and development needs. The society becomes global, or is limited in its unity to further develop human freedoms and wealth in each and every fragment of its unification. On the contrary, everything in the society of developed material possibilities is not only emphasized by the gap between rich and poor citizens, which has gained global proportions and threatens to outgrow the global dimensions to which their conflict leads. The conflict between poverty and wealth seems to come to the fore, and which could lead to catastrophic consequences, if the assessment about that conflict does not enable its resolution in a resourceful way, within the limits and possibilities of developing new changes in the content and character of human labour activity. This resourcefulness should make it possible to overcome the contradiction between mass wealth and poverty on a global scale, along the lines of finding the concept of social development of people as producers and people as creators in their human dignity.

"The capitalistic philosophy of development", which is based on man as a producer who creates material and all other goods, that are considered productive and rational to the extent that they show lower consumption of factors involved in their creation, and even less consumption in engagement of the human factor, above all the engagement of the physical strength, seems as if it had hit its own limits of development. The civilization that was built and developed on that philosophy of development appears not to demonstrate our possibilities of that development, because it neglected the human ability and the need for creativity as a specific need of a man as a *sui generis* being. Subsequently, the society is becoming unified and global, but also divided, as academician Radomir Lukić used to say. The society becomes global, but in its unity it remains

limited to further develop human freedoms, primarily due to the restriction to develop human creativity in the process of labour activities in every aspect of its existence, and above all in the process of his fulfilment within his labour activities. Consequently, we get a society of developed material possibilities in the sense of increased wealth, but at the same time, a society of inequality in the consumption of that wealth and opposed interests between the rich and poor at the both micro and macro level of social organization and existence. The antagonism between poverty and wealth seems to come to the fore, with all the accompanying consequences that need to be considered also from the point of view of the opposition between man - the producer of wealth and his abilities as a creator. Resolving this contradiction requires resourcefulness in discovering the concept of social development that will enable the micro and macro level of social existence, to overcome the opposition of poverty and wealth between man as a producer and creator in the unity of his human dignity, i.e. the dignity of his work or labour activity.

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## SUMMARY

The paper discusses the connection between globalization as a social process and the intellectualization of labor and changes in the content and character of labor that lead to the manifestation of capital in the form of intellectual capital. In this process, man manifests himself through his knowledge through his work. In this context, the conceptual definition of decent work and perspective and the consequences of its realization are considered, as a given goal in the evolutionary development of human society. In addition, human activity is pointed out from the point of view of homogenization and standardization, and their significance and influence are shown. Changes in the content and character of human labor activity also require changes in the paradigms of its management at all levels of its manifestation, from concrete forms of organization to the global structure of society. Those changes, starting from changes in its content, should mark harmonization of requirements of its purposefully targeted activity with certain positive consequences of creatively profitable aspects and human characteristics as a thinking and valued being on the line of understanding, thinking and treating man in labor activities to a lesser extent as a being capable of expressing the demands of the executor of work orders, but more as a creative being. With such a development, the evolution of human society would mark its development in the direction of the realization of man as a creator, which is in accordance with the development of man as *sui generis*.

# OCJENA FINANSIJSKE STABILNOSTI PREDUZEĆA U TRŽIŠNIM USLOVIMA POSLOVANJA POD UTICAJEM PANDEMIJE KOVIDA-19 U REPUBLICI SRPSKOJ

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**Apstrakt:** Transformisanje privrednog sistema prema standardima tržišno razvijenih zemalja i provođenje dugotrajne privatizacije uslovili su preduzeća u Republici Srpskoj da u novonastalom tržišnom okruženju iznalaze mogućnosti za očuvanje svoje finansijske stabilnosti. Poznato je da oduvijek turbulentna tržišta prednost daju onim preduzećima koja mogu obezbijediti dobru finansijsku stabilnost i koja se brzo prilagođavaju turbulentnim tržišnim promjenama. Zato, preduzeća Republike Srpske svih ovih godina se prilagođavaju tržišnom načinu poslovanja kako bi u nelojalnoj konkurenciji pokušala izgraditi finansijsku stabilnost koja bi im obezbijedila određenu reputaciju na turbulentnim tržištima. Uz borbu prilagođavanja tržišnom načinu poslovanja u posljednjoj godini poslovanja pod uticajem pandemije kovida-19 preduzeća u Republici Srpskoj prolaze kroz razne neočekivane izazove koje treba da savladaju kako bi obezbijedila finansijsku stabilnost. Iz konteksta rečenog, istraživanje u radu je usmjereni na ocjenu finansijske stabilnosti preduzeća u tržišnim uslovima poslovanja pod uticajem pandemije kovida-19. S tim u vezi, značaj u istraživanju se pridaje ocjeni finansijske stabilnosti na primjeru konkretnog preduzeća u tržišnim uslovima poslovanja pod uticajem pandemije kovida-19 koristeći se osnovnim analitičkim pokazateljima koji se koriste kod ocjene finansijske stabilnosti preduzeća.

**Ključne riječi:** preduzeće, tržište, finansijska stabilnost, kovid-19, Republika Srpska.

## 1. UVOD

Zbivanja vezana za pandemiju kovida-19 rezultirala su dinamikom promjena u globalnom smislu, koje su se odrazile i u poslovnom okruženju preduzeća Republike Srpske. Suština promjena koje su vezane za pandemiju, što se tiče poslovanja preduzeća u Republici Srpskoj, locirana je na održivost finansijske stabilnosti preduzeća. Zbog njenog značaja za preduzeće neophodno je da menadžment iznađe adekvatan pristup za uspostavljanje racionalnog koncepta upravljanja, kojim bi se riješili problemi i omogućilo svakom preduzeću da se prilagodi novonastalim promjenama.

Poznato je da finansijska stabilnost u uslovima savremenog poslovanja utiče na poslovnu poziciju naših preduzeća pri njihovom poslovanju, a u ovakvim turbulentnim tržišnim promjenama i pod uticajem pandemije može da poboljša tržišni položaj preduzeća. Iz tih razloga problematika istraživanja u ovom radu usmjerena je na ocjenu finansijske stabilnosti konkretno odabranog preduzeća radi sagledavanja koliko su promjene nastale u vrijeme pandemije uticale na finansijsku stabilnost odabranog preduzeća.

Za ocjenu finansijske stabilnosti u obzir će se uzeti analitički pokazatelji, jer oni mogu poslužiti menadžmentu da odluke usmjeri na što bolji način u očuvanju finansijske stabilnosti preduzeća i time osigura poslovanje preduzeća u novonastalim tržišnim uslovima pod uticajem pandemije kovida-19.

## **2. Pojmovno određenje finansijske stabilnosti preduzeća**

Za pojmovno određenje finansijske stabilnosti preduzeća neophodno je sagledati njen značaj za preduzeće. Prevashodno, finansijska stabilnost preduzeća obezbeđuje preduzeću platežnu sposobnost, sigurnost i solventnost. Finansijska stabilnost poboljšava tržišnu reputaciju preduzeća (Malešević, 2000, str. 93). U uslovima savremenog poslovanja finansijska stabilnost značajno utiče na poslovnu poziciju preduzeća pri ugovaranju poslova. Generalno posmatrano, finansijska stabilnost je dobra platforma za donošenje upravljačkih odluka u preduzeću. Upravljačke odluke su temelj za dobar menadžment poslovanja i rast i razvoj svakog preduzeća. Finansijska stabilnost preduzeća omogućava vlasnicima preduzeća da održavaju zainteresovanost za profitabilnost i sigurnost. Značaj finansijske stabilnosti za preduzeće utemeljio je zainteresovanost menadžmenta za sve aspekte finansijske analize, kako bi osigurao i kratkoročnu i dugoročnu finansijsku stabilnost preduzeća u odnosu na poslovno okruženje. Dakle, na osnovu rečenog proističe i potreba svakog preduzeća za ocjenom finansijske stabilnosti putem adekvatnih pokazatelja, koji služe za tu svrhu. Finansijska stabilnost preduzeća može se odrediti preko koeficijenta finansijske stabilnosti. Koeficijent finansijske stabilnosti je odnos osnovnih sredstava, sa jedne strane, i sopstvenog kapitala i dugoročnih obaveza, sa druge strane. Konačno, finansijska stabilnost pokazuje da li je u preduzeću obezbijeđena sigurnost i platežna sposobnost.

## **3. Osnovni analitički pokazatelji za ocjenu finansijske stabilnosti preduzeća**

U skladu sa otežanim uslovima poslovanja preduzeća prouzrokovanih uticajem pandemije kovida-19, trebalo bi ukazati menadžmentu preduzeća sve aspekte finansijske analize. Ovim putem bi se kontinuirano pratila finansijska stabilnost preduzeća. Nekoliko grupa analitičkih pokazatelja neophodno je koristiti u ovu svrhu.

To se najprije odnosi na: 1. pokazatelje likvidnosti (koeficijent opšte likvidnosti, koeficijent redukovane likvidnosti, koeficijent trenutne likvidnosti), 2. pokazatelj finansijske stabilnosti preduzeća (koeficijent finansijske stabilnosti), 3. pokazatelj solventnosti (koeficijent solventnosti), 4. pokazatelje zaduženosti (koeficijent zaduženosti, koeficijent sopstvenog finansiranja, koeficijent finansiranja), 5. pokazatelj profitabilnosti (koeficijent profitabilnosti).

*Pokazatelji likvidnosti.* Preduzeće se smatra likvidnim ukoliko je sposobno da u kratkom roku plati svoje obaveze. Stoga, pokazatelji likvidnosti mjere sposobnost preduzeća u izvršenju dospjelih obaveza. Pokazatelji likvidnosti koji se koriste u ovu svrhu izvode se iz bilansa stanja.

**Tabela 1.** Izračunavanje pokazatelja likvidnosti

Naziv pokazatelja	Izračunavanje pokazatelja
koeficijent opšte likvidnosti	<u>ukupna obrtna sredstva</u> kratkoročne obaveze
koeficijent redukovane likvidnosti	<u>gotovina + kratkoročna potraživanja</u> kratkoročne obaveze
koeficijent trenutne likvidnosti	<u>gotovina</u> kratkoročne obaveze

*Izvor:* Malešević, Starčević, str. 356-360.

*Pokazatelj finansijske stabilnosti preduzeća.* U ovom slučaju riječ je o pokazatelju koji se izražava preko koeficijenta finansijske stabilnosti za koji je karakteristično da uvijek mora biti manji od 1, što znači da postoji neophodnost da se iz dijela dugoročnih izvora finansira dio obrtnih sredstava. On se računa na osnovu podataka iz bilansa stanja.

**Tabela 2.** Izračunavanje pokazatelja finansijske stabilnosti preduzeća

Naziv pokazatelja	Izračunavanje pokazatelja
koeficijent finansijske stabilnosti	<u>osnovna sredstva</u> sopstveni kapital + dugoročne obaveze

*Izvor:* Izrada autora na osnovu pokazatelja prikazanog na linku: <https://usersite.datalab.eu>

*Pokazatelj solventnosti.* Pokazatelj solventnosti upućuje na sposobnost preduzeća da plati ukupne dugove pa bilo to i iz likvidacione mase. Treba istaći, poželjno je da vrijednost koeficijenta solventnosti bude iznad 1, jer tada preduzeće je sposobno da plati ukupne dugove i ostaje mu dio imovine na raspolaganju. Izračunavanje pokazatelja solventnosti vezano je za podatke iz bilansa stanja.

**Tabela 3.** Izračunavanje pokazatelja solventnosti

Naziv pokazatelja	Izračunavanje pokazatelja
koeficijent solventnosti	<u>poslovna imovina</u> ukupni dugovi

*Izvor:* Tuševljak, Rodić, 2003, str. 395.

*Pokazatelji zaduženosti.* Pokazatelji zaduženosti odslikavaju koliko je sredstava finansirano iz sopstvenog, a koliko iz tuđeg kapitala. Oni se računaju na osnovu podataka iz bilansa stanja.

**Tabela 4.** Izračunavanje pokazatelja zaduženosti

Naziv pokazatelja	Izračunavanje pokazatelja
koeficijent zaduženosti	<u>ukupne obaveze</u> ukupna sredstva
koeficijent sopstvenog finansiranja	<u>sopstveni kapital</u> ukupna sredstva
koeficijent finansiranja	<u>ukupne obaveze</u> sopstveni kapital

*Izvor:* Hodžić, Gregović, 2014, str. 99.

*Pokazatelj profitabilnosti.* Pokazatelj profitabilnosti preduzeća formira se na osnovu bilansa uspeha. Pokazatelj profitabilnosti pokazuje da li je preduzeće ostvarilo dovoljno ukupnog prihoda da bi se opravdala uložena sredstva ostvarenjem pozitivnog finansijskog rezultata, tj. neto dobitka.

**Tabela 5.** Izračunavanje pokazatelja profitabilnosti

Naziv pokazatelja	Izračunavanje pokazatelja
koeficijent profitabilnosti	<u>neto dobitak</u> ukupan prihod

*Izvor:* Izrada autora na osnovu pokazatelja prikazanih na linku: <https://usersite.datalab.eu>

#### 4. Ocjena finansijske stabilnosti na primjeru konkretnog preduzeća u tržišnim uslovima poslovanja pod uticajem pandemije kovida-19

Na osnovu finansijskih izvještaja preduzeća Alpro Vlasenica a.d. izvršena je ocjena finansijske stabilnosti putem pomenutih pokazatelja likvidnosti, finansijske stabilnosti, solventnosti, zaduženosti i profitabilnosti.

Koeficijent opšte likvidnosti u prvoj analiziranoj godini (2015) iznosio je 10,520, a nakon te godine je imao trend opadanja sve do 2019. godine kada je iznosio 13,914.

**Tabela 6.** Kretanje pokazatelja likvidnosti u preduzeću Alpro Vlasenica a.d. za period 2015-2020. godine

Naziv pokazatelja	2015	2016	2017	2018	2019	2020
koeficijent opšte likvidnosti	10,520	7,946	5,895	5,207	13,914	6,099
koeficijent redukovane likvidnosti	6,881	5,603	3,427	2,738	7,146	3,463
koeficijent trenutne likvidnosti	0,668	1,367	0,629	0,730	4,101	1,603

*Izvor:* Izrada autora na osnovu podataka iz finansijskih izvještaja (2015-2020) Alpro Vlasenica a.d. dostupnih na sajtu Banjalučke berze: <https://www.blberza.com/>

U 2020. godini koeficijent opšte likvidnosti u odnosu na prethodno analiziranu godinu je opao za više od 50% od iznosa. Slična situacija je uočena i kod kretanja koeficijenta redukovane likvidnosti. U 2015. godini ovaj koeficijent je iznosio 6,881, pa je zabilježen trend opadanja, a njegova najniža

vrijednost je bila 2018. godine (2,738). Najviša vrijednost koeficijenta redukovane likvidnosti uočljiva je 2019. godine, da bi u posljednjoj posmatranoj godini njegova vrijednost opala na 3,463. Takođe, i koeficijent trenutne likvidnosti pokazuje nestabilnost koja se najviše ispoljila u

2020. u odnosu na 2019. godinu. Zbog rasta kratkoročne obaveze, dolazi do pada svih pokazatelja likvidnosti u 2020. godini.

**Tabela 7.** Kretanje pokazatelja finansijske stabilnosti u preduzeću Alpro Vlasenica a.d. za period 2015-2020. godine

Naziv pokazatelja	2015	2016	2017	2018	2019	2020
koeficijent finansijske stabilnosti	0,594	0,580	0,610	0,621	0,596	0,598

*Izvor:* Izrada autora na osnovu podataka iz finansijskih izvještaja (2015-2020) Alpro Vlasenica a.d. dostupnih na sajtu Banjalučke berze: <https://www.blberza.com/>

Koeficijent finansijske stabilnosti je varirao tokom posmatranog perioda. Izračunati koeficijenti u svim posmatranim godinama su bili približno jednaki i preko 0,500. Najviši iznos ovog

koeficijenta je zabilježen u 2018. godini, kada je iznosio 0,621. U posljednjoj, 2020. godini koeficijent je neznatno porastao (0,002) u odnosu na prethodnu godinu.

**Tabela 8.** Kretanje pokazatelja solventnosti u preduzeću Alpro Vlasenica a.d. za period 2015-2020. godine

Naziv pokazatelja	2015	2016	2017	2018	2019	2020
koeficijent solventnosti	24,515	17,554	13,444	12,101	32,954	13,678

*Izvor:* Izrada autora na osnovu podataka iz finansijskih izvještaja (2015-2020) Alpro Vlasenica a.d. dostupnih na sajtu Banjalučke berze: <https://www.blberza.com/>

Najviši koeficijent solventnosti je izračunat u 2019. godini, kada je iznosio 32,954. U posljednjoj posmatranoj godini vrijednost ovog koeficijenta je smanjena za preko 50% i iznosio je 13,678. U

2020. godini prisutna je tendencija rasta ukupnih dugova, pa se ovo posljedično odrazilo i na smanjenje koeficijenta solventnosti u ovoj godini.

**Tabela 9.** Kretanje pokazatelja zaduženosti u preduzeću Alpro Vlasenica a.d. za period 2015-2020. godine

Naziv pokazatelja	2015	2016	2017	2018	2019	2020
koeficijent zaduženosti	0,041	0,057	0,074	0,083	0,030	0,073
koeficijent sopstvenog finansiranja	0,959	0,943	0,926	0,917	0,970	0,927
koeficijent finansiranja	0,042	0,060	0,080	0,091	0,313	0,079

*Izvor:* Izrada autora na osnovu podataka iz finansijskih izvještaja (2015-2020) Alpro Vlasenica a.d. dostupnih na sajtu Banjalučke berze: <https://www.blberza.com/>

Najniži koeficijent zaduženosti zabilježen je 2019. godine i iznosio je 0,030, a najviši u 2018. godini (0,083).

Razlog ovome je svakako rast ukupnih obaveza, koje su u 2020. godini porasle za 670.824KM u odnosu na 2019. godinu.

Tokom 2020. godine došlo je do ponovnog rasta koeficijenta zaduženosti na 0,073, koji je bio približno jednake vrijednosti iz 2017. godine.

**Tabela 10.** Kretanje pokazatelja profitabilnosti u preduzeću Alpro Vlasenica a.d. za period 2015-2020. godine

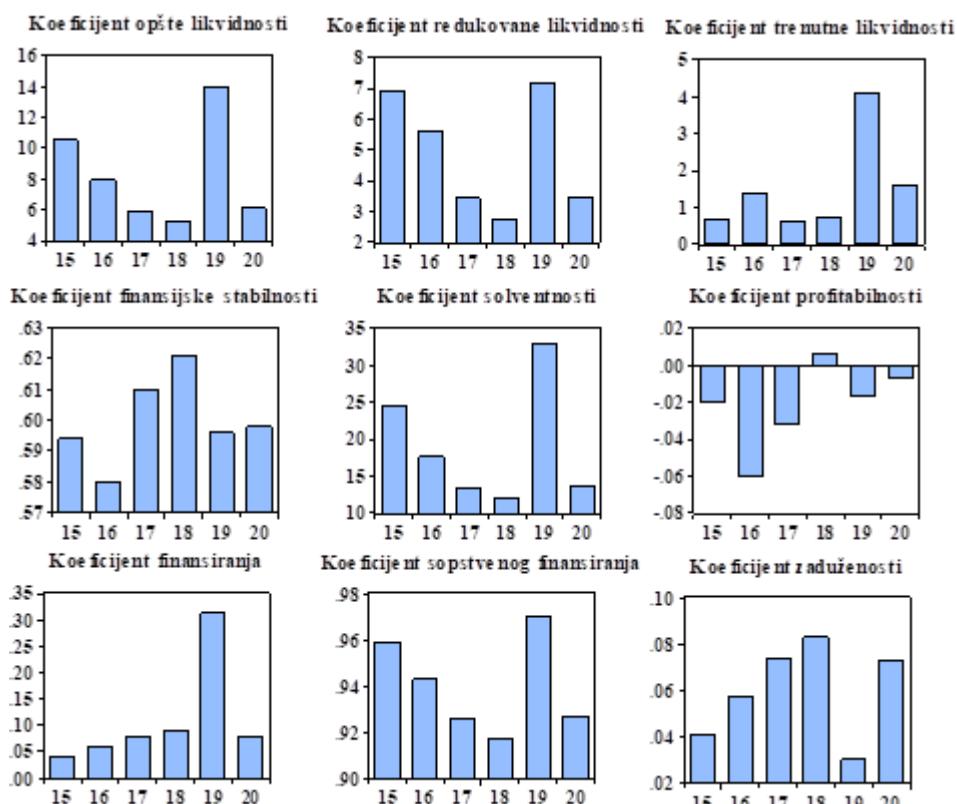
Naziv pokazatelja	2015	2016	2017	2018	2019	2020
koeficijent profitabilnosti	(0,020)	(0,060)	(0,032)	0,006	(0,017)	(0,007)

*Izvor:* Izrada autora na osnovu podataka iz finansijskih izvještaja (2015-2020) Alpro Vlasenica a.d. dostupnih na sajtu Banjalučke berze: <https://www.blberza.com/>

Koeficijent profitabilnosti je bio negativan u skoro svim posmatranim godinama, osim u 2018. godini, kada je preduzeće ostvarilo neto dobitak u iznosu od 101.090KM. Najniža vrijednost ovog koeficijenta zabilježena je 2016. godine, jer je i

iznos neto gubitka u ovoj godini bio najviši (850.346KM). U 2020. godini prisutan je pad neto gubitka za 197.616KM, pa je i koeficijent profitabilnosti blago porastao na (0,007).

**Grafikon 1.** Ocjena finansijske stabilnosti preduzeća Alpro Vlasenica a.d. (2015-2020)



*Izvor:* Izrada autora na osnovu izračunatih koeficijenata prema podacima iz finansijskih izvještaja (2015-2020) Alpro Vlasenica a.d. dostupnih na sajtu Banjalučke berze: <https://www.blberza.com/>

Na osnovu izvršene analize finansijske stabilnosti u preduzeću Alpro Vlasenica a.d. može se uočiti da je pokazatelj likvidnosti drastično pogoršan u 2020. godini u odnosu na 2019. godinu. Jasno je da se preduzeće borilo sa održavanjem likvidnosti, odnosno određenim poteškoćama vezanim za plaćanja obaveza u kratkom roku. Ipak, ostvareni

koeficijenti opšte, redukovane i tekuće likvidnosti su bili iznad referentnih vrijednosti, što znači da je preduzeće bilo likvidno i u 2020. godini, ali se ta likvidnost značajno pogoršala u odnosu na prethodnu analiziranu godinu. Pokazatelj finansijske stabilnosti ukazuje da li je preduzeće sposobno da održava likvidnost u dužem periodu.

Na osnovu izvršene analize jasno je da je ostvarena finansijska stabilnost u svim analiziranim godinama, jer je koeficijent finansijske stabilnosti ispod 1. To znači da su dugoročno vezana sredstva manja od trajnog i dugoročnog kapitala, pa je dugoročna finansijska ravnoteža pomjerena ka izvorima, što ukazuje na sigurnost u smjeru održavanja likvidnosti u oblasti dugoročnog finansiranja. Uočljivo je da je koeficijent finansijske stabilnosti tokom analiziranog perioda (2015-2020) bio u okvirima referentne vrijednosti, s tim što je u 2020. godini neznatno porastao u odnosu na 2019. godinu a u praksi posmatrano treba da se smanjuje, jer bi to značilo da dolazi do povećanja neto obrtnih sredstava koja su bitna za održavanje finansijske stabilnosti preduzeća. Pokazatelj solventnosti u posmatranom preduzeću je bio znatno iznad referentne vrijednosti od 1, što ukazuje da će preduzeće biti sposobno u budućem dugoročnom periodu da izmiruje svoje obaveze. Sa druge strane, na osnovu kretanja izračunatih koeficijenata solventnosti jasno je da se i ovaj koeficijent znatno pogoršao u 2020. godini u odnosu na 2019. godinu, u novonastalim uslovima poslovanja uzrokovanim pandemijom kovida-19. Pokazatelj zaduženosti u preduzeću Alpro Vlasenica a.d., izračunat uz pomoć koeficijenata: zaduženosti, sopstvenog finansiranja i finansiranja, bio je u opsegu referente vrijednosti (manje od 50%). Naime, ovi koeficijenti ukazuju na to kakva je struktura kapitala u preduzeću i na koji način ono finansira svoju poslovnu imovinu. Veoma je važno da preduzeće ne dođe u visok stepen zaduženosti, jer to dalje utiče na finansijsku fleksibilnost, dovodi do problema pronalaska novih investitora ili u krajnjem se može suočiti sa bankrotom. Takođe, veoma je značajno izračunati i koeficijente finansiranja i sopstvenog finansiranja. Ovi pokazatelji su usmjereni na odnos sopstvenih i pozajmljenih izvora finansiranja. Referentna vrijednost ovih pokazatelja je 1. Ukoliko se preduzeće finansira iz sopstvenih izvora u tom slučaju bi iznos ovog koeficijenta trebalo da bude manji od 1 i obrnuto. U ovom preduzeću, na osnovu ocjene zaduženosti, preduzeće nije bilo prezaduženo u posmatranom periodu i držalo je zaduženost pod kontrolom. Ipak, na osnovu dobijenih pokazatelja uočava se trend povećanja zaduženosti, odnosno povećanja svih pokazatelja zaduženosti u 2020. godini u odnosu na 2019. godinu. Kako su izračunati koeficijenti finansiranja i sopstvenog finansiranja ispod 1, jasno je da se preduzeće u posmatranom periodu više finansiralo iz sopstvenih izvora finansiranja. Svako preduzeće se osniva radi sticanja profita. Pokazatelj profitabilnosti predstavlja jedan od najznačajnijih izraza kvaliteta poslovanja preduzeća. U slučaju analiziranog preduzeća, koeficijent profitabilnosti je bio negativan u svim analiziranim godinama,

izuzev 2018. godine kad je bio malo iznad referentne vrijednosti 0. U svim posmatranih godinama profitabilnost je bila ugrožena i nije postojala. Razlog su svakako ostvareni negativni finansijski rezultati tokom analiziranog perioda (osim 2018. godine kada je ostvaren neto dobitak). U 2020. godini došlo je do pada neto gubitka, ali taj iznos nije dosegao do pozitivnog finansijskog rezultata u ovoj godini.

## ZAKLJUČAK

Na osnovu sprovedene analize ocijenjena je finansijska stabilnost preduzeća Alpro Vlasenica a.d. Zaključuje se da je preduzeće imalo zavidne performanse tokom posmatranog perioda, ali da je profitabilnost negativna ili izuzetno niska. Takođe, otežane okolnosti prouzrokovane pandemijom kovida-19, doprinijele su pogoršanju svih pokazatelja finansijske stabilnosti, posebno u 2020. godini. Sve veće prijetnje prouzrokovane pandemijom utiču na poslovanje svih sektora privrede i investicija širom svijeta. Budući da su sva tržišta globalizovana, rizici se prelivaju sa inostranih tržišta na domicilno. Ovo je već prouzrokovalo negativne posljedice na kako nacionalnu ekonomiju, tako i na globalnu ekonomiju u cijelini. Niti prije ove globalne krize ekonomija u Bosni i Hercegovini, pa i Republici Srpskoj, nije bila sposobna da se izbori sa mogućom dubokom recesijom. Sasvim je jasno da će posljedice pandemije biti dramatične po privredu i ekonomiju Republike Srpske. Preduzeća su se suočila sa ogromnim izazovima prilikom adaptacije na narušeni poslovni ambijent. Tek su na početku oporavka od posljedica izazvanih pandemijom, privikavanja na „novu normalnost“. Na nivou Bosne i Hercegovine u okviru javne politike donesen je set mjera koji bi trebalo da olakša opstanak i razvoj najpogođenijih grana privrede. Ovim mjerama bi se trebalo pospiješiti lokalno preduzetništvo u tzv. „postpandemijskoj“ ekonomiji u Republici Srpskoj i Bosni i Hercegovini.

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the COVID-19 pandemic, the company Alpro Vlasenica a.d. as the above indicators indicate, has not maintained financial stability at an enviable level. Regardless of the fact that the financial stability ratio remained at the same level in 2020 compared to 2019, financial stability is inadequate, because liquidity ratios are significantly lower in 2020 as well as the solvency, indebtedness and profitability ratios. This statement is supported by the calculated indicators for the six years of operation of the company, which, if used for a longer period of time, show a higher degree of security. In particular, there is a decline in these coefficients in 2020 compared to 2019, ie. in the year of the COVID-19 pandemic. The presented analytical indicators represent a good platform for assessing the financial stability of the company Alpro Vlasenica a.d. in the newly created conditions. They are reliable in eliminating the participation of the subjective factor in assessing the financial stability of the company. They can be adapted to the specific needs of management in assessing financial stability and represent a good basis in the process of making adequate decisions in a pandemic.

## SUMMARY

In market conditions influenced by global processes, companies in the Republic of Srpska as well as in countries in transition are conditioned to shift the focus of management to survival and sustainable growth and development. In this context, the basic task of a company is undoubtedly to establish financial stability. With good financial stability, it would be easier for companies to adapt to the turbulent market changes. It is not unknown that in a such market environment as it is, only those companies that manage to provide good financial stability are acceptable. Due to the above and due to the presence of the COVID-19 pandemic in the last year, the research in the article is focused on the assessment of the financial stability of the selected company Alpro Vlasenica a.d. which belongs to the Republika Srpska. In order to be able to crystallize the financial stability of this company in the conditions of the COVID-19 pandemic, analytical indicators of financial stability based on the reports of this company were used. Indicators used, as is the case with the company Alpro Vlasenica a.d. can be used in assessing the financial stability of the company. In the year of

# ASSESSMENT OF THE FINANCIAL STABILITY OF COMPANIES IN MARKET CONDITIONS OF BUSINESS UNDER THE INFLUENCE OF THE COVID-19 PANDEMIC IN REPUBLIC OF SRPSKA

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**Abstract:** The transformation of the economic system according to the standards of market developed countries and the implementation of long-term privatization have conditioned companies in the Republic of Srpska to find opportunities to preserve their financial stability in the newly created market environment. It is well known that turbulent markets have always favored those companies that can provide good financial stability and that adapt quickly to turbulent market changes. Therefore, the companies of Republic of Srpska have been adapting to the market way of doing business all these years in order to try to build financial stability in unfair competition, which would provide them with a certain reputation in turbulent markets. With the struggle to adapt to the market way of doing business in the last year of business under the influence of the COVID-19 pandemic, companies in Republic of Srpska are going through various unexpected challenges that they need to overcome in order to ensure financial stability. From the context of the above, the research is focused on assessing the financial stability of companies in market conditions under the influence of the COVID-19 pandemic. In this regard, the research attaches importance to the assessment of financial stability on the example of a specific company in market conditions under the influence of the COVID-19 pandemic, using basic analytical indicators used in assessing the financial stability of the company.

**Key words:** company, market, financial stability, COVID-19, Republic of Srpska.

## 1. INTRODUCTION

The events related to the COVID-19 pandemic resulted in the dynamics of changes in the global sense, which were also reflected in the business environment of the companies in Republika Srpska. The essence of the changes related to the COVID-19 pandemic, regarding the business of companies in the Republic of Srpska, is on the sustainability of the financial stability of the company. Due to its importance for the company, it is necessary for the management to find an adequate approach for establishing a rational management concept, which would solve the problems and enable each company to adapt to the new changes. It is known that financial stability in the conditions of modern business affects the business position of our companies in their business, and in such turbulent market changes and under the influence of a pandemic, it can improve the market position of companies. For these reasons, the research issues in this article are focused on assessing the financial stability of a specifically selected company in order to see how much the changes that occurred during the COVID-19 pandemic affected the financial stability of the selected company. Analytical indicators will be taken into account for the assessment of financial stability, because they can serve the management to direct decisions in the

best possible way to preserve the financial stability of the company and thus ensure the company's operations in the new market conditions under the COVID-19 pandemic.

## **2. Conceptual determination of the financial stability of the company**

In order to conceptually determine the financial stability of a company, it is necessary to consider its significance for the company. Above all, the financial stability of the company provides the company with solvency, security and solvency. Financial stability improves a company's market reputation (Malešević, 2000, p. 93). In the conditions of modern business, financial stability significantly affects the business position of the company when contracting jobs. Generally speaking, financial stability is a good platform for making management decisions in a company. Management decisions are the foundation for good business management and the growth and development of any company. The financial stability of a business allows business owners to maintain an interest in profitability and security. The importance of financial stability for the company has established the interest of management in all aspects of financial analysis, in order to ensure both short-term and long-term financial stability of the company in relation to the business environment. Therefore, based on the above, the need of every company for the assessment of financial stability through adequate indicators, which serve this purpose. The financial stability of a company can be determined through the coefficient of financial stability. The coefficient of financial stability is the ratio of fixed assets, on the one hand, and equity and long-term liabilities, on the other hand. Finally, financial stability shows whether the company is provided with security and solvency.

## **3. Basic analytical indicators for assessing the financial stability of the company**

In accordance with the difficult business conditions of the company caused by the impact of the COVID-19 pandemic, all aspects of financial analysis should be pointed out to the company's management. In this way, the financial stability of the company would be continuously monitored. Several groups of analytical indicators need to be used for this purpose. This primarily refers to: 1. liquidity indicators (general liquidity ratio, reduced liquidity ratio, current liquidity ratio), 2. financial stability indicator of the company (financial stability ratio), 3. solvency ratio (solvency ratio), 4. indebtedness indicators (indebtedness ratio, own

financing ratio, financing ratio), 5. profitability indicator (profitability ratio).

*Liquidity ratios.* A company is considered liquid if it is able to pay its liabilities in a short period of time. Therefore, liquidity ratios measure a firm's ability to meet due obligations. Liquidity ratios used for this purpose are derived from the balance sheet.

**Table 1.** Calculation of liquidity ratios

The name of indicator	Calculation of indicators
Coefficient of general liquidity	<u>Total current assets</u> short-term liabilities
Coefficient of reduced liquidity	<u>Cash money+ short-term receivables</u> short-term liabilities
Coefficient of current liquidity	<u>Cash money</u> short-term liabilities

*Source:* Malešević, Starčević, p. 356-360.

*An indicator of the financial stability of a company.* In this case, it is an indicator that is expressed through the coefficient of financial stability, which is characterized by the fact that it must always be less than 1, which means that there is a need to finance part of current assets from part of long-term sources. It is calculated on the basis of balance sheet data.

**Table 2.** Calculation of financial stability indicators of the company

The name of indicator	Calculation of indicators
financial stability ratio	<u>Fixed assets</u> equity + long-term liabilities

*Source:* Author's work based on the indicator shown on the link: <https://usersite.datalab.eu>

*Solvency ratio.* The solvency indicator indicates the ability of the company to pay the total debts, even from the liquidation estate. It should be noted that it is desirable for the value of the solvency ratio to be above 1, because then the company is able to pay the total debts and part of the assets

remains at its disposal. The calculation of the solvency ratio is linked to the data from the balance sheet.

**Table 3.** Calculation of solvency ratios

The name of indicator	Calculation of indicators
solvency ratio	<u>business assets</u> total debts

*Source:* Tuševljak, Rodić, 2003., p. 395.

*Indebtedness indicators.* Indebtedness indicators reflect how much money is financed from own and how much from other people's capital. They are calculated on the basis of balance sheet data.

**Table 4.** Calculation of indebtedness indicators

The name of indicator	Calculation of indicators
indebtedness ratio	<u>total liabilities</u> total funds
coefficient of own financing	<u>personal capital</u> total funds
funding ratio	<u>total liabilities</u> personal capital

*Source:* Hodžić, Gregović, 2014., p. 99.

*Profitability indicator.* The company's profitability indicator is formed on the basis of the income statement. The profitability indicator shows whether the company has generated enough total income to justify the invested funds by achieving a positive financial result, ie. net profit.

**Table 5.** Calculation of profitability indicators

The name of indicator	Calculation of indicators
profitability ratio	<u>net profit</u> total income

*Source:* Preparation of the author based on the indicators shown on the link:<https://usersite.datalab.eu>

#### 4. Assessment of financial stability on the example of a specific company in market conditions under the impact of the COVID-19 pandemic

Based on the financial statements of the company Alpro Vlasenica a.d. the assessment of financial stability was performed through the mentioned indicators of liquidity, financial stability, solvency, indebtedness and profitability.

The general liquidity ratio in the first analyzed year (2015) was 10,520, and after that year it had a declining trend until 2019, when it was 13,914.

**Table 6.** Movement of liquidity indicators in the company Alpro Vlasenica a.d. for the period 2015-2020.

The name of indicator	2015	2016	2017	2018	2019	2020
general liquidity ratio	10,520	7,946	5,895	5,207	13,914	6,099
reduced liquidity ratio	6,881	5,603	3,427	2,738	7,146	3,463
current liquidity ratio	0,668	1,367	0,629	0,730	4,101	1,603

*Source:* Preparation of the author based on data from financial reports (2015-2020) Alpro Vlasenica a.d. available on the Banja Luka Stock Exchange website: <https://www.blberza.com/>

In 2020, the general liquidity ratio compared to the previously analyzed year decreased by more than 50% of the amount. A similar situation was observed with the movement of the reduced liquidity ratio. In 2015, this coefficient was 6,881, so a declining trend was recorded, and its lowest value was in 2018 (2,738). The highest value of the reduced liquidity ratio was observed in 2019,

and in the last observed year its value dropped to 3,463. Also, the current liquidity ratio shows the instability that manifested itself the most in 2020 compared to 2019. Due to the growth of liabilities, which in this company are only short-term liabilities, there is a decline in all liquidity indicators in 2020.

**Table 7.** Movement of financial stability indicators in the company Alpro Vlasenica a.d. for the period 2015-2020.

The name of indicator	2015	2016	2017	2018	2019	2020
financial stability ratio	0,594	0,580	0,610	0,621	0,596	0,598

**Source:** Preparation of the author based on data from financial reports (2015-2020) Alpro Vlasenica a.d. available on the Banja Luka Stock Exchange website: <https://www.blberza.com/>

The coefficient of financial stability varied during the observed period. The calculated coefficients in all observed years were approximately equal and over 0.500. The highest amount of this coefficient was recorded in 2018, when it was 0.621. In the last year, 2020, the coefficient increased slightly (0.002) compared to the previous year.

**Table 8.** Movement of solvency indicators in the company Alpro Vlasenica a.d. for the period 2015-2020.

The name of indicator	2015	2016	2017	2018	2019	2020
solvency ratio	24,515	17,554	13,444	12,101	32,954	13,678

**Source:** Preparation of the author based on data from financial reports (2015-2020) Alpro Vlasenica a.d. available on the Banja Luka Stock Exchange website: <https://www.blberza.com/>

The highest solvency ratio was calculated in 2019, when it was 32,954. In the last observed year, the value of this coefficient decreased by over 50% and amounted to 13,678. In 2020, there is a tendency to increase total debts, so this has consequently been reflected in the reduction of the solvency ratio this year.

**Table 9.** Movement of indebtedness indicators in the company Alpro Vlasenica a.d. for the period 2015-2020.

The name of indicator	2015	2016	2017	2018	2019	2020
indebtedness ratio	0,041	0,057	0,074	0,083	0,030	0,073
self-financing ratio	0,959	0,943	0,926	0,917	0,970	0,927
funding ratio	0,042	0,060	0,080	0,091	0,313	0,079

**Source:** Preparation of the author based on data from financial reports (2015-2020) Alpro Vlasenica a.d. available on the Banja Luka Stock Exchange website: <https://www.blberza.com/>

The lowest indebtedness ratio was recorded in 2019 and amounted to 0.030, and the highest in 2018 (0.083). During 2020, the indebtedness ratio increased again to 0.073, which was approximately equal to the value from 2017. The reason for this is certainly the growth of total liabilities, which in 2020 increased by 670,824 BAM compared to 2019.

**Table 10.** Movement of profitability indicators in the company Alpro Vlasenica a.d. for the period 2015-2020.

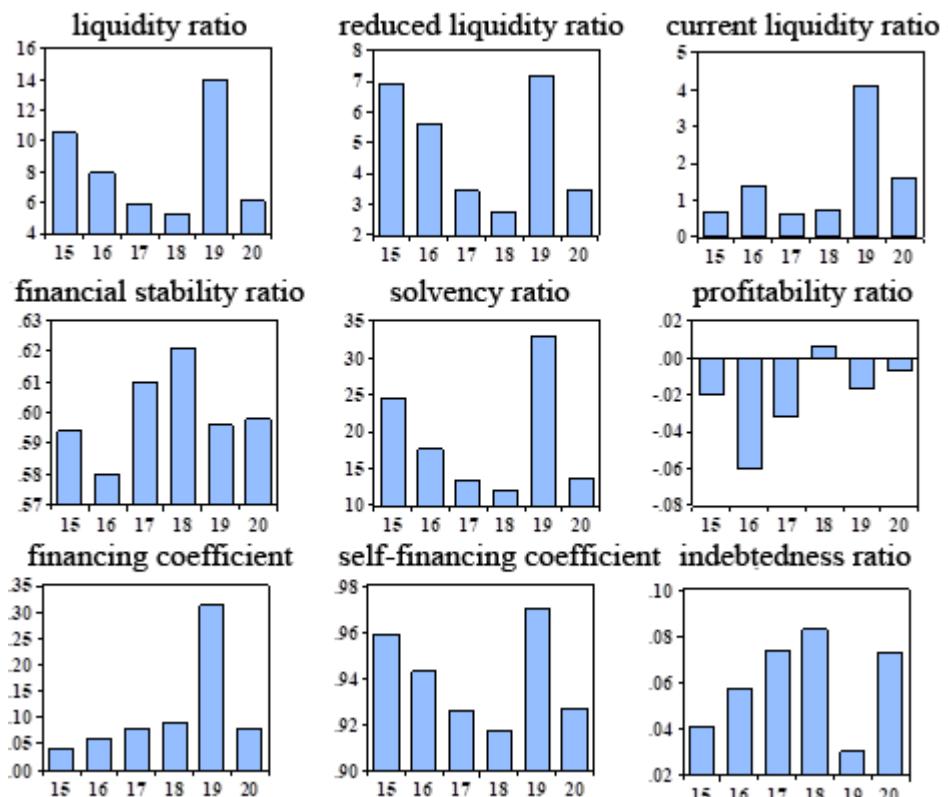
The name of indicator	2015	2016	2017	2018	2019	2020
profitability ratio	(0,020)	(0,060)	(0,032)	0,006	(0,017)	(0,007)

**Source:** Preparation of the author based on data from financial reports (2015-2020) Alpro Vlasenica a.d. available on the Banja Luka Stock Exchange website: <https://www.blberza.com/>

The profitability ratio was negative in almost all observed years, except in 2018, when the company made a net profit of 101,090 KM. The lowest value of this coefficient was recorded in 2016, because the amount of net loss this year was the

highest (850,346 BAM). In 2020, there was a decrease in net loss by 197,616 BAM so the profitability ratio increased slightly to (0.007).

**Graph 1.** Assessment of financial stability of the company Alpro Vlasenica a.d. (2015-2020)



**Source:** Preparation of the author based on data from financial reports (2015-2020) Alpro Vlasenica a.d. available on the Banja Luka Stock Exchange website: <https://www.blberza.com/>

Based on the analysis of financial stability in the company Alpro Vlasenica a.d. it can be noticed that the liquidity indicator drastically worsened in 2020 compared to 2019. It is clear that the company struggled with maintaining liquidity, ie certain difficulties related to the payment of obligations in the short term. However, the realized ratios of general, reduced and current liquidity were above the reference values, which means that the company was liquid in 2020, but that liquidity significantly deteriorated compared to the previous analyzed year. The financial stability indicator indicates whether the company is able to maintain liquidity for a longer period. Based on the analysis, it is clear that financial stability was achieved in all analyzed years, because the coefficient of financial stability is below 1. This means that long-term tied funds are

less than permanent and long-term capital, so long-term financial balance is shifted to sources, which indicates security in the direction of maintaining liquidity in the field of long-term financing. It is noticeable that the coefficient of financial stability during the analyzed period (2015-2020) was within the reference value, with the fact that in 2020 it increased slightly compared to 2019 and in practice should be reduced, because it would mean that there is an increase in net working capital, which is important for maintaining the financial stability of the company. The solvency ratio in the observed company was significantly above the reference value of 1, which indicates that the company will be able to meet its obligations in the future long-term. On the other hand, based on the movement of the calculated solvency ratios, it is clear that this ratio also significantly worsened in

2020 compared to 2019, in the newly created business conditions caused by the COVID-19 pandemic. The indebtedness indicator in the company Alpro Vlasenica a.d., calculated with the help of the coefficients: indebtedness, own financing and financing, was in the range of the reference value (less than 50%). Namely, these coefficients indicate what the capital structure of the company is and how it finances its business assets. It is very important that the company does not reach a high level of indebtedness, because this further affects financial flexibility, leads to the problem of finding new investors or may ultimately face bankruptcy. Also, it is very important to calculate the coefficients of financing and own financing. These indicators are focused on the ratio of own and borrowed sources of financing. The reference value of these indicators is 1. If the company is financed from its own sources, then the amount of this coefficient should be less than 1 and vice versa. In this company, based on the assessment of indebtedness, the company was not over-indebted in the observed period and kept the indebtedness under control. However, based on the obtained indicators, there is a trend of increasing indebtedness, ie an increase in all indicators of indebtedness in 2020 compared to 2019. As the coefficients of financing and own financing were calculated below 1, it is clear that the company in the observed period was financed more from its own sources of financing. Every company is established for profit. The profitability indicator is one of the most important expressions of the quality of a company's business. In the case of the analyzed company, the profitability ratio was negative in all analyzed years, except in 2018, when it was slightly above the reference value of 0. In all observed years, profitability was endangered and did not exist. The reason is certainly the negative financial results achieved during the analyzed period (except in 2018, when the net profit was realized). In 2020, there was a drop in net loss, but that amount did not reach a positive financial result this year.

## CONSLUSION

Based on the conducted analysis, the financial stability of the company Alpro Vlasenica a.d. It is concluded that the company had enviable performance during the observed period, but that the profitability is negative or extremely low. Also, the aggravated circumstances caused by the COVID-19 pandemic have contributed to the deterioration of all indicators of financial stability, especially in 2020. The growing threats posed by the COVID-19 pandemic are affecting the operations of all sectors of the economy and

investment around the world. As all markets are globalized, risks spill over from foreign markets to domiciles. This has already caused negative consequences for both the national economy and the global economy as a whole. Even before this global crisis, the economy in Bosnia and Herzegovina, and even in the Republic of Srpska, was not able to cope with a possible deep recession. It is quite clear that the consequences of the COVID-19 pandemic will be dramatic for the economy of Republic of Srpska. Businesses have faced enormous challenges in adapting to the disrupted business environment. They are only at the beginning of recovery from the consequences caused by the COVID-19 pandemic, getting used to the "new normality". At the level of Bosnia and Herzegovina, within the framework of public policy, a set of measures has been adopted that should facilitate the survival and development of the most affected branches of the economy. These measures should promote local entrepreneurship in the so-called "post-pandemic" economy in Republic of Srpska and Bosnia and Herzegovina.

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participation of the subjective factor in assessing the financial stability of the company. They can be adapted to the specific needs of management in assessing financial stability and represent a good basis in the process of making adequate decisions in a pandemic

## SUMMARY

In market conditions influenced by global processes, companies in the Republic of Srpska as well as in countries in transition are conditioned to shift the focus of management to survival and sustainable growth and development. In this context, the basic task of a company is undoubtedly to establish financial stability. With good financial stability, it would be easier for companies to adapt to the turbulent market changes. It is not unknown that in a such market environment as it is, only those companies that manage to provide good financial stability are acceptable. Due to the above and due to the presence of the COVID-19 pandemic in the last year, the research in the article is focused on the assessment of the financial stability of the selected company Alpro Vlasenica a.d. which belongs to the Republika Srpska. In order to be able to crystallize the financial stability of this company in the conditions of the COVID-19 pandemic, analytical indicators of financial stability based on the reports of this company were used. Indicators used, as is the case with the company Alpro Vlasenica a.d. can be used in assessing the financial stability of the company. In the year of the COVID-19 pandemic, the company Alpro Vlasenica a.d. as the above indicators indicate, has not maintained financial stability at an enviable level. Regardless of the fact that the financial stability ratio remained at the same level in 2020 compared to 2019, financial stability is inadequate, because liquidity ratios are significantly lower in 2020 as well as the solvency, indebtedness and profitability ratios. This statement is supported by the calculated indicators for the six years of operation of the company, which, if used for a longer period of time, show a higher degree of security. In particular, there is a decline in these coefficients in 2020 compared to 2019, ie. in the year of the COVID-19 pandemic. The presented analytical indicators represent a good platform for assessing the financial stability of the company Alpro Vlasenica a.d. in the newly created conditions. They are reliable in eliminating the

## ФИСКАЛНЕ ИМПЛИКАЦИЈЕ КРИЗЕ ИЗАЗВАНЕ ПАНДЕМИЈОМ КОВИДА 19 У СВЕТУ

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**Апстракт:** Владе свих држава света суочиле су се са здравственом кризом изазваном пандемијом ковида-19 у претходној и текућој години. Ова криза је прерасла у економску кризу, с обзиром на то да је за њено превазилажење било неопходно обезбедити огромна финансијска средства. Осим тога, владе су „упутавале“ додатне количине новца снабдевајући привреду и становништво новом ликвидношћу кроз субвенције и једнократне помоћи у виду „новца из хеликоптера“. Све ово је допринело погоршању фискалних перформанси економија у свету. У раду су анализиране економске и фискалне перформансе водећих економија света попут Европске уније, САД, Кине и Русије. Циљ рада је да укаже на последице примењених мера у домену монетарне и фискалне политike на раст буџетског дефицита и јавног дуга у свету.

**Кључне речи:** криза, ковид-19, јавни дуг, буџетски дефицит, фискална политика

### 1. УВОД

Огромни фискални стимуланси, који се примењују у великом броју земаља у циљу превазилажења кризе изазване коронавирусом, воде погоршању стопе раста јер, иако су охрабрујући за приватно задуживање, они за

државу представљају велики терет. Креатори фискалне политике доприносе финансирању јавног здравља, али и пружају директну помоћ привреди и становништву чије је функционисање угрожено локдауном због коронавируса (Ђорђевић и др., 2020, стр.231).

Владе су агресивно реаговале на пандемију користећи фискалну политику која је подразумевала додатну потрошњу, с једне стране, и пореске олакшице, с друге стране. Дакле, државни буџети су били изложени двоструком удару и то кроз: раст јавних расхода (субвенције грађанима и привреди, јавни расходи за здравство и капиталне инвестиције за изградњу болница и додатних здравствених установа) и смањење јавних прихода (пореске олакшице, ослобођења, одлагање плаћања пореских обавеза и др.).

Makina & Layton (2021) сматрају да су велики фискални дефицити који су уследили одражавали степен до којег су светске владе трошиле преко својих прихода, углавном на основу задуживања.

Оштар скок буџетског дефицита за 2020. годину резултат је пада прихода од пореза на доходак и пореза на додату вредност током рецесије, повећања социјалних давања због веће незапослености и отворених мера подршке

које су владе предузеле да подрже појединце и предузећа због ковид кризе.

Ефекти примене мера фискалне политike на кризу су високи буџетски дефицити широм света и повећана јавна задуженост у циљу њиховог смањења. Ови повишени нивои јавног дуга угрожавају кредитну способност држава, што ће довести до још већег задуживања и инфлаторног притиска у будућности. Виши јавни дуг ће увећати несигурност и водиће повећању пореског оптерећења привреде, што ће успорити будуће инвестиције и продуктивност.

Gräbner, Heimberger&Kapeller (2020) доказују у својим истраживањима да је макроекономски утицај кризе озбиљнији у земљама јужне него у земљама северне Европе, што додатно појачава тенденцију све веће економске поларизације.

У раду ће најпре бити приказан утицај кризе на економске индикаторе водећих економија света кроз анализу БДП-а и незапослености, а након тога и кретање изабраних фискалних индикатора (буџетски дефицит и јавни дуг).

## 2. Утицај кризе на економске индикаторе водећих економија света

Економска криза, произашла из здравствене кризе као резултат предузиманих мера у циљу сузбијања пандемије изазване коронавирусом, има и имаће далекосежне последице на привредна кретања свих земаља у свету.

Зато можемо, са сигурношћу, тврдити да је ова криза систематска и да ју је било немогуће избећи. Највећи број држава у свету изабрао је „lokdown“ као начин да смањи утицај коронавируса на здравље грађана.

Међутим, то је оставило последице на економска кретања земаља које су се одлучиле за ову стратегију борбе против вируса.

Поједиње државе су изабрале другачији приступ у борби са коронавирусом. У овом, мањем броју земаља, није било ограничења у кретању грађана и обуставе рада предузећа, па се очекивало да ће таква политика резултирati већим последицама по здравље људи и мањим опадањем производње, што се показало делимично тачним.

Односно, која год стратегија да је изабрана од стране конкретне државе, она је имала различите ефекте у зависности од тога где се примењује и под којим околностима та држава функционише. Оно што је заједничко за све економије је пад БДП-а, запослености и опадање других макроекономских показатеља, као што су штедња, инвестиције, увоз и извоз. С друге стране, дошло је до раста новчане масе, раста буџетске потрошње и јавног дуга највећег броја земаља у свету.

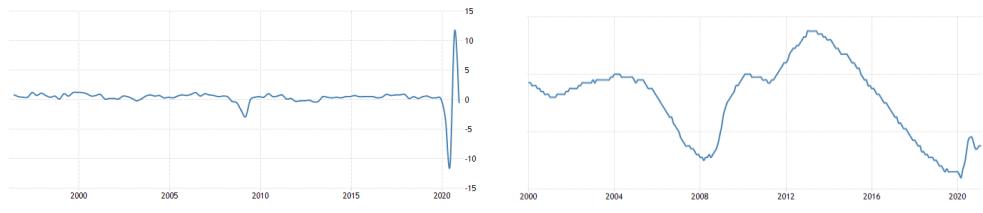
Истраживање ММФ-а приказано у World Economic Outlook-у даје пројекције раста ММФ-а за одређене групе земаља (IMF, 2020, стр.70). Показало се да су развијене светске економије доживеле много дубље контракције (у просеку 8%) него остатак света.

У том смислу, ММФ је за развијене економије проценио да ће производња и приход у њима бити нижи него годину дана пре него што је криза изазвана ковидом-19 наступила.

Рецесија и опоравак у овим привредама је, међутим, ублажен блажом рецесијом и снажнијим опоравком у остатку света, посебно у економијама у развоју (Makina, Layton, 2021, стр.342).

На графиконима који следе биће приказана негативна кретања кључних макроекономских варијабли у изабраним економијама (Европска унија, САД, Кина и Русија), које имају најснажнији утицај на остале државе света. Тзв. *Велика локдаун рецесија* одразила се у највећој мери на БДП и незапосленост највећег броја земаља у свету.

Графикон 1: Стопа раста БДП-а и незапослености Европске уније, 1995-2020.год.



**Извор:**<https://tradingeconomics.com/european-union/gdp-growth>  
<https://tradingeconomics.com/european-union/unemployment-rate>(приступљено 25.4.2021)

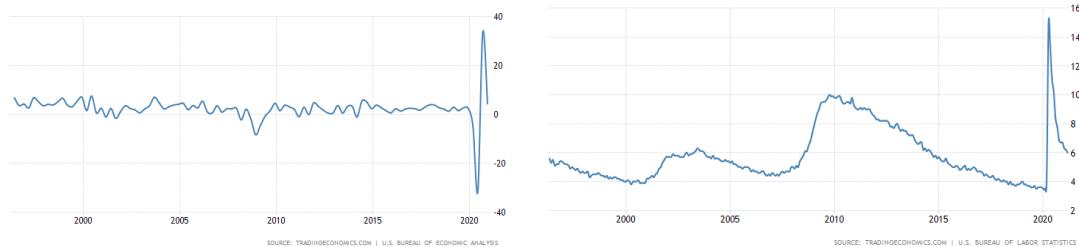
На основу кретања стопе раста БДП-а у Европској унији може се уочити њен нагли пад на -11,2% у првој половини 2020. године, затом скок на 11,6% и након тога поновни пад на почетку 2021. године на -0,5%.

Овај скок стопе раста БДП-а је резултат мера које су предузете на нивоу Европске уније у циљу ублажавања негативних ефеката кризе на привреду.

Међутим, он је био кратког даха и дугорочно посматрано, очекује се даљи пад БДП-а у Европи, као и у читавом свету.

Што се тиче незапослености у посматраном периоду, она је имала велике скокове у време Велике економске кризе 2006-2008. године (10%), након кризе 2012-2013. године (11,5%) и сада са корона кризом на око 8% у 2020. години са тенденцијом њеног даљег раста.

Графикон 2: Стопа раста БДП-а и незапослености САД-а, 1995-2020.год.



**Извор:**<https://tradingeconomics.com/united-states/gdp-growth>,<https://tradingeconomics.com/united-states/unemployment-rate>(приступљено 25.4.2021)

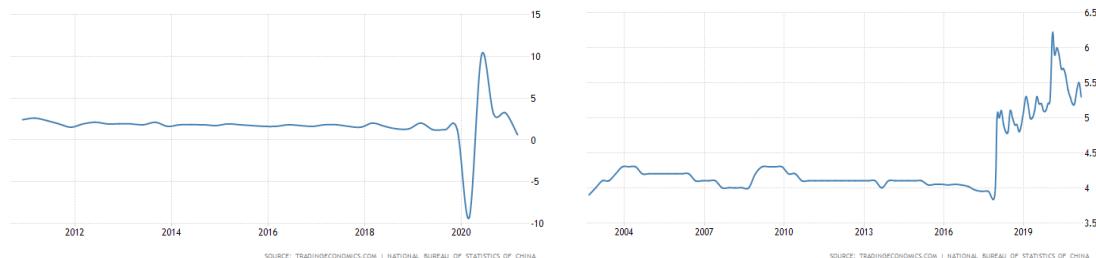
Графикон 2 показује сличне тенденције: након пада БДП-а на ниво -31,4%, долази до скока стопе раста на ниво 33,4% (што је резултат мера владе предузетих ради смањења негативних тенденција кризе изазване корона вирусом) и поновног пада на почетку 2021. године на ниво од 4,3%.

Што се тиче незапослености, у САД-у овај скок је још очигледнији и износио је око 15%. Стопа незапослености пала је на 6% у марта 2021. године са 6,2% у претходном месецу.

Стопа је у сталном паду последњих месеци, након што је у априлу прошле године достигла највиши ниво од 14,8%, али многи верују да то може бити објашњено тиме што су многи себе погрешно класификовали као „запослени, али одсутни са посла“.

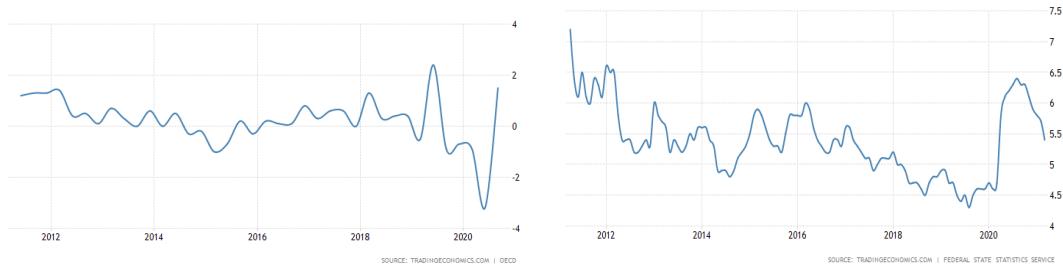
Председавајући ФЕД-а недавно је рекао да се стопа учешћа радне снаге повећава и задржава стопу незапослености, што би био веома пожељан исход (U.S. Bureau of Labor Statistics).

Графикон3: Стопа раста БДП-а и незапослености Кине, 2010-2020.год.



**Извор:**<https://tradingeconomics.com/china/gdp-growth>,  
<https://tradingeconomics.com/china/unemployment-rate>(приступљено дана 26.4.2021)

Графикон 4: Стопа раста БДП-а и незапослености Русије, 2010-2020.год.



*Извор:*<https://tradingeconomics.com/russia/gdp-growth>,  
<https://tradingeconomics.com/russia/unemployment-rate> (приступљено дана 26.4.2021)

Са графика 3 који показује кретање стопе раста БДП-а и незапослености у Кини можемо уочити да 2020. година доноси нагли пад БДП-а на -10% у првој половини године и исто толики раст у другој половини године.

На почетку 2021. године стопа раста БДП-а је 0,6%, док је стопа незапослености у Кини кренуо да расте у години пре кризе, да би 2020. године достигао 6%.

У Русији је (графикон 4) дошло до пада БДП-а на -3,2%, док је стопа незапослености нагло порасла са 4,5 на скоро 6,5%, али је у наредним месецима дошло до њеног пада на ниво од 5,5.%.

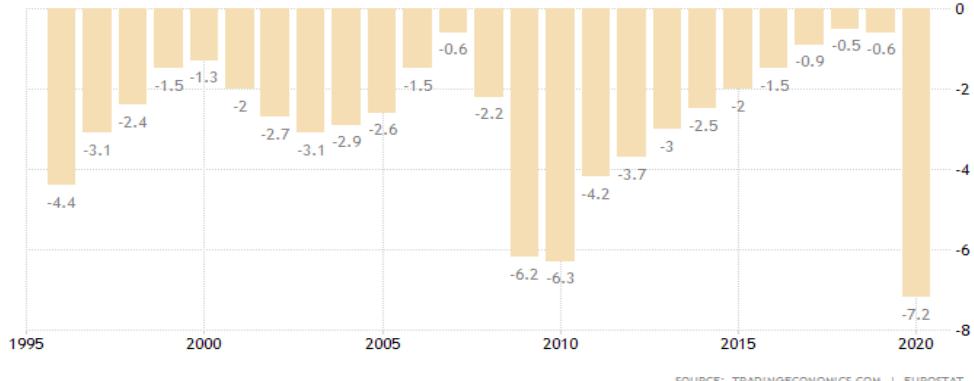
Тачније, она је опала на 5,4% у марту 2021. године, са 5,7% у претходном месецу и испод предвиђања аналитичара од 5,6%.

То је била најнижа стопа од марта 2020. године, али и даље знатно изнад нивоа пре-пандемије (Федеральная служба государственной статистики).

### 3. Анализа кретања изабраних фискалних индикатора

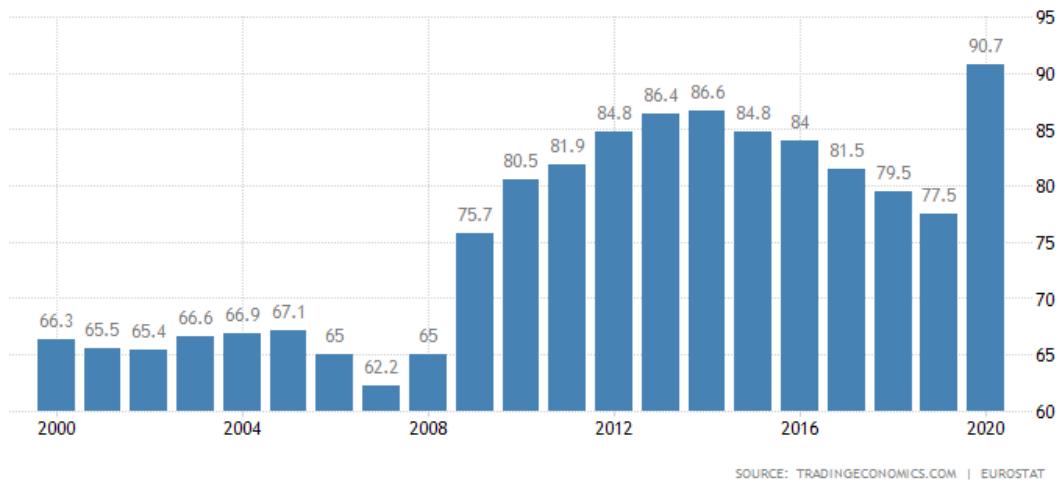
С обзиром на то да је највећи број држава света реаговао на кризу бројним монетарним и фискалним мерама, то се одразило на стање њихових буџета, као и на повећану задуженост која прети да угрози стабилност јавних финансија и целокупну економску стабилност. Мере у виду субвенција привреди и становништву, одлагања плаћања пореза, смањења референтних каматних стопа централних банака, експанзивна монетарна политика, политика „јефтиног новца“, као и помоћ држава најугроженијим секторима у области угоститељства, транспорта и туризма, допринеле су продубљењу буџетских дефициита и расту јавних дугова земаља у читавом свету. У наставку ће бити, кроз графичке приказе, презентовано стање у буџетима Европске уније, САД, Кине и Русије, из разлога што су ово економије које имају највећи утицај на читав свет и што се дешавања у њима трансмитују на привредна кретања свих држава у свету.

Графикон 5: Кретање буџетског дефициита земаља Еврозоне, 1995-2020.г.



*Извор:*<https://tradingeconomics.com/european-union/government-budget> (приступљено дана 28.4.2021)

Графикон 6: Тренд кретања јавног дуга земаља Еврозоне, 2000-2020.г.



Извор:<https://tradingeconomics.com/european-union/government-debt-to-gdp> (приступљено дана 28.4.2021)

Буџетски дефицит и јавни дуг Европске уније продубљени су са почетком кризе и применом бројних мера за њено превазилажење. Кључне мере из буџета Европске уније укључују:

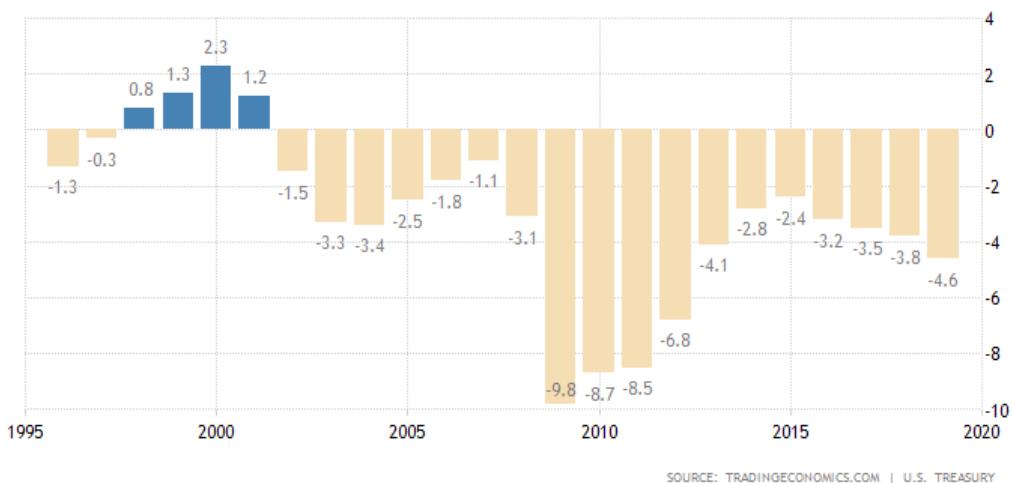
- улагања у изградњу болница, ублажавања негативних ефеката на тржишту рада и областима које су највише погођене здравственом кризом;
- проширивање обима фонда солидарности ЕУ за кризу јавног здравља са циљем усмеравања средстава ка најтеже погођеним државама ЕУ;
- преусмеравање из буџета ЕУ као гаранција Европском инвестиционом

фонду у подршици банака да обезбеде ликвидност малим и средњим предузетићима;

- ублажавање кредитних услова дужницима;
- усвајање пакета помоћи другим државама ради ублажавања последица пандемије ковида-19 (IMF, 2021, стр.74).

Све ове мере су допринеле повећању буџетског дефицита на -7,2% што је на нивоу историјског максимума, с обзиром на то да ни у периоду велике економске кризе није био изнад тог нивоа и износио је -6,3%.

Графикон 7: Кретање буџетског дефицита САД, 1995-2020.г.

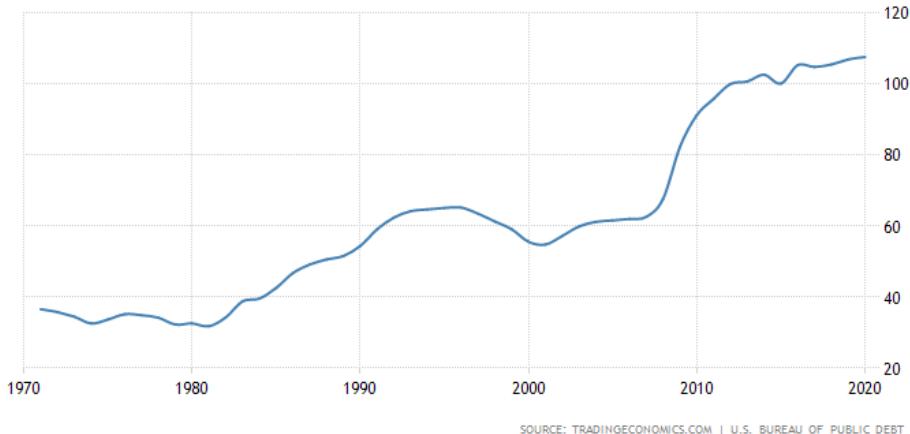


Извор:<https://tradingeconomics.com/united-states/government-budget> (приступљено дана 28.4. 2021)

Борба са коронавирусом је повећала јавни дуг Еврозоне на преко 90% БДП-а, док је у претходним годинама износио око 80%, с тим

што се ниво јавног дуга разликује од земље до земље у Европској унији.

Графикон 8: Тренд кретања јавног дуга САД, 1970-2020.г.



**Извор:**<https://tradingeconomics.com/united-states/government-debt-to-gdp> (приступљено дана 28.4.2021)

Када говоримо о стању јавних финансија у Сједињеним Америчким Државама, можемо запазити да је ситуација слична оној у Европској унији.

Тачније, буџетски дефицит је у време светске економске кризе био близу 10% (-9,8%), а сада, у време „корона кризе“ је дупло мањи, тј. износи -4,6%. С друге стране, јавни дуг је на историјском максимуму и износи 107,6%. Све је ово последица мера за превазилажење кризе. Влада је марта 2021. одобрila тзв. Амерички план спасавања, који пружа још један круг квантитативних олакшица за борбу против коронавируса са процењеним трошковима од око 8,8% БДП-а.

План се фокусира на улагање у очување јавног здравља и пружање помоћи породицама и предузећима.

Такође, он обухвата и програме накнада за незапослене, кроз директне стимултивне исплате у износу од 1.400 америчких долара квалификованим лицима. Осим тога, програм пружа директну помоћ држави и локалној влади (IMF, 2021, стр.346).

Такође, у другој половини 2020. године предузете су одређене измене у оквиру претходног акта, што је подразумевало: коришћење средстава Фонда за помоћ у случају

катастрофе за обезбеђивање додатних накнада за незапослене; континуирано растерећење плаћања студентског кредита; одлагање наплате пореза на зараде запослених и социјалног осигурања; утврђивање могућности за помоћ становдевцима и власницима кућа (Strategies to fight the spread of COVID-19).

Процењује се да је око 11% БДП-а издвојено у оквиру Закона о помоћи и економској заштити од коронавируса (CARES Act, 2020, sec.1106). Закон укључује: одобравање једнократне помоћи физичким лицима; проширење накнада за незапослене; обезбеђивање мреже за допремање хране најугроженијима; спречавање банкрота предузећа давањем зајмова, гаранција и подржавањем програма Федералних резерви; обезбеђивање средстава болницама, државним и локалним властима и за међународну помоћ.

Народна Република Кина је након великог дефицита у 2018. години, који је износио - 4,2% побољшала стање својих јавних финансија у 2019. на - 2,8%.

Међутим, то је било кратког даха, јер се под утицајем кризе изазване коронавирусом, дефицит буџета продубио на ниво од -3,7%. Стање јавног дуга је још алармантније, јер је он нагло порастао на скоро 70%, што је највећи дуг који је Кина имала у посматраном периоду од 25 година.

Графикон 9: Кретање буџетског дефициита Кине, 1995-2020.г.



Извор:<https://tradingeconomics.com/china/government-budget> (приступљено дана 29.4.2021)

Графикон 10: Тренд кретања јавног дуга Кине, 1970-2020.г.



Извор:<https://tradingeconomics.com/china/government-debt-to-gdp> (приступљено дана 29.4.2021)

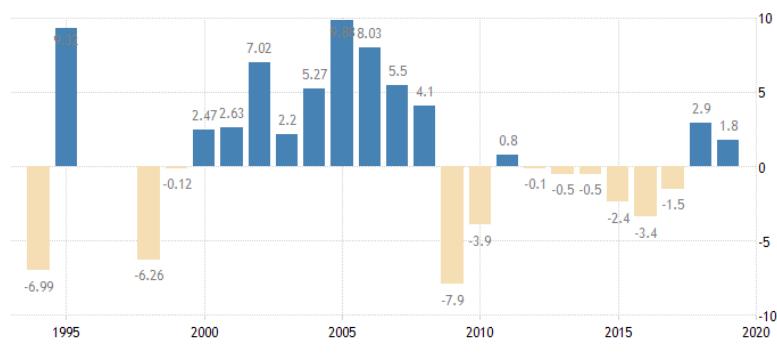
Процењено је да најављене дискреционе фискалне мере у Кини износе 4,7% БДП-а. Кључне мере у оквиру програма за заштиту од коронавируса су следеће:

- повећање потрошње у превенцији и контроли епидемије,
- производња медицинске опреме,
- убрзана исплата осигурања за случај незапослености и проширење на раднике мигранте,

- пореске олакшице и одрицање доприноса за социјално осигурање, и
- додатне јавне инвестиције.

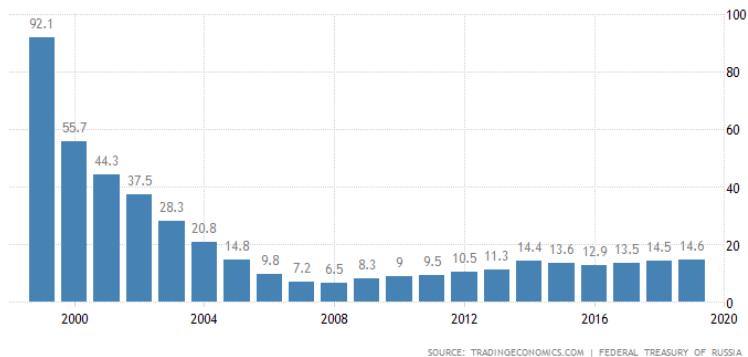
Аутоматски стабилизатори додатно повећавају буџетску подршку. Очекује се да ће укупна подршка јавног сектора бити већа. На пример, подршка ван буџета укључује додатне гаранције од 0,4 процента БДП-а и смањења накнада и царина од 0,9 процената БДП-а за коришћење путева, лука и електричне енергије (IMF, 2021, стр.75).

Графикон 11: Кретање буџетског дефициита Русије, 1995-2020.г.



Извор:<https://tradingeconomics.com/russia/government-budget> (приступљено дана 29.4.2021)

Графикон 12: Тренд кретања јавног дуга Русије, 2000-2020.г.



Извор:<https://tradingeconomics.com/russia/government-debt-to-gdp> (приступљено дана 29.4.2021)

На крају, у анализи и сагледавању података везаних за Русију, можемо уочити другачије тенденције и трендове у односу на претходно анализиране земље.

Стање буџета показује суфицит у 2019. години који износи 1,8%. Такође, и јавни дуг је на изузетно ниском нивоу од 14,8%, што показује да је Русија једна од најмање задужених држава света и да ће мере које предузима у борби против коронавируса довести до извесног раста дуга и дефицита који није алармантан, као што је то у осталим посматраним земљама. Кључне фискалне мере које су до сада уведене износе више од 3% БДП-а и укључују:

- додатна средства за здравствени систем,
- делимично покривање плата родитеља који остају код куће током периода када су школе затворене, и
- мере за подршку предузећима, укључујући делимично покривање зарада самозапослених и радника у опасности од отпуштања, делимично субвенционисање зарада оних који се враћају на посао, одлагање комуналних плаћања за мала и средња предузећа,
- бонус за плаћање пореза на добит предузећа
- помоћи за предузећа (IFM, 2021, стр.75).

Влада Русије је у буџет за 2021. годину укључила неке мере подршке које ће се продужити и у текућој години. Могућност препрограмирања плаћања пореза проширина је и 2021. Такође је додатно подигла кумулативни оквир државних гаранција за зајмове укупно око 4% БДП-а.

## ЗАКЉУЧАК

Највећи број држава у свету изабрао је „локдаун“ као начин да смањи утицај коронавируса на здравље грађана, што је оставило последице на погоршање економских перформанси у тим земљама. Мере владе су имале различите ефекте у зависности од тога где се примењују и под којим околностима та држава функционише. Оно што је заједничко за све економије је пад БДП-а, запослености и опадање других макроекономских показатеља, као што су штедња, инвестиције, увоз и извоз. С друге стране, дошло је до раста новчане масе, раста буџетске потрошње и јавног дуга највећег броја земаља у свету.

На основу података које смо сагледали у раду може се уочити да су буџетски дефицити у свим анализираним земљама енормно порасли у 2020. години у односу на претходни период. У складу са тим, дошло је и до повећања јавног дуга, с обзиром на то да је он представљао један од најчешће коришћених начина за покриће буџетског дефицита у периоду кризе изазване коронавирусом.

На крају, може се закључити да је велика локдаун рецесија утицала на погоршање фискалних перформанси држава у свету и да ће се њен утицај наставити и даље, тако да ће носиоци фискалне власти морати да уложе велике напоре да се ови проблеми што лакше превазиђу или бар делимично ублаже.

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## SUMMARY

Governments reacted aggressively to the pandemic using fiscal policy that included additional spending, on the one hand, and tax breaks, on the other. Thus, state budgets were exposed to a double blow through:

- *growth of the public expenditures* (subsidies to citizens and the economy, public expenditures for health and capital investments for the construction of hospitals and additional health care institutions) and
- *reduction of the public revenues* (tax breaks, exemptions, prolongation of tax obligation, etc).

Health insurance organizations have requested additional funding from the government to cover the increased costs imposed on them. This meant an increase in donations from the budget that were directed to the organizations of obligatory social insurance. In that sense, it was necessary to provide additional funds for these activities.

Budgets in 2020 were deprived of the level of public revenues that the state collected less due to reduced production and reduced consumption. A decrease was also recorded in the area of direct tax revenues, but also in the consumption tax. In the area of corporate income tax, the inflow of income from this tax form was reduced due to difficult working conditions of numerous companies. With regard to personal income tax, there was a problem in reducing the number of taxpayers, as a large number of employees lost their jobs. The reduction in spending has led to a reduction in revenues from indirect taxes such as VAT, excise duties and customs duties.

All this contributed to the deterioration of the fiscal performance of countries around the world, given that this additional money had to be provided from sources that mean new borrowing and an increase in public debt

## FISCAL IMPLICATIONS OF THE WORLD CRISIS CAUSED BY THE COVID 19 VIRUS PANDEMIC

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**Abstract:** The governments of all countries of the world have faced up with the health crisis caused by the Covid 19 virus pandemic in the previous and current year. This crisis turned into an economic crisis, considering that it was necessary to provide huge financial resources to overcome it. Governments "pumped" additional amounts of money by supplying the economy and the population with new liquidity through subsidies and one-time assistance in the form of "helicopter money". This has contributed to the deterioration of the fiscal performance of the world economies. The paper analyzes the economic and fiscal performance of the world leading economies such as the European Union, the United States, China and Russia. The aim of this paper is to point out the consequences of the applied measures in the domain of monetary and fiscal policy and influence on the increase of the budget deficit and public debt in the world.

**Key words:** crisis, Covid 19, public debt, budget deficit, fiscal policy

### 1. INTRODUCTION

Huge fiscal stimulus, which is being applied in a large number of countries in order to overcome the crisis caused by the coronavirus, is leading to a worsening of the growth rate, because although they are encouraging for private borrowing, they represent a great burden for the state. Fiscal policy makers contribute to the financing of public health, but also provide direct assistance to the economy

and the population whose functioning is endangered by lockdown due to the corona virus (Đorđević et al., 2020).

Governments reacted aggressively to the pandemic using fiscal policies that included additional spending, on the one hand, and tax breaks, on the other. Thus, state budgets were exposed to a double blow: through growth of public expenditures (subsidies to citizens and the economy, public expenditures for health and capital investments for the construction of hospitals and additional health care institutions) and reduction of public revenues (tax breaks, exemptions, tax obligation deferrals, etc.).

Makina & Layton (2021) believe that the large fiscal deficits that followed reflected the extent to which world governments spent above their revenues, mainly on the basis of borrowing. The sharp jump in the budget deficit for 2020 is the result of falling income and income tax revenues during the recession, increased social benefits due to higher unemployment and open support measures taken by governments to support individuals and companies due to the covid crisis.

The effects of fiscal policy measures on the crisis are high budget deficits around the world and increased public indebtedness in order to reduce deficit. These elevated levels of public debt are jeopardizing the creditworthiness of governments, leading to even greater borrowing and inflationary pressures in the future. Higher public debt will increase uncertainty and lead to an increase in the

tax burden on the economy, which will slow down future investments and productivity.

Gräßner, Heimberger & Kapeller (2020) prove in their research that the macroeconomic impact of the crisis is more serious in the countries of the south than in the countries of the northern Eurozone, which further reinforces the tendency of increasing economic polarization.

The paper will first show the impact of the crisis on the economic indicators of the world's leading economies through the analysis of GDP and unemployment, and then the movement of selected fiscal indicators (budget deficit and public debt).

## 2. The impact of the crisis on the economic indicators of the world's leading economies

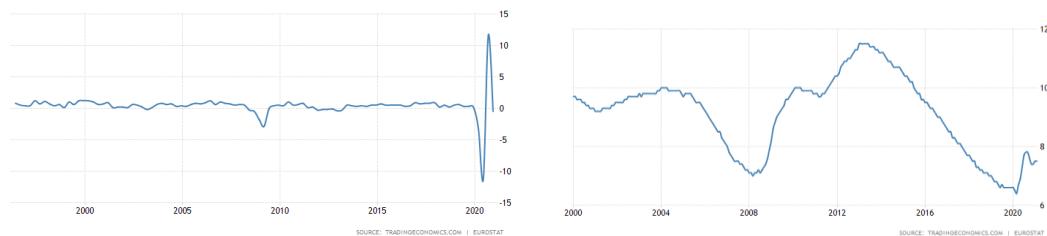
The economic crisis, which arose from the health crisis as a result of the measures taken in order to suppress the pandemic caused by the corona virus, has and will have far-reaching consequences on the economic trends of all countries in the world. Therefore, we can say with certainty that this crisis is systematic and that it was impossible to avoid it. Most countries in the world have chosen "lockdown" as a way to reduce the impact of the corona virus on the health of their citizens.

However, the consequences of the economic trends of these countries opted for this anti-virus strategy. Some countries have chosen a different approach in the fight against the Covid 19 virus. In this, a smaller number of countries, there were no restrictions on the movement of citizens and

business shutdowns, so it was expected that such a policy would result in greater consequences for human health and lower production, which turned out to be partially true. That is, whichever strategy is chosen by a particular state, it has had different effects depending on where it is applied and under what circumstances that state operates. What all economies have in common is declining GDP, employment, and declining other macroeconomic indicators, such as savings, investment, imports, and exports. On the other hand, there was both an increase in the money supply and in budget spending and the public debt of the largest number of countries in the world.

The IMF survey presented in the World Economic Outlook provides IMF growth projections for certain groups of countries (IMF, 2020). Developed world economies have been shown to experience much deeper contractions (on average 8%) than the rest of the world. In that sense, the IMF estimated for developed economies that production and income in them will be lower than a year before the crisis caused by kovid 19 occurred. The recession and recovery in these economies, however, has been mitigated by a more moderate recession and a stronger recovery in the rest of the world, especially in developing economies (Makina, Layton, 2021). The following graphs will show the negative trends of key macroeconomic variables in selected economies (European Union, USA, China and Russia), which have the strongest impact on other countries in the world. The so-called *The Great Lockdown recession* has mostly affected the GDP and unemployment of most countries in the world.

Graph 1: GDP growth and unemployment rate of the European Union, 1995-2020

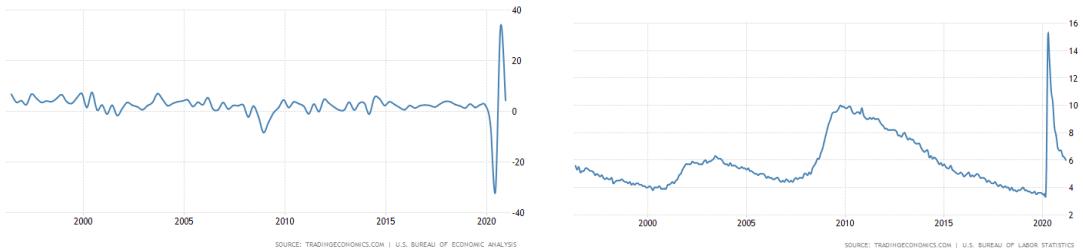


Source: <https://tradingeconomics.com/european-union/gdp-growth> и <https://tradingeconomics.com/european-union/unemployment-rate> (25/04/2021)

Based on the movement of GDP growth in the European Union, we can see its sharp decline to -11.2% in the first half of 2020, then jump to 11.6% and then fall again at the beginning of 2021 to -0,5%. This jump in the GDP growth rate is the result of measures taken at the level of the European Union in order to mitigate the negative effects of the crisis on the economy. However, IT was short-

lived and in the long run, a further decline in GDP is expected in Europe, as well as in the whole world. As for unemployment in the observed period, it had large jumps during the Great Depression of 2006-2008 (10%), after the crisis of 2012-2013 (11.5%) and now from the corona crisis to about 8% in 2020 with a tendency of its further growth.

Graph 2: US GDP growth and unemployment rate, 1995-2020

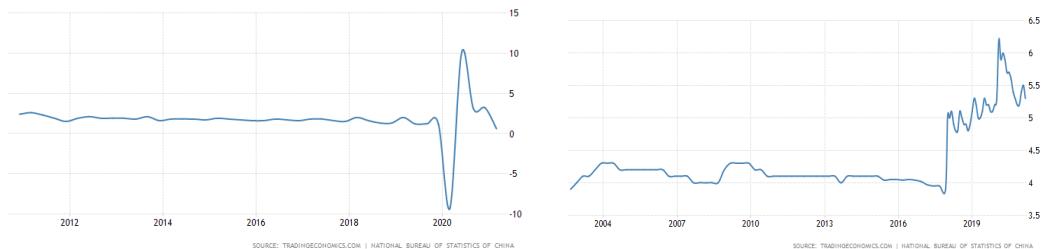


Source: <https://tradingeconomics.com/united-states/gdp-growth>, <https://tradingeconomics.com/united-states/unemployment-rate> (25/04/2021)

Graph 2 shows similar trends: after the fall of GDP to the level of -31.4%, there is an increase in the growth rate to the level of 33.4% (as a result of government measures taken to reduce the negative tendencies of the crisis caused by the coronavirus) and at the beginning of 2021 at the level of 4.3%. As for unemployment, in the US this increase is even more obvious and stood at around 15%. The unemployment rate fell to 6% in March 2021 from 6.2% in the previous month. The rate has been

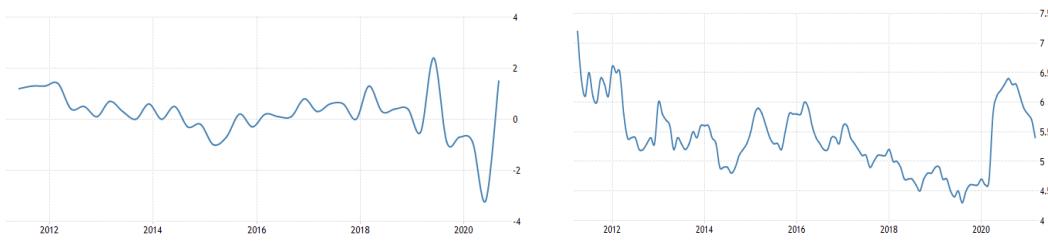
steadily declining in recent months, after reaching its highest level of 14.8% in April last year, but many believe this can be explained by many misclassifying themselves as "employed but absent from work". The Fed chairman recently said that the labor force participation rate is increasing and the unemployment rate is maintained, which would be a very desirable outcome (U.S. Bureau of Labor Statistics).

Graph 3: China's GDP growth and unemployment rate, 2010-2020



Source: <https://tradingeconomics.com/china/gdp-growth>, <https://tradingeconomics.com/china/unemployment-rate> (26/04/2021)

Graph 4: GDP growth and unemployment rate in Russia, 2010-2020



Source: <https://tradingeconomics.com/russia/gdp-growth>, <https://tradingeconomics.com/russia/unemployment-rate> (26/04/2021)

From Chart 3, which shows the movement of the GDP growth rate and unemployment in China, we can see that 2020 brings a sharp drop in GDP to -10% in the first half of the year and the same

growth in the second half of the year. At the beginning of 2021, the GDP growth rate is 0.6%, while the growth of unemployment in China

started to grow in the years before the crisis, and in 2020 it reached 6%.

In Russia (Graph 4), GDP fell to -3.2%, while the unemployment rate rose sharply from 4.5 to almost 6.5%, but in the following months it fell to the level of 5.5%. Specifically, it fell to 5.4% in March 2021, from 5.7% in the previous month and below analysts' forecasts of 5.6%. It was the lowest rate since March 2020, but still well above pre-pandemic levels (Федеральная служба государственной статистики).

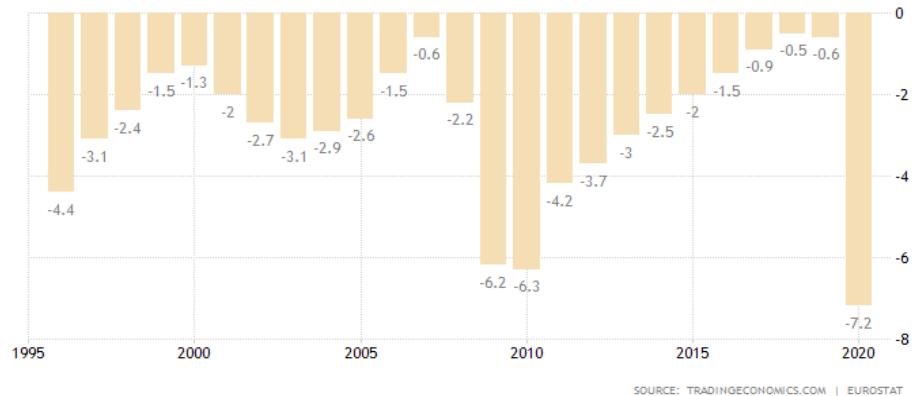
### 3. Analysis of the movement of selected fiscal indicators

Considering the fact that most countries in the world have responded to the crisis with numerous monetary and fiscal measures, this has affected the

state of their budgets, as well as increased indebtedness that has threatened to jeopardize the stability of public finances and overall economic stability. Measures in the form of subsidies to the economy and the population, tax delays, reduction of reference interest rates of central banks, expansionary monetary policy, "cheap money" policy, as well as the state aid to the most vulnerable sectors in the hospitality, transport and tourism, contributed to deepening budget deficits and growth in public debts of the countries around the world.

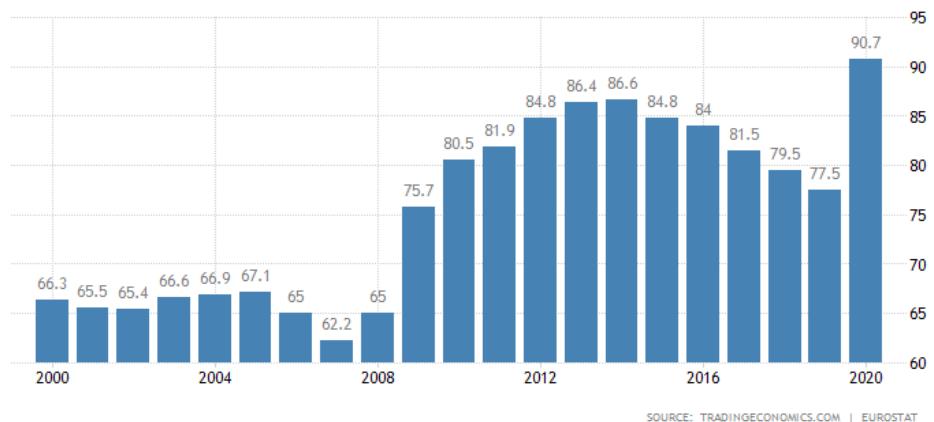
To continue, the situation in the budgets of the European Union, the USA, China and Russia will be presented, through graphic representations, because these are the economies that have the greatest impact on the whole world and the events in them are transmitted to the economic trends of all countries the world.

Graph 5: Trends in the budget deficit of the Eurozone countries, 1995-2020



Source: <https://tradingeconomics.com/european-union/government-budget> (28/04/2021)

Graph 6: Trend in public debt of Eurozone countries, 2000-2020



Source: <https://tradingeconomics.com/european-union/government-debt-to-gdp> (28/04/2021)

The budget deficit and public debt of the European Union have deepened with the beginning of the crisis and with the application of numerous measures to overcome it. The key measures from the European Union budget include:

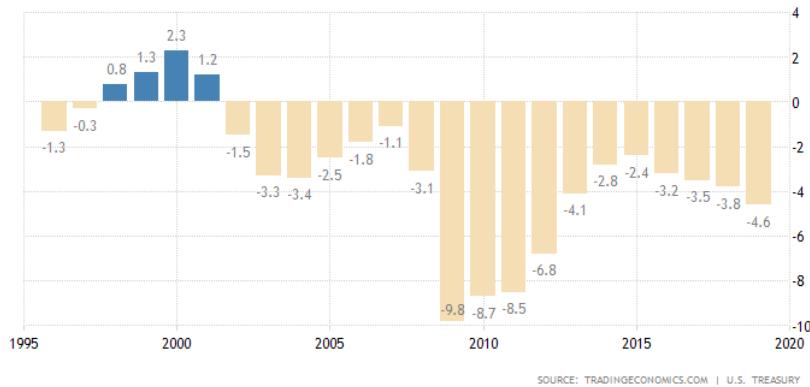
- investments in building hospitals, mitigating the negative effects on the labor market and the areas most affected by the health crisis;
- expanding the scope of the EU Solidarity Fund for the Public Health Crisis in order to direct funds to the most severely affected EU countries;

- redirection from the EU budget as a guarantee to the European Investment Fund in support of banks to provide liquidity to small and medium enterprises;

- allowing credit conditions for debtors,
- adopting aid packages for other countries to mitigate the effects of the coronavirus pandemic (IMF, 2021).

All these measures contributed to the increase of the budget deficit to -7.2%, which is at the level of the historical maximum, considering that even in the period of the great economic crisis, it was not above that level and it was -6.3%.

Graph 7: Trends in the US budget deficit, 1995-2020



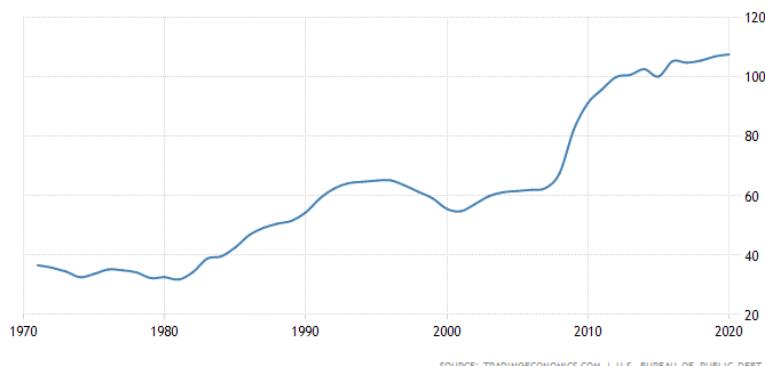
SOURCE: TRADINGECONOMICS.COM | U.S. TREASURY

Source: <https://tradingeconomics.com/united-states/government-budget> (28/04/2021)

The fight against the corona virus has increased the public debt of the Eurozone to over 90% of GDP, while in previous years it was about 80%, with the

level of public debt varying from country to country in the European Union.

Graph 8: Trends in US public debt, 1970-2020



SOURCE: TRADINGECONOMICS.COM | U.S. BUREAU OF PUBLIC DEBT

Source: <https://tradingeconomics.com/united-states/government-debt-to-gdp> (28/04/2021)

When we talk about the state of public finances in the United States, we can see that the situation is

similar to that in the European Union. More precisely, the budget deficit during the world

economic crisis was close to 10% (-9.8%), and now, during the "crown of the crisis", it is twice smaller, ie. is -4.6%. On the other hand, public debt is constantly high of 107.6%. All this is a consequence of measures to overcome the crisis. In March 2021, the government approved the so-called The U.S. rescue plan, which provides another round of quantitative relief to fight coronavirus with an estimated cost of about 8.8% of GDP. The plan focuses on investing in maintaining public health and providing assistance to families and businesses. It also includes unemployment benefit programs, through direct incentive payments in the amount of 1,400 US dollars to qualified persons.

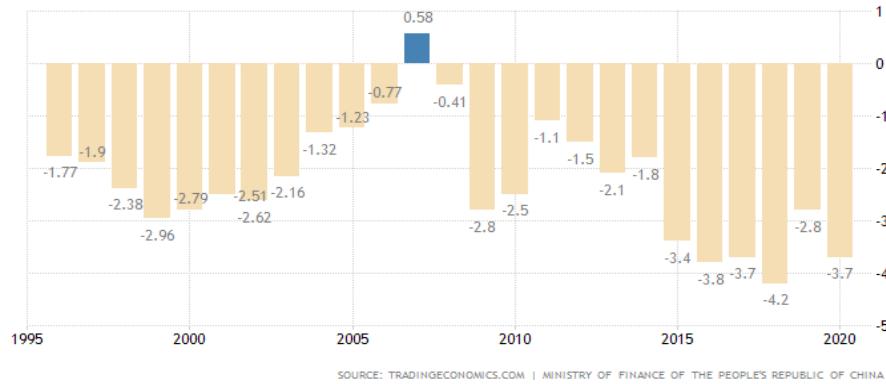
Besides in the second half of 2020, certain changes were undertaken within the previous act, which included: using the funds of the Disaster Relief Fund to provide additional unemployment benefits; continuous relief of student loan payments; postponement of collection of taxes on employees' salaries and social insurance; identifying opportunities to help landlords and

homeowners (Strategies to fight the spread of COVID-19).

It is estimated that about 11% of GDP is allocated under the Coronavirus Aid and Economic Protection Act (CARES Act, 2020). The law includes: granting one-time assistance to individuals; extension of unemployment benefits; providing a network to deliver food to the most vulnerable; preventing corporate bankruptcies by providing loans, guarantees and supporting Federal Reserve programs; providing funding to hospitals, state and local authorities, and international assistance.

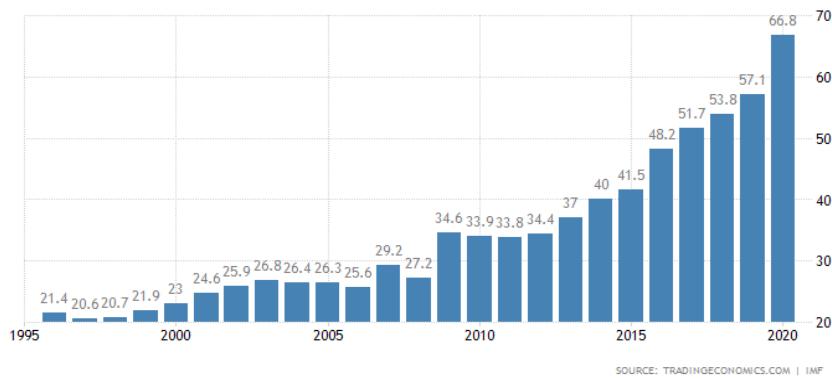
The People's Republic of China, after a large deficit in 2018, which was -4.2%, improved the state of its public finances in 2019 to - 2.8%. However, it was only for short time, because under the influence of the crisis caused by the corona virus, the budget deficit deepened to the level of - 3.7%. The state of THE public debt WAS even more alarming, because it rose sharply to almost 70%, which WAS the largest debt that China had in the observed period of 25 years.

Graph 9: Trends in China's budget deficit, 1995-2020



Source: <https://tradingeconomics.com/china/government-budget> (29/04/2021)

Graph 10: Trend in China's public debt, 1970-2020.



Source: <https://tradingeconomics.com/china/government-debt-to-gdp> (29/04/2021)

China's announced discretionary fiscal measures are estimated at 4.7 percent of GDP. The key measures within the corona virus protection program are the following:

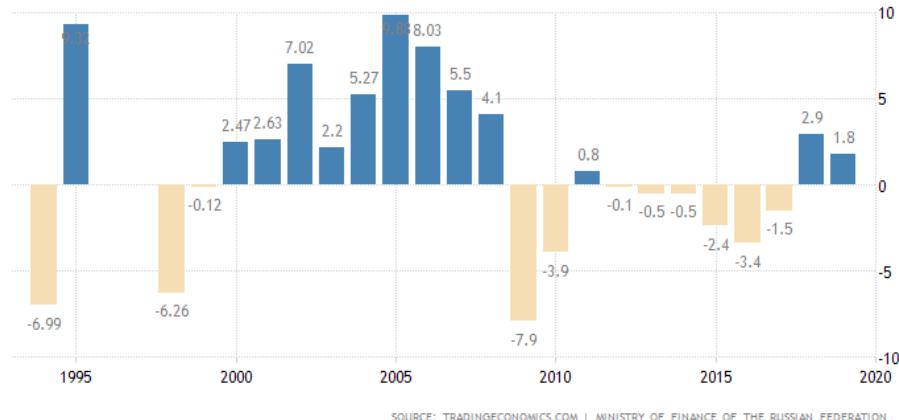
- increase in spending in epidemic prevention and control,
- production of medical equipment,
- accelerated payment of unemployment insurance and extension to migrant workers,

- tax relief and waiver of social security contributions and

- additional public investment.

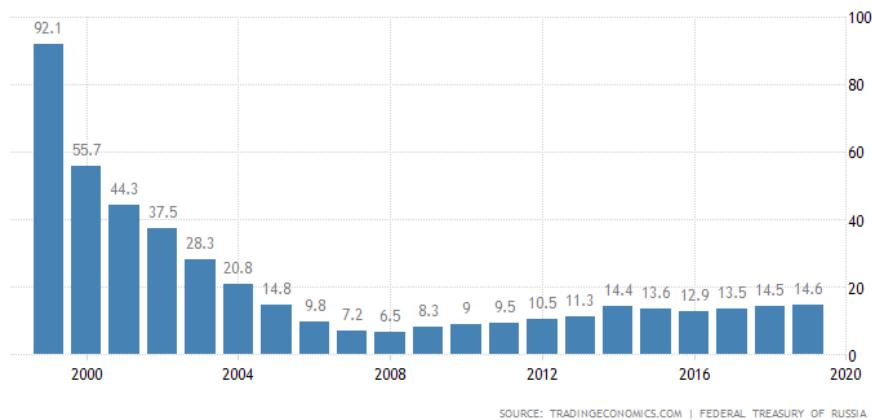
Automatic stabilizers further increase budget support. Overall public sector support is expected to be higher. For example, outside the budget support includes additional guarantees of 0.4 percent of GDP and reductions in fees and duties of 0.9 percent of GDP for the use of roads, ports and electricity (IMF, 2021).

Graph 11: Trends in Russia's budget deficit, 1995-2020



Source: <https://tradingeconomics.com/russia/government-budget> (29/04/2021)

Graph 12: Trend in Russia's public debt, 2000-2020



Source: <https://tradingeconomics.com/russia/government-debt-to-gdp> (29/04/2021)

Finally, in the analysis and THE review of THE data related to Russia, we can see different tendencies and trends in relation to the previously analized countries. The state of the budget shows a surplus in 2019 of 1.8%. Also, public debt is at an extremely low level of 14.8%, which shows that Russia is one of the least indebted countries in the

world and that the measures it is taking in the fight against the Corona virus will lead to a certain increase in debt and deficit that is not alarming, such as it is in other countries observed.

The key fiscal measures introduced so far are more than 3% of GDP and include:

- additional funding for the health system
- partial coverage of the salaries of parents who stay at home during the period when schools are closed
- measures to support businesses, including partial coverage of salaries of self-employed and workers at risk of dismissal, partially subsidizing the wages of those returning to work, postponing utility payments for small and medium-sized enterprises
- bonus for paying corporate income tax
- financial support for enterprises (IFM, 2021).

The Russian government has included some support measures in the budget for 2021, which will be extended in the current year as well. The possibility of rescheduling tax payments has been expanded to 2021. It has also further raised the cumulative framework of state guarantees for loans in total for about 4% of GDP.

## CONCLUSION

Most countries in the world have chosen "lockdown" as a way to reduce the impact of the corona virus on the health of citizens, which has had consequences for the deterioration of economic performance in these countries. Government measures have had different effects depending on where they are applied and under what circumstances that state operates. What all economies have in common is declining GDP, employment, and declining of other macroeconomic indicators, such as savings, investment, imports and exports. On the other hand, there was an increase in the money supply, an increase in budget spending and the public debt of the largest number of countries in the world.

Based on the data we presented in the paper, it can be seen that budget deficits in all analyzed countries increased enormously in 2020 compared to the previous period. Accordingly, there has been an increase in public debt, due to the fact that it was one of the most commonly used ways to cover the budget deficit during the crisis caused by the coronavirus.

Finally, it can be concluded that the Great Lockdown recession has affected the deteriorating fiscal performance of countries in the world and that its impact will continue, so that fiscal authorities will have to make great efforts to overcome these problems as easily as possible or at least partially mitigate them.

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## SUMMARY

Governments reacted aggressively to the pandemic using fiscal policy that included additional spending, on one hand, and tax breaks, on the other. Thus, the state budgets were exposed to a double blow through:

- *growth of the public expenditures* (subsidies to citizens and the economy, public expenditures for health and capital investments in building hospitals and additional health care institutions) and
- *reduction of the public revenues* (tax breaks, exemptions, allowing tax obligations, etc).

Health insurance organizations have requested additional funding from the government to cover the increased costs imposed on them. This has meant an increase in donations from the budget that have been directed to the organizations of obligatory social insurance. In that sense, it was necessary to provide additional funds for these activities.

Budgets in 2020 were deprived from the level of public revenues that the state collected less, due to reduced production and reduced consumption. A decrease was not only recorded in the area of direct tax revenues, but also in the consumption tax. In the area of the corporate income tax, the inflow of the income from this tax form was reduced due to difficult working conditions in numerous companies. With regard to the personal income tax, there was a problem in reducing the number of taxpayers, as a large number of employees have lost their jobs. The reduction in spending has led to the reduction in revenues from indirect taxes such as VAT, excise duties and customs duties.

All this contributed to the deterioration of the fiscal performance of countries around the world, due to the fact that additional money had to be provided from sources that mean new borrowing and an increase in public debt.

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## **PREDUZETNIČKA DRŽAVA I KRIZA**

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**Apstrakt:** U ovom radu razmatramo odnos preduzetničke države i krize (izazvane ekonomskim i neekonomskim razlozima i vice versa). Dakle, riječ je o interaktivnom odnosu preduzetničke države u rješavanju krize i uticaju krize na dalji razvoj novih ekonomskih ingerencija i nadležnosti države u ekonomiji. Preduzetnička država se posmatra kao preduzetnik i jedan od važnijih ekonomskih aktera, koji prihvata rizike ulaganja na dugi rok, imajući na umu širu sliku i opšte dobro. Razvoj novih tehnologija i novih tehnoloških kompanija u SAD i drugim razvijenim zemljama bio je moguće zahvaljujući investiranju američke preduzetničke države i njenih agencija. Polazimo od pretpostavke da su američku krizu 2008. godine izazvali visoki dugovi privatnog sektora, a ne javni dug SAD, koji je danas enormno visok i vrtoglavo raste. U osnovi ovog razmatranja стоји teza da klasična ekonomска teorija o nemiješanju države u privredni život, koja stoјi po strani u najnovije doba razvoja globalnog kapitalizma, ne drži vodu. Naprotiv, pokazuje se da je državno rizično investiranje na dugi rok u osnovi savremene ekonomije u kome privatni sektor može da se razvija samo na premisama tog golemog ulaganja u razvoj modernih novih tehnologija. Većina inovacija danas i istraživačkih instituta u SAD duguje ulaganjima američke države. U radu razmatramo uticaj krize na shvatanje preduzetničke države i njene uloge u inovacijama, ulogu novih tehnologija i inovacija u privrednom rastu, preduzetničku državu i rizike, preduzetničku državu i ekonomiju znanja, preduzetničku državu u „guranju“ nasuprot „podbadanju“ zelene industrijske revolucije, koristi i cijene investiranja, inovacije i razvoj američke preduzetničke države.

**Ključne riječi:** preduzetnička država, inovacije, privredni rast, ekonomija znanja, pandemija kovida-19

### **1. UVOD**

Ekonomска kriza i pandemija kovida-19, pozicionirali su državu, kao najvažnijeg ekonomskog aktera i preduzetnika, bez koje nije moguće rješenje krize. Neoliberalna teorija i Smitova ekonomска teorija izgubile su primat u rješenju krize iako i dalje ostaju relevantne ekonomске teorije. Bez razumijevanja preduzetničke uloge države i njenih ulaganja, njenih investicija u Internet, zdravstveni sistem i zelenu revoluciju nije moguće razumjeti tu epohalnu promjenu, u kojoj je država postala najvažniji ekonomski akter. Državne investicije u navedene sektore su pospješile privatno investiranje. Posebno apostrofiramo pragmatični pristup u interakciji države i privatnog sektora, apstrahujući ideošku suprotstavljenost javnog i privatnog interesa. I dalje je prisutan spor između konzervativne i progresivne struje u ekonomiji, o tome da li restriktivna državna potrošnja i politika štednje doprinosi privrednom rastu ili treba koristiti ekspanzionističku politiku državnog ulaganja, infrastrukturu i javna dobra. Po Marijani Macukato, Kejns i Polanji su ekonomisti velikog formata, koji brane progresivno mišljenje o ulozi države u ekonomiji (Macukato, 2020, str. 22). Ekonomска logika države ne može se svesti na javne rade, niti se njen ekonomsko ponašanje može redukovati na ponašanje pojedinca. Ona uvijek rješava nešto više i teže, jer je reprezentant opštih interesa, koji su drugaćiji od prostog zbiranja pojedinačnih interesa. Polanji je apostrofirao ideju da tzv. slobodno tržište ne popravlja nego ga kreira država, jer je tržište rezultat državnog i privatnog

djelovanja. Moderne kompanije poput moderne države uvođe strateški menadžment, organizaciono ponašanje i teorije odlučivanja. Ekonomski vrijednosti se stvaraju kolektivno, stoga moderna država i moderna korporacija djeluju preduzetnički. Dakle, u ekonomiji i država se ponaša između ostalog i ekonomski. Klasična ekonomска teorija je propisivala da država djeluje samo u nekim djelatnostima i u popravljanju tržišnog neuspjeha. To se danas u vrijeme pandemije, finansijske krize i tzv. zelene revolucije u ekonomiji može smatrati neuvjerljivim, a i pogrešnim. Klasična ekonomска teorija od države očekuje da propisuje jednake uslove, da finansira javna dobra poput infrastrukture, državne odbrane i osnovnih istraživanja; i da osmisli mehanizme za ublažavanje negativnih eksternalija, kao što je zagađenje. (Macukato, 2020, str. 23). Američka preduzetnička država je nakon Drugog svjetskog rata, stvorila dvije ključne agencije NASA (*National Aeronautics and Space Administration*) i DARPA (*Defense Advanced Research Projects Agency*), bez kojih ne bi bio moguć Internet i američki privatni rast i razvoj. Dakle, u američkom razvoju poslije Drugog svjetskog rata, odlučujuću ulogu je imala američka država, a to se često zaboravlja. Te agencije su angažovale najkreativnije kadrove, nisu se vodile uskim privatnim interesima, već su imale na umu širu sliku, javnog američkog nacionalnog interesa, vođenog misijom o opštem dobru. Džoan Robinson vjeruje da birokratija ne mora uopšte biti manje fleksibilna od privatnog preduzetništva (Pizano, 2015 str. 44). Država se pokazala kao rizični ekonomski akter, ulazeći u finansijska sredstva bez valjanih garancija u istraživanje i razvoj bez kojeg nema modernog ekonomskog napretka. Američka država godinama ulaze u inovacije i razvoj ogromnih sredstava. Kineska država duguje svom razvoju, visokim investicijama u istraživanje i razvoj tzv. zelene industrije, kao i u infrastrukturne projekte od nacionalnog značaja. Ona je i dalje motor brzog kineskog rasta, jer jedina ima ekonomsku i političku moć da transformiše industriju i kinesko društvo u cjelini.

Tome treba dodati da je na čelu kineske države kocentrisana politička volja u Komunističkoj partiji sa Siom na čelu, čiji je mandat 10 godina i gdje se ekonomski i političke odluke donose relativno lako i nisu sputane demokratskim obzirima i vrijednostima. To Kini daje primat u eri globalizacije u svijetu, kao što su ga nekad imale evropske kolonijalne sile. Ekonomski uspješnoj državi danas potrebno je i više tržišta i više države, to nisu antipodi. Država se ne može svesti na korekciju tržišta, njena funkcija je da kreira i usmjerava, da ima šиру sliku, kao i misiju i viziju.

Država mora voditi računa ne samo o uspjehu tržišta, već i o harmoničnom funkcionisanju svih segmenta države, vođena načelima profita, ali i načelima pravde. Bez moderne države i njenog finansiranja i razvoja nisu zamislivi osvajanje svemira, borba protiv klimatskih promjena i razvoj modernih tehnoloških kompanija, koje istini za volju postaju prijetnja demokratskom karakteru države i političke vlasti (bili smo svjedoci jedne nevjerojatne činjenice da su predsjedniku SAD Donaldu Trampu, najkrupnije tehnološke kompanije digitalne i informatičke, onemogućile da se obrati javnosti, zabranjujući mu pristup medijima, isključivši ga bez milosti iz tzv. medijskog političkog prostora). Konsekvenke ovakve situacije su još uvijek nesagledive. Pitanje je da li je ovo isključivanje američkog predsjednika iz javnog prostora početak kraja političke demokratije ili je to početak neke nove realnosti, koju je teško zamisliti i razumjeti. Fetišizacija tržišta u pravilu vodi isključivanju eksternalija, problemu zagađenja, u oblasti raspodjele, preraspodjeli bogatstva i nepravde. Danas se u literaturi govori o pogrešnim tržištima, poput onog koje djeluje u eksploataciji nafte i plina, gdje se rukovodi ranijim ugljeničnim tehnologijama, umjesto tehnologijama čiste tehnologije. Država, a ne tržište mora da se bavi nekim novim fenomenima, kao što su: gojaznost, stareњe, klimatske promjene, nejednakost, nezaposlenost. Dakle, tržište nije u stanju da se bavi na dobar način nekim suštinskim ljudskim vrijednostima. Ono može biti zabavljeno logikom profita, logikom višeg, efikasnijeg. Tržišne sile su u krajnjoj konsekvenci rezultat, a ne posljedica državnih odluka. Najveći broj modernih izuma, inovacija (vještačke inteligencije) i patenata u Americi, pa i u svijetu, inspiriran je aktivnošću vojnog sektora i američkog ministarstva odbrane. Tako su ratovanje i vojska snažan generator tehnoloških inovacija u brojnim oblastima. Nacionalni instituti za zdravlje su nerijetko finansijeri i ključni akteri farmaceutskoj industriji, proizvodnji lijekova, kao jednoj od najpropulzivnijih grana moderne ekonomije.

Zahvaljujući najrazvijenijim državama i kompanijama, podržanim od strane države, za samo godinu dana imaćemo desetak vrsta vakcina protiv koronavirusa, koji je paraliso čovječanstvo i to ne samo u ekonomskom već i u svim drugim aspektima. Pandemija je pokazala međusobnu povezanost ljudi i naroda i prvi put istinski legitimisala potrebu solidarnosti i međusobne povezanosti, pojmom čovječanstva i svjetske zajednice. Mada se u praksi pokazuju isti egoistički odnosi, odnos nejednakosti pristupa izvorima i dostupnostima vakcine, na najmoćnije i najrazvijenije zemlje svijeta. Neke zemlje (EU)

pokazale su uske i sebične interese da u želji da sačuvaju svoje stanovništvo isključuju ostale manje zemlje iz raspodjele ovih lijekova. (Generalni sekretar OUN upozorio je na potrebu solidarnosti u međunarodnim odnosima od strane velikih razvijenih zemalja u nabavci vakcina protiv koronavirusa). Evidentno je da sa ovim fenomenima u zdravstvu, energetici, ekologiji, novim tehnologijama, značaj države enormno raste.

Značaj države na primjeru države Srbije evidentan je u slučaju državnog instituta Torlaka, koji će podržan državnim investicijama proizvesti rusku vakcinu putem *know how* i time omogućiti zaštitu stanovništva u Srbiji od koronavirusa, već i nadati se i šire u regionu. Država treba da posveti pažnju strateškom menadžmentu u poslovnim školama i organizacionom ponašanju, kao i privatne kompanije (Macukato, 2020, str. 55). Dakle, neophodno je priznavanje uloge države kao vodećeg nosioca rizika i inovatora što podrazumijeva i priznavanje velikih rizika koje ona mora preuzeti u uslovima krajnje nesigurnosti, pa samim tim i visoku vjerovatnoću neuspjeha. Uprkos dosta uvriježenom mišljenju da su državna ulaganja sigurna, američka preduzetnička država je preduzimala brojna rizična ulaganja, koja nisu uvijek donosila izvjesni ishod. Očito je da privatni sektor nije jedini izvor stvaranja bogatstva, tu je i javni sektor. Trenutno je na djelu ekonomска kriza, koja se očituje kroz pad svih ekonomskih parametara, od pada BDP-a, do pada životnog standarda ogromnog broja ljudi širom planete izazvana prevashodno pandemijom kovida-19. Naravno, učinci ekonomске i pandemijske krize su različiti, ali su ovog puta planetarni. Evidentno je da uzroci krize nisu profitabilne tehnološke mogućnosti ili nedostatak efektivne tražnje, radi se o posljedicama sistematskih mjera na očuvanju zdravlja i sprečavanju širenja pandemije u njenim razornim posljedicama na cjelokupan ekonomski, socijalni život. Pandemija kovida-19 pokazala je potrebu i povezanost zemalja i ljudi širom svijeta, gdje se bez zajedničke strategije rješenja ne mogu naći. Na potezu je država. Sprečavanje pada u sekularnu stagnaciju zahtijeva politiku usmjerenu na pametni, inovativni, ali i inkluzivni rast. (Macukato, 2020, str 56). Afirmaciji države u njenoj novoj ulozi doprinijela je svjetska finansijska kriza iz 2008, koja se iz ekonomije SAD proširila na čitav globalni svijet. Interesantno je da i dalje u ekonomskoj teoriji dominira restriktivni pristup države prema obrazovanju, zdravstvu, istraživanju, razvoju i ljudskom kapitalu, o čemu svjedoči smanjivanje finansijski ključnim američkim državnim agencijama, kao i restriktivna politika Evropske unije u istim oblastima. Nasuprot tome Kina i dalje ulaže u

navedene oblasti i finansira infrastrukturne i druge projekte širom svijeta. U finansijskom sistemu događa se finansijalizacija, sve više se sredstava ulaže u kupovinu hartija od vrijednosti, čime se podiže njihova vrijednost, posebno akcija. Takvo ponašanje vodi „sekularnoj stagnaciji“. S obzirom na to da se u nekim zemljama država očituje snažnije i u sferi inovacija, moramo jasnije sagledati njenu novu ulogu i oslobođiti se stare paradigme da državne investicije ne služe tome, već da država i dalje ostaje po strani od modernog razvoja. Slažemo se sa Marijanom Macukato, koja polazi od ideje mađarskog ekonomiste Karla Polanjića, da država svjesno kreira tržište, da planira, investira inovacije i razvoj u svjetlu novih tehnologija. Naravno, pri tome se misli na tjesnu povezanost države i privatnog sektora na tim zadacima. Dakle, suprotstavljanje javnog i privatnog interesa na način na koji to čini klasična ekonomска teorija nije ni korisno ni svrshodno, jer ne odgovara novoj realnosti.

## 2. NEKE EKONOMSKE IMPLIKACIJE PANDEMIJE KOVIDA - 19

Nalazimo se usred pandemije kovida - 19, koja nejenjava, nego se razgara širom planete, istina sa nejednakim učincima u pojedinim državama. Uprkos svim razlikama i specifičnostima, koronavirus ubija ljudi, utiče na obolijevanje i širenje zaraze, izaziva negativne ekonomске posljedice širom planete. Teško možemo imati širu sliku i implikacije, koje proizvodi ova globalna zaraza virusom. Radi se o nepoznatom virusu sa nesagledivim posljedicama, koje nisu samo ekonomski, već su takođe i psihološke, evidentne po mentalno zdravlje ljudi. Globalna zaraza virusom ne pojačava samo distance između pojedinaca, već utiče i na porodicu, ukupno fizičko i mentalno zdravlje i druge institucije i odnose koje je teško pobrojati. Da li će se dogoditi ili ne jedna golema promjena u ekonomskim i društvenim odnosima, ostaje da se vidi. Učinci pandemije su nesagledivi po zdravstvene sisteme, političku volju, ekonomsku moć da se ova bolest savlada.

Nada i strepnja su i dalje bitne odrednice ove situacije. U EU ugroženi su osnovni principi, države se zatvaraju u svoje granice i sam Šengen postaje upitan. Rizici su golemi, nepredvidljivi i nesagledivi. Ekonomski šok je izvjestan, pad BDP-a očigledan. Na djelu je stalna diskusija kako pomiriti brigu o zdravlju ljudi i liječenje ljudi i ekonomski posljedice, koje se indirektno reflektuju na samo zdravlje i očuvanje zdravstvenih sistema pojedinih država. Vrlo je vjerovatno da će zdravstvena kriza prerasti u mnogo dublju ekonomsku i finansijsku krizu, nesagledivu po dalje funkcionisanje ne samo

pojedinih država, već i međunarodnog, ekonomskog i političkog poretka.

Ekomska cijena (lockdown) nezaposlenosti, gubitaka radnog mesta, gubitaka profita, socijalne nejednakosti, zasad je nepoznata, ali je izuzetno visoka. Čini se da ova zdravstvena i ekomska kriza ide naruku bogatijim, da postanu još bogatiji, a siromašnim da budu još siromašniji. Pandemija je afirmisala nacionalnu državu i njenu brigu za zdravlje vlastitog stanovništva. Organizacija borbe protiv koronavirusa, čija je cijena i dalje nepoznata, ali će biti izuzetno visoka, stoji u direktnoj vezi sa organizacijom države. Države poput Kine, Rusije i jednog broja manjih zemalja (uključujući i Srbiju) pokazale su uprkos insuficijencije demokratskih principa i vrijednosti relativno dobru organizaciju u borbi protiv koronavirusa. Države sa državnim zdravstvenim sistemima, pa i bivše socijalističke zemlje, imale su nešto više uspjeha u borbi protiv pandemije. Međutim, pandemija je globalni problem. Ona svjedoči da smo svi u istom čamcu i da niko parcijalno ne može biti siguran, jer ono spasonosno nije partikularno, već globalno i univerzalno. Interesantno je da su visoku cijenu u broju smrtnih slučajeva platile SAD, Indija, Brazil i neke latinoameričke države. Dakle, mogli bismo zaključiti da se ekomska i društvena kriza mogu izazvati i neekonomskim fenomenima, iako imaju šire implikacije po ekonomiju, politički i socijalni život. Za pretpostaviti je, nakon što se savlada ili ublaže negativni učinci pandemije, da će doći do boljeg tona raspoloženja u svijetu koji će biti optimističniji i vedriji. Naravno, to bi moglo korespondirati sa privrednim uzletom i ekonomskim rastom. Koje će sve pouke izvući čovječanstvo, pojedine zemlje, države i narodi, ostaje da sa se vidi. Naše mišljenje je da rješenja pandemije nema bez dobro organizovane preduzetničke države na nacionalnom nivou i bez solidarnosti i uzajamne pomoći na globalnom nivou.

Ekonomisti različito procjenjuju situaciju, sve u zavisnosti od ekomske teorije kojom se rukovode, postoje oni koje ne brine rast dugova jer je na djelu štampanje novca (Milton Friedman). Većina vlada zemalja u svijetu finansijskim injekcijama pokušavaju da spasu, što se spasi može, gubitak posla, čuvanje radnog mesta, ohrabrvanje kompanija u sektoru usluga, onih koji ne rade u vremenu pandemije. Postoji bojazan da se sužava prostor velikih poslovnih banaka i finansijskih institucija u finansiranju realnog sektora. Teret krize će najteže podnijeti najranjiviji dio populacije: stari i bolesni, nezaposleni, lica sa niskim prihodima.

### 3. UTICAJ KRIZE NA SHVATANJE PREDUZETNIČKE DRŽAVE I NJENA ULOGA U INOVACIJAMA

Pod uticajem neoliberalne koncepcije, očekuje se od države, nakon njene pasivne uloge u rješavanju krize, da se povuče iz ekomske aktivnosti posebno oblasti inovacija i razvoja i da se ti poslovi prepuste privatnom sektoru. Veliku finansijsku krizu nije primarno izazvao javni dug države, već piramidalni dug privatnog sektora (posebno finansijskog sektora i njegovih novostvorenih institucija). Međutim, u zapadnim državama i u postkriznom vremenu od države se očekuje da posreduje u mnogim oblastima, ekonomskim aktivnostima, koje ranije nisu bile njen predmet.

Farmaceutske industrije, iako imaju najviše koristi od javnog istraživanja i finansiranja u ovim oblastima, zdušno se zalažu da se ograniče javni budžeti i smanji regulativa i nadzor u ovoj oblasti. Pandemija kovida-19 jasno je pokazala da su u borbi protiv pandemije mnoge manje, bivše socijalističke zemlje mogle da se nose sa ovom pošasti jer su i dalje imale ostatke državom posrednog i uređenog zdravstvenog sistema. U samoj Evropskoj uniji dolaze kritike od strane zemalja tzv. protestantskog kruga da su zemlje romanskog kruga u stagnaciji zbog rasipnog javnog sektora, iako je zapravo na djelu stagnacija u javnom sektoru. Krizu 2008. god. je izazvao privatni dug, iako je u vremenu krize zbog spasavanja poslovnih banaka od strane države naglo porastao i javni dug.

Djelotvornost javne potrošnje ne zavisi samo od visine potrošnje, već od toga koliko se ona ulaže u ono što je danas najpropulzivnije, a to je odgovarajući zdravstveni sistem, adekvatno obrazovanje, istraživanje i razvoj. Zemlje visokog javnog duga obično imaju niski privredni rast, ali postoje zemlje koje u sličnim uslovima javnog duga imaju stabilan privredan rast, dakle djeluju mnogi drugi činioci. Država se u novije vrijeme često nalazi u ulozi rizičnog preduzetnika, kad su u pitanju investicije na dugi rok, naročito kad je riječ o novim industrijama i poduhvatima koji ne daju rezultat u kratkom roku.

Tako se razlikuje država kao rizični preduzetnik od privatnih preduzetnika kao rizičnih ulagača. Država kao rizični preduzetnik mnogo je spremnija da ulaže na dugi rok u one poduhvate koji se ne mogu brzo i lako efektuirati ali su vrlo često osnova za buduće nove tehnologije, koje koriste svima, a naročito privatnom sektoru. Američka država je izdašno pomagala u otkriću novih radikalnih lijekova u farmaceutskoj industriji, koja zauzvrat traži da se smanji broj propisa i regulacija

u ovoj oblasti. Mnoge inovativne privatne kompanije imale su izdašnu pomoć američke države. Od države se danas očekuje da bude „vodeći investitor i katalizator, da podstiče mrežu, da djeluje i proširuje znanje“ (Macukato, 2020, str. 57). Američka država je imala viziju da podrži komercijalizaciju Interneta, jer privatni sektor nije imao dovoljno snage za tzv. šиру sliku. Istini za volju, ne treba glorifikovati ulogu države, koja nije uvek bila u stanju da prepozna nove pobjednike i nove tehnologije. Važna uloga države je podsticajna kad su u pitanju nove tehnologije i mala preduzeća. Interesantno je da je privatni kapital dvadeset godina nakon ulaska javnog kapitala ušao u nove tehnologije, Internet, nanotehnologije i biotehnologije. Pokazuje se da privatni kapital izbjegava rizična ulaganja zbog visokog tehnološkog i tržišnog rizika i visokog intenziteta kapitala. Postoje realne opasnosti simbioze javnog i privatnog interesa, gdje se privatni sektor ponaša parazitski izvlačeći koristi za sebe bez želje da finansira državu. Marijana Macukato pominje da postoje realne opasnosti da neke interesne grupe prigrabe koristi rizičnog finansiranja države u nekim oblastima. Privatni sektor metodom istiskivanja u oblasti finansiranja zbog svojih kratkoročnih ciljeva može da odšteti javni sektor (opšte dobro). Država često investira one poslove i poduhvate u koje ne želi da ulazi privatni sektor. Po mišljenju Marijane Macukato, rješenje ovog problema je u simbiotskom, a ne parazitskom javno privatnom partnerstvu. Postoje uporedni podaci koji pokazuju da se sa padom ulaganja u istraživanja i razvoj povećava finansijalizacija privatnog sektora. Evidentno je da su privatne farmaceutske kompanije smanjile sredstva za istraživanje i razvoj i povećale potrošnju na otkup sopstvenih akcija.

#### **4. ULOGA NOVIH TEHNOLOGIJA I INOVACIJA U PRIVREDNOM RASTU**

Preduzetnička država ima širu ulogu od stvaranja uslova za inovacije i ispravljanje greške tržišta. Karl Polanji je jasno definisao stav da je sa kapitalizmom došlo do tjesne veze između države i tržišta, koja ga kreira i u nekim situacijama i silom uvodi u ekonomiji (Polanyi, 2001, str. 144). Kejns sa razlogom ističe da je za funkcionisanje kapitalističkog tržišta neophodna državna regulacija i kontrola. (Kejnz, 2013, str.78) Po Kejsnu su važni: poslovne investicije, državne investicije, lična potrošnja i neto izvoz. Neizvjesnost i strast za investiranje su važni činioци uspješnog kapitalističkog razvoja (osim visina kamatnih stopa, poreza). Kejns smatra da, ukoliko privatna ulaganja nisu praćena povećanom državnom potrošnjom, pad potrošnje i investicija doveće do kraha berze i depresije. Inovacije imaju veliki udio u privrednom rastu, koji je teško

kvantifikovati. Podrška inovacijama mogu biti ulaganja u istraživanje i razvoj, infrastrukturu, obuku radnika i direktna i indirektna podrška za određene tehnologije i kompanije (Mackuato, 2020, str. 69). Inovacije i nejednakost su kompatibilne sa privrednim rastom kao što ni socijalna država ne može da funkcioniše bez snažne efikasnosti i produktivnosti u privredi. Abramovic i Solov pokazali su da konvencionalna mjerena inputa kapitala i radne snage ne mogu objasniti 90% ekonomskog rasta u naprednoj industrijskoj zemlji, kao što je Amerika. Prema Solovljevom modelu rasta, rast se modelira kroz proizvodnu funkciju, gdje je proizvodnja funkcija količine fizičkog kapitala i ljudskog rada. Tehnološke promjene inovacije (čine rezidual) od nekih 90% varijacija u privrednom rastu. Abramovic je taj rezidual nazvao mjerom „našeg neznanja“ (Abramovitz, 1956, str 38). Endogena teorija rasta je uključila tehnologiju, objašnjenja privrednog rasta (vremenski horizont). Uvođenje tehnologije i ljudskog kapitala uvelo je rastuće prinose kao faktor rasta. Država je našla svoje mjesto u podsticanju razvoja novih tehnologija i inovacija, koje su se opredmetile u novim proizvodima. Konkurenca među kompanijama je sve više rezultat njihove inovativne sposobnosti i ulaganja u ljudski kapital. Šumpeterovska evolucionistička teorija tvrdi da su inovacije primjer istinske najtovske neizvjesnosti, koja se ne može modelirati normalnom distribucijom vjerovatnoće impliciranom u endogenoj teoriji rasta, istraživanja i razvoj se često modeliraju pomoću teorije igara (Reinganum, 1984, str.75).

Inovacije su zapravo „mrežne institucije“ u javnom i privatnom sektoru čije aktivnosti i interakcije iniciraju, primaju, modifikuju i šire nove tehnologije. (Marijana Macukato, 2020, str. 75). Iz perspektive mezoekonomije inovacije su mrežne strukture, koje cirkulišu u cijeloj ekonomiji i omogućavaju tehnološke promjene u kompanijama (klijenti, proizvođači, infrastruktura, dobavljači, kompetencije). Inovacione mreže čini sistem povratnih sprega između tržišta i tehnologije, primjene i nauke. U ovom konceptu važna je uloga obrazovanja, obuke, dizajna, kontrole kvaliteta i efektivne potražnje. Velike zapadne sile poput SAD i Njemačke po Freemanu postale su ekonomski napredne zemlje, zahvaljujući tehničkom obrazovanju i obuci, inovacijama i istraživanjima (Freeman, 1995, str.89). Ove države su uspjеле da komercijalizuju tehnologiju, što je jedan od faktora njihovog uspjeha. Japanske tehničke inovacije bile su u direktnoj funkciji proizvodnje. Preduzetnička država nije samo kreator znanja, već putem mreža ima mobilizator resursa, inovacija kroz privredne sektore. Razvojna država ne popravlja samo tržište

već i obezbjeđuje industrijalizaciju i utiče na bankarske finansijske sisteme, da ekonomski prate rast i razvoj realnog sektora. Postoji neosporna veza između zemalja koje su prolazile tešku finansijsku krizu i nedovoljnih ulaganja u istraživanja i razvoj. Neke zemlje poput Velike Britanije uspjele su da se orijentisu na: finansijski sektor, kreativne industrije i građevinarstvo, i da tako manje ulazu u razvoj. Postoji mit da mala i srednja preduzeća koriste inovacije za veće zapošljavanje, iako se zna da između veličine preduzeća i privrednog rasta nema pouzdanih informacija. Za jednu ekonomiju su bitna inovativna preduzeća, kao i visok rast u odnosu na veličinu preduzeća. Dakle, manje nije po definiciji bolje, jer mala preduzeća nisu uspješnija. Rizični kapital se najviše nalazi u oblastima visokog potencijalnog rasta, niske tehnološke kompleksnosti i niskog kapitalnog intenziteta. Razvoj biotehnologija koje su rezultat rada istraživačkih instituta, zapadnih univerziteta omogućen je ulaganjem od strane države. Problem inovacija u Evropskoj uniji nije rezultat nedovoljnog industrijskog znanja, već nedovoljne sposobnosti komercijalizacije tog znanja. Empirijska iskustva pokazuju da poreske olakšice nemaju veliki uticaj na inovacije, istraživanje i razvoj, koliko ima naučna i tehnološka baza jedne zemlje.

## 5. PREDUZETNIČKA DRŽAVA I RIZICI

Evidentno je da javno finansiranje i istraživanje ima na umu širu sliku i vremenski horizont, s mogućnošću da bude rizično investiranje ali, generalno uvez, vodi opštem dobru, nerijetko omogućujući privatno istraživanje, koje se radije vodi logikom investiranja i istraživanja na kratki rok. Preduzetnička država je orijentisana na kreiranje novih proizvoda, novih tržišta, novih modela organizacije, novih procesa proizvodnje, koji doprinose ekonomskom rastu. Šumpeter je vjerovao i u proces kreativne destrukcije, koja omogućuje neuspješnim inovacijama da budu zamijenjene boljim. Preduzetnička ekonomija je ekonomija rizika, koja uzima u obzir neizvjesnost (neizvjesni događaji, neizvjesno znanje). Tehnološke promjene su izvanredan primjer Šumpeterove ideje o samodestrukciji u oblasti znanja i inovacija. U istoriji nauke poznato je da su mnogi pronalasci bili sasvim slučajni, a ne rezultat nekog namjeravanog rada.

Danas je vodeća uloga države u rizičnim inovacijama na polju primjene razvoja novih tehnologija (zelenih industrija, informatičkih tehnologija, nanotehnologija, istraživanje svemira, nuklearna tehnologija). Industrija znanja podržana je od strane države i javnog finansiranja. Takođe, i državne investicije se protežu na različite vrste

rizičnih i neizvjesnih istraživanja, što ih bitno razlikuje od privatnih rizičnih investicija u istraživanje i razvoj.

Dobar primjer preduzetničke države predstavlja američka preduzetnička država, odnosno njene agencije DARPA (*Defense Advanced Research Projects Agency*) i SBIR (*Small Business Innovation Research*). Rezultati javnog finansiranja, istraživanja, tehnologije, ljudskog kapitala američke preduzetničke države stoe u temeljima globalnog rasta i razvoja. Još uvjek najveći broj industrijske i intelektualne svojine dolazi iz SAD.

## 6. PREDUZETNIČKA DRŽAVA I EKONOMIJA ZNANJA

Američka država je omogućila Appleove inovacije (Apple Inc.), koje nisu samo tehnički izumi, već i komercijalni proizvodi prvog reda. Apple je dobijao ogromnu direktnu ili indirektnu podršku države za tri glavne oblasti:

- 1) Direktne investicije kapitala u ranim fazama rizičnog stvaranja i rasta;
- 2) Pristup tehnologijama, koje su proizašle iz velikih državnih istraživačkih programa, vojnih inicijativa, ugovora o javnim nabavkama, iza čega je stajao državni novac;
- 3) Uvođenje poreskih, trgovinskih ili tehnoloških mjera za podršku američkim kompanijama, kao što je Apple. (Macukato, 2020, str.139)

Američka država je finansirala tehnologije i podržala poslovne poduhvate na kojima je novoosnovana kompanija Apple računarske tehnologije. Novoosnovana Silicijumska dolina je postala nacionalni centar kompjuterskih inovacija. (mikroprocesori, dinamička memorija sa slučajnim pristupom, čvrst ili hard-disk displej sa tečnim kristalima, litijum –polimerske, litijum-jonske baterije; digitalna obrada signala, Internet, protokol za prenos hiperteksta i jezik za označavanje hiperteksta, mobilne tehnologije i mreže, sistem globalnog pozicioniranja, navigacija klik točkom, višedodirni ekrani i vještačka inteligencija.) Zahvaljujući predstavljanju prve generacije Ipoda u 2001, Apple je počeo da izbacuje talase novih inovativnih proizvoda (iPhone, iPad) koji će u jednom trenutku preokrenuti čitavu industriju mobilne zabave. Finansiranju istraživanja iPhone pomogla je država, finansirajući tzv. hibridne tehnologije. Mobilni telefon je pokazao interakciju čovjeka i mašine. Ipod nudi GPS integraciju, geografsko pozicioniranje svijeta. I u finansiranju te tehnologije američka država ima istaknuto mjesto.

SIRI, kao vještačka inteligencija obuhvata: mašinsko učenje, obradu prirodnog jezika i algoritam za pretraživanje mreže. Dakle, revolucija u informacionoj i komunikacionoj tehnologiji direktno je rezultat finansiranja od strane američke države.

## 7. PREDUZETNIČKA DRŽAVA U „GURANJU“ NASUPROT „PODBADANJU“ ZELENE INDUSTRJSKE REVOLUCIJE

Bez finansijske državne podrške nije moguća zelena revolucija u energetskom sektoru. Čista i obnovljiva energija zahtijeva državne mјere: poreske olakšice, subvencije, zajmove, grantove, ugovore za istraživanje i razvoj. Zelena revolucija podrazumijeva transformaciju postojećeg energetskog sistema u održivi ekološki sistem obnovljive čiste energije. Sa ovim problemom u vezi stoji direktno i ekološki problem (klimatske promjene). Najrazvijenije zemlje u razvoju izdvajaju određene sume novca za finansiranje zelenog i održivog razvoja. Interesantno je da Amerika ne prednjači. Jedan broj zapadnih zemalja i Kina (kineski zeleni petogodišnji plan) izdvajaju više sredstava za zelenu revoluciju.

Amerika ima neodlučan pristup zelenim tehnologijama. SAD su prihvatile strategiju podgurkivanja razvoja zelenih tehnologija. Ta strategija se odvija pomoću Ministarstva energetike. Energetskim tržistem u SAD dominiraju neke od najmoćnijih globalnih kompanija. Energetska industrija favorizuje stabilnost i pouzdanost energetskog sistema. Američka strategija je guranje zelenog razvoja kad su u pitanju energetske kompanije i energetski sistemi (Macukato, 2020, str.190). U finansiranju državnog razvoja značajnu ulogu imaju poslovne banke i druge finansijske institucije. Nove tehnologije koje pokazuju uspješnost jedne države su: vjetroenergija i solarna energija, koje stoje u određenoj srazmjeri sa ekonomskom uspješnoću i krizom neke zemlje u zelenom razvoju. Čiste tehnologije su u krizi, zbog činjenice da podrazumijevaju dodatna ulaganja u obnovljive čiste i zelene izvore energije, a dobrim dijelom i zbog same politike. Zadatak je izgraditi simbiotski, a ne parazitski ekosistem. Teško je danas kvantifikovati koristi i nagrade koje država ima od ulaganja u zelenu revoluciju dok su rizici izvjesni.

Interesantno je napomenuti da su brojni sistemi poput poreskog koncipirani za privedu u kojoj nove tehnologije nemaju dominantno mjesto, tako da brojni sistemi i politike, čak i najrazvijenijih država, ne korespondiraju sa modernim tehnologijama i zelenom revolucijom, posebno je evidentan nedostatak regulacije novih tenoloških kompanija, kao i adekvatne kontrole njihovog

poslovanja. Tehnološke kompanije izbjegavaju da plate milijarde dolara na ime poreza (premještanje poreza), a postoje brojni problemi u oblasti zapošljavanja. Postoji realna bojazan da se te multinacionalne kompanije previše osamostale i izmaknu makroekonomskoj (državnoj) kontroli. Apple je 2001. god prijavio 30% svoje imovine i prihoda u SAD. Kao što je teško definisati mjesto stvaranja profita, tako je postalo teško odrediti gdje se stvara porez. Postoji paradoks da se tehnološke kompanije zalažu za smanjivanje poreske osnovice i smanjivanje poreza u budžetu, iako su u svom razvoju podržane finansijski od strane države. Fenomen je da se iz SAD, kao što se seli kapital, sele i inovacije, proizvodi intelektualne svojine.

## 8. KORISTI I CIJENE INVESTIRANJA, INOVACIJA I RAZVOJA AMERIČKE PREDUZETNIČKE DRŽAVE

U finansijskoj i ekonomskoj krizi 2008. god. evidentno se pokazalo da su čvrste veze između rizika i zarade i da je finansijski sektor kao parazitski privatizovao nagrade a socijalizovao gubitke. Država takođe subvencionise investicije koje omogućavaju pojedinačnim zaposlenima i preduzećima da učestvuju u procesu inovacija. Po definiciji, inovacije bi trebalo da smanje nejednakost, međutim putem finansijskog sektora, menadžeri često prisvajaju visoke i nezaslužene nagrade, što je naročito evidentno u krizi, bez mogućnosti sankcionisanja. Takođe je evidentno da država ne dobija adekvatne prinose na svoje rizične investicije (preko poreskog sistema). Prihode od korišćenja intelektualne svojine, kroz različite sektore i tehnologije, treba uplaćivati u nacionalni „inovacijski fond“. Burlamaqui kaže: „Iz perspektive upravljanja znanjem, ključno pitanje koje se postavlja glasi: kad produžena zaštita prestane da funkcioniše u generisanju šumpeterijanskog profita i postaje osnova za traženje rente i prisvajanja rente.“ (Burlamaqui, 2012, str 96). On predlaže da država usvoji kontrolni udio patenata, koji nastaju iz javno finansiranih istraživanja. Takođe, jedna od metoda je i da država zadrži udio vlasništva kompanija koje podržava. Jedan od načina državnog investiranja i ubiranja prinosa od tog ulaganja moguće je i putem državne razvojne banke. Pametni, održivi i inkluzivni rast nije zakonit neupitan proces. On zahtijeva čitav set mjera, strategija i aktivnosti. Preduzetnička država je jedna od najvažnijih ekonomskih aktera, čije ekonomске aktivnosti podliježu ekonomskim zakonitostima, kojima podliježe i privatni sektor. To znači da u finansiranju i poslovanju postoje rizici, nagrade i kazne. Možda je ekskluzivitet države u tome da je ona u prilici da rizično investira na dugi rok, imajući na umu širu sliku i opštu korist.

## ZAKLJUČAK

Preduzetnička država kao sintagma pokriva u 21. vijeku pojam najvažnijeg ekonomskog aktera i problematizuje klasičnu političku ekonomiju Adama Smita o tome da država stoji po strani iza ekonomskog svijeta, u kojem dominira borba privatnih interesa na slobodnom tržištu, gdje se tržišna utakmica odvija po sistemu nevidljive ruke. Najnovija kriza, finansijska kriza, izazvana finansijskim razlozima, a potom i pandemijom, zdravstvenim, a ne ekonomskim razlozima, afirmisala je državu kao ključnog aktera u rješenju krize.

Pokazalo se u epohi inovacija, tehnoloških revolucija i novih tehnologija bez investiranja države u osiguranju tehnološke baze nije moguć epohalan tehnološki i ekonomski rast.

Dakle, država ne može imati preciznu i ograničenu ulogu u inovacijama po sistemu cost-benefit analize. Država kao reprezentant opštег interesa, koja uzima u obzir širu sliku, sklonija je rizičnim ulaganjima od privatnog sektora, koji je sklon riziku na kraći rok, u ime javnog interesa. Iako država treba da preuzima rizik, ona ne bi trebalo da apsorbuje rizik privatnog sektora, već da na sebe preuzima onu vrstu rizika na koju privatni sektor nije spreman, i treba da dobije prinose od tog rizika

Javni i privatni interesi nisu više dijametalno suprotstavljeni, već se prepliću, nerijetko i putem javno privatnih partnerstava i u sektoru inovacija. Predstoji ozbiljan napor da se izgradi preduzetnička država, čiji je cilj razvoj strateških tehnologija i inovacija povezanih sa ekonomskim rastom.

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## **SUMMARY**

Entrepreneurial state as a syntagma covers the notion of the most important economic actor in the 21st century and problematizes the classic political economy of Adam Smith about the state standing behind the economic world, dominated by the struggle of private interests in the free market, where market competition takes place by invisible hand . The latest crisis, the financial crisis, caused by financial reasons and then by a pandemic, for health, not economic reasons, has affirmed the state as a key actor in resolving the crisis. It has been shown in the epoch of innovations, technological revolutions and new technologies that without the state's investment in securing the technological base, epochal technological and economic growth is not possible. Thus, the state cannot have a precise and limited role in innovation according to the system of cost-benefit analysis. The state as a representative of the general interest, which takes into account the broader picture, is more prone to risky investments than the private sector, which is prone to short-term risk, in the name of the public interest. Although the state should take the risk, it should not absorb the risk of the private sector, but take on the kind of risk that the private sector is not ready for, and should receive returns from that risk. Public and private interests are no longer diametrically opposed, but are intertwined, often through public-private partnerships and in the innovation sector. A serious effort is ahead to build an entrepreneurial state, aimed at developing strategic technologies and innovations related to economic growth.

## THE ENTREPRENEURIAL STATE AND CRISIS

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**Abstract:** In this paper, we consider the relationship between the entrepreneurial state and the crisis (caused by economic and non-economic reasons and vice versa). Thus, it is about the interactive attitude of the entrepreneurial state in resolving the crisis and the impact of the crisis on the further development of new economic competencies and competencies of the state in the economy. The entrepreneurial state is seen as an entrepreneur and one of the most important economic actors, which accepts long-term investment risks, bearing in mind the broader picture and the common good. The development of new technologies and new technology companies in the United States and other developed countries has been possible, thanks to the investment of the American entrepreneurial state and its agencies. We start from the assumption that the American crisis, in 2008, caused by high debts, the private sector, not the US public debt, which today is enormously high and skyrocketing. At the heart of this consideration is the thesis that the classical economic theory of non-interference of the state in economic life, which stands aside in the recent era of the development of global capitalism, does not hold water. On the contrary, it turns out that government risky investment in the long run is the basis of a modern economy in which the private sector can develop only on the premises of this huge investment in the development of modern new technologies. Most innovation today and research institutes in the United States are due to the investments of the American state. The paper discusses the impact of the crisis on the understanding of the entrepreneurial state and its role in innovation, the role of new technologies and innovations in economic growth,

entrepreneurial state and risks, entrepreneurial state and knowledge economy, entrepreneurial state in "pushing" versus "pulling" the green industrial revolution and the cost of investment, innovation, and development of the American entrepreneurial state.

**Key words:** entrepreneurial state, innovations, economic growth, knowledge economy, pandemic COVID-19

### 1. INTRODUCTION

The economic crisis and the COVID - 19 pandemic have positioned the state as the most important economic actor and entrepreneur, without which a solution to the crisis is not possible. Neoliberal theory and Smith's economic theory have lost their primacy in resolving the crisis, although they remain relevant economic theories. Without understanding the entrepreneurial role of the state and its investments, investments in the Internet, the health care system and the green revolution, it is not possible to understand this epochal change, in which the state became the most important economic actor. Government investments in these sectors have boosted private investment. We especially emphasize the pragmatic approach in the interaction of the state and the private sector, abstracting the ideological opposition of public and private interest. There is still a dispute between conservative and progressive currents in the economy over whether restrictive government spending and austerity policies contribute to economic growth or whether expansionist public investment policies, infrastructure and public goods should be used. According to Mariana

Matsukato, Keynes and Polanyi are economists of large format, who defend a progressive opinion about the role of the state in the economy (Matsukato, 2020, p. 22). The economic logic of the state cannot be reduced to public works, nor can its economic behaviour be reduced to the behavior of an individual. It always solves something more and more difficult, because it is a representative of general interests, which are different from the simple sum of individual interests. Polanji emphasized the idea that the so-called free market is not repaired but created by the state, because the market is the result of state and private action. Modern companies like the modern state introduce strategic management, organisational behaviour, and decision theories. Economic values are created collectively, so a modern state and a modern corporation act entrepreneurially. Therefore, in the economy, the state also behaves economically, among other things. Classical economic theory prescribed that the state acted only in certain activities and in repairing market failure. Today during the pandemic, financial crisis and the so-called green revolutions in the economy this can be considered unconvincing, as well as wrong. Classical economic theory expects the state to prescribe equal conditions, to finance public goods such as infrastructure, state defense and basic research; and to devise mechanisms to mitigate negative externalities such as pollution. (Macukato, 2020, p. 23). After World War II, the American entrepreneurial state created two key agencies, NASA (National Aeronautics and Space Administration) and DARPA (Defence Advanced Research Projects Agency), without which the Internet and the American (private growth and development) would not be possible. So in American development after World War II, the decisive role was played by the American state, and that is often forgotten. These agencies hired the most creative staff, they were not guided by narrow private interests, but had in mind the broader picture, of the American public national interest, guided by the mission of the common good. Joan Robinson believes that bureaucracy does not have to be less flexible than private entrepreneurship (Pisano, 2015, p. 44). The state has proven to be a risky economic actor, investing in financial resources without valid guarantees in research and development without which there is no modern economic progress. The American state has been investing huge funds in innovation and development for years. The Chinese state owes its development to high investments in research and development of the so-called green industries as well as in infrastructure projects of national importance. It is still the engine of rapid Chinese growth, as it is the only one with the economic and

political power to transform industry and Chinese society as a whole.

It should be added that at the head of the Chinese state the political will is concentrated in the Communist Party led by Xi, whose mandate is 10 years and where economic and political decisions are made relatively easily and are not constrained by democratic considerations and values. This gives China primacy in the era of globalization in the world, as European colonial powers once had it. An economically successful state today needs more markets and more states, these are not antipodes. The state cannot be reduced to the correction of the market, its function is to create and direct, to have a broader picture, as well as a mission and vision. The state must take into account not only the success of the market, but also the harmonious functioning of all segments of the state, guided by the principles of profit, but also the principles of justice. Without the modern state and its financing and development, the conquest of space, the fight against climate change and the development of modern technology companies are inconceivable, which truthfully become a threat to the democratic character of the state and political power (we witnessed the incredible fact that US President Donald Trump digital and information technology companies, made it impossible for him to address the public, denying him access to the media, excluding him without mercy from the so-called media political space). The consequences of this situation are still incalculable. The question is, is this exclusion of the American president from public space, the beginning of the end of political democracy, or is it the beginning of some new reality, which is difficult to think and understand. Market fetishization generally leads to the exclusion of externalities, the problem of pollution, in the area of distribution, redistribution of wealth and injustice. Today, the literature talks about the wrong markets, such as the one that operates in oil and gas exploitation, where earlier carbon technologies are managed instead of clean technology technologies. The state, not the market, must deal with some new phenomena, such as: obesity, aging, climate change, inequality, unemployment. Thus, the market is not able to deal well with some essential human values. It can be entertained by the logic of profit, the logic of higher, more efficient. Market forces are ultimately the result, not the consequence, of government decisions. Most of the modern inventions, innovations (artificial intelligence) and patents in America, and even in the world, are inspired by the activity of the military sector and the US Department of Defense. Thus, warfare and the military are a powerful generator of technological

innovation in many areas. National health institutes are often financiers and key players in the pharmaceutical industry, drug production, as one of the most permeable branches of the modern economy.

Thanks to the most developed countries and companies, supported by the state, in just one year we will have a dozen types of vaccines against the COVID-19 virus, which has paralyzed humanity, not only economically but also in all other aspects. The pandemic showed the interconnectivness of people and nations, and for the first time truly legitimized the need for solidarity and interconnectivness, the notion of humanity and the world community. Although in practice the same egoistic relations, the relationship of inequality, access to sources and availability of vaccines, to the most powerful and most developed countries in the world are shown. Some countries (EU) have shown narrow and selfish interests in excluding other smaller countries from the distribution of these drugs in order to preserve their populations. (The UN Secretary General warned of the need for solidarity in international relations by large developed countries in the procurement of vaccines against the COVID-19 pandemic). It is evident that with these phenomena in health, energy, ecology, new technologies, the importance of the state is growing enormously.

The importance of the state on the example of the state of Serbia is evident in the case of the state institute Torlak, which, supported by state investments, will produce the Russian vaccine through know-how and thus enable protection of the population in Serbia from COVID-19 virus. The state should pay attention to strategic management in business schools and organizational behavior, as well as private companies (Macukato, 2020 p. 55). Therefore, it is necessary to recognize the role of the state as a leading risk bearer and innovator, which means recognizing the great risks that it must take in conditions of extreme uncertainty, and thus a high probability of failure. Despite the popular belief that government investment is safe, the American entrepreneurial state has undertaken a number of risky investments, which have not always yielded a certain outcome. Obviously, the private sector is not the only source of wealth creation, there is also the public sector. Currently, the economic crisis is at work, which is manifested through the decline of all economic parameters, from falling GDP to falling living standards of a huge number of people around the planet caused primarily by the COVID-19 virus pandemic this time planetary. It is obvious that the causes of the crisis are not profitable technological opportunities or lack of effective demand, it is the consequences of systematic

measures to preserve health and prevent the spread of the pandemic in its devastating consequences on the entire economic, social life. The COVID - 19 virus pandemic has shown the need and connectivity of countries and people around the world, where solutions cannot be found without a common strategy. The state is on the move. Preventing a fall into secular stagnation requires policies aimed at smart, innovative, but also inclusive growth (Macukato, 2020, p. 56). The affirmation of the state in its new role was contributed by the global financial crisis of 2008, which spread from the US economy to the entire global world. Interestingly, economic theory is still dominated by the state's restrictive approach to education, health, research, development and human capital, as evidenced by the reduction of funding for key US government agencies, as well as the European Union's restrictive policy in the same areas. In contrast, China continues to invest in these areas and finances infrastructure and other projects around the world. In the financial system, financialization is happening, more and more funds are being invested in the purchase of securities, which raises their value, especially shares. Such behavior leads to "secular stagnation." Given that in some countries, the state is manifesting itself more strongly in the sphere of innovation, we must see its new role more clearly and get rid of the old paradigm that state investments do not serve that, but that the state still stays away from modern development. We agree with Marianna Matsukato, who starts from the idea of the Hungarian economist Karl Polanyi, that the state consciously creates the market, to plan, invest innovations and development in the light of new technologies. Of course, this refers to the close connection between the state and the private sector in these tasks. Thus, the opposition of public and private interest in the way that classical economic theory does is neither useful nor expedient, because it does not correspond to the new reality.

## 2. SOME ECONOMIC IMPLICATIONS OF THE COVID-19 PANDEMIC

We are in the middle of a pandemic of the COVID-19 virus, which is not waning, but is spreading across the planet, with unequal effects in some countries. Despite all the differences and specifics, the COVID-19 virus kills people, affects diseases and the spread of infection, and causes negative economic consequences across the planet. We can hardly have a broader picture and the implications, produced by this global virus infection. It is an unknown virus with unforeseeable consequences, which are not only economic, but also psychological, evident in people's mental health. Global infection with the virus not only increases the distances between

individuals, but also affects the family, overall physical and mental health, and other institutions and relationships that are difficult to enumerate. Whether or not it will happen, one huge change in economic and social relations, remains to be seen. The effects of the pandemic are incalculable in terms of health systems, political will, economic power, to overcome this disease.

Hope and anxiety are still important determinants of this situation. In the EU, the basic principles are endangered, countries are closing in on their borders and Schengen itself is becoming questionable. The risks are huge, unpredictable and unforeseeable. The economic shock is certain, the decline in GDP is obvious. There is an ongoing discussion on how to reconcile human health care and treatment and the economic consequences, which are indirectly reflected in the health and preservation of the health systems of individual countries. It is very likely that the health crisis will grow into a much deeper economic and financial crisis, incalculable for the further functioning not only of individual states, but also of the international, economic and political order.

The economic price (lockdown), unemployment, job loss, loss of profit, social inequality, is currently unknown, but is extremely high. This health and economic crisis seems to be going hand in hand with the rich, to become even richer, and the poor to be even poorer. The pandemic affirmed the nation-state and its concern for the health of its own population. The organization in the fight against the COVID - 19 virus, whose price is still unknown, but will be extremely high, is in direct contact with the state organization. Countries such as China, Russia, and a number of smaller countries (including Serbia) have shown, despite the lack of democratic principles and values, a relatively good organization in the fight against the COVID-19 virus. However, the pandemic is a global problem. It testifies that we are all in the same boat and that no one can be partially sure, because the saving is not particular, but global and universal. It is interesting that the United States, India, Brazil and some Latin American countries paid a high price in the number of deaths. Thus, we could conclude that economic and social crises can also be caused by non-economic phenomena, although they have broader implications for the economy, political and social life. It is to be assumed that, after overcoming or mitigating the negative effects of the COVID - 19 pandemic, there will be a better mood in the world that will be more optimistic and cheerful. Of course that could correspond to economic upswing and economic growth. It remains to be seen what lessons humanity, individual countries, states and nations will learn. Our opinion is that there is no

solution to the pandemic without a well-organized entrepreneurial state at the national level and without solidarity and mutual assistance at the global level.

Economists assess the situation differently, all depending on the economic theory they are guided by, there are those who do not care about debt growth (because money printing is at work) (Milton Friedman) Most governments around the world are trying to save by financial injections, job loss, job preservation, encouragement of companies in the service sector, those who do not work during the pandemic. There is a fear that the space for large commercial banks and financial institutions in financing the real sector will be narrowed. The most affected will be the most vulnerable: old and sick, unemployed, and low-income people.

### **3. THE IMPACT OF THE CRISIS ON THE UNDERSTANDING OF THE ENTREPRENEURIAL STATE AND ITS ROLE IN INNOVATION**

Under the influence of the neoliberal conception, the state is expected, after its passive role in resolving the crisis, to withdraw from economic activity, especially in the field of innovation and development, and to leave these tasks to the private sector. The great financial crisis was not primarily caused by the public debt of the state, but by the pyramid debt of the private sector (especially the financial sector and its newly created institutions). However, in Western countries and in the post-crisis period, the state is expected to mediate in many areas, economic activities, which were not its subject before.

The pharmaceutical industries, while benefiting most from public research and funding in these areas, are keen to limit public budgets and reduce regulation and oversight in this area. The pandemic of the COVID-19 virus clearly showed that in the fight against the pandemic, many smaller, former socialist countries could cope with this plague, because they still had the remnants of a state-mediated and regulated health care system. In the European Union itself, criticism is coming from the so-called countries of the Protestant circle, that the countries of the Roman circle are in stagnation due to the wasteful public sector, although in fact stagnation in the public sector is at work. The crisis of 2008 caused private debt, although in times of crisis due to the rescue of commercial banks by the state, public debt also rose sharply.

The effectiveness of public spending does not depend only on the level of spending, but on how much it is invested in what is most propulsive today, and that is an appropriate health system,

adequate education, research and development. High public debt countries usually have low economic growth, but there are countries that have stable economic growth in similar public debt conditions, so many other factors are at work. In recent times, the state has often found itself in the role of a risky entrepreneur, when it comes to long-term investments, especially when it comes to new industries and ventures that do not yield results in the short term.

This is how the state differs as a risky entrepreneur from private entrepreneurs, as risky investors. The state, as a risky entrepreneur, is much more ready to invest in the long run, those ventures that cannot be quickly and easily affected, but are very often the basis for future new technologies, which benefit everyone, especially the private sector. The American state has generously helped in the discovery of new radical drugs in the pharmaceutical industry, which in turn is seeking to reduce the number of regulations and regulations in this area. Many innovative private companies have had the generous help of the American state. Today, the state is expected to be "a leading investor and catalyst, to stimulate the network, to act and expand knowledge" (Macukato, 2020, p. 57). The American state had a vision to support the commercialization of the Internet, because the private sector did not have enough power for the so-called the bigger picture. Truth be told, the role of the state, which has not always been able to recognize new winners and new technologies, should not be glorified. The important role of the state is stimulating, when it comes to new technologies and small enterprises. It is interesting that private capital in the twenties later, after the entry of public capital, entered new technologies, the Internet, nanotechnology and biotechnology. Private capital has been shown to avoid risky investments due to high technological and market risk and high capital intensity. There are real dangers of the symbiosis of public and private interest, where the private sector behaves parasitically, extracting benefits for itself without wanting to finance the state. Mariana Matsukato mentions that there are real dangers for some interest groups to seize the benefits, risky financing of the state in some areas. The private sector can compensate the public sector (public good) by the method of squeezing in the area of financing due to its short-term goals. The state often invests those businesses and ventures that the private sector does not want to enter. According to Mariana Mackuato, the solution to this problem is in a symbiotic rather than a parasitic public-private partnership. There are comparative data showing that with the decline in R&D investment, private sector financing is increasing. It is evident that

private pharmaceutical companies have reduced funds for research and development and increased spending on the purchase of their own shares.

#### **4. THE ROLE OF NEW TECHNOLOGIES AND INNOVATIONS IN ECONOMIC GROWTH**

The entrepreneurial state has a broader role than creating the conditions for innovation and correcting market failure. Karl Polanyi clearly defined the view that with capitalism there was a close connection between the state and the market, which creates it and in some situations and forcibly introduces it into the economy (Polanyi 2001, p. 144). Keynes rightly points out that state regulation and control are necessary for the functioning of the capitalist market. (Keynes, 2013. P.78) According to Keynes, the following are important: business investments, government investments, personal consumption and net exports. Uncertainty and a passion for investing are important factors in successful capitalist development (apart from interest rates, taxes). Keynes believes that if private investment is not accompanied by increased government spending, falling consumption and investment will lead to a stock market crash and depression. Innovation has a large share in economic growth, which is difficult to quantify. Support for innovation can be investment in research and development, infrastructure, worker training and direct and indirect support for certain technologies and companies (Mackuato, 2020, p. 69). Innovation and inequality are compatible with economic growth, just as the welfare state cannot function without strong efficiency and productivity in the economy. Abramovic and Solov have shown that conventional measurements of capital and labor input cannot explain 90% of economic growth in a advanced industrial country such as America. According to Soloviev's growth model, growth is modeled through a production function, where production is a function of the amount of physical capital and human labor. Technological changes in innovation (make up a residual) of some 90% of the variation in economic growth Abramovic called this residual a measure of "our ignorance" (Abramovitz, 1956, p. 38). Endogenous growth theory has included technology, explanations of economic growth (time horizon). The introduction of technology and human capital has introduced rising yields as a growth factor. The state has found its place in encouraging the development of new technologies and innovations, which have materialized in new products. Competition among companies is increasingly the result of their innovative ability and investment in human capital. Schumpeter's evolutionary theory argues that innovation is an example of true Knightly

uncertainty, which cannot be modeled by the normal probability distribution implied in endogenous theory of growth, research and development are often modeled using game theory (Reinganum 1984, p. 75).

Innovations are in fact "network institutions" in the public and private sectors whose activities and interactions initiate, receive, modify and spread new technologies. (Mariana Macukato, 2020, p. 75). From the perspective of mesoeconomics, innovations are network structures, which circulate throughout the economy and enable technological changes in companies (customers, manufacturers, infrastructure, suppliers, competencies). Innovation networks are a system of feedback between market and technology, application and science. The role of education, training, design, quality control and effective demand is important in this concept. Great Western powers like the US and Germany according to Freeman became economically advanced countries, thanks to technical education and training, innovation and research (Freeman, 1995.p.89). These countries have managed to commercialize the technology, which is one of the factors of their success. Japanese technical innovations were in the direct function of production. The entrepreneurial state is not only a creator of knowledge, but through networks it has a mobilizer of resources, innovation through economic sectors. A developing country not only improves the market but also provides industrialization and influences the banking financial systems, to economically monitor the growth and development of the real sector. There is an indisputable link between countries that have gone through a severe financial crisis and insufficient investment in research and development. Some countries, such as the United Kingdom, have managed to focus on: the financial sector, creative industries and construction, and thus invest less in development. There is a myth that SMEs use innovation for more employment, although it is known that there is no reliable information between enterprise size and economic growth. For one economy, innovative companies are important, as well as high growth in relation to the size of the company. So less is not better by definition, because small businesses are not more successful. Risk capital is mostly found in the areas of high potential growth, low technological complexity and low capital intensity. The development of biotechnologies that are the result of the work of research institutes, western universities, has been made possible by investments from the state. The problem of innovation in the European Union is not the result of insufficient industrial knowledge, but insufficient ability to commercialize that

knowledge. Empirical experience shows that tax breaks do not have a great impact on innovation, research and development, as much as a country's scientific and technological base has.

## 5. ENTREPRENEURIAL STATE AND RISKS

It is evident that public funding and research has a broader picture and time horizon, with the possibility of being a risky investment but, in general, leads to the common good, not infrequently enabling private research, which is guided by the logic of short-term investment and research. The entrepreneurial state is oriented towards the creation of new products, new markets, new models of organization, new production processes, which contribute to economic growth. Schumpeter also believed in the process of creative destruction, which allows unsuccessful innovations to be replaced by better ones. Entrepreneurial economics is an economics of risk, which takes into account uncertainty (uncertain events, uncertain knowledge). Technological change is an outstanding example of Schumpeter's idea of self-destruction in the field of knowledge and innovation. In the history of science, it is known that many discoveries were completely accidental, and not the result of some intended work.

Today, the leading role of the state in risky innovations in the field of application of the development of new technologies (green industries, information technologies, nanotechnologies, space research, nuclear technology). The knowledge industry is supported by the state and public funding. Also, public investments extend to different types of risky and uncertain research, which significantly distinguishes them from private risky investments in research and development.

A good example of an entrepreneurial state is the American Entrepreneurial State, ie its agencies DARPA (Defense Advanced Research Projects Agency) and SBIR (Small Business Innovation Research). The results of public funding, research, technology, human capital, the American entrepreneurial state are the foundations of global growth and development. Still the largest number of industrial and intellectual property comes from the United States.

## 6. ENTREPRENEURIAL STATE AND THE KNOWLEDGE ECONOMY

The American state has enabled Apple innovations (Apple Inc.), which are not only technical inventions, but also first-class commercial

products. Apple received huge direct or indirect state support for three main areas:

- 1) Direct capital investments in the early stages of risky creation and growth;
- 2) Access to technologies, which arose from large state research programs, military initiatives, public procurement contracts, behind which stood state money;
- 3) Introduce tax, trade, or technology measures to support U.S. companies such as Apple. (Macukato, 2020, p.139)

The U.S. state funded the technologies and supported the business ventures on which Apple's newly established computer technology company was based. The newly established Silicon Valley has become a national center of computer innovation. (microprocessors, random access dynamic memory, liquid crystal hard or hard disk display, lithium polymer, lithium ion batteries; digital signal processing, Internet, hypertext transfer protocol and hypertext markup language, mobile technology and network, global system positioning, click-point navigation, multi-touch screens, and artificial intelligence.) With the introduction of the first-generation iPod in 2001, Apple began launching waves of new innovative products (iPhone, iPad) that would one day turn the entire mobile entertainment industry. The state helped finance the iPhone research, financing the so-called hybrid technologies. The mobile phone showed the interaction of man and machine. The iPod offers GPS integration, geographic positioning of the world. The American state also has a prominent place in financing that technology. SIRI, as artificial intelligence, includes: machine learning, natural language processing and network search algorithm. Thus, the revolution in information and communication technology is directly the result of funding from the American state.

## **7. ENTREPRENEURIAL STATE IN "PUSHING" AGAINST "SUPPRESSING" THE GREEN INDUSTRIAL REVOLUTION**

Without financial state support, a green revolution in the energy sector is not possible. Clean and renewable energy requires government measures: tax breaks, subsidies, loans, grants, research and development contracts. The green revolution implies the transformation of the existing energy system into a sustainable ecological system of renewable clean energy. The environmental problem (climate change) is directly related to this problem. The most developed developing countries allocate certain amounts of money to finance green and sustainable development. It is interesting that America is not in the lead. A

number of Western countries and China (China's green five-year plan) are allocating more funds for the green revolution.

America has an indecisive approach to green technologies. The United States has adopted a strategy to push for the development of green technologies. This strategy is being implemented with the help of the Ministry of Energy. The US energy market is dominated by some of the most powerful global companies. The energy industry favors the stability and reliability of the energy system. The American strategy is to push green development, when it comes to energy companies and energy systems. (Macukato, 2020, p.190). Commercial banks and other financial institutions play a significant role in financing state development. New technologies that show the success of a country are: wind energy and solar energy, which stand in a certain proportion to the economic success and the crisis of a country in green development. Clean technologies are in crisis, due to the fact that they imply additional investments in renewable clean and green energy sources, and to a large extent due to the policy itself. The task is to build a symbiotic, not a parasitic ecosystem. It is difficult today to quantify the benefits and rewards that the state has from investing in the green revolution, while the risks are certain.

It is interesting to note that many systems such as tax are designed for an economy in which new technologies do not have a dominant place, so that many systems and policies, even the most developed countries do not correspond to modern technologies and the green revolution, especially the lack of regulation of new technology companies. and adequate controls of their operations. Technology companies avoid paying billions of dollars in taxes (shifting taxes), and there are a number of employment problems. There is a real fear that these multinational companies will become too independent and escape macroeconomic (state) control. In 2001, Apple reported 30% of its assets and income in the United States. Just as it is difficult to define where profit is made, it has become difficult to determine where tax is generated. There is a paradox that technology companies are committed to reducing the tax base and reducing taxes in the budget, even though they are financially supported by the state in their development. The phenomenon is that intellectual property is being produced from the United States, just as capital is moving, and innovation is moving.

## **8. BENEFITS AND PRICES OF INVESTMENT, INNOVATIONS AND DEVELOPMENT OF THE AMERICAN ENTREPRENEURSHIP STATE**

In the financial and economic crisis in 2008 has evidently been shown that there are strong links between risk and earnings and that the financial sector, as a parasite, has privatized awards and socialized losses. The state also subsidizes investments that enable individual employees and companies to participate in the innovation process. By definition, innovations should reduce inequality, but through the financial sector, managers often appropriate high and undeserved rewards, which is especially evident in a crisis, without the possibility of being sanctioned. It is also evident that the state does not receive adequate returns on its risky investments (through the tax system). Revenues from the use of intellectual property, through various sectors and technologies, should be paid into the national "innovation fund." Burlamaqui says: and becomes the basis for annuity claiming and annuity appropriation. (Burlamaqui, 2012. p. 96). He proposes that the state adopt a controlling share of patents, which arise from publicly funded research. Also, one of the methods is for the state to keep the share of ownership of the companies it supports. One of the ways of state investment and collecting the return from that investment is also possible through the state development bank. Smart, sustainable and inclusive growth is not a legitimate unquestioned process. It requires a whole set of measures, strategies and activities. The entrepreneurial state is one of the most important economic actors, whose economic activities are subject to economic laws, to which the private sector is also subject. This means that there are risks, rewards and penalties in financing and doing business. Perhaps the exclusivity of the state is that it has the opportunity to invest risky in the long run, bearing in mind the broader picture and the general benefit.

## **CONCLUSION**

Entrepreneurial state as a syntagma covers the notion of the most important economic actor in the 21st century and problematizes the classic political economy of Adam Smith about the state standing behind the economic world, dominated by the struggle of private interests in the free market, where market competition takes place by invisible hand. The latest crisis, the financial crisis, caused by financial reasons and then by a pandemic, for health, not economic reasons, has affirmed the state as a key actor in resolving the crisis. It has been shown in the epoch of innovations,

technological revolutions and new technologies that epochal technological and economic growth is not possible without state investment in providing the technological base. Thus, the state cannot have a precise and limited role in innovation according to the system of cost-benefit analysis. The state as a representative of the general interest, which takes into account the broader picture, is more prone to risky investments than the private sector, which is prone to short-term risk, in the name of the public interest. Although the state should take the risk, it should not absorb the risk of the private sector, but take on the type of risk that the private sector is not ready for, and should receive returns from that risk. Public and private interests are no longer diametrically opposed, but are intertwined, often through public-private partnerships and in the innovation sector. A serious effort is ahead to build an entrepreneurial state, whose goal is to develop strategic technologies and innovations related to economic growth.

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## SUMMARY

Entrepreneurial state as a syntagm covers the notion of the most important economic actor in the 21st century and problematizes the classic political economy of Adam Smith about the state standing behind the economic world, dominated by the struggle of private interests in the free market, where market competition takes place by invisible hand . The latest crisis, the financial crisis, caused by financial reasons and then by a pandemic, for health, not economic reasons, has affirmed the state as a key actor in resolving the crisis. It has been shown in the epoch of innovations, technological revolutions and new technologies that without the state's investment in securing the technological base, epochal technological and economic growth is not possible. Thus, the state cannot have a precise and limited role in innovation according to the system of cost-benefit analysis. The state as a representative of the general interest, which takes into account the broader picture, is more prone to risky investments than the private sector, which is prone to short-term risk, in the name of the public interest. Although the state should take the risk, it should not absorb the risk of the private sector, but take on the kind of risk that the private sector is not ready for, and should receive returns from that risk. Public and private interests are no longer diametrically opposed, but are intertwined, often through public-private partnerships and in the innovation sector. A serious effort is ahead to build an entrepreneurial state, aimed at developing strategic technologies and innovations related to economic growth.

# UPRAVLJANJE ODRŽIVIM RAZVOJEM ZEMALJA ZAPADNOG BALKANA U USLOVIMA PANDEMIJE KOVIDA-19

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**Apstrakt:** Slobodan protok roba, usluga, ljudi i kapitala, razvoj informacione i komunikacione tehnologije, učinili su da lokalni problemi postanu globalni. Finansijska kriza 2007. godine vrlo brzo je postala globalna. Pandemija kovida-19 izazvala je svetsku zdravstvenu krizu, koja je ubrzala prerasla u ekonomsku, uz pretnju da postane i društvena kriza. Makroekonomski troškovi pandemije ogledaju se u padu bruto domaćeg proizvoda (GDP), rastu nezaposlenosti, povećanju fiskalne i eksterne neravnoteže. Fiskalna politika je u svim zemljama bila okosnica ekonomске politike u borbi protiv posledica pandemije. Ono što se sa sigurnošću može reći je da je šok pandemije pogodio ekonomiju i sa strane agregatne tražnje i sa strane agregatne ponude. U radu pokušavamo da sagledamo kako je pandemija delovala na privredu zemalja Zapadnog Balkana, sa kolikim privrednim padom su se suočile u 2020. godini. U radu takođe analiziramo koliko su javni sektor, zdravstvo i obrazovanje bili efikasni u borbi protiv posledica pandemije.

**Ključne riječi:** privredni rast, Zapadni Balkan, pandemija kovida-19

## 1. UVOD

Ekonomista Nasim Nikolas Taleb je dvehiljaditih upotrebio naziv „Crni labud“ kako bi opisao neočekivane događaje velikih razmara.

Epidemija kovida-19 u veoma kratkom roku dovela je do globalnih ekonomskih promena koje podrazumevaju najdublju recesiju posle Drugog svetskog rata, što je u javnosti predstavljeno kao „Crni labud“.

Konsultantska kuća „Mekinsi“ izračunala je da je ova kriza 4,5 puta razornija od globalne finansijske krize iz 2008. godine. Naime, kriza iz 2008. godine je nastala u finansijskom sistemu i bila je kriza tražnje. Sadašnja kriza je nastala van ekonomskog sistema i istovremeno je kriza ponude i tražnje. U krizi iz 2008. godine nisu bili pogodjeni mali proizvođači koji nisu bili jako zaduženi, a u ovoj krizi oni su u najgorem položaju jer su njihovi lokali zatvoreni. S druge strane, smanjenje prihoda domaćinstava je uticalo na pad tražnje. MMF je procenio da je globalna aktivnost pala za 4,9%. Ako je ova pandemija išta pokazala nacionalnim državama, to je da je pametnije da industriju imaju u svom dvorištu. Paradoksalno je ipak to što ovu krizu neće moći svaka država zasebno da prebrodi, naprotiv, globalna međusaradnja jeste i biće krucijalna.

Ponovo se pokazalo koliko je kapitalizam sam za sebe, i sam sa sobom, neodrživ i koliko famozna nevidljiva ruka tržišta ne može da se samoreguliše, ili da išta reguliše samostalno. Makar ne bez upliva države ili bez kolektivne društvene solidarnosti – dve stvari koje su u suprotnosti sa esencijom (neoliberalnog) kapitalizma.

Kao sa svakom ekonomskom krizom do sada, država je ta koja treba da „uskoči“ i izvuče stvar, odnosno pomogne kapitalistima u nevolji.

Globalna kriza izazavana pandemijom kovida-19, pokazala je koliko je važno za jednu privredu da ima razvijen industrijski sektor i da je što manje zavisna od uvoza iz inostranstva. Takođe je postalo jasno koliki je značaj smanjenja javnog duga i ulaganje u zdravstvo, istraživanje i razvoj, jer su ovi sektori bili okosnica borbe tokom pandemije.

## 2. ZAŠTO SU ZEMLJE ZAPADNOG BALKANA PANDEMIJU DOČEKALE NESPREMNO?

Zemlje Zapadnog Balkana su se suočile sa značajnim padom GDP-a, nakon izbijanja globalne finansijske krize 2008. godine, ali su još nespremni dočekale globalnu pandemiju. Umesto da sledi pozitivan primer baltičkih zemalja (koje su 2009. godine imale još dublji pad u poređenju sa našim regionom), da se primene mere štednje, da se restrukturiraju i privatizuju državna preduzeća, zemlje Zapadnog Balkana izabrale su put ubrzanog zaduživanja, kao načina finansiranja sistematskih

neefikasnosti. To je bio put odlaganja reformi. Pošto se države dominantno finansiraju od poreza, a kako je privredna aktivnost bila mala a na poreske prihode se nije moglo računati, zemlje Zapadnog Balkana su počele da se zadužuje na međunarodnim finansijskim tržištima (Milenković, Vujović, 2020, str. 35). Dok su finansijsku krizu dočekale sa prosečnim javnim dugom od 30% koji se u 2009. godini povećao na 37% BDP-a, a krajem 2011. godine povećao na 44%, globalnu pandemiju su zemlje Zapadnog Balkana dočekale još zaduženije sa prosečnim javnim dugom od 52,74% (tabела 2).

**Tabela 2.** Javni dug zemalja Zapadnog Balkana 2019 -2020. god. (% BDP-a)

	JAVNI DUG 2019. god.	JAVNI DUG 2020. god.
<b>CRNA GORA</b>	77,2	83,1
<b>BOSNA I HERCEGOVINA</b>	33,1	37,1
<b>SEVERNA MAKEDONIJA</b>	40,2	45,0
<b>SRBIJA</b>	49,7	55,9
<b>ALBANIJA</b>	63,5	71,2
<b>ZAPADNI BALKAN</b>	<b>52,74</b>	<b>58,46</b>

**Izvor:** Zapadni Balkan, Redovni ekonomski izveštaj br.17, proleće 2020.godine, Ekonomski i socijalni uticaj COVID-19, World Bank Group

Kako je okosnica borbe protiv pandemije javni sektor, odnosno javne finansije i kapacitet zdravstvenih sistema (a samim tim i njihove sposobnosti da radnicima i firmama pruže podršku tokom krize), zemlje Zapadnog Balkana su se našle u ozbilnjnom problemu. Čak i prilagođeno lokalnim troškovima, javna potrošnja za zdravstvo po glavi stanovnika u proseku iznosi 15% nivoa u Nemačkoj (i samo oko jedne trećine nivoa potrošnje u bogatijim zemljama Centralne i Istočne Evrope poput Slovenije). Kao posledica toga, vlade Zapadnog Balkana su odlučile da ozbiljno ograniče ekonomski život (u većoj meri nego u

mнogim drugim delovima Centralne, Istočne i Jugoistočne Evrope). U tabeli je prikazano koliko iznose javni rashodi za zdravstvo po glavi stanovnika u zemljama Zapadnog Balkana i prosečno za sve zemlje (569 \$). Ova potrošnja je mnogo niža od proseka Evropske unije koja iznosi 3.137 \$. Zato su građani zemalja Zapadnog Balkana primorani da nedostatak sredstva za zdravstvene sisteme nadomešćuju iz sopstvenih sredstava. Ovi troškovi iznose 37% u Srbiji i Severnoj Makedoniji, 43% u CG, 28% u BIH i 50% u Albaniji (Zapadni Balkan, Redovni ekonomski izveštaj br.17, 2020.godine, str. 3).

**Tabela 3.** Ključni pokazatelji zdravstvenog sektora

	Javni rashodi za zdravstvo po glavi stanovnika (USD)	Troskovi iz vlastitih sredstava (u%)
<b>CRNA GORA</b>	509	43
<b>BOSNA I HERCEGOVINA</b>	681	28
<b>SEVERNA MAKEDONIJA</b>	539	37
<b>SRBIJA</b>	812	37
<b>ALBANIJA</b>	307	50
<b>ZAPADNI BALKAN prosek</b>	<b>569</b>	<b>39</b>

**Izvor:** Zapadni Balkan, Redovni ekonomski izveštaj br.17/ Ekonomski i socijalni uticaj COVID-19 (Zdravstveni sistemi)/, proleće 2020.godine, str.3

To su troškovi iz vlastitih sredstava u odnosu na ukupne troškove koje građani izdvajaju za lečenje (tabela 3).

Zemlje Zapadnog Balkana nisu reformisale svoje privrede. One su još uvek potrošačke ekonomije kod kojih je glavni pokretač privrednog rasta potrošnja i uvoz, a ne investicije, izvoz i rast produktivnosti. Struktura njihovih privreda je zasnovana na uslugama, i to onim uslugama koje podstiču tražnju, pre svega domaću. Dominantni

sektori su saobraćaj i telekomunikacije, bankarstvo (finansijsko posredovanje), trgovina na veliko i malo i turizam. Zemljama Zapadnog Balkana je potrebno jačanje industrijskog sektora, odnosno reindustrijalizacija. Iz svih navedenih razloga sasvim je jasno zašto smo novu krizu, izazvanu pandemijom kovida-19, dočekali nespremno i zašto je pad privredne aktivnosti bio još veći nego 2008. godine (tabela 4).

**Tabela 4.** Stope rasta 2019. i 2020. godine

	Stope rasta BDP-a 2009. godine	Stope rasta BDP-a 2020. godine*
<b>CRNA GORA</b>	-5,80	-12,4
<b>BOSNA I HERCEGOVINA</b>	-3,0	-6,5
<b>SEVERNA MAKEDONIJA</b>	-0,36	-5,4
<b>SRBIJA</b>	-2,73	-2,5
<b>ALBANIJA</b>	3,35	-7,5

Izvor: Svetska banka, Transparency International

### 3. UTICAJ PANDEMIJE NA PRIVREDE ZEMALJA ZAPADNOG BALKANA

Pandemija kovida-19 i odgovor država na nju imaju (i imaće) snažan i dugotrajan uticaj na Zapadni Balkan. Granice su zatvorene, privrede urušene, vanredno stanje je uvedeno u svim zemljama, zvanično ili de facto, građani su pod merama izolacije a pandemija predstavlja smrtonosnu pretnju za ljudе na Zapadnom Balkanu, kao i drugde širom sveta. U cilju borbe protiv pandemije kovida-19, Srbija i Severna Makedonija su uvele vanredno stanje, dok ostale države nisu preduzele taj korak, ali primenjuju mere koje su podjednako radikalne. Državni resursi, a pogotovo zdravstveni sistemi, slabи su i nisu u stanju da se nose sa izbijanjem bolesti kovid-19 u onim razmerama kojima su uzdrmani zdravstveni sistemi Italije, Španije ili Francuske, a koji su i pre izbijanja pandemije bili bolje opremljeni. Demokratije su slabe, a institucije krhke i zato postoji rizik da neće biti u stanju da se brzo oporave nakon vanrednih mera preduzetih širom regiona. Pandemija kovida-19 predstavlja krizu razmara koje bi, bez sumnje, mogle da promene tok istorije. U izvesnom smislu, ona je već imala ulogu akceleratora postojećih trendova, kao što su kriza demokratije i nacionalizam. S druge strane, ona je za samo nekoliko nedelja već promenila svet, uključujući Zapadni Balkan, u vidu ponovnog uspona nacionalne države i nagle deglobalizacije.

Uticaj dinamične kineske diplomatiјe zasnovane na pružanju pomoći na vrhuncu krize neće neophodno dovesti do jačanja njenog uticaja u

Evropi i na Zapadnom Balkanu. I pored toga što je srpski predsednik Vučić evropsku solidarnost proglašio „bajkom“, a izričito izrazio svoju zahvalnost Kini na njenoj pomoći. Kada se u stranu sklene emocije i javne objave privrženosti, realnost je takva da dugoročni interesi Kine ostaju usmereni na tržište EU, a ne na mala nacionalna tržišta Zapadnog Balkana. Stoga bi geopolitički diskurs Zapadnog Balkana trebalo posmatrati unutar konteksta budućih odnosa između EU i Kine (Zapadni Balkan u doba globalne pandemije, Policy Brief, april 2020. godine, str.11).

Prema podacima Naš svet u brojkama, Srbija je sredinom februara bila osma zemlja na svetu po broju vakcinisanih na 100 stanovnika, a druga u Evropi. To je rezultat geopolitičkih okolnosti.

Pandemija kovida-19 otkrila je ozbiljnost problema masovne emigracije zdravstvenih radnika iz zemalja Zapadnog Balkana, kao i činjenicu da je zadržavanje medicinskog osoblja u zemlji od ključnog značaja. Takođe, otkrila je i sistemske slabosti zdravstvenog sistema, decenije nedovoljnog investiranja u ljudе, objekte i opremu. Konačno, u potpunosti je razotkrila slabost u vidu decenija nedostatka investicija zemalja Zapadnog Balkana u obrazovanje, nauku i istraživanje i razvoj. U proseku, one na istraživanje i razvoj troše manje od 0,4 % BDP-a. Primera radi Južna Koreja izdvaja 4,3%, Izrael 4,2%, Japan 3,4%, Finska 3,2%, EU 3% BDP-a u ulaganje u istraživanje i razvoj. Poznato je da je pre pandemije na hiljade zdravstvenih radnika, uključujući lekare, medicinske sestre, tehničko osoblje i pružaoce medicinske nege, napušтало

Zapadni Balkan svake godine. U Bosni i Hercegovini, nacionalno udruženje zdravstvenih radnika saopštilo je da je oko 300 visokokvalifikovanih lekara napustilo zemlju 2016. godine. Kantonalna bolnica Zenica u Bosni i Hercegovini je u septembru 2019. izdala javno saopštenje u kom se navodi da ovaj grad, sa svojih preko 100.000 stanovnika, više nema na raspolaganju neophodnu neuropedijatrijsku zdravstvenu negu. Između juna 2013. i marta 2016. godine, 4.213 Bosanaca je dobilo posao u nemačkom zdravstvenom sektoru, uvećavajući ukupan broj Bosanaca zaposlenih u ovom sektoru u Nemačkoj na 10.726. Podaci nemačke agencije za zapošljavanje pokazuju i da je marta 2016. godine 1.102 lekara iz Bosne bilo zaposleno u Nemačkoj, što znači da je tokom perioda između juna 2013. i marta 2016. godine došlo do rasta od 20 odsto. Ovi brojevi su naglo skočili proteklih godina i procenjuje se da sada na svakih šest lekara u Bosni, jedan radi u Nemačkoj. Lekarska komora Srbije godišnje izda oko 800 „potvrda o dobroj reputaciji” – dokumenta neophodnog lekarima kada se prijavljuju za poslove u inostranstvu (Zapadni Balkan u doba globalne pandemije, Policy Brief, april 2020. godine, str.23).

Posledice pandemije kovida-19 po zaposlenost i zarade nadmašiće one koje su pratile globalnu finansijsku krizu iz 2008. godine. Pad doznaka će imati nepovoljan uticaj na nekoliko zemalja regionala u kontekstu njihovog priliva (koji čini oko 10% BDP-a u Bosni i Hercegovini, Albaniji i Crnoj Gori, a preko 15% na Kosovu, prema podacima Svetske banke), usled toga što će radnici migranti iz regionala širom EU izgubiti posao. Za očekivati je i pad prihoda od izvoza, pošto je verovatno da će se potražnja EU za dobrima i uslugama iz balkanskih zemalja smanjiti, i budući da će lanci proizvodnje i snabdevanja biti prekinuti ukoliko multinacionalne kompanije u regionu ugase svoje poslovanje. Taj proces je već otpočeo, pre svega u fabrici Fijat u Srbiji, koja je u februaru zatvorila svoje pogone zbog nedostatka neophodnih kineskih komponenti za proizvodnju u Fabrici automobila u Kragujevcu.

## ZAKLJUČAK

Pandemija kovida-19 i odgovor država na nju imaće snažan i dugotrajan uticaj na Zapadni Balkan. Njene posledice se ne mogu u potpunosti sagledati, budući da je ljudska, politička, socijalna i ekonomска cena pandemije i dalje nepoznanica. Državni resursi, a pogotovo zdravstveni sistemi, slabi su i nisu u stanju da se nose sa izbijanjem koronavirusa, u onim razmerama u kojima su uzdrmani zdravstveni sistemi Italije, Španije ili Francuske, a koji su i pre izbijanja pandemije bili

bolje opremljeni. Činjenica je da zemlje Zapadnog Balkana nisu izvukle lekciju iz prethodne globalne krize. Dok su finansijsku krizu dočekale sa prosečnim javnim dugom od 30%, koji se u 2009. godini povećao na 37% BDP-a, a krajem 2011. godine povećao na 44%, globalnu pandemiju su zemlje Zapadnog Balkana dočekale još zaduženije sa prosečnim javnim dugom od 52,74% BDP-a. S obzirom da je okosnica pandemije javni sektor, jasno je da zemlje Zapadnog Balkana nisu imale izbora pa su posegle za uvođenjem rigoroznih mera, uvođenjem vanrednog stanja i izolacije. Osim stanja javnih finansija (sposobnosti država da radnicima i firmama pruže podršku tokom krize), kapacitet zdravstvenih sistema, predstavlja drugi stub borbe u doba pandemije. Javna potrošnja za zdravstvo u zemljama Zapadnog Balkana iznosi 15% nivoa potrošnje u Nemačkoj (i samo oko 1/3 nivoa potrošnje u bogatim zemljama Centralne i Istočne Evrope poput Slovenije).

Zemlje Zapadnog Balkana nisu reformisale svoje privrede. One su još uvek potrošačke ekonomije kod kojih je glavni pokretač privrednog rasta potrošnja i uvoz, a ne investicije, izvoz i rast produktivnosti. Struktura njihovih privreda je zasnovana na uslugama, i to onim uslugama koje podstiču tražnju, pre svega domaću. Dominantni sektori su saobraćaj i telekomunikacije, bankarstvo (finansijsko posredovanje), trgovina na veliko i malo i turizam. Zemljama Zapadnog Balkana je potrebno jačanje industrijskog sektora, odnosno reindustrijalizacija. Iz svih navedenih razloga sasvim je jasno zašto smo novu krizu, izazvanu pandemijom kovida-19, dočekali nespremno i zašto je pad privredne aktivnosti bio još veći nego 2008. godine.

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## SUMMARY

An unforeseen event of great ramifications, such as the COVID-19 pandemic caused a recession on a previously unthinkable scale and altered the global image of the world. The West Balkan countries entered the crisis unprepared, with unreformed economies, with services (the untradable sector) making up large parts of their economies and with high national debts. This crisis showed countries that it is of utmost significance to have developed industries domestically, low national debt, and a strong public sector (healthcare and education), which was the cornerstone in the battle against the pandemic. Due to the unenviable state of healthcare and fraile institutions, emergency measures have been enacted in many of hte West Balkan countries, either officially or de facto. The global pandemic changed the world, including the West Balkan in just a couple of weeks by reinstating the rise of the nation state and rapid deglobalization.

## **MANAGEMENT OF SUSTAINABLE DEVELOPMENT OF THE WESTERN BALKAN ECONOMIES DURING THE COVID-19 PANDEMIC**

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**Abstract:** *The free flow of goods, services, people and capital, and the development of information and communication technology have all made local problems global. The 2007 financial crisis very quickly became global. The COVID-19 pandemic caused a worldwide health crisis, which quickly became an economic one, with threats of becoming a social one as well. The macroeconomic costs of the pandemic are visible in the form of shrinking GDP, the rise of unemployment, as well as fiscal and external imbalance. In all countries fiscal policy was the cornerstone of economic policy in the fight against the consequences of the pandemic. What we can say for certain is that the shock of the pandemic hit the economy both from the aspect of aggregate demand, as well as aggregate supply. In this paper we take a look at how the pandemic affected the economies of the Western Balkan countries, and the scale of the economic downturn they will face in 2020. We will also analyze how effective the public sector, the medical system, and education have been in the fight against the consequences of the pandemic..*

**Key words:** *Economic growth, Western Balkans, Pandemic COVID-19*

### **1. INTRODUCTION**

The economist Nasim Nicholas Taleb coined the term „Black swan“ in the 2000-s to describe unforeseen events of great proportions. The COVID-19 pandemic lead to global economic changes that caused the biggest recession after World War II in a very short timespan, which represented a „Black swan“ to the general public.

The consulting house „McKinsey“ calculated that this crisis was 4.5 times more devastating than the global financial crisis of 2008. Namely, the 2008 crisis was created by the financial system and was a crisis of demand. The current crisis appeared outside the economic system and was a crisis of both supply and demand simultaneously. Small manufacturers which were not under a lot of debt were not severely impacted by the 2008 crisis, but they were in the worst position in the current crisis due to the fact that their stores were closed. On the other hand, the reduction of household income affected the drop in demand. The IMF estimated a 4.9% drop in global activity. If this pandemic taught nation states anything, it would be that it is smarter to have industries within their own countries. However, it is paradoxical that countries are not able to overcome the current crisis by themselves, and that global cooperation is, and will remain to be crucial. It has been shown yet again how capitalism by itself is unsustainable and how the invisible hand of the market is unable to self-regulate, or regulate anything own its own. At least not without interference of the state, or of collective social solidarity – two things that are at odds with the essence of (neoliberal) capitalism. As with every economic crisis thus far, the state was the one to intervene with the marked, that is, help capitalists in trouble. The global crisis caused by the COVID-19 pandemic showed the importance for an economy to have a developed industrial sector and to be as independant as possible from imports from abroad. The impact of reduction of reduction of public debt and investment into healthcare and research and development also became abundantly clear, as

these sectors were the driving force of the battle against the pandemic.

## 2. WHY DID THE PANDEMIC CATCH THE WEST BALKAN COUNTRIES OFF GUARD?

The West Balkan countries faced a significant reduction of GDP after the breakout of the 2008 financial crisis, but they were even less prepared to face the global pandemic. Instead of following the example of the baltic countries (which had an even bigger dip during 2009 than our region did), that is, applying savings measures, restructuring and privatizing businesses, the West Balkan countries

chose instead to increase borrowing, as the means to fund systematic inefficiencies. That was the way of delaying reforms. Since countries are predominantly financed by taxation, and since the economic activity was low, and income through taxes was unreliable, the West Balkan countries began to incur debt on the international financial markets. (Milenković, Vujović, 2020, str. 35). While they entered the financial crisis with an average /national debt/ of 30%, which increased to 37% of their GDP in 2009 and 44% in 2011, that West Balkan countries entered the global pandemic with an even greater average public debt of 52.74% (table 1).

**Table 1.** The public debt of West Balkan countries in 2019-2020. (as a % of GDP)

	PUBLIC DEBT 2019	PUBLIC DEBT 2020
<b>MONTENEGRO</b>	77,2	83,1
<b>BOSNIA AND HERCEGOVINA</b>	33,1	37,1
<b>NORTHERN MACEDONIJA</b>	40,2	45,0
<b>SERBIA</b>	49,7	55,9
<b>ALBANIA</b>	63,5	71,2
<b>WEST BALKAN</b>	<b>52,74</b>	<b>58,46</b>

**Source:** West Balkan, /Regular economic report no. 17, spring 2020, the economic and social impact of COVID-19, World Bank Group

As the public sector, that is, public finance and the capacity of healthcare systems are the cornerstone of the battle against the pandemic (and therefore, their abilities to provide workers and businesses support during the crisis), the West Balkan countries found themselves in a precarious situation. Even adjusted to the local expenses, their public healthcare spending per capita amounts to 15% of the level of Germany (and only one third of the level of wealthier countries of Central and Eastern Europe, such as Slovenia). As a consequence, the governments of West Balkan

countries have decided to greatly restrict economic life (to an even greater extent than many other parts of Central, Eastern and Southeastern Europe). The following table shows the public spending on healthcare per capita of each of the West Balkan countries, as well as their average (569 \$). This spending is significantly lower than the European average, which is 3.137 \$. For that reason, the citizens of West Balkan countries are forced to supplement the lack of funds with their own capital.

**Table 2.** Key indicators of the healthcare sector

	Public spending on healthcare per capita (USD)	Personally funded costs (% of total)
<b>MONTENEGRO</b>	509	43
<b>BOSNIA AND HERCEGOVINA</b>	681	28
<b>NORTHERN MACEDONIJA</b>	539	37
<b>SERBIA</b>	812	37
<b>ALBANIA</b>	307	50
<b>WEST BALKAN average</b>	<b>569</b>	<b>39</b>

**Source:** West Balkan, /Regular economic report no. 17/ The economic and social impact of COVID-19 (Healthcare systems)/, spring 2020, page 3

These costs amount to 37% in Serbia and Northern Macedonia, 43% in Montenegro, 28% in Bosnia and Herzegovina, and 50% in Albania. (West Balkan, Regular economic report no.17, 2020, page 3). These are the costs personally funded compared to the total costs that citizens pay for healthcare (table 2).

The West Balkan countries have not conducted economic reforms. They are still consumer economies in which the main driver of economic growth is spending and imports and not investments, exports and the growth of

productivity. The structure of their economies is founded on services, services that increase demand, such as telecommunication, banking (financial services), and large and small scale retail, and tourism, to be more precise. The West Balkan countries need to reinforce their industrial sector. In other words, they need reindustrialization. From the above mentioned reasons it is easy to conclude why we were not ready to handle the new crisis caused by the COVID-19 pandemic and why the fall of economic activity was higher than in 2008. (table 3).

**Table 3.** Growth rates in 2009 and 2020

	GDP growth rate in 2009	GDP growth rate in 2009*
<b>MONTENEGRO</b>	-5,80	-12,4
<b>BOSNIA AND HERCEGOVINA</b>	-3,0	-6,5
<b>NORTHERN MACEDONIJA</b>	-0,36	-5,4
<b>SERBIA</b>	-2,73	-2,5
<b>ALBANIA</b>	3,35	-7,5

Source: World bank, Transparency International

### 3. THE EFFECT OF THE PANDEMIC ON THE ECONOMIES OF THE WEST BALKAN COUNTRIES

The COVID-19 pandemic and the response of countries to it have (and will continue to have) a deep and lasting impact on the West Balkan. Borders are closed, economies are crumbling, emergency measures have been adopted in all countries, be it officially or de facto, the citizens are under isolation and the pandemic represents a deadly threat to the local population, as well as to people around the world. In hopes of fighting the COVID-19 pandemic, Serbia and Northern Macedonia adopted emergency measures. While the other countries have not taken that step, they enforced similar equally radical restrictions. National resources, and especially healthcare systems are weak and not capable of handling the outbreaks of the COVID-19 disease on the same scale that Italy, Spain, or France faced, but which were better equipped before the start of the pandemic. Democracies are weak and institutions brittle and so there is a risk that they will not be able to recover quickly after emergency measures will have been adopted throughout the region. The COVID-19 pandemic represents a crisis, the scales of which will undoubtedly alter the course of history. To a certain extent it already played the role of accelerating current trends, such as the crisis of democracy and nationalism. On the other hand, it dramatically impacted the world, including

the West Balkan over the course of just a couple of weeks by reinstating the rise of the nation state and rapid deglobalization.

The effect of dynamic Chinese diplomacy based on giving aid at the height of the crisis will not necessarily lead to strengthened influence in Europe and on the West Balkan area. Even though the Serbian president Vučić declared European solidarity a “fable” and explicitly expressed gratitude to China for the aid, with emotions and public expressions of sympathy aside, the reality that the long-term interests of China remain on the EU, and not small West Balkan markets still remains. Therefore, we should observe the geopolitical discourse of the West Balkan within the context of the future relations between the EU and China. (The Western Balkans at the time of the global pandemic, Policy Brief, april 2020. godine, str.11).

According to the data from „Our world in numbers?“, Serbia was the eighth most vaccinated country per capita in the world and second in Europe. This was the result of geopolitical circumstances.

The COVID-19 pandemic revealed the severity of the problems of mass emigration of healthcare workers from the West Balkan countries, as well as the fact that the retention of healthcare personnel within the country is of utmost importance. It also revealed the systemic weaknesses of the healthcare system, decades of insufficient investment into

staff, facilities, and equipment. Last but not least, it completely revealed the weaknesses built up by decades of insufficient funding of the West Balkan countries in education, science, research and development. On average, these countries spend less than 0.4% of their GDP on research and development. In comparison, the amount that other countries spend in this area is as follows: 4.3% in South Korea, 4.2% in Israel, 3.4% in Japan, 3.2% in Finland, and 3% in the EU. Before the pandemic it was widely known that thousands of healthcare workers, including doctors, nurses, technical personnel, and healthcare providers left the West Balkan every year. In Bosnia and Herzegovina, the national health worker association announced that around 300 highly qualified doctors left the country in 2016. The canton hospital Zenica in Bosnia and Herzegovina issued a statement in which it mentioned that this city, along with its over 100,000 residents no longer had the necessary neuro-pediatric healthcare. Between June 2013 and March 2016, 4,213 residents of BiH got a job in the German healthcare sector, bringing the total number of citizens of BiH employed in this sector in Germany up to 10,726. The data from the German employment agency show that in March of 2016 1,102 doctors from Bosnia were employed in Germany, which means that between June 2013 and March 2016 there was an increase of 20%, which was a sudden rise compared to previous years and it is estimated that for every six doctors working in Bosnia today there is one working in Germany. The Serbian health department issues around 800 „proofs of good reputation“ yearly – documents necessary for doctors to apply for jobs abroad. (Zapadni Balkan u doba globalne pandemije, Policy Brief, April 2020. godine, str.23).

The effects of the COVID-19 pandemic on employment and earnings will outdo the ones following the global financial crisis in 2008. The fall of inflows will have a negative effect on several countries of the region in terms of their income (which makes up 10% of the GDP of Bosnia and Herzegovina and over 15% of the GDP of Kosovo, according to data from the World Bank), due to the fact that migrant workers from the region will lose jobs throughout the EU. A drop in income from imports is expected, due to the fact that the demand for goods and services from the Balkan countries will likely decrease and the chains of supply and demand will be broken if multinational companies cease their business in the region. This process is already beginning to unfold, namely in the Fiat factory in Serbia which halted its production due to the lack of supply of Chinese components necessary for their automobile factory in Kragujevac.

## CONCLUSION

The COVID-19 pandemic and the response of countries to it will have a deep and long lasting impact on the West Balkan. Its consequences are impossible to predict completely, due to the fact that the human, political, social, and economic costs of the pandemic still remain unknown. National resources, and especially healthcare systems are weak and not capable to withstand the outbreaks of the COVID-19 virus on the scale that the shook up healthcare systems of Italy, Spain or France have, and which were better equipped before the start of the pandemic. The fact is that the West Balkan countries have not learned their lessons from the last global crisis. While they entered the financial crisis with an average national debt of 30% of their GDP with increased to 37% in 2009 and 44% at the end of 2011, the West Balkan countries entered the COVID-19 pandemic with an average national debt of 52.74% of their GDP. Considering that the public sector is at the core/ of the pandemic, it is clear that the West Balkan countries had no choice but to enforce rigorous policies, implement emergency measures and isolation. Beside public finance (the ability of countries to provide support to workers and businesses throughout the crisis), the capacity of healthcare systems is the other pillar in the fight against the pandemic. Public spending in healthcare in the West Balkan countries is only at 15% of the level of Germany (and only at about 1/3 of the level of richer countries of Central and Eastern Europe such as Slovenia)

The West Balkan countries have not conducted reforms of their economies. They are still consumer economies in which the main driving forces are imports and spending, and not investments and the growth of productivity. Their economies encourage demand, more specifically domestic demand. Their dominant sectors are transportation, telecommunication, banking (financial services), large and small scale retail, and tourism. The West Balkan countries need to strengthen their industrial sectors, that is, they need reindustrialization. From the above mentioned reasons it is abundantly clear why we entered the new crisis, caused by the COVID-19 pandemic unprepared and why the fall of economic activity was even greater than in 2008.

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