

# Fiskalna politika, dug i emisiona dobit

---

PROF. DR MAJA BAĆOVIĆ

25.12.2023.

# Fiskalna politika

---

- Jedan od primarnih ciljeva fiskalne politike jeste korekcija tržišnih nepravilnosti i obezbjeđenje javnih dobara kroz proces redistribucije, a sve u cilju ostvarivanja dugoročnog ekonomskog rasta, uvažavajući socijalne potrebe.
- U praksi, veoma je teško utvrditi optimalni nivo obima fiskalne politike, imajući u vidu da fiskalna politika, ukoliko je neefikasna, može usporiti ekonomski rast. Istraživanje Svjetske banke, sprovedeno na bazi empirijskih istraživanja u odabranim zemljama Evrope i centralne Azije, ukazuje na efekte fiskalne politike kroz četiri dimenzije:
  - efekti budžetskog deficita i fiskalne konsolidacije na ekonomski rast,
  - uticaj veličine javne potrošnje na ekonomski rast,
  - uticaj kvaliteta javnih politika i
  - uticaj strukture rashoda i poreza na ekonomski rast.
- Veličina javne potrošnje takođe utiče na ekonomski rast. Visok nivo javne potrošnje vodi neefikasnijoj alokaciji resursa, dok potreba za finansiranjem potrošnje višim oporezivanjem destimuliše investicije, štednju i inovacije. Empirijska analiza (Svjetska banka, 2007) ukazuje da javna potrošnja veća od 35% BDP-a negativno utiče na ekonomski rast, pri čemu povećanje javne potrošnje za 1% umanjuje stopu rasta BDP-a prosječno 0,3–0,4% godišnje. Ovo je naročito karakteristično za ekonomije u kojima je državna administracija neefikasna, dok se efikasnom administracijom negativni efekti mogu znatno umanjiti.
- Struktura javne potrošnje takođe je važan faktor koji opredjeljuje razvojni karakter fiskalne politike. Rashodi u pravcu povećanja efikasnosti upotrebe proizvodnih resursa smatraju se produktivnim, kao i rashodi usmjereni na snaženje zaštite svojinskih prava, efikasnog pravnog sistema, nižih transakcionih troškova... Suprotno, visoki rashodi državne administracije, naročito ako vode birokratizaciji i smanjenoj efikasnosti državne administracije, u kombinaciji sa visokim troškovima odbrane, nisu stimulativni za ekonomski rast. Takođe, intenzivna socijalna politika može imati demotivišući efekat na tržište rada, kroz smanjenje motiva za produktivnom ekonomskom aktivnošću.
- I poreski sistem utiče na rast. Progresivni porez na dohodak demotiviše investicije. Visoke poreske stope na zaposlene podstiču zapošljavanje u sivoj ekonomiji. Sa druge strane, indirektni porezi, kao porez na dodatnu vrijednost, imaju manje negativan direktan efekat jer ne demotiviraju investicije i zapošljavanje, iako svaki njihov rast vodi smanjenju raspoloživog dohotka za ličnu potrošnju i štednju.

# Fiskalna politika i ekonomsko blagostanje

- Snabdijevanje javnim dobrima i uslugama
  - Obrazovanje
  - Zdravstvo
  - Infrastruktura
  - Administracija
  - Ostalo
- Eksterni efekti

**Table 17.1 General Government Spending and Finances: Eurozone, USA, UK, and Japan, 2016**

	Eurozone	USA	UK	Japan
Total spending (% of GDP)	47.4	37.9	42.6	41.5
Public consumption				
as % of GDP	20.8	14.3	19.2	20.6
as % of private consumption	37.1	20.8	29.6	35.5
Budget surplus (% of GDP)	-2.1	-4.4	-3.4	-4.5
Gross debt (% of GDP)	89.5	107.5	89.7	247.5

**Tabela 15. Indikatori budžetske potrošnje, 2006–2016.**

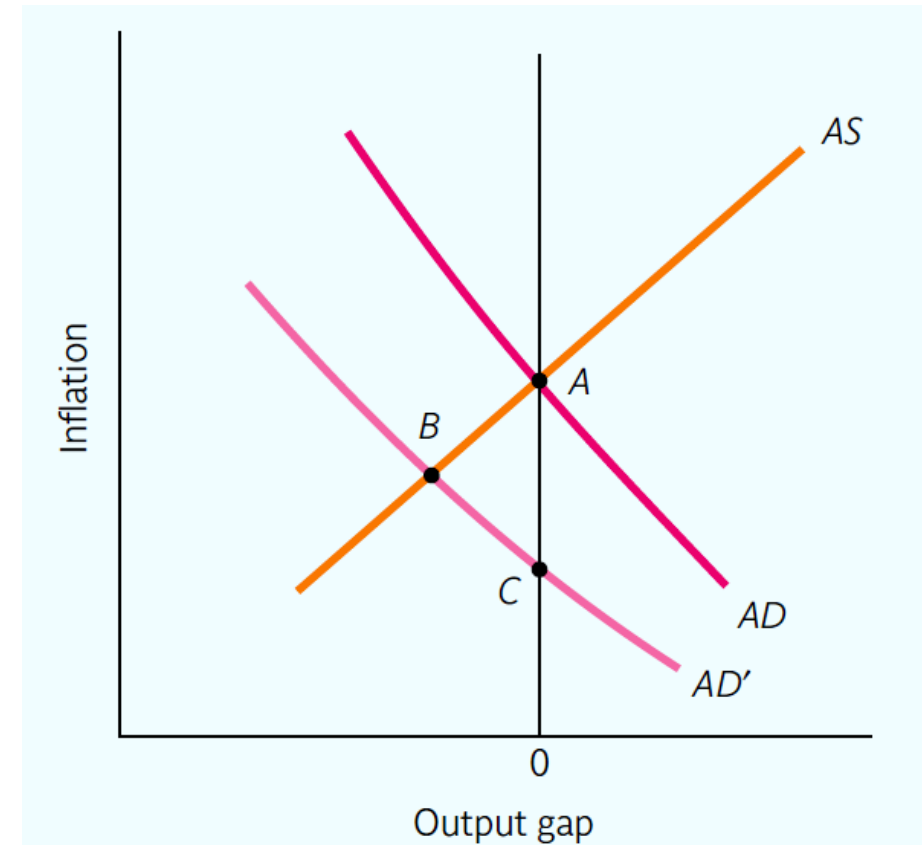
	2006.	2007.	2008.	2009.	2010.	2011.	2012.	2013.	2014.	2015.	2016.
Ukupna javna potrošnja / BDP	41,2%	41,4%	45,0%	49,5%	47,0%	45,4%	46,7%	47,7%	54,7%	59,1%	54,5%
Konsolidovani izdaci / BDP	36,3%	35,4%	41,0%	43,5%	40,1%	40,4%	41,9%	43,0%	42,1%	44,3%	41,0%
Izvorni prihodi / BDP	39,7%	42,0%	41,5%	39,3%	36,6%	34,7%	35,4%	37,0%	39,1%	36,3%	37,6%
Zaduživanje / BDP	1,1%	0,4%	0,3%	8,6%	7,2%	7,2%	10,1%	9,9%	15,5%	22,8%	16,4%
Saldo / BDP	3,4%	6,6%	0,6%	-4,2%	-3,5%	-5,7%	-6,5%	-6,0%	-3,0%	-8,0%	-3,4%
Javni dug / BDP	32,3%	27,4%	28,8%	38,1%	40,7%	45,4%	53,4%	57,5%	56,2%	62,3%	60,8%
Inostrani dug / BDP	23,2%	17,2%	15,5%	23,4%	29,2%	32,6%	40,7%	42,6%	45,2%	53,5%	50,6%
Domaći dug / BDP	9,1%	10,2%	13,3%	14,7%	11,5%	12,9%	12,7%	14,9%	11,0%	8,8%	10,1%
Kapitalni budžet / BDP	0,00%	3,07%	2,36%	3,75%	2,02%	2,06%	2,39%	2,30%	2,17%	6,52%	1,64%

Izvor: Kalkulacija autora, na bazi podataka CBCG

# Makroekonomska stabilizacija

- Stabilna potrošnja (bez velikih fluktuacija)
- Poresko izravnavanje (deficit u periodima resecije, suficit u periodima ekspanzije)
- Stabilizacija outputa i zaposlenosti
  - Kontraciklična fiskalna politika (rast državne potrošnje u periodima pada agregatne tražnje)
- Automatski stabilizatori (poreski prihodi prate promjene nivoa dohotka)

Politike stabilizacije



# Finansiranje deficita: javni dug

- Intertemporalno budžetsko ograničenje koči trajnu akumulaciju javnog duga
- Stabilizacija duga

## Javni dug

	1970	1980	1990	2000	2010	2015
Austria	18.5	35.3	56.0	65.9	82.4	86.2
Belgium	60.1	74.2	125.9	108.8	99.7	106.0
Denmark	7.6	39.2	62.4	52.4	42.9	40.2
Finland	11.4	11.2	13.8	42.5	47.1	63.1
France	21.0	21.0	35.4	58.7	81.7	95.8
Germany	17.8	30.3	41.3	58.8	81.0	71.2
Greece	18.0	22.7	72.4	104.9	146.2	176.9
Ireland	47.6	66.9	90.2	36.1	86.8	93.8
Italy	35.7	54.0	91.7	105.1	115.4	132.7
Japan	11.5	52.5	69.4	143.8	215.8	245.4
Netherlands	49.4	43.5	73.9	51.4	59.0	65.1
Norway	23.6	36.9	32.2	28.0	41.7	31.6
Spain	14.3	16.0	41.6	58.0	60.1	99.2
Sweden	26.2	37.6	39.4	50.6	37.6	43.4
UK	75.8	51.4	31.3	38.9	76.6	89.2
USA	44.3	41.2	62.0	53.1	94.7	105.9

# Javni dug bez rasta i inflacije

---

- Državni budžetski deficit jednak je primarnom deficitu – višku javnih rashoda u odnosu na poreske prihode, plus otplata duga (kamatna stopa \* dug)

$$\Delta B = G - T + rB$$

- Da bi se dug zadržao na istom nivou, mora se ostvariti suficit jednak tekućoj otplati duga

$$G - T = rB$$

# Javni dug uz rast bez inflacije

---

- Rast bez inflacije

$$\Delta \frac{B}{Y} = \frac{G - T}{Y} + (r - g) \frac{B}{Y}$$

- Ako je realna kamatna stopa veća od stope rasta BDP-a, dug će rasti

$$\Delta \frac{B}{Y} = 0, \text{ ako je } \frac{G - T}{Y} = (r - g) \frac{B}{Y}$$

# Javni dug uz rast i inflaciju

---

$$\Delta \frac{B}{Y} = \frac{\Delta M_0/p}{Y} + \frac{G - T}{Y} + (r - g) \frac{B}{Y}$$

- Pozitivna inflacija smanjuje dug

$$\Delta \frac{B}{Y} = 0, \text{ ako je } \frac{G - T}{Y} = (r - g) \frac{B}{Y} - \frac{\Delta M_0/p}{Y}$$

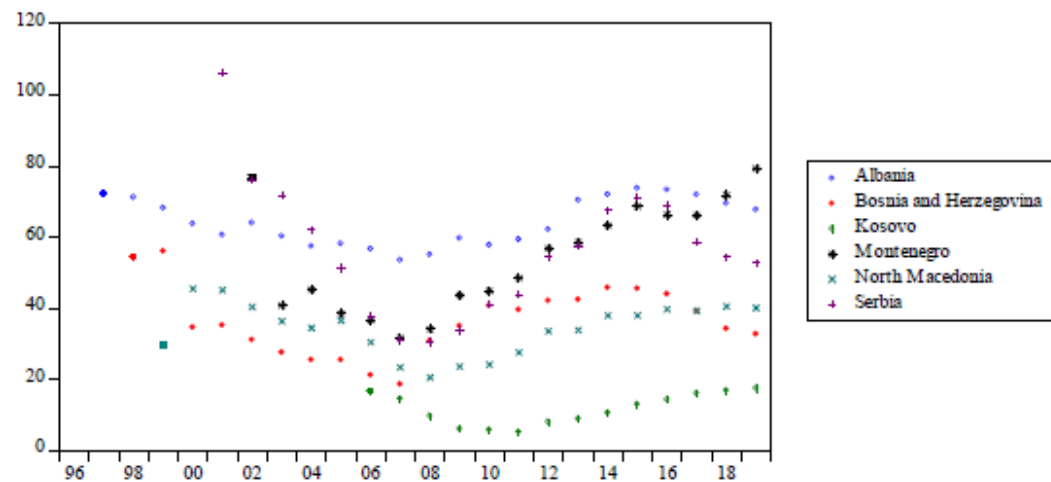


# Tri načina stabilizacije javnog duga

---

- Smanjenje deficita
- Emisiona dobit i inflaciono oporezivanje
- Moratorijum

Graph 1. Public Debt (% GDP), Western Balkan countries, 1996-2019



Source of data: IMF

Table 1. Impact of public debt growth on GDP growth, Western Balkans, 1998-2019 (panel data analysis)

Dependent Variable: DLOG(GDP US 2010)  
 Method: Panel Least Squares  
 Sample (adjusted): 1998 2019  
 Cross-sections included: 6  
 Total panel (unbalanced) observations: 111

Variable	Coefficient	Std. Error
DLOG(PUBLIC DEBT US2010)	-0.036*	0.016
C	0.036***	0.002

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$

Source: Authors' calculation

Table 2. Impact of public debt growth on productivity growth, Western Balkans, 2001-2019 (panel data analysis)

Dependent Variable: DLOG(PRODUCTIVITY)  
 Method: Panel Least Squares  
 Sample (adjusted): 2001 2019  
 Cross-sections included: 5  
 Total panel (unbalanced) observations: 92

Variable	Coefficient	Std. Error
DLOG(PUBLIC DEBT US2010)	-0.079**	0.034
C	0.02***	0.004

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$

Source: Authors' calculation

# Two scenarios of public debt management - empirical results

---

In the analysis of the impact of the two scenarios of public debt management in Montenegro, we start from the assumption of uniform (unchanged) average tax rates and contribution rates during the analysed period and other revenues (23.5%, 11.6% and 3.3% of GDP, respectively). On the expenditure side, transfers for social protection (pension insurance, health care costs, unemployment insurance) are also unchanged in relative terms (in relation to GDP), due to the assumption of population aging and its impact on this expenditure category. Also, due to the importance for long-term development, capital expenditures of the budget are also uniform compared to the previous period.

The key “flexible” variables used in this study to define different scenarios are the gross wage costs of public sector employees and transfers to institutions, which are reduced in Scenario 2 by 1% of GDP compared to Scenario 1 (uniform fiscal policy).

An additional assumption is that in the period 2021-2040, expenditures for paid guarantees are equal to zero, as well as additional government borrowing to finance current or capital spending, except in conditions when borrowing is necessary to service the existing public debt.

## Budget expenditures, balance and public debt (000 €) - SCENARIO 1

	Gross wages	Interest	Other current expenditures	Transfers for social protection	Transfers to institutions	Consolidated expenditures	Surplus/deficit	Public debt, net	Public debt, net % GDP
2021	523,223	113,075	225,535	574,252	257,809	2,369,159	-482,956	3,569,276	98.2
2022	491,841	114,770	284,497	626,857	192,879	1,869,969	-52,084	3,621,360	95.3
2023	509,056	116,445	294,454	648,797	199,630	1,933,076	-51,565	3,672,925	93.9
2024	526,873	118,103	304,760	671,505	206,617	1,998,316	-50,952	3,723,878	92.4
2025	545,313	119,741	315,426	695,007	213,848	2,065,762	-50,241	3,774,118	91.0
2026	561,673	121,357	324,889	715,857	220,264	2,125,758	-49,771	3,823,889	90.0
2027	578,523	122,957	334,636	737,333	226,872	2,187,490	-49,224	3,873,113	89.0
2028	595,879	124,540	344,675	759,453	233,678	2,251,009	-48,595	3,921,708	87.9
2029	613,755	126,103	355,015	782,237	240,688	2,316,366	-47,879	3,969,587	86.9
2030	632,168	127,642	365,666	805,704	247,909	2,383,613	-47,072	4,016,658	85.9
2031	651,133	129,156	376,636	829,875	255,346	2,452,806	-46,168	4,062,827	84.8
2032	670,667	130,640	387,935	854,771	263,007	2,524,000	-45,163	4,107,990	83.7
2033	690,787	132,092	399,573	880,414	270,897	2,597,253	-44,051	4,152,041	82.7
2034	711,510	133,509	411,560	906,827	279,024	2,672,624	-42,826	4,194,867	81.6
2035	732,856	134,886	423,907	934,032	287,394	2,750,175	-41,483	4,236,349	80.5
2036	754,841	136,220	436,624	962,053	296,016	2,829,967	-40,015	4,276,364	79.4
2037	777,487	137,506	449,723	990,914	304,897	2,912,066	-38,415	4,314,779	78.3
2038	800,811	138,742	463,214	1,020,642	314,044	2,996,538	-36,678	4,351,457	77.2
2039	824,835	139,921	477,111	1,051,261	323,465	3,083,452	-34,795	4,386,252	76.1
2040	849,581	141,040	491,424	1,082,799	333,169	3,172,876	-32,760	4,419,012	75.0

## Budget expenditures, balance and public debt (000 €) - SCENARIO 2

	Gross wages	Interest	Other current expenditures	Transfers for social protection	Transfers to institutions	Consolidated expenditures	Surplus/deficit	Public debt, net	Public debt, net % GDP
2021	523,223	113,075	225,535	574,252	137,118	2,174,232	-333,000	3,419,320	94.9
2022	443,622	109,948	284,497	626,857	144,659	1,768,708	49,177	3,370,143	90.7
2023	459,148	108,367	294,454	648,797	149,722	1,825,183	56,328	3,313,815	87.3
2024	475,219	106,556	304,760	671,505	154,963	1,883,460	63,903	3,249,912	83.9
2025	491,851	104,501	315,426	695,007	160,386	1,943,597	71,924	3,177,988	80.4
2026	506,607	102,188	324,889	715,857	165,198	1,996,457	79,529	3,098,459	77.3
2027	521,805	99,631	334,636	737,333	170,154	2,050,728	87,538	3,010,921	74.2
2028	537,459	96,816	344,675	759,453	175,258	2,106,446	95,968	2,914,952	71.1
2029	553,583	93,730	355,015	782,237	180,516	2,163,649	104,838	2,810,115	67.9
2030	570,190	90,359	365,666	805,704	185,932	2,222,376	114,166	2,695,949	64.7
2031	587,296	86,688	376,636	829,875	191,510	2,282,665	123,972	2,571,977	61.5
2032	604,915	82,702	387,935	854,771	197,255	2,344,558	134,278	2,437,698	58.3
2033	623,063	78,384	399,573	880,414	203,173	2,408,096	145,106	2,292,593	55.1
2034	641,754	73,718	411,560	906,827	209,268	2,473,322	156,476	2,136,117	51.8
2035	661,007	68,687	423,907	934,032	215,546	2,540,278	168,414	1,967,703	48.6
2036	680,837	63,271	436,624	962,053	222,012	2,609,011	180,942	1,786,761	45.3
2037	701,262	57,453	449,723	990,914	228,673	2,679,565	194,086	1,592,675	42.0
2038	722,300	51,212	463,214	1,020,642	235,533	2,751,987	207,873	1,384,801	38.7
2039	743,969	44,528	477,111	1,051,261	242,599	2,826,326	222,330	1,162,471	35.3
2040	766,288	37,379	491,424	1,082,799	249,877	2,902,631	237,485	924,986	32.0

# Materijali za čitanje

---

- Barro, Robert J. 1989. "The Ricardian Approach to Budget Deficits." *Journal of Economic Perspectives*, 3 (2): 37-54. DOI: 10.1257/jep.3.2.37, <https://www.aeaweb.org/articles?id=10.1257/jep.3.2.37>
- Gray, Cheryl; Lane, Tracey; Varoudakis, Aristomene. 2007. *Fiscal Policy and Economic Growth : Lessons for Eastern Europe and Central Asia*. Washington, DC: World Bank  
<https://openknowledge.worldbank.org/handle/10986/6883>
- Auerbach, Alan J., and Yuriy Gorodnichenko. 2012. "Measuring the Output Responses to Fiscal Policy." *American Economic Journal: Economic Policy*, 4 (2): 1-27. DOI: 10.1257/pol.4.2.1, <https://www.aeaweb.org/articles?id=10.1257/pol.4.2.1>
- Bean, Charles R. 1992. "Economic and Monetary Union in Europe." *Journal of Economic Perspectives*, 6 (4): 31-52. DOI: 10.1257/jep.6.4.31, <https://www.aeaweb.org/articles?id=10.1257/jep.6.4.31>
- Alesina, Alberto, and Roberto Perotti. 2004. "The European Union: A Politically Incorrect View." *Journal of Economic Perspectives*, 18 (4): 27-48. DOI: 10.1257/0895330042632780, <https://www.aeaweb.org/articles?id=10.1257/0895330042632780>
- Robert J. Barro. "Taxes and the macro economy" *Zb. rad. Ekon. fak. Rij.* 2019, vol. 37, no. 2, 377-400  
<https://hrcak.srce.hr/file/336302>