

Novac i monetarna politika

PROF. DR MAJA BAĆOVIĆ

28.10.2024.

Definicija novca

- Zakonsko sredstvo plaćanja na određenoj teritoriji
- Monetarni agregati
- M_1 : Gotovina u opticaju + depoziti po viđenju
- Depoziti po vidjenju:
 - Mogu se transformisati u gotov novac
 - Na osnovu depozita mogu se realizovati transferi i izdati čekovi
 - Prinos je nulta ili veoma niska kamatna stopa
- M_2 : M_1 + oročeni (štedni depoziti) sa neograničenim pristupom
- M_3 : M_2 + oročeni (štedni depoziti) + računi kod nebankarskih institucija

Kreiranje novca

- Centralna banka (monetarni autoritet) i komercijalne banke
 - Papirni i kovani novac (Centralna banka)
 - Depoziti (komercijalne banke)
- Centralna banka emituje gotov novac i kreira rezerve (depoziti komercijalnih banaka kod CB)
- PRIMARNI NOVAC (monetarna baza) – M_0 : suma gotovine i rezervi poslovnih banaka
- Poslovne banke
 - Finansijski posrednici
 - Konverzija dospelosti

Aktiva	Pasiva
Gotovina i depoziti	Obaveze prema CB
Hartije od vrednosti	Depoziti klijenata
Plasirani krediti	
	Kapital

Slika 9.1 Bilans stanja poslovne banke

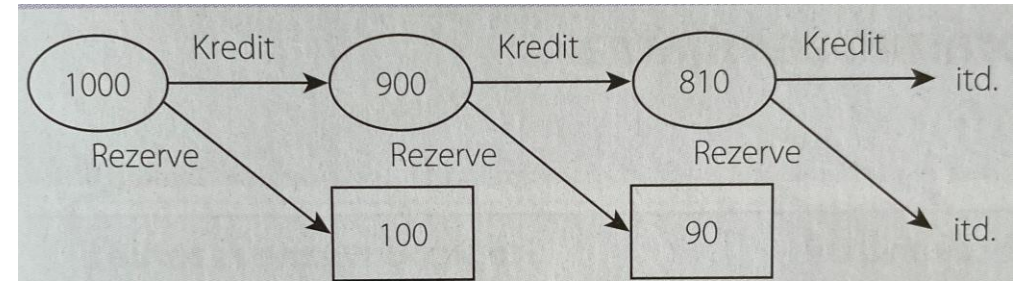
Kako poslovne banke kreiraju novac?

- Proces multiplikacije

$$\text{Rezerve} = rr * \text{depoziti}$$

- rr – stopa obaveznih rezervi komercijalnih banaka

- *Multiplikator rezervi* = $\frac{1}{rr}$



Slika 9.2 Monetarni multiplikator

Inicijalni depozit omogućava izdavanje kredita. Kada banka zadrži deset posto kredita u formi rezervi (bilo da je depozit u formi gotovine ili na računu centralne banke), svaki zajam biva za deset odsto manji od prethodnog. Tako se lanac depozita i kredita na kraju gasi.

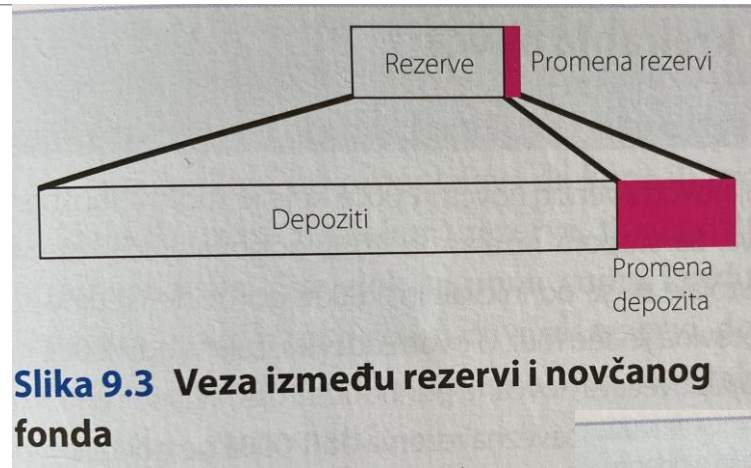
Kako centralna banka kontroliše ponudu novca?

- Upravljanje stopom obavezne rezerve
- Ponuda novca

$$M = \frac{1}{[c + rr(1 - c)]} M_0$$

c – procenat novca u gotovini

$\frac{1}{[c + rr(1 - c)]}$ - novčani multiplikator



AKTIVA		PASIVA	
Inostrana aktiva		Gotovina u opticaju	
Kreditni odobreni poslovnim bankama		Depoziti komercijalnih banaka	
Hartije od vrednosti		Depoziti vlade	
		Kapital	

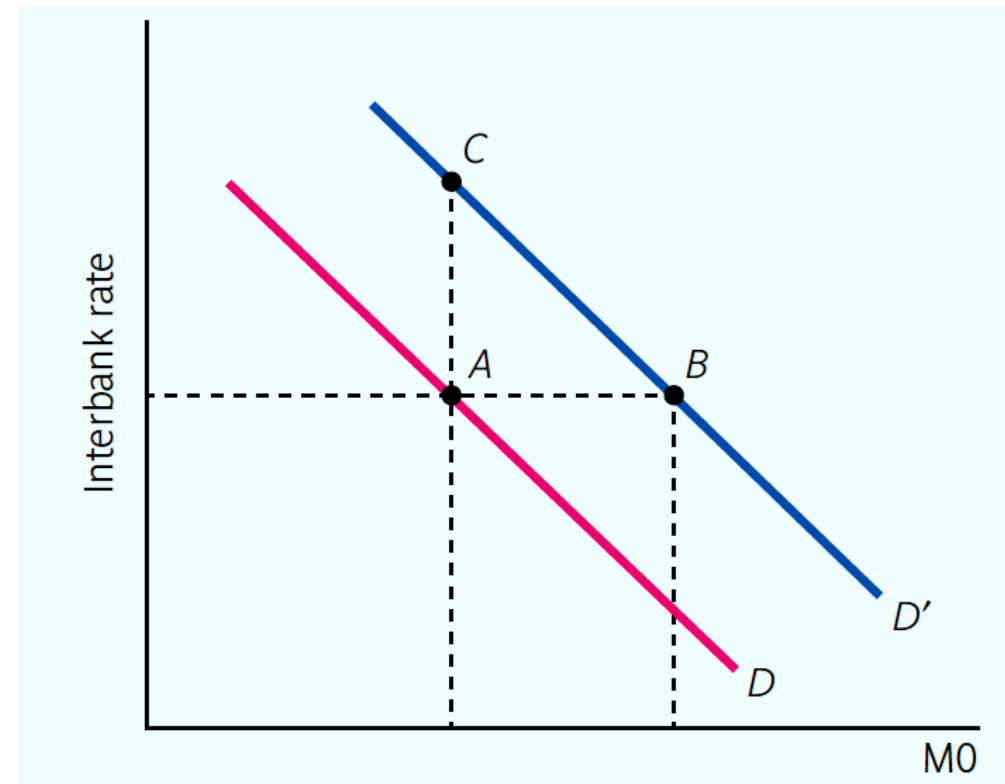
Slika 9.4 Bilans stanja centralne banke

Tražnja za novcem

- Broj transakcija, kamatna stopa

$$M^d = k(i)PY$$

Grafik: Tražnja za novcem

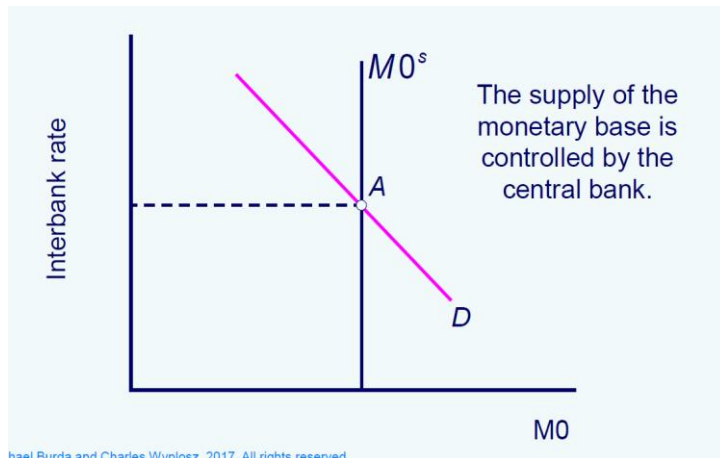


Ravnoteža na tržištu novca

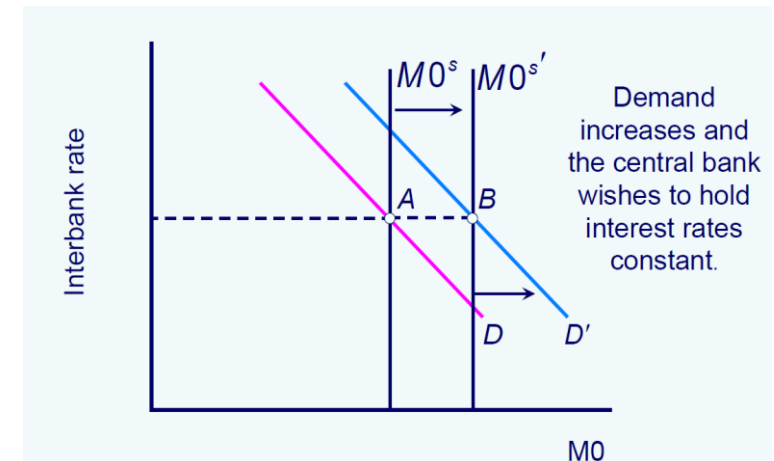
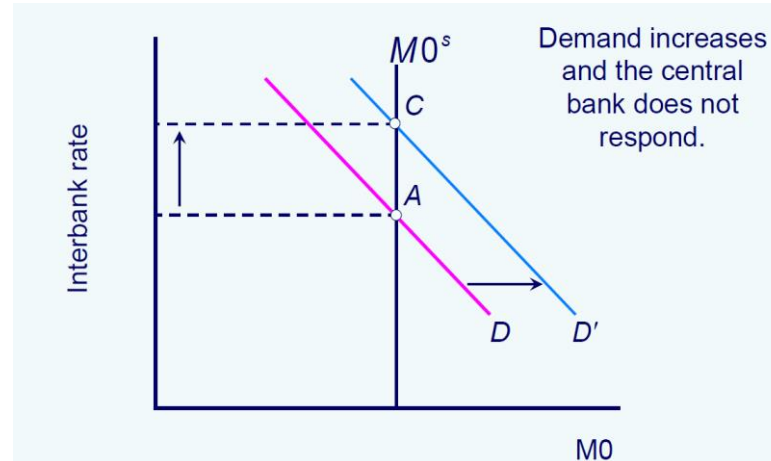
- Ponuda novca = tražnja za novcem

$$M = M^d$$

Grafik: Ravnoteža na tržištu novca



hael Burda and Charles Wyplosz. 2017. All rights reserved.



Instrumenti monetarne politike

- Kamatna stopa
- Stopa obavezne rezerve
- Operacije na otvorenom tržištu
- Tagetiranje inflacije
- Bankarska regulativa i supervizija

Tejlorovo pravilo

- CB će povećati međubankarsku kamatnu stopu u dva slučaja:
 - Kada stopa inflacije premaši ciljnu stopu inflacije
 - Kada realni BDP premaši svoj ravnotežni nivo

$$i = \bar{i} + \alpha(\pi - \bar{\pi}) + b \frac{Y - \bar{Y}}{\bar{Y}}$$

Novac i princip neutralnosti

- Kembdrička jednačina tražnje za novcem

$$M = kPY$$

- Realna tražnja za novcem

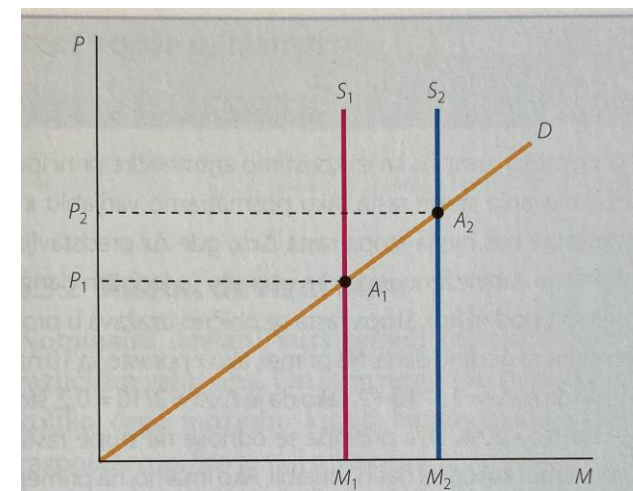
$$\frac{M}{P} = kY$$

- Inflacija – rast novčane mase

$$\pi = \frac{\Delta M}{M}$$

- Inflacija, cijene i output

$$\frac{\Delta M}{M} = \pi + \frac{\Delta Y}{Y}, \text{ odnosno } \pi = \frac{\Delta M}{M} - \frac{\Delta Y}{Y}$$



Slika 6.3 Ravnoteža na tržištu novca

Nominalna ponuda, na desnoj strani relacije (6.1), predstavljena je vertikalnom linijom S_1 za M_1 i S_2 za M_2 . Na osnovu leve strane relacije (6.1), tražnja je proporcionalna P (za dato k i Y), što je predstavljeno linijom D . Ravnoteža na tržištu novca postiže se u tački A_1 kada je ponuda M_1 , a u A_2 kada se ponuda poveća na M_2 .

Nominalni i realni devizni kursevi

- Iznos inostranog novca po jedinici domaće valute (britanska konvencija)
- Iznos domaćeg novca po jedinici evropske valute (evropska konvencija)
- Apresijacija / depresijacija
- Realni devizni kurs

$$\sigma = \frac{SP}{P^*} = \frac{P}{P^*/S}$$

- Paritet kupovne moći

$$\frac{\Delta S}{S} = \pi^* - \pi$$

Ponuda novca u CG

Structure of deposits by sectors, 2007–2021, balance at the end of the period, %

	Financial sector	Non-financial	General government	Citizens	Non-government and non-profit	Total residents	Total non-residents	Deposits/GDP
2007	2,53%	31,76%	10,63%	40,70%	0,92%	86,54%	13,46%	69,44%
2010	6,15%	28,51%	7,70%	41,23%	1,27%	84,86%	15,14%	57,27%
2011	4,57%	29,35%	5,14%	43,55%	1,16%	83,77%	16,23%	56,33%
2012	3,74%	29,17%	5,29%	43,64%	1,12%	82,96%	17,04%	63,12%
2015	1,74%	31,28%	5,77%	40,00%	1,45%	80,25%	19,75%	76,76%
2016	1,02%	33,40%	5,28%	38,61%	1,46%	79,77%	20,23%	81,57%
2017	0,81%	34,28%	5,64%	37,70%	1,43%	79,86%	20,14%	88,63%
2018	0,77%	31,78%	6,18%	38,38%	1,59%	78,69%	21,31%	89,30%
2019	0,92%	30,16%	6,76%	37,88%	1,68%	77,40%	22,60%	86,23%
2020	1,40%	30,09%	6,69%	37,18%	1,74%	77,09%	22,91%	98,79%
2021	1,01%	28,56%	6,59%	34,34%	1,49%	71,98%	28,02%	107,01%
Average	2,56%	30,27%	6,88%	39,37%	1,35%	80,43%	19,57%	75,36%

Kredit

Structure of loans by sectors, 2007–2021, %

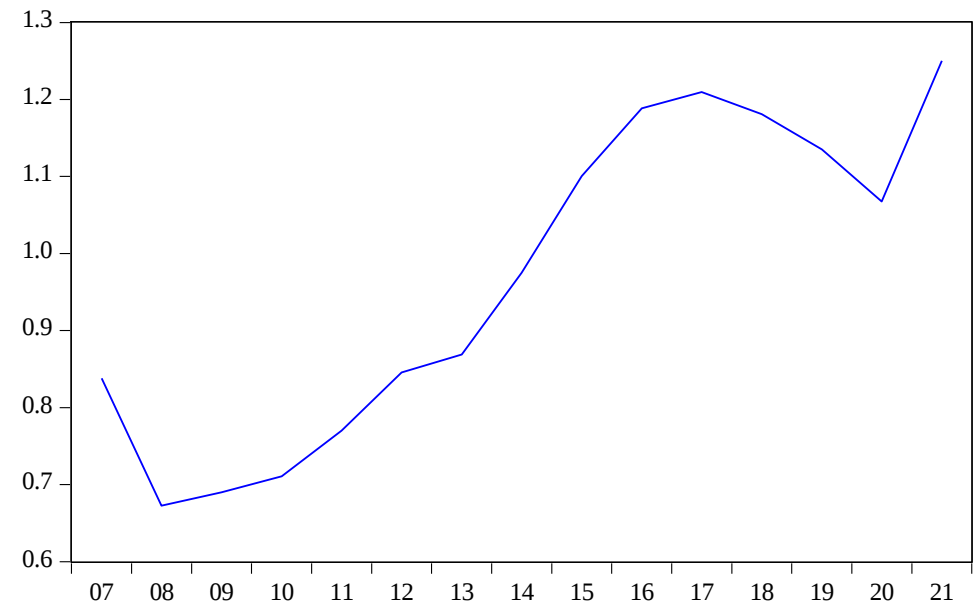
	Financial sector	Non-financial	General government	Citizens	Non-government and non-profit	Total residents	Total non-residents	Loans/GDP
2007	0,94%	54,41%	1,78%	31,71%	0,31%	89,15%	10,85%	82,84%
2008	0,59%	55,97%	1,35%	34,85%	0,42%	93,18%	6,82%	91,65%
2009	0,22%	52,02%	2,65%	34,63%	0,24%	89,76%	10,24%	86,92%
2010	0,40%	48,53%	2,71%	34,16%	0,24%	86,05%	13,95%	80,57%
2011	0,72%	41,28%	5,31%	35,17%	0,25%	82,73%	17,27%	73,13%
2012	0,39%	39,54%	4,69%	34,23%	0,12%	78,96%	21,04%	74,63%
2013	0,41%	39,17%	6,68%	36,13%	0,17%	82,56%	17,44%	74,29%
2014	0,26%	38,54%	5,25%	37,41%	0,21%	81,68%	18,32%	71,57%
2015	0,21%	38,99%	4,54%	38,22%	0,17%	82,14%	17,86%	69,76%
2016	0,29%	38,56%	5,22%	41,84%	0,22%	86,13%	13,87%	68,62%
2017	0,25%	36,08%	7,14%	41,36%	0,13%	84,95%	15,05%	73,25%
2018	0,59%	35,23%	7,47%	42,68%	0,34%	86,30%	13,70%	75,62%
2019	0,90%	35,10%	8,41%	44,35%	0,33%	89,08%	10,92%	75,95%
2020	0,82%	35,11%	9,51%	44,13%	0,36%	89,93%	10,07%	92,53%
2021	0,59%	34,45%	7,83%	42,60%	0,36%	85,83%	14,17%	85,59%
AVG	0,51%	41,53%	5,37%	38,23%	0,26%	85,90%	14,10%	78,46%

Source: Author's calculation based on data from CBCG

The ratio of deposits and loans

- The ratio of total deposits and loans in Montenegro is average in the period 2007-2021. was at the level of 0.96, but changed during the mentioned period, in favor of deposits.

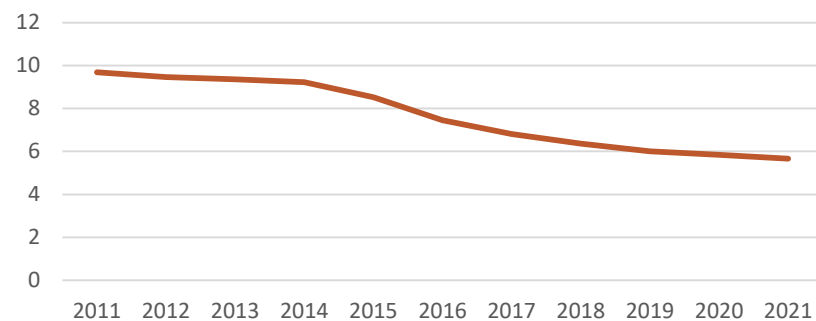
The ratio of deposits and loans in Montenegro



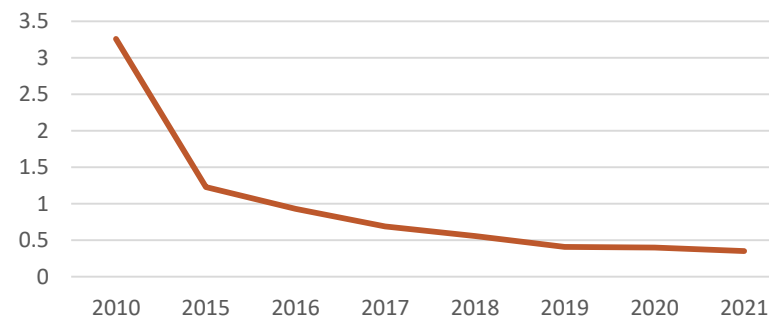
Source: Author's calculation based on data from CBCG

Kamatne stope

Average weighted effective active interest rate



Average weighted effective passive interest rate



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