



Building Monetary Credibility in Small Open
Economy: A Case of Western Balkan Countries



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Structure of presentation

1. Literature review
2. Evolution of modern central banking in Western Balkan countries
3. Channels of monetary transmission and role of informal dolarization
4. Conclusion and policy implications



Literature review

- ▶ In early 90s, consensus that inflation targeting/price level targeting/NGDP targeting is able to ensure nominal stability (Hall – Mankiw, 2004).
- ▶ Holds even in small open economies (Batini – Levin – Pearlman, 2009; Dennis, 2006, Monacelli – Galí, 2005)



Litarature review

In practice, inflation targeting is often difficult mainly in countries with history of hyperinflation and political instability due to:

- (1) Low credibility of central bank (importance of credibility documented for example by Blinder, 1999)
- (2) High level of dollarization (60% of cash and 70% of loans and deposits in foreign currency)

Out of former Yugoslavia republics, only Serbia and Macedonia perform independant monetary policy (SRB – inflation targeting, MKD – nominal exchange rate targeting).

General consensus – interest rate channel is inoperative in those countries (Bungin et al., 2015, Jevdovic, 2010, Josifidis et al., 2010, Jovanovic, 2015)



Evolution of modern central banking in Western Balkan countries

- ▶ Decentralised nature of Yugoslav monetary
- ▶ National Bank of Yugoslavia had no discretionary power, final decisions taken by parliament and government
- ▶ From 1971 to 1991: rate of inflation 79%, German Marks used as a means of payment
- ▶ In 1989: inflation 2000%; stabilization program backed by IMF
- ▶ Unauthorised money printing by Serbian federal central bank



Evolution of modern central banking in Western Balkan countries

- ▶ In 1991, Slovenia, Croatia and Macedonia declared independence
- ▶ In Slovenia and Croatia, introduction of new currency was relatively easy
- ▶ Macedonia did not avoid stabilization programmes, wage controls and devaluations; nominal exchange rate target since 2002



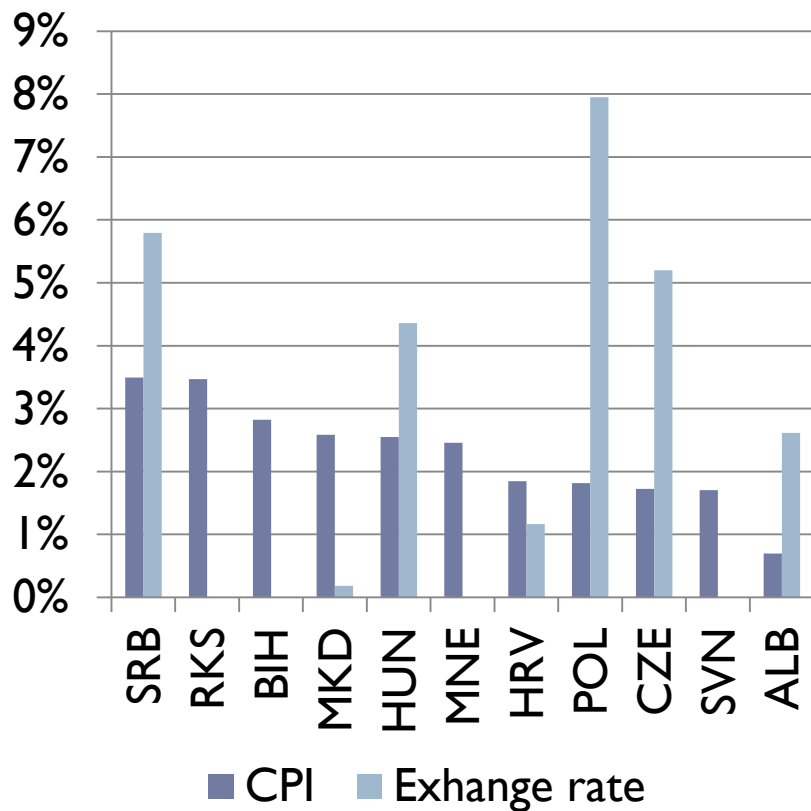
Evolution of modern central banking in Western Balkan countries

- ▶ After Yugoslavia shrank to only two federal republics – Serbia and Montenegro – central banking no longer paralyzed by political impasse but far from independent
 - ▶ Monetization of Yugoslav debt
 - ▶ 1993: Hyperinflation of over 3.5 tril. %
 - ▶ Stabilization program; ‘Super Dinar’ devaluated
 - ▶ 1999: Montenegro gained monetary independence
 - ▶ 2006: Definite break-up of former Yugoslavia
 - ▶ Serbia remained the only former Yugoslav republic which to perform independant monetary policy under floating exchange rate regime
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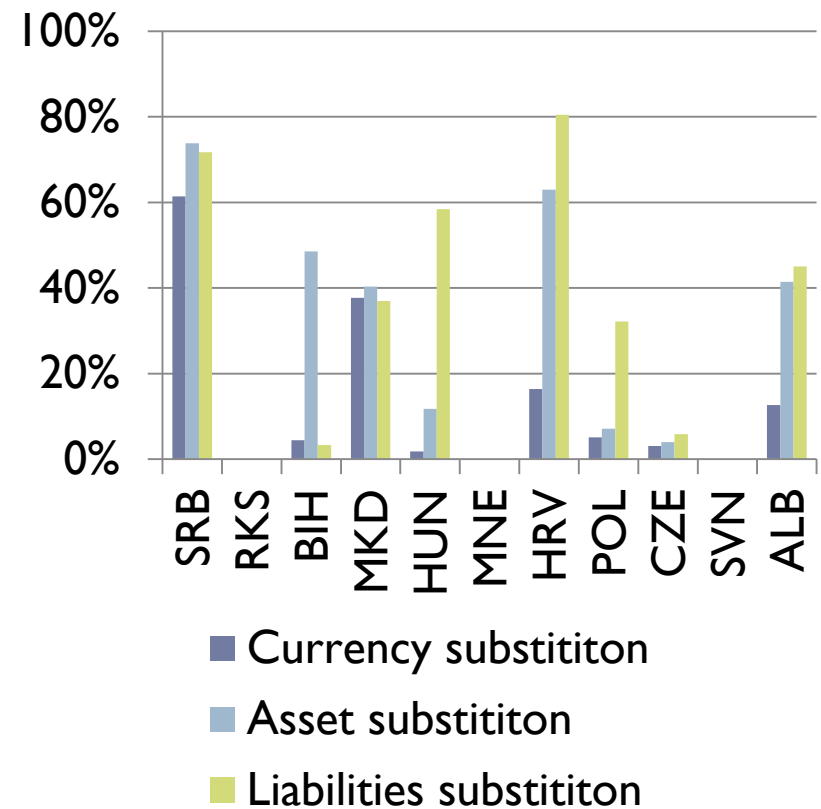


Evolution of modern central banking in Western Balkan countries

Price level and exchange rate volatility (06-15)



Measures of dollarization (2015)



Channels of monetary transmission in Serbia and Macedonia

$$\text{SVAR model: } \mathbf{y}_t = A(L)\mathbf{y}_{t-1} + B(L)\mathbf{x}_t + \boldsymbol{\varepsilon}_t$$

Endogenous variables:

- ▶ index of industrial production
- ▶ consumer price index
- ▶ key policy rate / interest rate on CB-bills sold on auction
- ▶ monetary aggregate M2 (Dinars/Denars)
- ▶ foreign deposits
- ▶ effective real exchange rate

Exogenous variables:

- ▶ index of industrial production in Euro Area EA19
- ▶ interest rate on overnight deposits in Eurozone
- ▶ oil prices denominated in USD

No. of lags:

$$k_{\text{SRB}}=5$$

$$k_{\text{MKD}}=10$$

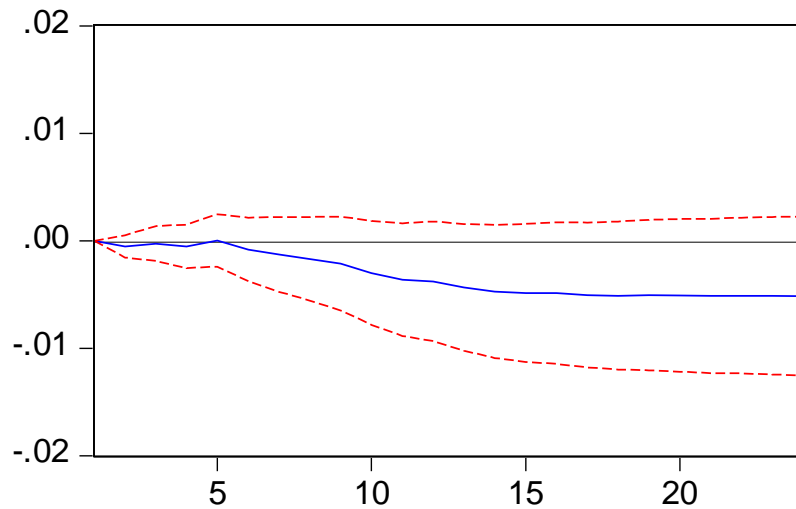


1. Impact of monetary policy on real activity is insignificant. It is driven by situation in Euro Area.

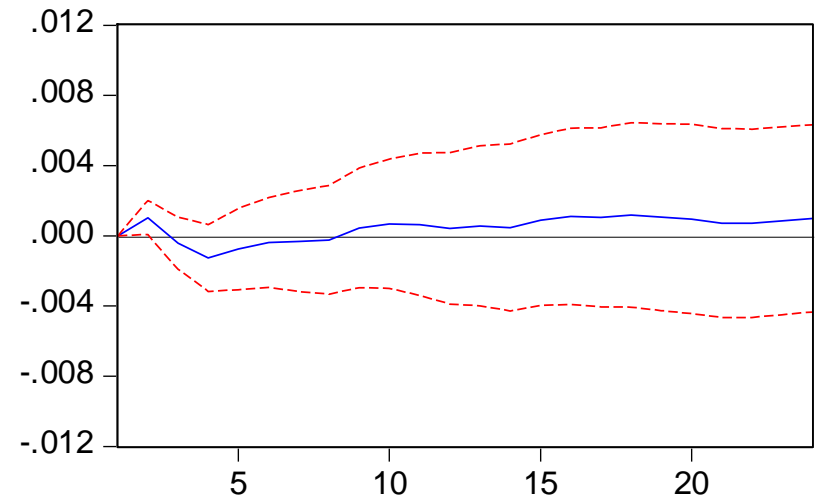
		Y	CPI	EFRER	KPRATE	M2	FDEPE
SRB	EA19	0.796 [2.714]	0.044 [0.773]	-0.035 [-0.297]	-0.017 [-0.310]	0.156 [0.704]	-0.003 [-0.021]
	EZID	0.655 [0.228]	-0.511 [-0.917]	2.630 [2.281]	1.010 [1.910]	-3.148 [-1.456]	4.106 [2.739]
	OIL	-0.041 [-1.11]	0.004 [-0.633]	0.033 [2.206]	-0.004 [-0.625]	-0.006 [-0.216]	0.017 [0.869]
MKD	EA19	0.223 [0.036]	0.015 [0.250]	0.076 [0.707]	0.035 [1.097]	0.286 [1.731]	0.091 [0.559]
	EZID	6.183 [5.817]	-1.207 [-2.140]	-0.460 [-0.463]	-0.217 [-0.737]	0.515 [0.336]	2.579 [1.704]
	OIL	-0.0767 [0.067]	0.009 [1.440]	-0.018 [-1.554]	-0.004 [-1.138]	0.051 [2.880]	-0.030 [-1.750]

2. Interest rate channel of monetary policy is weak in both countries ...

Serbia



Macedonia

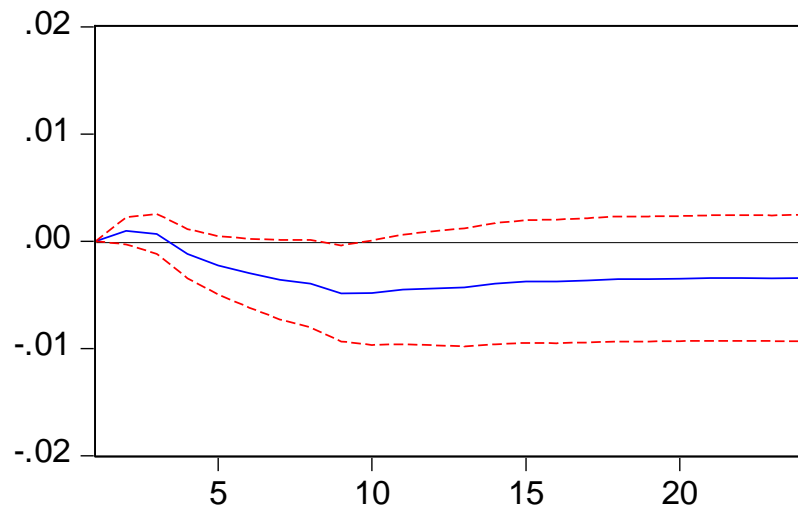


Accumulated response of CPI to shock in key policy rate

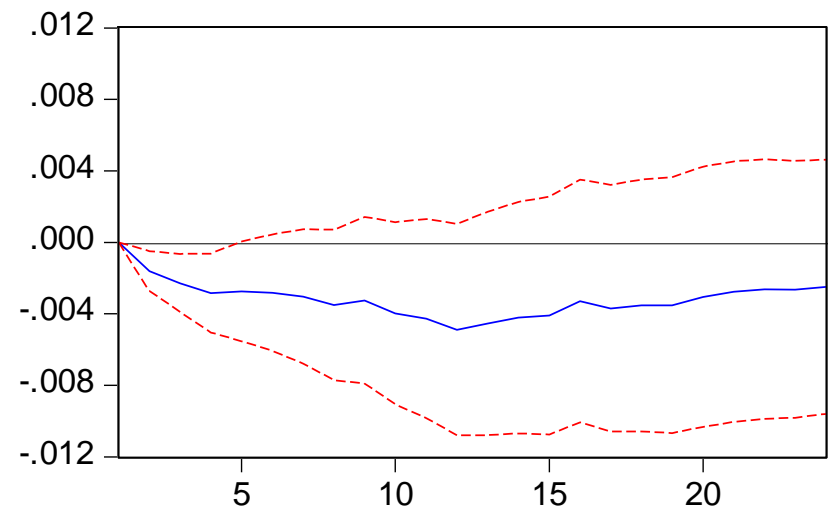


2. ...but exchange rate channel is operative

Serbia



Macedonia

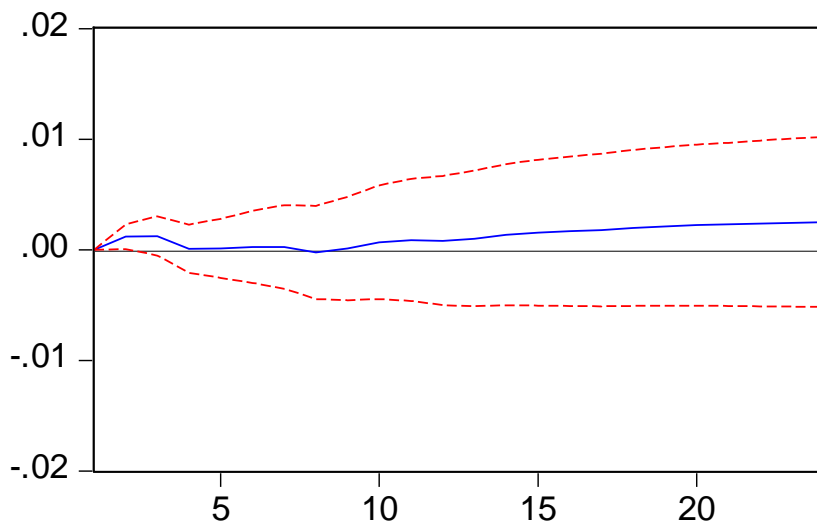


Accumulated response of CPI to shock in effective real exchange rate

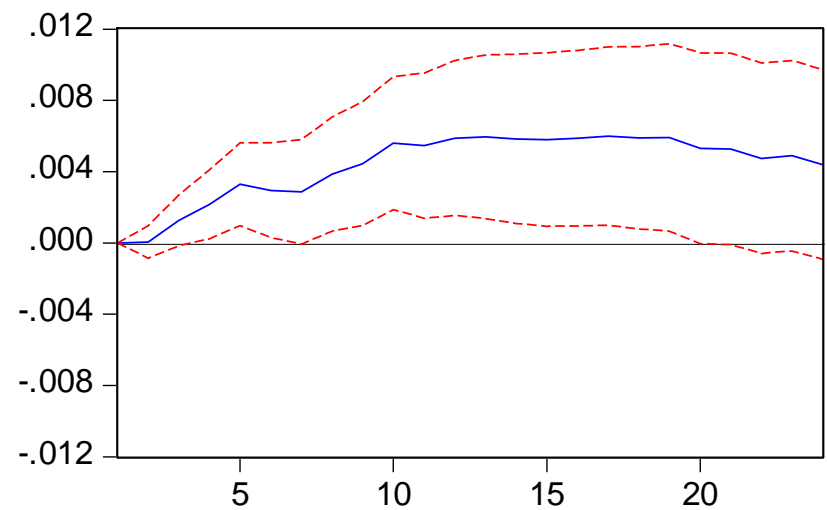


3. Price level reacts to changes in money supply.
However, in Serbia Dinar money are not significant...

Serbia



Macedonia

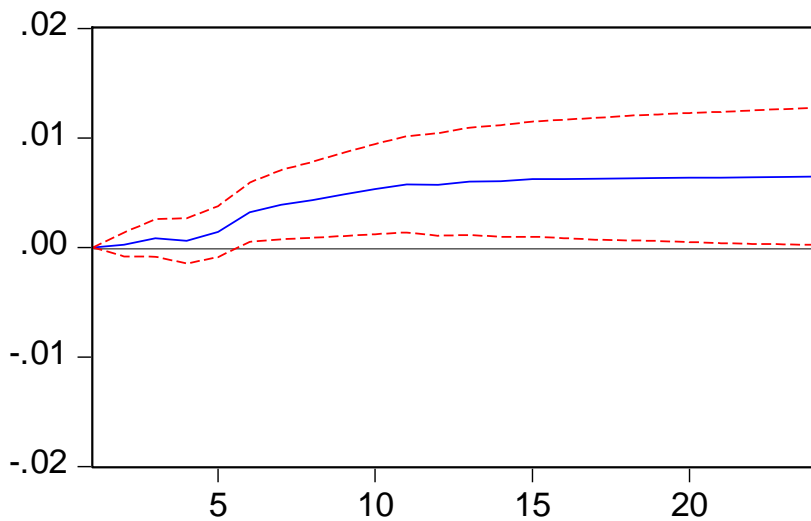


Accumulated response of CPI to shock in M2 (Dinare/Denare)

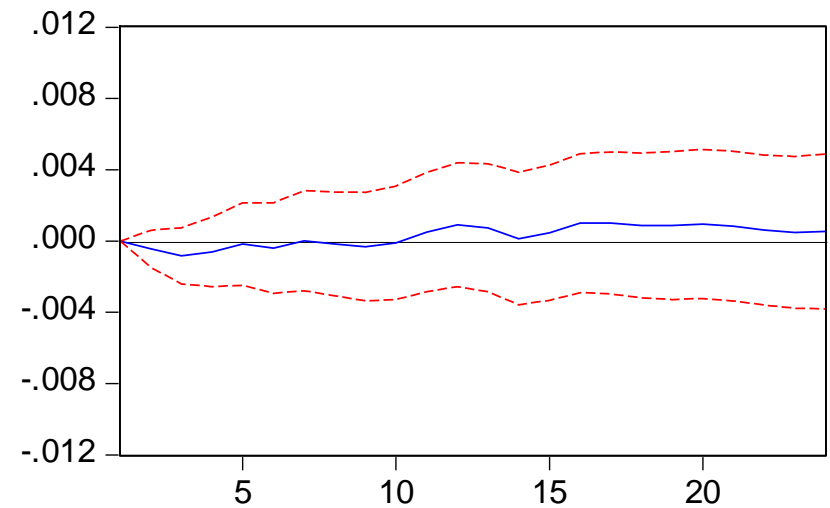


3. ...whereas in Macedonia, foreign currency is not significant.

Serbia



Macedonia

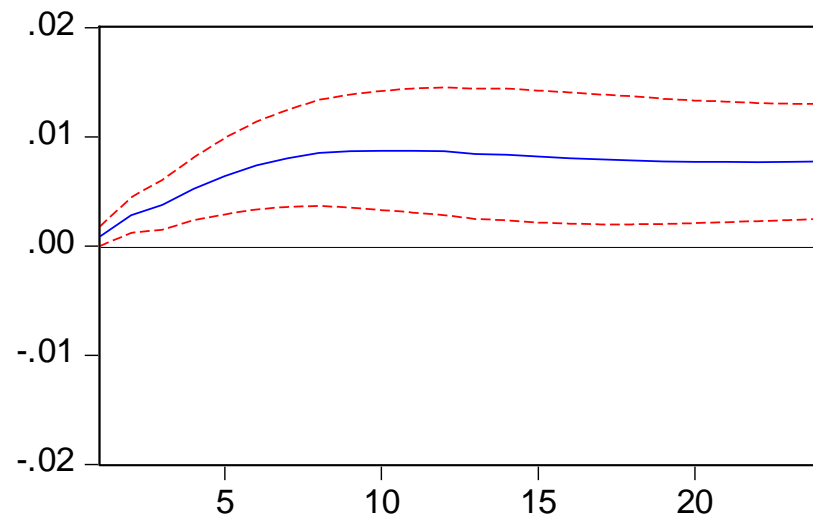


Accumulated response of CPI to shock in foreign deposits

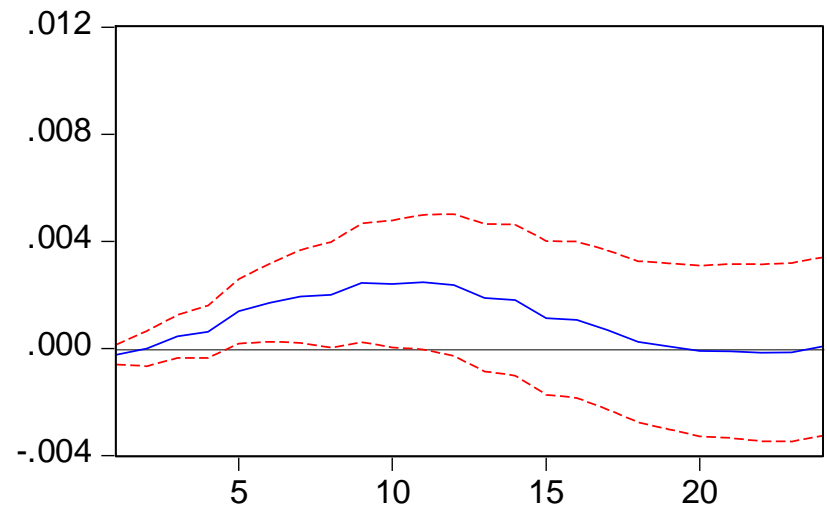


4. In both countries, central bank reacts to inflation by increasing the interest rates...

Serbia



Macedonia

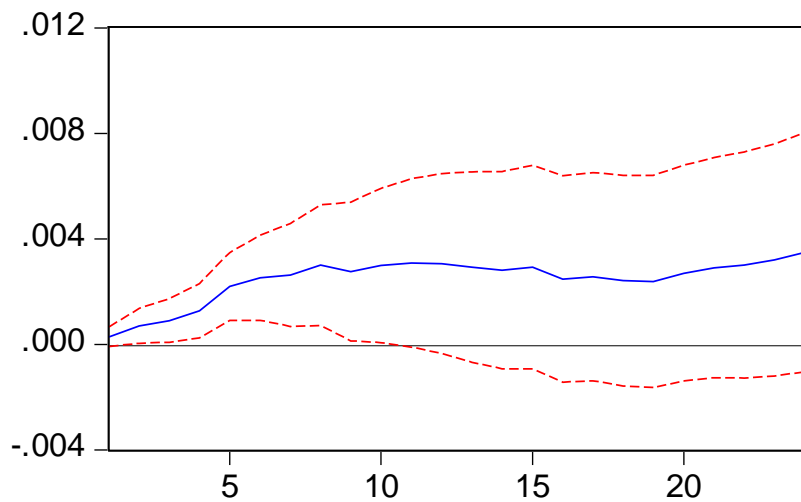


Accumulated response of CPI to shock in foreign deposits

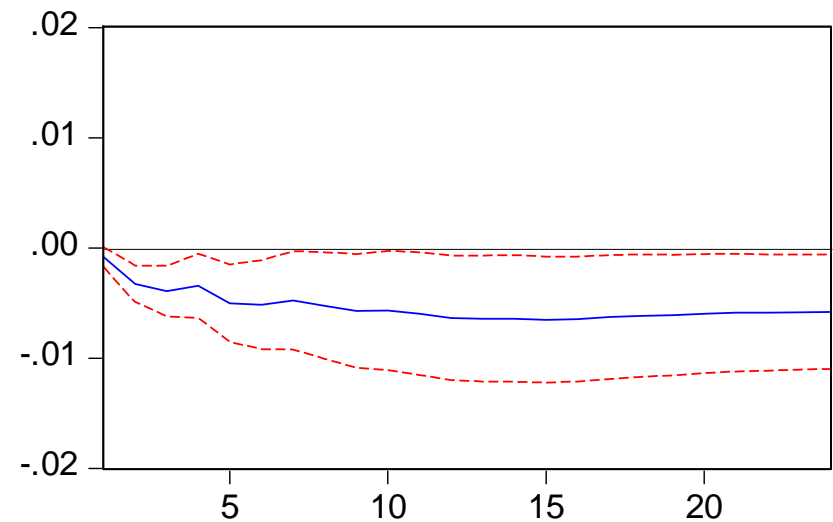


4. ... but they differ in they reaction to currency depreciation/apreciation

Serbia



Macedonia

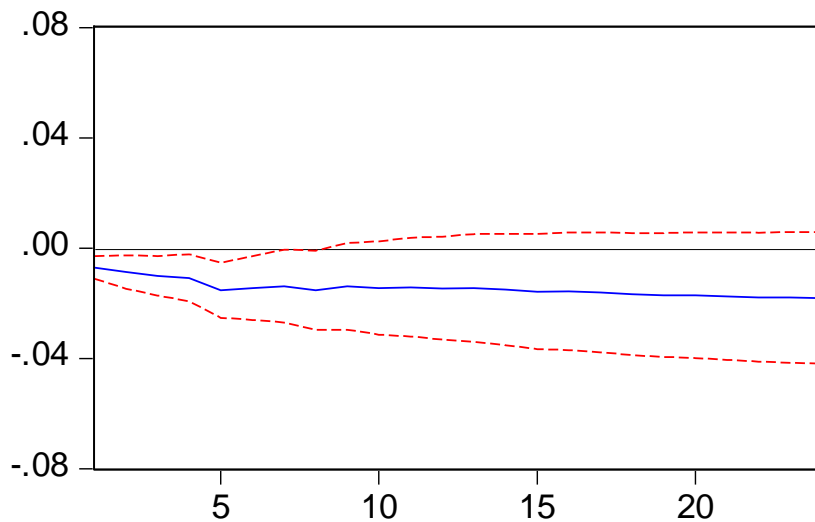


Accumulated response of key policy rate to shock effective real exchange rate

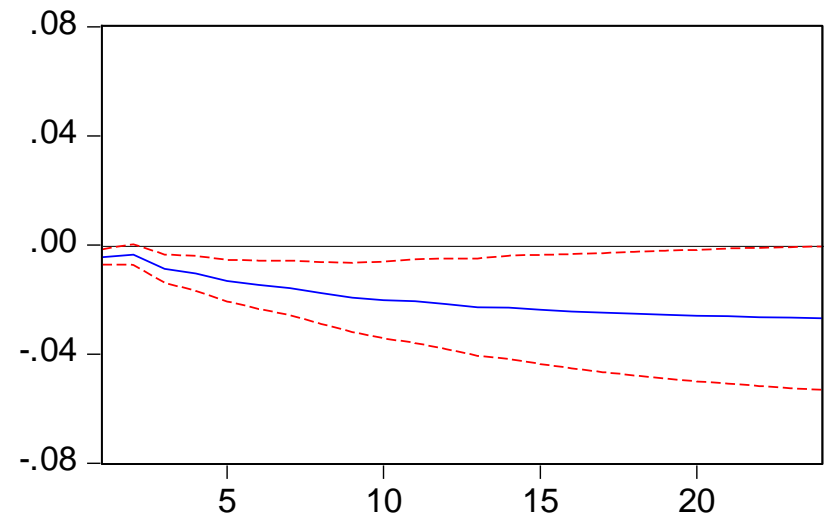


5. In Serbia, there is a link between key policy rate and both Dinare money and foreign deposits

Serbia



Accumulated response of
Dinare M2 to shock in key
policy rate



Accumulated response of
foreign deposits to shock in
key policy rate



Conclusions and policy implications

- ▶ No effect of monetary policy on industrial production which is determined mainly by real activity in its trading partners (in Serbia) or by Euro Area interest rates (Macedonia).
- ▶ Weak interest rate channel and, operative exchange rate channel
- ▶ In Serbia, price level is more influenced by amount of foreign deposits than by deposits in Dinars. On the other hand, Macedonian price level is driven by Denar money.
- ▶ Serbian and Macedonian central banks differ in how they react to changes in exchange rate.
- ▶ Adopting nominal exchange rate target helped Macedonian central bank to gain credibility, Serbia still suffers from monetary instability
- ▶ Policy implications for Serbia: fight dollarization and consider nominal exchange rate target

