Supplementary material

Performances of selected European economies in achieving their inflation targets: The non-stationary discrete choice model approach

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MILUTIN JEŠIĆ*[1], ZORICA MLADENOVIĆ[2] and MIOMIR JAKŠIĆ[1]

[1] Faculty of Economics and Business, Department for Economic Theory and Analysis, University of Belgrade, Kamenička 6, Belgrade, Serbia

[2] Faculty of Economics and Business, Department for Statistics and Mathematics, University of Belgrade, Kamenička 6, Belgrade, Serbia

ORCID (Milutin Ješić) https://orcid.org/0000-0002-0715-3064

ORCID (Zorica Mladenović) https://orcid.org/0000-0003-1579-4205

ORCID (Miomir Jakšić) https://orcid.org/0000-0003-0869-9648

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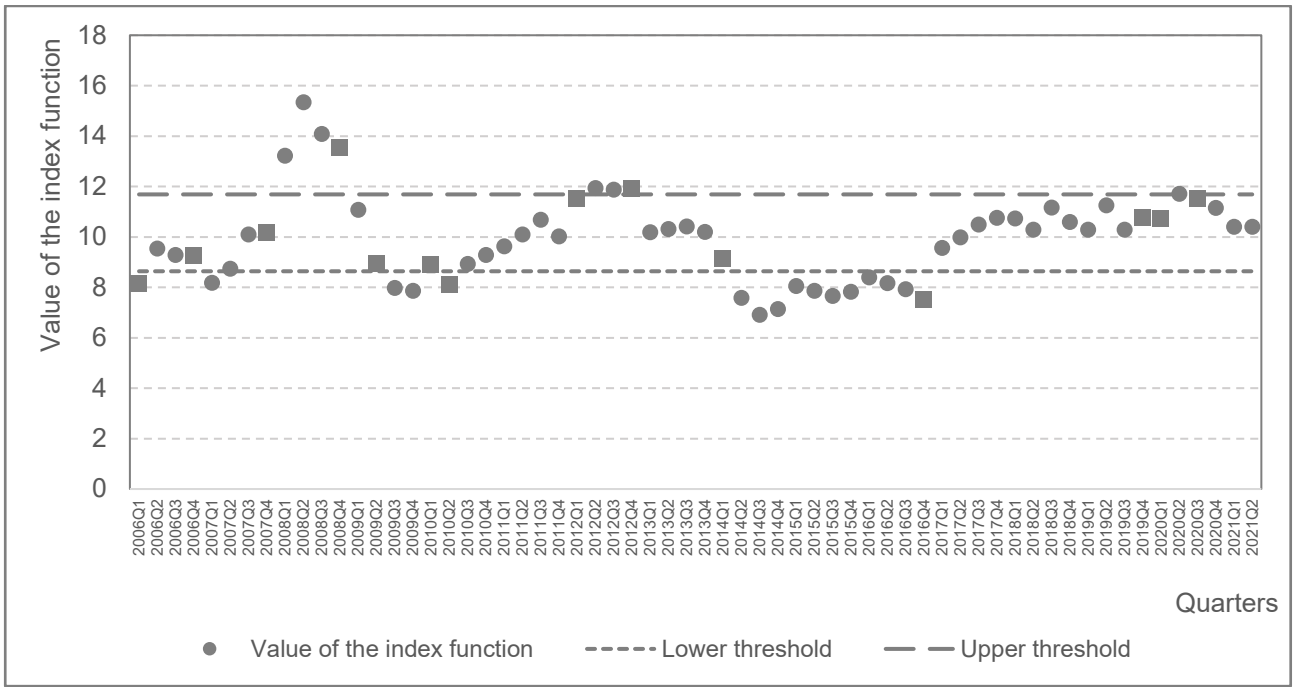
* Corresponding author. E-mail: milutin.jesic@ekof.bg.ac.rs

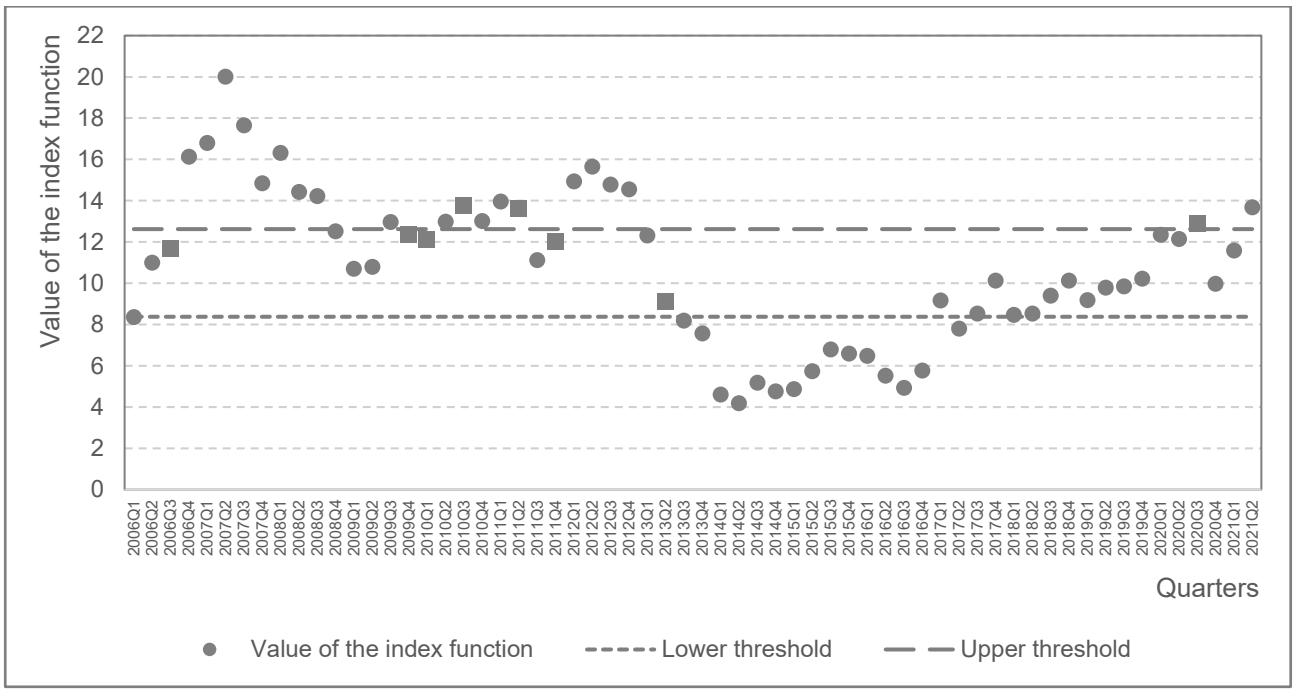
FIGURES

Fig. S1. Estimated index function: the Czech Republic (alternative model)



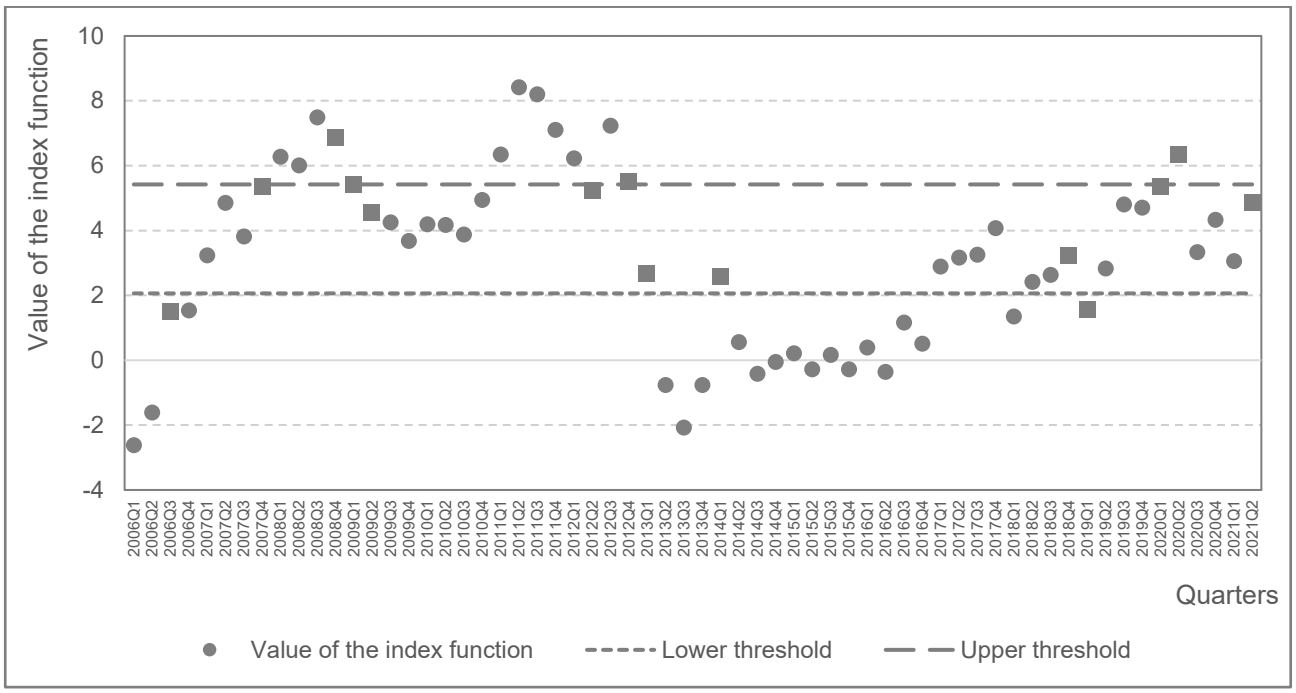
Note to *Fig. S1–S4*: Circle points are correctly predicted observations by the estimated model, whereas square points are incorrectly predicted observations.
Source: Authors' calculations.

Fig. S2. Estimated index function: Hungary (alternative model)



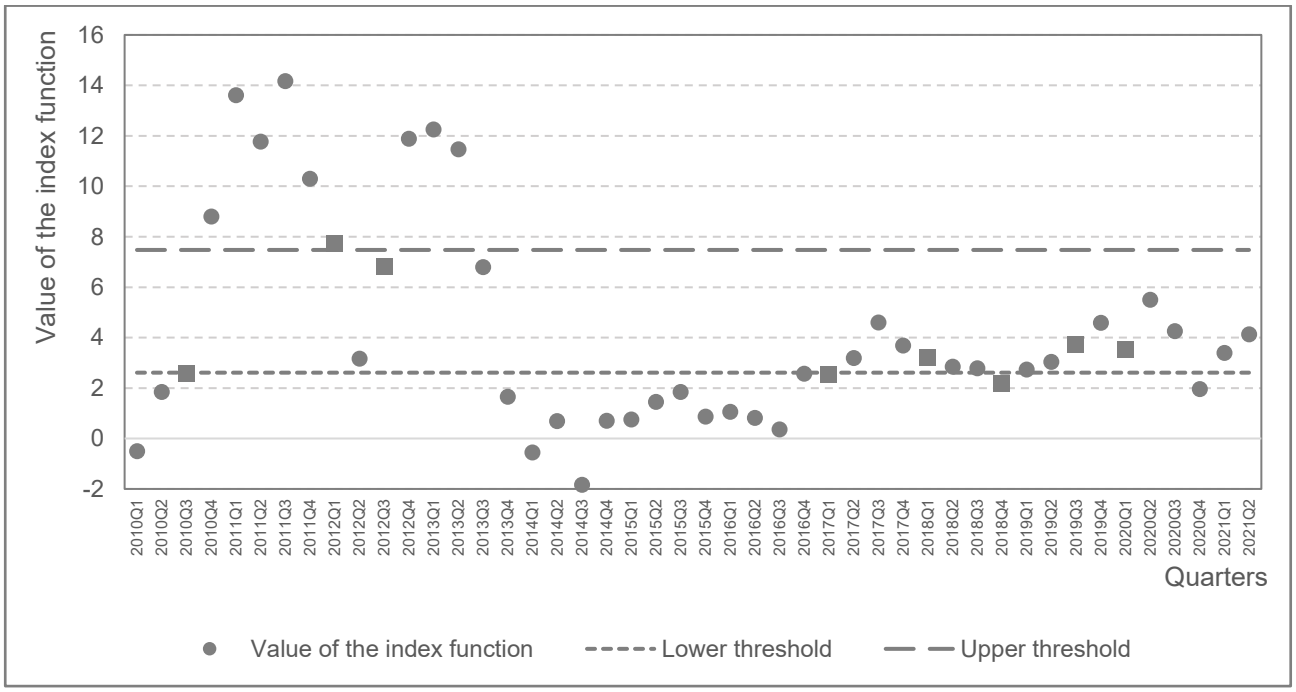
Source: Authors' calculations.

Fig. S3. Estimated index function: Poland (alternative model)



Source: Authors' calculations.

Fig. S4. Estimated index function: Serbia (alternative model)



Source: Authors' calculations.

TABLES

Table S.1. Summary of literature review about the influence of the IT strategy on macroeconomic performances

Authors	Period of analysis	Countries observed	Methodology	Main conclusions
Batini – Laxton (2007)	1985 – 2004	31 emerging economies (21 IT targeters)	difference-in-difference OLS	IT policy significantly lowered the inflation rate, its expectations and volatility
Lin – Ye (2009)	1985 – 2005	52 developing economies (13 IT targeters)	propensity score matching	IT policy induces a significant decline in average inflation rate and reduction of inflation volatility.
Yamada (2013)	1995 – 2007	121 emerging and developing countries	propensity score matching	IT regime works well, especially in lowering inflation rate.
Ayres et al. (2014)	1985 – 2010	51 countries (17 IT)	OLS model regressing	Weak influence of IT on GDP growth.
Nojković – Petrović (2015)	varies across the observed countries	six emerging European IT countries	nonstationary discrete choice approach	These central banks change their policy rates in a discrete fashion.
Wang (2016)	1990 – 2010	sample of CEE countries	propensity score matching	IT framework can help increase GDP per capita.
Hove et al. (2017)	1991 – 2008	15 IT emerging market economies	stationary panel ordered logit model	Positive impact of central bank independence, fiscal responsibility, and financial sector development on price stability.
Ardakani et al. (2018)	1990 – 2013	98 countries	propensity score matching	No significant difference in the inflation level between targeters and non-targeters, but IT reduces the sacrifice ratio and interest rate volatility in the developed economies and enhances fiscal discipline in both the industrial and developing countries.
Kose et al. (2018)	1996 to 2015	16 IT and 21 non-IT countries	difference-in-difference approach	IT has negligible effects on GDP growth.
Fratzscher et al. (2020)	1980Q1 – 2015Q4	76 countries	single-equation regressions	Strategy improves macroeconomic performances following exogenous shocks.
Kim – Yim (2020)	unbalanced panel	19 IT countries	panel regression model	IT central banks have not always been successful in meeting the inflation targets, although IT has been successful in reducing the inflation rate.
Duong (2021)	2002 – 2010	54 countries with 15 IT countries	difference-in-difference approach	IT is not supposed to be the best monetary strategy for all countries, but the emerging economies can anchor the inflation when the economy has hit by the exogenous uncertainties.
Smaga (2021)	1995 – 2016	21 countries	various methodology techniques	Price and financial stability objectives were conflicting only in 10% of the cases.

Table S.2. Unit root tests of the regressors

	Czech Republic		Hungary		Poland		Serbia	
Variable	ADF	KPSS	ADF	KPSS	ADF	KPSS	ADF	KPSS
Key policy rate	I(1)	I(1)	I(0)	I(0)	I(0)	I(0)	I(1)	I(1)
Inflation	I(1)	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)	I(1)
Budget balance	I(1)	I(0)	I(0)	I(1)	I(0)	I(0)	I(0)	I(0)
REER gap			I(0)	I(0)			I(0)	I(0)
Growth rate					I(0)	I(0)		
M_3	I(1)	I(0)						
M_3 growth					I(0)	I(0)		
Current account balance	I(0)	I(0)			I(0)	I(1)	I(0)	I(0)
Labour cost growth	I(0)	I(1)						
Loans			I(1)	I(1)				
HICP	I(0)	I(0)	I(0)	I(0)				
GDP gap of Eurozone					I(0)	I(0)	I(0)	I(0)

Notes: Assumption that $\alpha = 0.05$ is used. In addition to usually used unit root tests, we employed the Zivot–Andrews test, which accounts for possible structural breaks (Zivot – Andrews 1992). This test shows similar results to the ADF test. Results can be obtained from the authors upon request.
Source: Authors' calculations.