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MONETARY STAGES AND FRAMEWORKS OF EMERGING EU MEMBERS

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The paper reviews the monetary stages and frameworks towards the eurozone (EZ) for emerging EU members. At the first pre-EU stage, three monetary frameworks were identified, whereas at the second pre-EZ stage, the emerging EU members combined ER targeting with the rigid/fixed exchange rate regimes (ERRs), on the one hand, and inflation targeting (IT) with the Exchange Rate Mechanism (ERM II), on the other. The last stage of monetary convergence assumes monetary nonautonomy within the monetary union as a rigid ERR, where the ER and monetary policies are sacrificed as countercyclical instruments. Countries with rigid ERRs are more prone to macroeconomic overheating, performing worse under a crisis impact compared to the floaters. The difficulties to maintain stability under a rigid ER environment, such as the monetary union, as well as the inherent vulnerabilities of the EZ, are crucial for the delayed entry of some EU members into the ERM II.

Keywords: eurozone, exchange rate mechanism, monetary convergence, adjustment mechanisms, monetary and exchange rate regimes

JEL Classification: E52, F15, F45

INTRODUCTION

New EU members do not automatically accept the euro after accessing the EU although they participate in the Economic and Monetary Union (EMU). The EMU assumes a gradual development of candidate countries (the convergence process) leading to the common currency at the end of the road. Bearing in mind the fact that all emerging EU countries

must adopt the euro sooner or later, the monetary authorities of emerging Europe are confronted with necessary changes in the exchange rate regimes (ERRs) and the monetary regimes. Basically, the three key stages could be identified in the process of monetary convergence towards the euro area (European Commission, 1998; De Grauwe & Schnabl, 2004). The first stage includes the period until the EU entry; the second stage assumes the period between the EU entry and the adoption of the euro, while the third stage indicates participation in the eurozone (EZ).

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Emerging European economies (EEEs) chose a different ER and monetary strategies on the road towards the EU. On the one hand, countries choose an exchange-rate peg in different forms: the currency board, conventional pegs, intermediate exchange-rate regimes (the group of fixers). The fixers adopted ER targeting as the monetary framework with a limited maneuvering space for the monetary policy. As another option, countries opted for the managed floating ERR and inflation targeting (IT) as the monetary framework (the floaters). This monetary path assumes a more flexible monetary policy since it is not constrained by a specific euro peg. While the first stage of monetary convergence allows autonomy in choosing an adequate monetary option, the second is, however, more limited since EU members should, sooner or later, accomplish the Maastricht convergence criteria, including the Exchange Rate

Mechanism (ERM II) target zone. The second stage of monetary convergence is a real challenge for the monetary authorities of the EEEs given the fact that nominal and real convergence are very difficult to reconcile within the ERM II target zone. The evolution of the ERRs and the monetary regimes of emerging EU members on the road towards the EZ in the period 1990-2018 is identified in Table 1 and Table 2.

EEEs should be well-prepared in terms of sustainable real and nominal convergence in order to for them to function under the constrained monetary environment in the ERM II. The ERM II target zone is a preparation for an even more rigid monetary environment within the EZ, bearing in mind the complete loss of monetary autonomy. These monetary switches are complex, especially with respect to the floaters who are accustomed to a higher ER

Table 1 The evolution of ERRs in the emerging EU members in the period 1990-2018

Country/ ERR	Currency board	Conventi- onal fixed ER	Adjustable peg	Crawling peg	Crawling corridor or target zone	Managed floating	Free floating	Target zone ERM II	Monetary union (EZ)
	Rigid ERR	Intermediate (hybrid) ERR				Flexible ERR		Interme- diate ERR	Rigid ERR
Estonia	1992:06- 2004:06							2004:06- 2011:01	since 2011:01
Lithuania	1994:03- 2004:06							2004:06- 2015:01	since 2015:01
Latvia		1994:02- 2005:04						2005:04- 2014:01	since 2014:01
Slovenia						1994:01- 2004:06		2004:06- 2007:01	since 2007:01
Poland			1990:01- 1991:10	1991:10- 1995:05	1995:05- 2000:04		since 2000:4		
Czech R.		1990:01- 1996:02			1996:02- 1997:05	since 1997:05			
Slovakia		1990:01- 1997:01			1997:01- 1998:10	1998:10- 2005:11		2005:11- 2009:01	since 2009:01
Hungary				1994:01- 2001:0	2001:05- 2008:02		since 2008:02		
Bulgaria	since 1997:07					1990:01- 1997:07			
Romania						od 1994:01			
Croatia				since 1994:01					

Source: Authors

Table 2 The evolution of the monetary regimes in the emerging EU members in the period 1990-2018

Country/monetary regime	Monetary nonautonomy	Exchange-rate targeting	Inflation targeting	Other anchors (targets)
Estonia	since 2011:01	1992:06-2011:01		
Lithuania	since 2015:01	1994:03-2015:01		
Latvia	since 2014:01	1994:02-2014:01		
Slovenia	since 2007:01			1991:10-2007:01 monetary-based targeting
Poland		1990:01-2000:04	since 2000:04	
Czech R.		1990:01-1996:02	since 1997:12	
Slovakia	since 2009:01	1990:01-1997:01		1998:10 more targets
Hungary		1994:01-2001:05	since 2001:05	
Bulgaria		since 1997:07		1991:06-1997:07
Romania			since 2005:08	1994:01-2005:08 monetary-based targeting
Croatia		since 1994:01		

Source: Authors

and monetary flexibility, and who benefited from the role of the ER as a shock absorber in crisis circumstances. Therefore, the subject matter of this research study are the monetary policy frameworks or the monetary switches at the different stages of convergence towards the EZ. The aim of the research study is focused on the identification of the main challenges of the monetary authorities at different stages, as well as the efforts in choosing an adequate combination of the exchange rate and the monetary regimes in balancing between internal and external equilibria. Although the exchange rate regimes or monetary regimes were explored in the existing literature from the aspect of the emerging European economies, as well as the EZ *per se*, in this paper, the literature gap is filled with a sublimation of all the phases of monetary convergence from the beginning of transition, tracking the monetary evolution of emerging EU countries until the EZ participation (Table 1 and Table 2). The following hypotheses were tested in the paper: flexible exchange-rate regimes with the maintenance of monetary autonomy deliver more maneuver space for the monetary authorities by absorbing external shocks under crisis circumstances, and *vice versa*, rigid exchange-rate regimes, such as currency boards and the monetary union, are more vulnerable to macroeconomic overheating with

consequent sharp internal and external adjustments in post-crisis periods. The hypotheses are tested by using the methods of induction, analysis, synthesis, descriptive statistical analysis, and the comparison method as well. The paper is structured as follows: Section 1 deals with the monetary frameworks and ERRs of emerging Europe at the first stage of monetary convergence. The crucial challenges of the second stage of monetary convergence, especially the ERM II participation, are highlighted in Section 2. In Section 3, the main difficulties of the emerging EU members at the third stage of functioning within the EZ are analyzed. The main concluding remarks are outlined in the final section.

THE DIVERSITY OF MONETARY FRAMEWORKS AND ERRS BEFORE THE EU ENTRY

The diversity is evident among the EEs concerning the adoption of the ER and the monetary frameworks (Nerlich, 2002; Amerini, 2003; Frommel, 2006; International Monetary Fund, 2017). Most emerging economies used the ER as a nominal anchor or ER targeting in the macroeconomic stabilization phase.

The reason for an almost uniform anti-inflationary recipe is well-known. The exchange rate represents a natural anchor in vulnerable economies, bearing in mind their (hyper)-inflationary past and persistent inflationary expectations. An exchange-rate peg is a transparent and clear anchor for market participants. Consequently, inflationary expectations could be anchored firmly and relatively quickly due to the confidence and credibility of the monetary authorities bound by the parity defense. Some countries kept different forms of the fixed ER, including the rigid form of the currency board, whereas other countries (strategically or in a crisis manner) switched the anchor towards the IT regime with a more flexible ER arrangement. In general, the three groups of countries could be identified according to the applied ER and monetary strategies.

The first monetary path assumes no change in the ER and the monetary regimes until joining the EU. This group includes Estonia, Lithuania and Latvia (the Baltic States). These countries used the ER as a nominal anchor (or ER targeting) in the macroeconomic stabilization phase, and even retained the same monetary strategy in the post-stabilization phase. According to the International Monetary Fund (2017), ER targeting comprises a currency board, a conventional fixed parity, an adjustable and crawling peg, all the way to a regime with wider fluctuation margins (corridors or target zones) on the flexibility continuum (Frenkel, 1999). Estonia and Lithuania have been using the currency board since June 1992 and March 1994, respectively. Latvia has been practicing a less rigid ER regime and a conventional fixed parity since February 1994. Estonia, Lithuania and Latvia have not changed the ERR even within the ERM II target zone at the second stage of monetary convergence towards the EZ. For more information about monetary evolution during the convergence process, we refer you to the cases of the Baltic States mentioned in Table 1 and Table 2.

The second monetary path includes the ER as a nominal anchor only at the beginning of transition in pursuing macroeconomic stabilization. The benefits related to the monetary strategy of ER targeting were decreasing over time, bearing in mind

the inertia of inflation. At the same time, the costs were increasing, especially in connection with the real exchange rate appreciation and the worsening of the external imbalance. Poland, the Czech Republic, Slovakia and Hungary (Višegrad Group) abandoned the ER as a nominal anchor as a part of the strategic monetary shift. By implementing the exit strategy, these economies gradually raised the ER and monetary flexibility by accepting different intermediate ER arrangements (Josifidis, Allegret & Beker Pucar, 2011; 2014). The monetary authorities of the Višegrad economies left ER targeting (the conventional fixed parity, the adjustable and crawling peg) and accepted intermediate ERRs, and finally managed/free floating in combination with the IT regime. After having accepted managed floating and an implicit IT monetary framework, the Slovak Republic experienced two relevant changes. Namely, after the EU accession, this economy participated in the ERM II mechanism, thus returning to the intermediate ER form. Since 2009, the second change has assumed a loss of the Slovakian monetary autonomy with its entry into the EZ. Poland, the Czech Republic and Hungary have not participated in the ERM II yet; currently, they are practicing the same combination of managed/free ER floating and the IT framework. Despite the common path from the ER as a nominal anchor to the IT policy, the pace of and the successfulness of the changes differed among the Višegrad economies. In order to learn about their monetary evolution in the period 1990-2018, we refer you to Table 1 and Table 2.

The third monetary path was followed by the former transition economies that had not accepted any of the previously mentioned monetary strategies (retained ER stability or rising ER flexibility). Instead of these paths, the countries belonging to this group accepted different hybrid regimes without an explicit and unique nominal anchor. This group includes Slovenia, Bulgaria, Romania and Croatia. Slovenia used different *de jure* regimes, having preferred more or less fixed regimes prior to the EU accession. After joining the EU in 2004, Slovenia approached the ERM II target zone so as to eventually become a member of the EZ in January 2007. Bulgaria, following the unsuccessful ER fixing initiated in 1991, switched

towards free ER floating. Under the pressure of the currency crisis in 1997, the Bulgarian monetary authorities replaced managed ER floating and the nontransparent monetary strategy with the rigid ER arrangement of the currency board. Although the ER *de facto* had served as a nominal anchor since the beginning of transition, Bulgaria and Slovenia were forced to the *de jure* floating ERRs at the beginning of transition due to the insufficient level of the foreign exchange reserves necessary to maintain the parity (Nerlich, 2002). Croatia has been implementing a crawling peg as an intermediate regime and ER targeting since 1994, preserving the variations of these regimes prior to and after the EU accession in 2013. Romania had used different forms of intermediate ERRs without an explicit and transparent monetary strategy until 2004 and has been converging towards the managed floating ERR in combination with the IT regime since 2004 (Table 1 and Table 2).

It is not possible to determine a unique monetary strategy acceptable for all countries on the road to the EU. Although the common element of all the monetary strategies was the primary goal of the price stability, the other elements were specific and dependent on the applied ERR. A general success in anchoring inflationary expectations was independent of the applied monetary strategy or the nominal anchor. However, it is important that the chosen monetary strategy should reflect the price and, more broadly speaking, the macroeconomic stability necessary to underpin a further nominal and real convergence towards the EU and the EZ.

THE SECOND STAGE OF MONETARY CONVERGENCE: A FOCUS ON THE ERM II TARGET ZONE

Independently of the chosen monetary strategy on the road to the EU, member countries must pass through the second phase of monetary convergence on their way to the EZ membership. The accomplishment of the Maastricht criteria should guarantee the stability of the monetary union's single currency zone. One of the Maastricht criteria related to the ERR prior to the

monetary union is known as the ERM II. Accessing the EU does not automatically involve participation in the ERM II. However, the decision to join the ERM II is crucial since an adequate level of nominal and real convergence with the rest of the EZ should precede this important step of monetary integration (Schadler, Drummond, Kuijs, Murgasova & van Elkan, 2005). The more an economy is integrated and the more it has been converging with the rest of the EZ, the lesser the possibility for it to experience asymmetric external shocks, currency crises, and an inappropriate parity against the euro under the constrained monetary environment of the ERM II target zone. Since monetary autonomy is confined under the ERM II corridor, economies are trained for an even more rigid monetary environment of the monetary union with the total renouncement of monetary sovereignty (Bofinger, 2004; Schalder *et al*, 2005).

The ERM II represents the most flexible form of the hybrid (intermediate) ERR. It is the target zone or the corridor with the fluctuation margins of $\pm 15\%$ around the fixed parity against the euro. The monetary framework of the ERM II is so designed to be flexible enough since the following ERRs are considered as acceptable (Stavárek, 2004, Backe & Thimann, 2004):

- the conventional fixed parity against the euro as a classic fixed-parity without fluctuation margins;
- the narrow target zone or the wider target zone with fluctuation margins up to $\pm 15\%$ around the euro peg;
- the currency board.

On the other hand, the following ERRs are regarded as unacceptable:

- the fixed parity against other (non-euro) currencies;
- free ER floating;
- crawling pegs;
- unilateral euroization.

Therefore, the elements that must be fulfilled in order to participate in the ERM II are:

- the central, fixed (not adjustable, crawling) parity;
- the parity defined to the euro;
- fluctuation margins of up to +/- 15%.

At the second monetary stage, after the EU accession and prior to the EZ, there are two monetary paths possible to identify according to the applied ER and monetary regimes. The first assumes switching to the opposite side of the ER arrangements, i.e. from a flexible towards an intermediate form of the ERM II. In contrast to the ERR that will *de facto* be exposed to changes in accordance with the progress of monetary convergence, the monetary regime could be withheld in the IT form. Participation in the ERM II assumes the maintenance of the target zone in a period of two years, implying the targeting of both variables - the exchange rate and inflation - thus making a strict IT framework unacceptable. The simultaneous targeting of the ER and the inflation rate is very complicated under the ERM II framework. Numerous papers have explored the unsustainability aspect of the ERM II in attaining convergence criteria (Adahl, 2000; Begg, Eichengreen, Halpern, Hagen & Wyplosz, 2003, Fahrholz, 2003; Eijffinger, 2003; Issing, 2003; Polanski, 2004; Stavarek, 2004). This complexity is the reason why to change the type of IT by accepting a dynamic approach from strict to flexible IT is preferable (Orlowski, 2005). Poland, the Czech Republic, Hungary and Romania follow this monetary path towards the EZ, while the Slovak Republic was on this track before its EZ 2009 entry.

Another monetary framework at the second stage of monetary convergence was practiced by the countries without a significant change in the monetary policy regime (ER targeting) and the ERR (the currency board or the conventional fixed parity against the euro). If the ERM II were a rigid mechanism (not relatively flexible as it is), these countries would experience the biggest change. In such a way, the countries with the fewest changes in the monetary policy, the ERR and the adjustment mechanisms at the second stage of monetary convergence are Estonia, Lithuania, Latvia,

and Bulgaria. Bulgaria is still at the second stage of monetary convergence (and has been at this stage since 2007), whereas the Baltic countries are already at the third stage of the EZ participation (Estonia has been at this stage since 2011, Lithuania since 2014, and Latvia since 2015). Although the situation regarding the monetary strategy on the way to the EZ is less transparent in the case of Slovenia, this economy could be considered to have been following this monetary path without radical changes in the nominal anchor and the adjustment mechanisms. Now, Slovenia has been at the third stage since 2007, like the Baltic States.

The two-year participation in the ERM II, along with the fulfillment of the other Maastricht criteria, indicates that economic convergence is sustainable enough and that the economy is able to participate in the monetary union without significant asymmetries, imbalances and costly adjustments. The ERM II also provides information on the adequate central parity of the national currency in relation to the euro, which will become irrevocable by entering the EZ. However, the essential purpose of establishing the ERM II monetary arrangement prior to the EZ membership is a preparation for functioning within the monetary union. After entering the EZ, member countries cannot use the monetary policy and the ER policy countercyclically in order to isolate their national economies from external shocks. National monetary authorities can no longer favor the currency weakening in order to stimulate economic (export) activities and improve the external (deficit) position. The impact on the real economy and the external balance after entering the EZ can exclusively be made by budgetary and structural policies.

THE THIRD STAGE OF MONETARY CONVERGENCE: THE MONETARY UNION

The Monetary Framework

The decision to enter the ERM II is complex and crucial, and the same holds for the decision

stipulating when to finalize monetary convergence and accept the euro. The exchange rate mechanism II can be an adequate framework for finalizing the convergence process, but it is necessary to select the right moment to leave the ERM II and accept a single currency. The moment of fundamental economic change always involves the analysis of the costs and benefits of both options, namely the ERM II vs the EMU (Ćorić & Deskar Škrbić, 2017). A relatively wide corridor of $\pm 15\%$ in the ERM II provides sufficient monetary flexibility in order to correct the remaining differences in the real and the nominal indicators. On the other hand, the acceptance of the euro brings with itself lower interest rate premiums, lower real interest rates and a reduced risk of speculative attacks (Issing, 2003).

The benefits of a longer participation in the ERM II target zone can be preferable for some economies rather than their entering the monetary union. A longer participation involves the benefits of greater ER flexibility (the limited, but still present, role of the ER as a shock absorber) in adjusting the remaining differences in productivity, wage growth and inflation relative to the EZ. Once the euro is accepted, such differences will have to be neutralized by internal devaluation or an internal (restrictive) adjustment. The mentioned adjustment mechanism is painful since it includes the price, the wage, the output and employment lowering in order to restore competitiveness in a more difficult and painful way (De Grauwe & Schnabl, 2004). The participation of the EU member states in the EZ will be decided in light of meeting the conditions necessary for accepting the single currency. The combination at the third stage of a monetary convergence is monetary nonautonomy and the monetary union as a rigid ERR. The choice of and a change in the ER and monetary regimes are no longer observed in the national context.

Two groups of countries are possible to identify at this stage of monetary convergence: the one with more radical and the other with smaller changes with respect to the nominal anchor. The first monetary path assumes the radical transformation of the monetary regime and a complete change in the nominal anchor in the sense of switching from the IT framework

(with significant monetary flexibility) to the rigid ER regime of the monetary union (Belhocine, Crivelli, Geng, Scutaru, Wiegand & Zhan, 2016). This group of countries passes through the strongest change in the ERR since, instead of the ERM II target zone (with significant fluctuation margins), they irrevocably fix the value of the domestic currency to the euro, further abolishing the national currency and the ER/monetary policy. This group includes Slovakia (which has been included in the group since 2009) and potentially includes Poland, the Czech Republic, Hungary and Romania since these EU members have not participated in the ERM II yet.

The second monetary path is followed by the economies with a less radical transformation of the monetary regime (International Monetary Fund, 2015; Bakker, 2017). It is a change from the ER as the nominal anchor of the monetary regime (with an inflexible monetary policy) towards a complete loss of monetary autonomy. The rigid ERR of the currency board and a conventional fixed parity are replaced with the rigid ERR of the monetary union. This change is weaker compared to the previous group of countries since a high level of rigidity is replaced with the highest level of rigidity or a complete loss of monetary sovereignty. Change in the adjustment mechanisms in the countries that targeted the ER from the start of the transition process is immeasurably weaker, bearing in mind the fact that these countries have not felt the advantages of a flexible monetary policy, having been accustomed to the deflationary-inflationary adjustment mechanism also prevailing in the EZ. Change is still formally large since the monetary policy is lost and there is no obligation to defend the parity. This monetary path has been followed by Slovenia, Estonia, Latvia and Lithuania, which have been the EZ members since 2007, 2011, 2014, and 2015, respectively.

Challenges for the Emerging EU Members under the Rigid Monetary Environment

Whatever monetary framework towards the EZ has been chosen, functioning within the monetary union assumes an exclusive focus on a restrictive (or

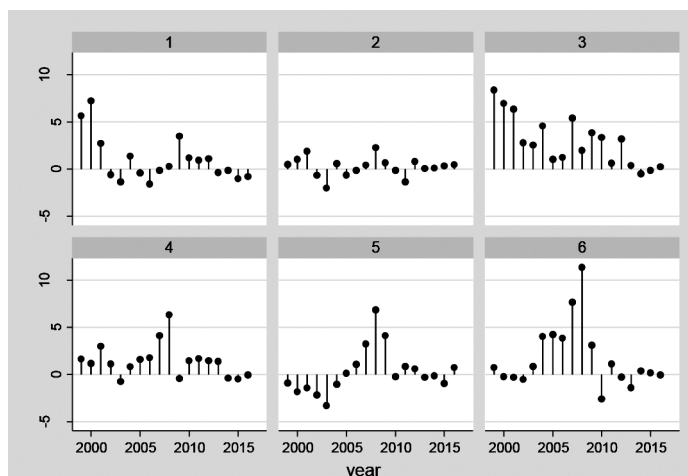
expenditure-reducing) external adjustment since the ER can no longer act as a shock absorber. The rigidity of such restrictive adjustment in the absence of a redistributive (expenditure-switching) adjustment was especially pronounced in the emerging EU members under crisis circumstances, namely under the Great 2008 Recession (Kang & Shambaugh, 2014; Beker Pucar & Srdić, 2018). Estonia, Lithuania and Latvia (the Baltic States) (the EZ members), on the one side, and Poland, the Czech Republic and Hungary (the EU members), on the other, could be regarded as the representatives of the two opposite monetary frameworks. As far as the mentioned economies are concerned, Figure 1 shows the inflation differential, whereas Figure 2 shows the productivity and GDP growth differentials compared to the EZ in the period 2000-2018. These figures reflect the internal imbalances on the monetary (Figure 1) and the real sides of the economy (Figure 2).

If we take a closer look into the two aspects of the internal balance, the monetary via the inflation rate, and the real via the GDP growth and productivity, Figure 1 and Figure 2 unambiguously demonstrate that the countries with a rigid ERR and ER targeting (the Baltic States) are more prone to macroeconomic overheating. Namely, inflation, the GDP growth and the productivity differences compared to the EZ in the pre-crisis period are more pronounced for the Baltic States compared to Poland, the Czech Republic, and Hungary. Consequently, as a reflection of internal overheating, the savings/investment gap (Figure 3, the left-hand side) culminated prior to the crisis, as well as the current account deficit (Figure 3, the right-hand side).

All the macroeconomic imbalances, both the internal (Figure 1 and Figure 2) and the external (Figure 3), culminated prior to the Great 2008 Recession. Accordingly, the internal and external adjustments were the sharpest for the Baltic States in the post-crisis period, especially bearing in mind the fact that these economies were not able to use the ER as a shock absorber. Figure 4 expectedly shows higher nominal ER variations in the case of the floaters (the left-hand side) compared to the fixers (the right-hand side). The only option for these economies was

sharp internal devaluation (a restrictive, expenditure-reducing adjustment) accompanied by a drop in the output and employment (as Figure 2 suggests) under the crisis-driven external shocks. On the contrary, on the road to the EZ, Poland, the Czech Republic and Hungary were able to use another, more convenient adjustment option of the currency weakening with a less bumpy road towards the EZ (Herrmann & Jochem, 2013; Josifidis, Allegret & Beker Pucar, 2014; Bakker, 2017). Figure 4 suggests that Poland mostly used the ER as a shock absorber with relatively the highest nominal exchange rate variations between the floaters. Alongside this fact, Poland was the only EEE not to experience a recession after the outbreak of the crisis. Due to the currency weakening under external shocks, Poland was able to avoid sharp internal devaluation. In the group of the fixers, Latvia experienced relatively higher nominal exchange rate corrections (mainly devaluation in the pre-crisis period), but that was the expected indicator since this economy had not formally accepted the currency board, as Estonia and Lithuania had.

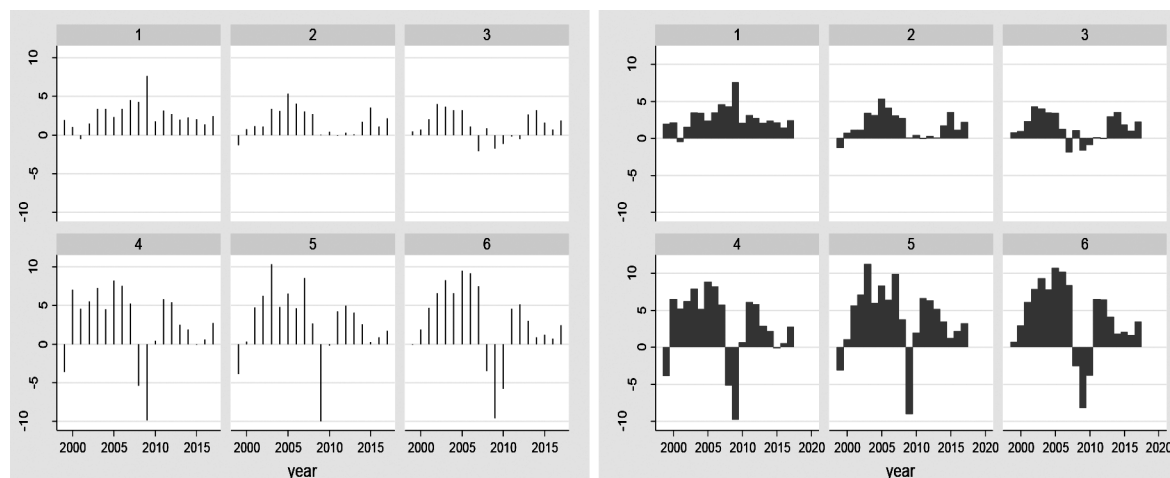
As the case of the emerging EU members with a rigid ERR under the crisis impact clearly shows, the crucial sacrifice is the inability of the monetary countercyclical adjustment and a loss of the ER as a shock absorber under the crisis impact. The same pattern is present within the monetary union in the sense of lowered flexibility in adjusting to asymmetric shocks. The real exchange rate adjustment to such asymmetric shocks is completely performed through the price and wages, i.e. through internal devaluation (Gibson & Palivos, 2013). The EZ 2010 crisis showed that it was not simple to perform these price adjustments without nominal ER adjustments, especially in the low-inflationary environment of the EZ. After the outbreak of the crisis in such a rigid environment, the internal balance deteriorated (unemployment rose, and the output fell) due to the stabilization of the external position. Taking into account the asymmetry within the EZ between the core and the periphery, the most severe consequences of the external adjustment were expectedly recorded in the vulnerable periphery countries. Being aware of the significant sacrifice of entering the EZ, Poland, Czech Republic and Hungary have not participated in



Notes: 1 - Poland, 2 - Czech Republic, 3 - Hungary, 4 - Estonia, 5 - Lithuania, 6 - Latvia. The inflation (the consumer prices, the annual percent) differential - the difference between the domestic inflation rate and the EZ inflation rate. The yearly time series of the national and the EZ inflation rates are obtained from the IMF International Financial Statistics and the WB World Development Indicators.

Figure 1 The inflation differential compared to the EZ for the selected emerging EU members in the period 2000-2018

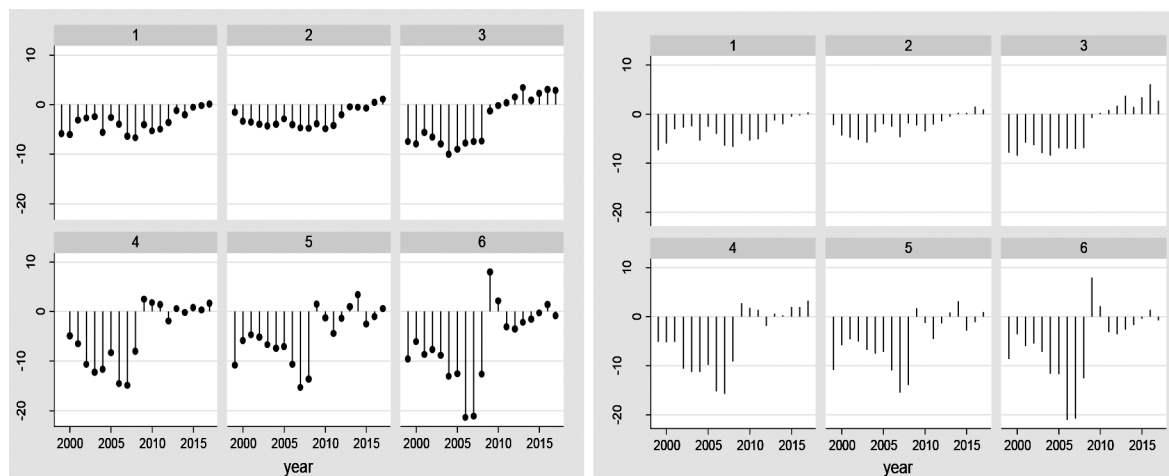
Source: Authors



Notes: 1 - Poland, 2 - Czech Republic, 3 - Hungary, 4 - Estonia, 5 - Lithuania, 6 - Latvia. The GDP growth (the annual percent) difference - the difference between the national GDP growth and the EZ GDP growth. The productivity differential (GDP/employment) - the difference between the national variable and the EZ productivity variable. The yearly time series of the GDP growth, the GDP and employment, are obtained from the IMF International Financial Statistics and the WB World Development Indicators.

Figure 2 The GDP growth differential and the productivity differential compared to the EZ for the selected emerging EU members in the period 2000-2018

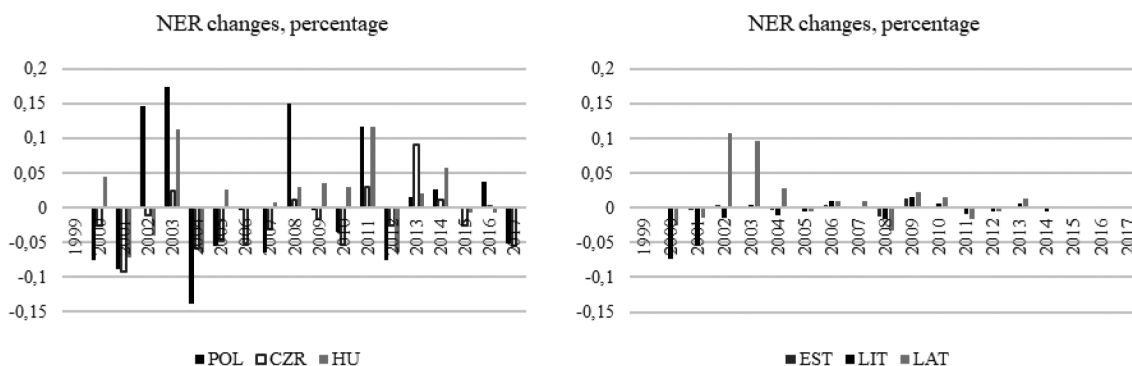
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Notes: 1 - Poland, 2 - Czech Republic, 3 - Hungary, 4 - Estonia, 5 - Lithuania, 6 - Latvia. The yearly time series of the current account balance and the savings/investment gap are obtained from the IMF International Financial Statistics and the WB World Development Indicators.

Figure 3 The savings/investment gap and the external imbalance (the current account balance as a % of the GDP) in the selected emerging EU members in the period 2000-2018

Source: Authors



Napomena: POL – Poland, CZR – Czech Republic, HU – Hungary, EST – Estonia, LIT – Lithuania, LAT – Latvia. Yearly series of the nominal exchange rate (the domestic currency as per euro, the end of the period, the rate) obtained from the IMF International Financial Statistics.

Figure 4 The nominal exchange rate variations for the selected emerging EU fixers (on the right) and the floaters (on the left) in the period 1999-2017

Source: Authors

the ERM II yet. Delayed participation is often viewed as the superior performance of these economies during the crisis compared to the other monetary frameworks (but also compared to the weaker EZ members), as well as the current weaknesses of the EZ itself (Palankai, 2015).

Given the fact that the monetary and the ER policies are sacrificed inside the monetary union, the countries should work out alternative adjustment mechanisms, labor mobility and the flexible labor market being one of them, which is stressed within the optimum currency area (OCA) theory (Mundell, 1961). Internal devaluation within the monetary union is inherently difficult, but the situation could even be worse due to the rigidity of the labor market as an obstacle to the internal devaluation mechanism (Wood, 2014). It prevents the functioning of market forces (rising unemployment) in lowering nominal wages. In addition to the aforementioned obstacles, even if the nominal wages are expected to fall in line with a reduction in employment, there is yet an obstacle in the relation between nominal wages - the prices of domestic products. Due to insufficient competition on the commodity markets in certain deficit countries, the prices of domestic products do not fall simultaneously with nominal wages. More broadly speaking, the EZ was not created as an OCA. Labor is largely immobile for linguistic and cultural reasons, as well as for the personal and social costs of migration. The EU members are, however, open to trade, and capital is highly mobile. Even though the EZ may not have been created as an OCA *ex ante*, there are indications that it is moving in that direction *ex post* (Rose, 2008; Furrutter, 2012).

CONCLUSION

This paper highlights crucial challenges on the monetary path of the emerging EU members towards the euro zone (EZ). Progress towards the monetary union is observed through three stages, starting from the EU accession stage, via the pre-EZ stage, to ultimately the stage of the EZ participation at the end of monetary convergence. Emerging European

Economies (EEEs) adopted different monetary and ER strategies. However, there are two different monetary approaches that fundamentally can be identified. The one monetary framework assumes ER targeting as a monetary regime in which the ER serves as a nominal anchor, whereas the monetary policy is not autonomous. The other monetary framework combines inflation targeting (IT) with a flexible ER, where the ER serves as a shock absorber, whereas the monetary policy is free to act in a countercyclical manner. Independently of the initially implemented monetary framework, after the EU accession EEEs are, sooner or later, obliged to participate in the ERM II, the target zone in which monetary autonomy is significantly narrowed. The hypotheses were examined in the case of the two groups of countries. Poland, the Czech Republic and Hungary are the EU members at the second stage of monetary convergence that hesitate to enter the ERM II. Narrowed monetary flexibility is certainly the key reason since these economies performed better under a crisis impact. By analyzing the crucial macroeconomic indicators of the mentioned economies, it is confirmed that the floaters generally performed better, bearing in mind fewer internal and external imbalances in the situation where the ER serves as a buffer against external shocks. On the contrary, it is confirmed that the Baltic States, as an example of the emerging EU members which followed the opposite monetary path, experienced a deeper macroeconomic imbalance, as well as more profound internal and external adjustments in the post-crisis period. The monetary autonomy of these economies is otherwise limited since these are small and open economies where the benefits of the adoption of the euro prevail. On the other hand, Poland, the Czech Republic and Hungary (as well as the other EEEs that followed their monetary path towards the EU and the EZ) have much to lose in terms of monetary sovereignty, whereas inherent EZ weaknesses make the decision even more complicated. Therefore, the policy makers of the integration policies towards the EU and the EZ must bear in mind the significant economic sacrifice of a deeper monetary integration and the need for preparedness for functioning within the rigid monetary framework. Sustainable

nominal and real convergence are the imperative of a deepening monetary integration with the EZ countries represents. Regardless of the common monetary framework at the third stage of monetary convergence, the external position and adjustment still depend on the individual macroeconomic performances of the EZ members and on the disciplined use of the remaining instruments of the economic policy as well. In spite of the identification of the general framework and the indications regarding the subject matter of the research study, future research should be directed towards the analysis of individual countries with respect to the choice of the exchange rate and monetary regimes at the considered stages of monetary convergence. Various econometric techniques ranging from the VAR and VEC models within the framework of time-series analysis to nonstationary heterogeneous panels could be applied in order to further clarify the choices made by the economic policy makers of individual emerging EU members on the road towards the EZ.

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