

*Grzegorz Tchorek**

Polish Exchange Rate Policy Dilemmas in ERM II

Introduction

This article is policy-oriented rather than scientific research and aims to find an exchange rate regime within ERM II that ensures that nominal convergence criteria are met in a sustainable manner and the macroeconomic stability of the Polish economy is strengthened before and after joining the euro area.

The first part defines the criteria underlying the choice of the exchange rate regime that is appropriate for the Polish economy in ERM II, taking into account the existing EU institutional arrangements, the regime consistency with the other nominal convergence criteria and the dynamics of real convergence processes, past experience of the central bank in implementing monetary policy and the period of ERM II participation. Subsequently, those criteria formed the basis for assessing the validity of two-corner exchange rate solutions in ERM II: a broad fluctuation band (+/-15%) and a fixed exchange rate (or stabilized within a narrow band).

The second part, referring to the EBC and the EC practices of assessing the fulfilment of the exchange rate criterion and the experience with ERM II, indicates the need for greater flexibility of the European institutions in this respect. Based on the literature on target zones, it underlines that regime must be credible and the use a broad fluctuation band is a condition for the so-called stabilizing speculation. It should help satisfy the exchange rate criterion and stabilize the nominal exchange rate of the zloty around the equilibrium exchange rate level.

* **Grzegorz Tchorek** – PhD, Faculty of Management University of Warsaw, National Bank of Poland, e-mail tchorek@wz.uw.edu.pl. The views expressed in this paper are those of the author and not necessarily those of the National Bank of Poland and University of Warsaw. I would like to thank Michał Rubaszek and Zuzanna Gromiec for useful comments to the previous versions of this article.

Reasons and Conditions Behind the Choice of the Exchange Rate Regime in ERM II

In accordance with the Resolution of the European Council of 16 June 1997, ERM II aims to ensure “that Member States outside the euro area participating in the mechanism orient their policies to stability, foster convergence and thereby help them in their efforts to adopt the euro”. Satisfying this exchange rate criterion means:

- “the observance of the **normal fluctuation margins** provided for by the exchange-rate mechanism of the European Monetary System, **for at least two years, without devaluing against the euro**” (the third indent of Article 140(1) of the TFEU),
- that “a Member State has respected the **normal fluctuation margins** provided for by the exchange-rate mechanism of the European Monetary System **without severe tensions** for at least the last two years before the examination. In particular, the Member State **shall not have devalued its currency’s bilateral central rate against the euro on its own initiative** for the same period”,¹
- stabilizing the exchange rate within the “**standard fluctuation band of plus or minus 15% around the central rates**”.²

The selection of a desired exchange rate regime in ERM II was analysed taking into consideration the following criteria:

1. consistency with the existing institutional arrangements,
2. consistency with the other nominal convergence criteria,
3. consistency with the specificity of the economy undergoing real convergence and with the possibility of setting a desired conversion rate,
4. consistency with the central bank’s past experience and credibility in implementing monetary policy,
5. consistency with the period of participation in ERM II.

Consistency with the Existing Institutional Arrangements

Formally, the European institutions recognize that ERM II requirements are complied with when the central parity is established and the fluctuation band of the domestic currency against the euro is set. This means that a floating rate or a managed floating rate without a mutually agreed central rate are not possible solutions within ERM II. Exchanger

¹ Article 3 of Protocol No 13 on the nominal convergence criteria.

² ECB, *Resolution of the European Council of 16 June 1997*, 2006.

rate criterion demands pegging the national currency only to the euro and precludes unilateral euroisation.

Although the ECB recommends that economies undergoing real convergence should adopt a standard broad fluctuation band of $\pm 15\%$, a narrower band may be adopted at a candidate's request. The commitment to maintain the exchange rate within a narrower band is then unilateral and incumbent on the country whose currency is being stabilized in ERM II. This option was used by Malta, Estonia, Lithuania (unilateral commitment to maintain a fixed exchange rate), Latvia (pegged rate within $\pm 1\%$ band). Among the new member states, ERM II standard fluctuation band of $\pm 15\%$ was used in Greece, Cyprus, Slovakia and Slovenia.³

It is worth noting, however, that the 30% fixed exchange rate (or stabilizing within a narrow band) in ERM II was used in small open economies having experience with a fixed/pegged exchange rate regime such as Malta and the Baltic states. In the case of the Polish economy, what is vital is its bigger size and importance for the whole EU economy as a source of potential problems arising from fixed exchange rate. Therefore, despite the broad range of exchange rate regime options in ERM II, it is questionable whether the ECB and the EC will consent to the adoption of a fixed exchange rate by Poland. This is due to the negative experiences of poorer countries in applying fixed exchange rates, including the risk of macroeconomic imbalances which the EC is required to monitor. Meanwhile, stabilizing the zloty under a fixed rate regime would not be a result of nominal and real convergence. On the one hand, it may lead to a deviation of the real zloty exchange rate from its equilibrium level and, on the other, to a misalignment between the real zloty rate and the real exchange rates of other member states. In both cases, in addition to the macroeconomic imbalance procedure, the European institutions may resort to the Council Resolution of 1997, which stipulates that "The single market must not be endangered by real exchange rate misalignments." Thereby, they can put a revaluation pressure in setting the conversion rate in Poland.

Although the European institutions may possibly disapprove of a narrow fluctuation band or a fixed exchange rate under ERM II in Poland, the further sections assess the two exchange rate regime options in ERM II. The first one is examined in terms of the validity of the standard fluctuation band of $\pm 15\%$ around the central parity in ERM II and the sec-

³ R. Jimborean, *The exchange rate pass-through in the new member states*, Document De Travail No 341, Banque de France 2011; I. Trenca, B. Mihaia, M. Curimana, *The compliance of the Romanian leu with the Exchange Rate Stability Criterion: a hypothetical assessment*, "Procedia Economics and Finance", No. 32/2015, pp. 1178–1187.

and one concerns a fixed rate (a conventional peg or a currency board) or a narrow fluctuation band ($\pm 2.25\%$).

Consistency with the Other Nominal Convergence Criteria

An ERM II exchange rate regime will affect other dimensions of macroeconomic policy geared to meet the nominal convergence criteria, i.e. the monetary and fiscal policies. This means that the choice of the ERM II exchange rate system is determined by the need to take into account the other criteria that should be satisfied by means of a particular exchange rate regime. The regime consistency with the other convergence criteria is particularly significant for the central bank, which will be mainly responsible for fulfilling the exchange rate and inflation criteria.

From the point of view of the inflation criterion, the exchange rate regime is vital because exchange rate volatility may affect inflation and the possibility of employing specific monetary policy instruments. The adoption of a fixed rate may reduce the effect of the nominal rate changes being transmitted to the internal price level (pass-through effect), which, however, is limited in the light of recent studies.⁴ More importantly, such an arrangement deprives the macroeconomic policy of exchange and interest rates adjustment.

The adoption of an ERM II exchange rate mechanism with a broad fluctuation band enhances the impact of monetary policy on inflation processes. Greater room for manoeuvre in using short-term interest rates offers more opportunities to fulfil the inflation criterion. The use of the interest rate instrument can also be a tool for addressing negative real interest rates that may be a problem under a fixed exchange rate regime. Allowing for the nominal exchange rate appreciation may mitigate negative consequences of an excessive inflow of foreign capital which, as shown by the experience of the recent crisis, can also be a source of inflationary pressure by increasing the credit boom risk.⁵ On the other hand, allowing for exchange rate depreciation may help to fight against deflationary pressure.

From the point of view of the inflation criterion adopting a fixed rate reduces the nominal exchange rate volatility, without, however, the

⁴ A. Woźniak, *Przenoszenie zmian kursu walutowego na inflację w Polsce*, „Bank i Kredyt”, No. 45(6), 2014, pp. 537–556.

⁵ J.D. Ostry, A.R. Ghosh, K. Habermeier, M. Chamon, M.S. Qureshi, D.B.S. Reinhardt, *Capital Inflows: The Role of Controls*, “IMF Staff Position Note”, No. 10/04, February 2010.

exchange rate criterion becoming more certain to be satisfied. According to the EU regulations, apart from the deviation from the central parity, the occurrence of “severe tensions” in the currency market is also assessed. The analysis covers the differences in 3-month money market interest rates and the scale of foreign exchanger interventions and reserve changes. Given the size of the Polish zloty market and its specificities resulting from a significant share of transactions with non-residents, a fixed exchange rate is likely to entail greater difficulties in fulfilling the exchange rate criterion than a broad fluctuation band. External factors that determine the Polish zloty rate play a meaningful role and its stabilizing may require bigger changes in money market interest rates, a wider scale of interventions and the consequent reserve changes. These challenges may be more serious in the case of a narrower fluctuation band and adversely affect the assessment of the exchange rate criterion fulfilment.⁶

On the other hand, difficulties in meeting the inflation criterion and revaluation expectations also prevent even a relatively broad fluctuation band in ERM II from protecting the exchange rate against the appreciation pressure, revaluation and obstacles in conducting monetary policy as an intervention on the strong side of the parity becomes necessary. Even with a broad band, an exchange rate fluctuating close to the margins brings similar consequences as a fixed rate, increasing the likelihood of the exchange rate revaluation (e.g. Slovakia).

To sum up, a broad fluctuation band also entails risks: on the one hand, the need to protect the exchange rate on the weak side (currency depreciation) of the parity and thus the risk of a currency crisis and, on the other hand, the need of intervention on the strong side of the parity and revaluation risk (currency appreciation).

From the point of view of the fiscal criterion, a narrower fluctuation band requires a more restrictive fiscal policy in the so-called good times in order to develop its greater anticyclical capacity during economic downturns. Neither the exchange rate nor interest rate policy will be able to act as stabilizers of the economic cycle. On the other hand, a fixed rate may stabilize foreign debt denominated in foreign currencies. Nonethe-

⁶ It should be noted that adopting an exchange rate with a broad fluctuation band of +/-15% around the central parity under ERM II also poses threats of excessive capital flows and increased rate volatility. In particular, it may be the case when participation in ERM II is not accompanied by sufficient progress in nominal and real convergence and social and political support for joining the euro area. If the euro area accession project lacks credibility, the exchange rate may become unstable or even a currency crisis may emerge with the need of central bank intervention on the weak side of the parity.

less, as the experience of the euro area and the Baltic countries shows, the fact that a fixed exchange rate regime contributes to greater foreign debt may be more dangerous. Numerous studies demonstrate a deterioration of the capital inflow structure (towards debt, including short-term, capital) when fixed exchange rates are employed and after the euro has been introduced.⁷

The +/-15% band may increase the exchange rate risk and cause instability of the foreign part of debt denominated in foreign currencies, affecting debt servicing costs and the budget deficit and public debt. The impact of exchange rate fluctuations on deficit and debt may be negative if the zloty depreciates (the foreign part of the debt increases) and positive if it appreciates (the foreign part of the debt decreases). Assuming, however, that Poland will aspire to the euro area while having a significantly lower public debt than the reference 60% value of the GDP (in the public debate, around 40% of the GDP has been mentioned⁸), exchange rate fluctuations should not affect external debt considerably.

From the point of view of the interest rate criterion it is worth to recall that the long-term interest rates depend on the credit, exchange rate and liquidity risks. ERM II with a fluctuation band of +/-15%, which offers greater exchange rate flexibility, may result in higher long-term rates through the exchange rate risk component. In contrast, a fixed exchange rate should foster their stability and lower level.

However, with a fixed exchange rate, long-term rates may be influenced by other components, namely credit risk and market liquidity. In the case of a creditworthiness loss or a severe asymmetric shock, a fixed exchange rate may not be sufficient to stabilize long-term rates. An absence of the adjustment mechanism, namely exchange rate fluctuations, and limited monetary policy instruments are likely to impede the economic growth, raise the credit risk of a country and contribute to increased interest rates.

Given that in accordance with the Treaty provisions the interest rate criterion should result from the other criteria, the impact of an adopted regime on the ability to meet the interest rate criterion will depend not only on the exchange rate risk, credit risk and market liquidity but also on the extent to which the exchange rate regime will affect the other criteria.

⁷ J.D. Ostry, A.R. Ghosh, K. Habermeier, M. Chamon, M.S. Qureshi, D.B.S. Reinhardt, op.cit.

⁸ NBP, *Ekonomiczne wyzwania integracji Polski ze strefą euro*, Warszawa 2014.

Exchange Rate Regime of a Catching up Economy and Setting the Conversion Rate

Real convergence of the Polish economy on the path to the euro area and in ERM II poses at least several major and interrelated challenges to the economic and macroeconomic policies, i.e.: the risk of real exchange rate appreciation, the risk of credit booms and speculative bubbles, including those caused by an excessive capital inflow, the need to provide the economy with possibilities of responding flexibly to shocks and the need to set the desired conversion rate (in line with long term equilibrium rate) while joining the euro area.

Considering that Poland's GDP per capita is slightly more than 60% of the GDP per capita in 12 euro area, and the price level stands slightly below 60% of the prices it is expected that income convergence will go hand in hand with price convergence, i.e. real exchange rate appreciation. Such appreciation may take place through an increase in the general price level or nominal appreciation of the exchange rate (or a combination of both). With a fixed exchange rate, the real appreciation process can occur solely through a price increase, possibly combined with growing importance of the generally less efficient non-traded goods sector.⁹ This is confirmed by the experience of the Baltic States and the peripheral countries of the euro area, where real convergence manifested as an excessive rise in prices and wages, due to the nominal exchange rate rigidity. In Poland, this may hinder the fulfilment of the price stability criterion and impose an exchange rate revaluation.

In economies undergoing real convergence, using interest rates to stabilize the economy is impossible, hence negative real interest rates that lead to macroeconomic imbalances and credit booms cannot be counteracted. One of major threats in ERM II that impedes complying with the exchange rate criterion and determining the appropriate conversion rate is the risk of excessive capital inflows, with a likely deterioration of capital structure towards short-term capital. These factors should also be taken into account in assessing whether application of a certain exchange rate regime is reasonable. The experience of the euro area countries and ERM II participants suggests that the scale of the risks presented may expand with decreasing rate flexibility. Evaluating capital flows in nine Central

⁹ An increase in domestic prices may lead to reallocation of production factors to non-traded goods sectors. B. Égert and R. Kierzenkowski (*Exports and Property Prices in France: Are They Connected?*, "The World Economy", Vol. 37, No. 3/2014, pp. 387–409) observed such a shift in France, where a rise in property prices "pushed out" actors from the export sector, directing resources to the construction industry.

and Eastern European countries in 2000–2007, Bakker and Gulde¹⁰ indicate that countries with flexible exchange rates had more freedom to conduct an anticyclical macroeconomic policy than countries with fixed exchange rates. The authors affirm that it is more difficult to control credit booms in fixed exchange rate regimes since rising inflation lowers real interest rates. In countries with a floating exchange rate, credit booms may be mitigated by allowing the exchange rate appreciation and an interest rate increase.

A broad exchange rate fluctuation band in ERM II may also serve as an instrument for mitigating negative consequences of macroeconomic shocks (to which a converging economy is exposed) through nominal exchange rate depreciation. In the Baltic States, a fixed nominal rate first led to the built-up of imbalances, and subsequently prevented flexible adjustment of terms of trade during the crisis and imposed the so-called internal devaluation based on cost and price reductions.

It is frequently pointed out that one of the objectives of ERM II is to set the conversion rate of an ERM II currency against the euro.¹¹ Economists hold two divergent views on the impact of the exchange rate on the economy, and thus suggest different conversion rates. One argument for an undervalued conversion rate is greater price competitiveness of exports. On the other hand, an argument for an overvalued exchange rate concerns the fact that a strong exchange rate of the national currency, though undermining price competitiveness, may provide a significant disciplining stimulus to seek non-price competitive advantages. Nonetheless, given potential negative consequences of an undervalued (rising inflation, real negative interest rates, the risk of booms and then an economic collapse) and overvalued exchange rate (reduced economic activity due to deteriorated cost competitiveness, worse current account balance), conversion is in line with the equilibrium exchange rate seems the optimum solution.¹²

¹⁰ B.B. Bakker, A.M. Gulde, *The Credit Boom in the EU New Member States: Bad Luck or Bad Policies?* “IMF Working Paper”, No. 10/130, 2010. See also: M. Brzozowski, P. Śliwiński, G. Tchorek, *Wpływ zmienności kursu walutowego na strukturę napływu kapitału. Implikacje dla Polski*, „Materiały i Studia” no. 309. National Bank of Poland, 2014 and G. Tchorek, M. Brzozowski, P. Śliwiński, *Determinants of capital flows to emerging and advanced economies between 1990 and 2011*. “Portuguese Economic Journal”, 16(1)/2017, pp. 17–48.

¹¹ W. Michalczyk, *Uwarunkowania kursu złotego względem euro w perspektywie przystąpienia do mechanizmu ERM 2*, „Finanse. Czasopismo Komitetu Nauk o Finansach PAN, Komitet Nauk o Finansach PAN”, nr 1(6)/2013, pp. 65–86; G. Tchorek, *Konwergencja nominalna i realna a uczestnictwo złotego w ERM II*, „Gospodarka Narodowa”, nr 10/2004, pp. 23–42.

¹² NBP, *Raport na temat pełnego uczestnictwa Rzeczypospolitej Polskiej w trzecim etapie Unii Gospodarczej i Walutowej*, 2009.

This requires establishing first a central parity in ERM II consistent with the equilibrium rate and then flexibly adjusting the nominal exchange rate to the equilibrium rate, including in response to macroeconomic shocks. A broad fluctuation band in ERM II makes such an adjustment more feasible than a fixed rate with a narrow fluctuation band.

With a fixed exchange rate regime in ERM II, the need to administratively adjust the nominal exchange rate (revaluation) to the equilibrium exchange rate may cause expectations of further revaluations, capital inflows and market speculation leading to overvaluing the zloty-to-euro conversion rate.

Concluding, taking into account a specific nature of the convergence process, a set of macroeconomic instruments for meeting the criteria should be flexible. Flexible rate (+/-15%) may to some extent absorb real convergence through nominal appreciation, thereby reducing the upward pressure on prices. These observations are corroborated by the experience of the Baltic states, where fixed exchange rates before and after joining ERM II led to macroeconomic imbalances and boom and bust cycles.

Given the dynamics of real convergence of the Polish economy and the risk of “getting stuck” in ERM II (for more than the two years required), a broad fluctuation band should, on the one hand, create an opportunity to set a rate that is aligned with the equilibrium exchange rate and, on the other, mitigate negative consequences of excessive capital inflows and serve as an adjustment mechanism during shocks. A pegged exchange rate regime does not provide such opportunities. On the contrary, it may cause capital inflows, revaluation, and thus adoption of an overvalued zloty-euro conversion rate. It is, nonetheless, true that past experience in ERM II suggests conclusions to the contrary: the central parity was revalued for Greece and Slovakia, that is countries with the +/-15% fluctuation band, and remained unchanged for countries with pegged exchange rates in ERM II such as Estonia, Latvia and Lithuania.¹³

It should be realized at the same time that an exchange rate revaluation may also be needed in the case of a broad fluctuation band of +/-15% around the central parity. It may prove insufficiently flexible if participation

¹³ However, specific circumstances under which the nominal convergence criteria were being fulfilled and their satisfaction assessed should be taken into account. In the case of Greece and Slovakia, revaluation was an effect of significant difficulties in meeting the inflation criterion. Slovakia had a further problem of its strong ambition to join the euro area and the mismatch between its strategy to meet the criteria and the phase of the economic cycle (average annual GDP growth was 9.4% in 2006–2007). For the Baltic States, an important role was played by their relatively small economies and their experience with fixed exchange rate regimes.

in ERM II is long, real convergence progresses, investors demonstrate a significant interest in Polish assets or the so-called convergence play occurs. This is because a broad fluctuation band does not eliminate the revaluation risk due to a strong zloty appreciation pressure or the need for support in meeting the inflation criterion (as was the case for Slovakia).

Experience and Credibility of the Central Bank in the Monetary Policy Implementation

From the point of view of the central bank's reputation, declaring a specific exchange rate regime in ERM II should mean that it will be applicable until the euro adoption and that the central parity will remain unchanged while in ERM II. Broad exchange rate flexibility within the standard band of +/-15% should promote (though not guarantee) the maintenance of a credible parity without having to revalue it. The second argument for a broad fluctuation band is provided by the previous experience with the NBP monetary policy implemented under the inflation target. The high credibility of the NBP monetary policy strategy to date suggests that a broad fluctuation band in ERM II is a reasonable choice. The fundamental advantage of this solution is a smooth regime evolution from the current one to an exchange rate stabilized within ERM II. The adoption of a fixed exchange rate in ERM II could undermine confidence in the central bank as regards the implementation of the monetary convergence criteria. Similarly to the economy, it would operate in conditions completely different from the present ones, without the necessary experience and with little market confidence in the legitimacy of such a solution. At the same time, the literature indicates the possibility of combining the inflation target strategy with the exchange rate stabilization strategy,¹⁴ including under ERM II.¹⁵

The Period in ERM II and the Exchange Rate Regime

The formal fulfilment of the exchange rate stability criterion requires at least two-years presence in ERM II. Nevertheless, there are at least three scenarios concerning the duration of participation in ERM II:

¹⁴ J.C. Berganza, C. Bronto, *Flexible inflation targets, forex interventions and exchange rate volatility in emerging countries*, "Journal of International Money and Finance", No. 31/2012, pp. 428–444.

¹⁵ Z. Kontolemis, *Exchange rates are a matter of common concern: policies in the run-up to the euro?*, "European Commission, Economic Papers", No. 191/2003; P. Bofinger, T. Wollmershauser, *Managed Floating: Theory, Practice and ERM II*, Paper prepared for the CEPR/Deutsche Bank Research Workshop 2003.

- minimum two-year participation – “waiting room”,
- planned participation for more than two years – “training room”,
- unplanned longer participation due to “getting stuck” in ERM II (training room within waiting room, the case of Baltic states).

As claimed by some economists and new member states, owing to existing risks (including the risk of speculative attacks, destabilization or excessive appreciation of the exchange rate), ERM II should be regarded as a “waiting room”.¹⁶ With such an interpretation, ERM II is primarily seen as an element of formal legal obligations on the path to the euro area rather than a tool to increase macroeconomic stability. Therefore, the period spent in ERM II should be limited to the legally required minimum of two years.

Taking into consideration the assessment of whether it is appropriate to adopt a broad fluctuation band of +/-15% around the central parity or a pegged exchange rate made on the basis of the other criteria (criteria 1–4), it seems reasonable for the waiting room scenario to adopt the former regime.

The position of the EU institutions (European Commission, ECB) indicates ERM II as a disciplinary mechanism conducive to nominal convergence (“training room” or disciplinary device¹⁷). This view presumes that ERM II supports the fulfilment of the other convergence criteria by enhancing macroeconomic stability and promotes real convergence, which brings member states closer to the euro adoption. According to this stance, the exchange rate fluctuation band and the period in ERM II should be consistent with the real convergence process and structural characteristics of the economy.

In the training room scenario, the participation in ERM II may essentially be longer than two years in order to use this mechanism to verify the ability to participate in the single-currency area and establish the appropriate level of conversion rate. This solution, however, seems to be optimal for countries that have achieved significant progress in real convergence.

¹⁶ V. Lavrac, *ERM 2 Strategy for Accession Countries*, Institute for Economic Research, “Working Paper”, No. 19/2003; Z. Polański, *Poland and the Euro Zone Enlargement: Monetary Policy, ERM II, and Other Issues*, “Atlantic Economic Journal”, No. 32(4)/2004, pp. 280–292; see also P. Kowalewski, *Lessons to be Learnt from the ERM and their Applicability to the Accession Economies Seeking to Join the ERM2*, “WIIW Research Reports”, no. 302/2004.

¹⁷ Z. Kontolemis, op.cit.; A. Winkler, F. Mazzaferro, C. Nerlich, Ch. Thimann, *Official Dollarisation/Euroisation: Motives, Features and Policy Implications of Current Cases*, ECB, “Occasional Paper Series”, No. 11/2004.

The scenario of unplanned longer participation in ERM II can be implemented when difficulties occur in meeting the convergence criteria either because of internal (e.g. a seasonal increase in food prices or deterioration of public finances owing to an economic downturn) or external factors (e.g. a sharp increase in the global risk causing a rise in long-term interest rates and greater exchange rate volatility).

This scenario, which can be called “training room within waiting room”, was to some extent implemented in the Baltic states. After joining the EU, they introduced their currencies to ERM II, believing that they would meet the criteria and adopt the euro swiftly. Credit booms and the subsequent crisis made it, however, impossible to comply with the nominal convergence criteria and imposed socially painful adjustments, namely the so-called internal devaluation, during the crisis.

Given that there is always a risk of remaining in ERM II longer than the required minimum of two years, a more reasonable solution seems to be the choice of the standard $\pm 15\%$ fluctuation band because it may be adjusted and the macroeconomic policy instruments offer more flexibility.

Summary of the Exchange Rate Choice

The criteria adopted for the optimum exchange rate regime in ERM II allow for the following assessment.

Firstly, given the institutional and legal difficulties, ERM II offers the opportunity to use an exchange rate fluctuating within a narrower band than the standard fluctuation band of $\pm 15\%$ around the central parity. Nonetheless, in view of the Polish economy size, the EU institutions may be reluctant to accept such a solution because of the risk of “distortions resulting from real exchange rate misalignments”.

Secondly, from the point of view of the different nominal convergence criteria fulfilment, the assessment of the impact of the regime selected is less clear. This is reflected by a comparison of potential co-existing advantages and disadvantages of both a pegged exchange rate regime and a wide fluctuation band – cf. Table 1. Although the discussion above indicates that the criteria are more likely to be met with a broad fluctuation band, the fluctuation band of $\pm 15\%$ around the central parity is not free of risks. In the light of satisfying the nominal convergence criteria, weaknesses and advantages of the chosen exchange rate solution may manifest themselves depending on how economic processes advance in the country and abroad, on the business cycle phase in which the criteria are being met, or on one-off events.

Table 1. Assessment of regime adequacy in ERM II

Regime selection criteria	Fixed or +/-2.25% band	+/-15% band	
Pro ^b ability of meeting criteria 1–5			
1. Institutional and legal aspects	<	>	
2. Consistency with the nominal convergence criteria:	inflation	<	>
	exchange rate	<	>
	fiscal	comparable	
	interest rates	<	>
3. Consistency with the specificities of a converging economy	<	>	
3a. Setting the conversion rate	<	>	
4. Central bank's credibility	<	>	
5. Period in ERM II	<	>	

“>” (“<”) means higher (lower) probability of meeting a given criterion

Source: own compilation.

For the inflation criterion, a pegged exchange rate may stabilize inflation expectations, yet deprives the monetary policy of the interest rate instrument which can be used under a broad fluctuation band regime in ERM II. A broad zloty fluctuation band seems to be supported by a strong argument pointing to lower vulnerability of the Polish economy to changes in the exchange rate and a greater boom risk in a pegged exchange rate regime. Another argument is that the exchange rate may be adjusted to the variable reference value of the inflation criterion. As for the exchange rate criterion, a pegged rate regime eliminates its nominal volatility but does not guarantee that this criterion will be met. As regards the fiscal criterion, a pegged rate stabilizes the foreign part of debt, requiring, however, more budgetary discipline. If the case of the interest rate criterion, a pegged rate should promote stabilization (lower exchange rate risk), yet during shocks the inability to adjust it through the devaluation mechanism can lead to higher interest rates owing to an increased credit risk. With a broad zloty fluctuation band, leaving short-term interest rates under control of the central bank may foster stabilization of inflation expectations and long-term rates. When the exchange rate is very volatile, this factor may, nonetheless, impede the fulfilment of the interest rate criterion.

Thirdly, taking into account the link between nominal and real convergence and the ability of macroeconomic policies to counter macroeco-

nomimic imbalances (and the ability to adapt to shocks), a broad fluctuation band in ERM II seems to be a preferable solution.

Fourthly, from the point of view of setting the zloty-euro conversion rate at the level close to the equilibrium exchange rate, a broad fluctuation band regime appears to be more useful. It makes it possible to adjust the nominal exchange rate to the equilibrium exchange rate in line with the real convergence progress.

Fifthly, from the perspective of the central bank's credibility, the central parity should remain unchanged while in ERM II. In addition, the exchange rate and monetary policy strategy in ERM II should be optimally close to the monetary policy strategy pursued to date. A non-zero risk of "getting stuck" in ERM II for more than two years of convergence threatens to make a parity change necessary, potentially affecting the central bank's credibility.

Sixthly, from the point of view of the period in ERM II, ERM II may be treated as a mechanism for verifying whether an economy can function under a pegged exchange rate regime if real convergence is advanced. In the case of countries undergoing real convergence, the participation in ERM II would require a broad fluctuation band. Otherwise, this generates a risk of "excessive tensions" or the need to revalue the exchange rate. Both planned and unplanned participation in ERM II for over two years entails lower risks under a broad fluctuation band than under a pegged exchange rate regime.

Factors Increasing ERM II Flexibility

Arguments for a Symmetric Broad Fluctuation Band in ERM II

The discussion in the first part hereof suggests that an exchange rate regime with the standard fluctuation band in ERM II, namely +/-15% around the central parity, is a better option for the Polish economy. Past experience with ERM II indicates, however, that the exchange rate criterion fulfilment was assessed within an asymmetric band with a greater preference for exchange rate appreciation than depreciation (+15/-2.25% around the central parity).¹⁸ Both the European institutions and the country whose currency is participating in ERM II are more likely to accept the strengthening of the national currency than its weakening. In the first case, this is due to the need to prevent the competitive weakening of the national currency, and in the sec-

¹⁸ M. Kapuściński, T. Łyziak, J. Przystupa, E. Stanisławska, A. Sznajderska, E. Wróbel, *Mechanizm transmisji polityki pieniężnej w Polsce. Co wiemy w 2013 roku?*, „Materiały i Studia NBP”, No. 306/2013.

ond one, to the fact that appreciation allows fulfilling the other convergence criteria more easily and is a sign of real convergence. The ERM II asymmetry is also expressed by the possibility to revalue and a lack of the possibility to devalue the exchange rate on the initiative of an ERM II participant.

The arguments below suggest that it is reasonable to interpret the exchange rate criterion fulfilment within a broad symmetric standard fluctuation band in ERM II that allows both appreciation and depreciation of the exchange rate by 15% against the central parity. This is due to the following reasons.

Firstly, the adoption of the +15/-2.25% fluctuation band around the central parity presumed by the markets creates an asymmetric band where the floor will be set as maximum depreciation of 2.25% below the parity and the ceiling will be fixed at +15% above the parity. Such common expectations of market participants impose maintaining the exchange rate on the strong side of the ERM II parity (Greece, Slovakia). The “no devaluation” requirement and the current practice of assessing whether the criterion has been met may raise concerns about the ability to qualify for the euro area even with slight exchange rate depreciation. Therefore, the central bank may tend to maintain a strong currency and high interest rates. This, in turn, can trigger expectations for appreciation, capital inflows and a real self-fulfilling appreciation spiral fuelled by the expectations for the central parity revaluation (convergence play).

Secondly, owing to the instability of global financial markets, currency depreciation may be caused by external factors not directly related to the so-called foundations of the economy, the state of the nominal convergence criteria implementation and the determination to join the euro area. The Polish zloty, which is relatively floating and is the so-called “basket” currency, can be more volatile when global risk increases. Major interventions against the capital outflow can then lead to greater vulnerability to speculative attacks and a loss of foreign exchange reserves the changes of which are taken into account in assessing whether the exchange rate criterion has been satisfied.

Thirdly, temporary depreciation of the nominal exchange rate of a currency participating in ERM II may be acceptable or even necessary since adjustments are needed as regards competitiveness (real exchange rate) and the stability of the current account balance. The adopted reforms relating to the prevention and correction of macroeconomic imbalances make it reasonable to expect that the European institutions will take into account the exchange rate impact on the internal and external economic balance while assessing the rate stability. That being said, episodes of exchange rate depreciation triggered by fundamental factors (not increas-

ing inflation and promoting the current account stability) need not be deemed a failure to meet the exchange rate stability criterion.

The arguments presented show that there are valid arguments for more ERM II flexibility through permitting a deviation of the exchange rate by more than 2.25% below the central parity. Maintaining the currency in an ERM II within an asymmetric band of +15/-2.25% deprives the macroeconomic policy of many attributes described in the first part hereof (limited adaptive role of the exchange rate, limited monetary policy freedom, incentives for capital inflows, etc.).

The perceptions can be changed from the general expectations of the +15/-2.25% band to the +/-15% band if the European institutions communicate to the market that the actual admissible zloty fluctuation band in ERM II is +/-15% around the central parity, with a symmetrical probability of appreciation and depreciation. This can be justified by the size of the Polish economy, the specificity of the real convergence process and experiences of countries with pegged exchange rates in ERM II.

ERM II and Target Zones

The adoption of a broad exchange rate fluctuation band should allow for benefiting from relatively high exchange rate flexibility and stabilization of market expectations as to its changes. Some of the arguments in this respect derive from the theoretical and empirical literature on currency areas, i.e. target zones.

In the theoretical model, Krugman¹⁹ demonstrated that if the exchange rate fluctuation band is credible (market participants believe that the exchange rate will not be devalued/revalued), the so-called stabilizing speculation can help maintain it within the declared band. Krugman assumed that the exchange rate does not behave like a floating rate (Free Float curve – FF in Figure 1) when it is being stabilized within a specific fluctuation band. In this model, there is a non-linear relationship between the exchange rate fluctuations and macroeconomic factors: the rate volatility is smaller than the volatility of macroeconomic variables. The exchange rate is determined by fundamental factors, yet its responsiveness to these variables decreases as the rate approaches a fluctuation band margin. Then a greater role is played by intervention expectations and the belief among market participants that the central bank can maintain the exchange rate at a certain level. With such assumptions, the behaviour of the exchange rate is reflected by the TT curve.

¹⁹ P. Krugman, *Target Zones and Exchange Rate Dynamics*, "The Quarterly Journal of Economics", 106(3)/1991, pp. 669–682.

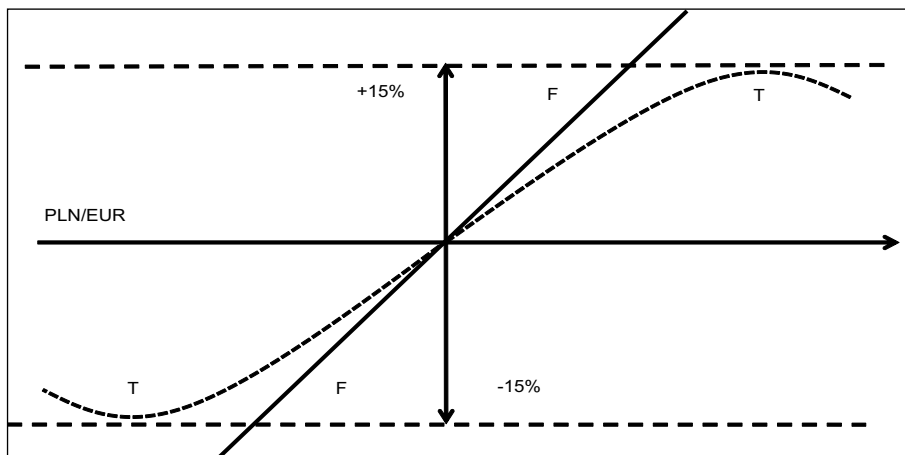


Figure 1. Stabilizing speculation in the target zone

Source: J. Crespo-Cuaresma, B. Égert, R. MacDonald, *Non-Linear Exchange Rate Dynamics in Target Zones: A Bumpy Road Towards a Honeymoon, Some Evidence from the ERM, ERM2 and selected new EU Member States*, “CESifo Working Paper”, No. 1511/2005.

As indicated above, the effect of stabilizing speculation will only occur if the fluctuation band is credible, meaning that the central bank is capable of maintaining the exchange rate within the declared band. When the band ceases to be credible, the expectations of market participants may create conditions for the so-called destabilizing speculation and trigger self-fulfilling currency crises.²⁰ When a change in parity (devaluation, revaluation) is expected, market participants’ response to macroeconomic variables may be disproportionately stronger than their true importance since it will be motivated by the target exchange rate. This can lead to a sudden capital inflow (appreciation/revaluation expectations) or outflow (depreciation/devaluation) and significant exchange rate volatility.

Basic doubts as to Krugman’s assumptions are that the band is generally not credible in reality and central banks usually intervene much earlier within the band so as to prevent the exchange rate achieving the marginal values (which also has a stabilizing effect, yet earlier). López and Mendizábal²¹ present a model confirming the stabilizing role of the target

²⁰ P. Krugman, *Are currency crises self-fulfilling?*, in NBER Macroeconomics Annual 1996, Volume 11’, NBER Chapters, National Bureau of Economic Research, Inc, pp. 345–407.

²¹ J.R. López, H.R. Mendizábal, *On the Choice of an Exchange Regime: Target Zones Revisited*, Documento de Trabajo Serie Economía E2002/10, Fundación Centro de Estudios Andaluces, 2003.

zone both when intramarginal interventions are undertaken and when the band is not fully credible. They suggest simultaneously that the target zone allows for reaping the benefits of a floating or fixed exchange rate, with the autonomy of monetary policy being retained. Stabilizing the exchange rate in the target zone also reduces the exchange rate and interest rate volatility.

Credibility of the Regime in ERM II

The literature does not outline any in-depth empirical research on the exchange rate stabilization within the target zone, and the available studies do not clearly confirm that stabilizing speculation occurs. Crespo-Cuaresma et al.²² point out that such an effect might have occurred in ERM in the 1990s, e.g. in Denmark, and in some new EU member states.

Reitz and Taylor²³ confirm the possible stabilizing effect of speculation for the Danish krone maintained usually within the band of less than 1% (i.e. a narrower band than the formal one of +/-2.25%). It should be remembered, though, that the functioning of the Danish krone in ERM II has the following characteristics that promote high credibility of the adopted exchange rate solution. First of all, Denmark is a country with a high degree of real convergence with the euro area economies representing high structural competitiveness. Secondly, it has a relatively big experience with stabilizing the exchange rate against the EMS central currency, namely the German mark. Thirdly, the credibility of an ERM II band is confirmed by the ESCB support. Denmark is the only ERM II participant with a multilaterally agreed fluctuation band that is narrower than the standard one. Fourthly, the Danish central bank is largely free to use short-term interest rates to stabilize the exchange rate since these do not affect the economy considerably. A key role in the monetary policy transmission mechanism is played by long-term rates which determine the cost of property financing (mortgage lending is among the strongest channels in the economy). Hence, monetary policy may be more geared towards achieving the exchange rate target.

The Danish example implies that the krone exchange rate can be stabilized within a very narrow band in ERM II chiefly due to the central bank's credibility as regards maintaining the assumed fluctuation band, i.e. because the real convergence processes are advanced.

²² J. Crespo-Cuaresma, B. Égert, R. MacDonald, *Non-Linear Exchange Rate Dynamics in Target Zones: A Bumpy Road Towards a Honeymoon, Some Evidence from the ERM, ERM2 and selected new EU Member States*, "CESifo Working Paper", No. 1511/2005.

²³ S. Reitz, M. Taylor, *Exchange Rates in Target Zones – Evidence from the Danish Krone*, "QBER Discussion Paper", No. 1/2013.

When trying to determine the optimal exchange rate regime for the zloty, an important question to ask is about elements conditioning its maintenance in ERM II. Given the foregoing, key factors enhancing the credibility of the zloty fluctuation band in ERM II may be identified:

- the ERM II central parity consistent with the equilibrium rate – the +/-15% band credibility may depend on a properly set central parity that should be aligned with the equilibrium exchange rate. Both overvalued and undervalued rate can entail expectations for an adjustment of a deviation from equilibrium,
- the central bank's past experience and credibility as regards achieving the inflation target and stabilizing the exchange rate,
- the volume and term and currency structure of reserves. Reserve assets are, on the one hand, invested in line with the adopted allocation policy and, on the other hand, must be subject to the intervention needs. This thus needs an appropriate foreign exchange reserves management strategy in ERM II,
- macroeconomic stability and flexibility of the economy – an ability to sustainably meet the nominal convergence criteria, while making progress in real convergence, including ensuring adequate structural competitiveness.

In order to increase the credibility of the band of +/-15% around the central parity, the ECB support seems vital in the intramarginal intervention process. Similarly to Denmark, it would not be merely a unilateral commitment of the national central bank to maintain the exchange rate, but also that of the ECB. Such an option is offered by article 4 of the *Agreement*, which states that “*The ECB and participating non-euro area NCBs may agree to co-ordinated intramarginal intervention*”. The introduction of the zloty to ERM II could go together with the ECB declaration that it will monitor and stabilize the zloty jointly with the NBP when justified. To avoid moral hazard (weakened determination to meet the nominal convergence criteria), such support should be conditional and reserved for extraordinary external market turbulences.

This solution may give rise to objections on the part of the European institutions because the primary burden of stabilizing the exchange rate of a euro area candidate rests directly on the candidate. Then, if the ECB intramarginal intervention cannot be ensured, exclusion of such extraordinary events from the criterion assessment may be sought (provided that the exchange rate changes have external causes) by referring to the practice of arbitrary assessments of criteria satisfaction.

Although the adoption of the wide +/-15% fluctuation band should be an objective, this does not mean that the zloty should actually vary that much since this would hamper the fulfilment of the other criteria and reduce the credibility of nominal convergence in Poland. In practice, in addition to the wide +/-15% band, the NBP should establish internal exchange rate margins, e.g. +/-5% or +/-7.5% deviation from the parity, triggering the NBP intervention exclusively. What is the key fact, however, is that the zloty will not be formally subject to an asymmetric fluctuation band (+15/-2.25%).

Should the ESCB be involved in the intervention, doubts may occur in the light of article 8 of the *Agreement* stating that: "the ECB and the non-euro area NCBs participating in ERM II [...] could suspend intervention if this were to conflict with their primary objective of price stability". Intervention is rather unlikely to be suspended, yet such a probability may not be ruled out. In the event of extremely different business cycles in Poland and the euro area, as in the UK and Germany in 1992, suspension of intervention is possible. Nevertheless, the size of the Polish economy and financial system compared to the euro area should not justify such a move.

The adoption of the wide fluctuation band of +/-15% around the central parity in ERM II and greater band credibility achieved by (declaratively) enhancing the ECB role in intramarginal intervention seem to increase the chances for the so-called stabilizing speculation to occur. This would support nominal convergence while maintaining the autonomy of monetary policy. The evolution of the exchange rate policy in Poland and the experience with stabilizing the zloty seem to corroborate these expectations. Stabilizing speculation under a fixed exchange rate regime in Poland was indicated by Sławiński.²⁴ In the world literature, currency areas are advocated by, i.a., Williamson, Bofinger and Wollmershauser. In Poland, similar calls were made by, i.a., Lutkowski and Wójcik.²⁵

Summing up, the size of the Polish economy, financial market and the importance of the Polish zloty in international trade legitimize a flexible interpretation of the exchange rate criterion. In the case of an ERM II

²⁴ A. Sławiński, *Ewolucja mechanizmu kursowego w Polsce*, „Gospodarka Narodowa”, No. 7–8/1999, pp. 15–27.

²⁵ J. Williamson, *Exchange Rate Regime for Emerging Markets: Reviving the Intermediate Option*, Institute for International Economics, Washington D.C., September 2000; P. Bofinger, T. Wollmershauser, op.cit.; K. Lutkowski, *Czy autonomiczna polityka pieniężna rzeczywiście stoi na straconej pozycji*, „Bank i Kredyt”, No. 11–12/2000; C. Wójcik, *Dylematy polityki kursowej na drodze do członkostwa Polski w Europejskiej Unii Gospodarczej i Walutowej*, „Gospodarka Narodowa”, No. 7–8/2001, pp. 116–135.

asymmetric band (+15/-2.25%), this mechanism entails more risk of the zloty appreciation pressure. The adoption of a wide fluctuation band is compliant with the existing legislation, although the European institutions would have to change their practice of assessing whether the exchange rate criterion has been fulfilled. This is not necessarily contrary to the principle of equal treatment, but rather reflects a reasonable interpretation of existing rules. Buiters and Grafe²⁶ and Jonas²⁷ an example of a flexible criteria interpretation and an inconsistency with the principle of equal treatment in Italy and Finland, which remained in ERM shorter than the required minimum of two years and still were assessed positively on fulfilling the exchange rate criterion.

Building the credibility of the zloty target range in ERM II requires:

- advanced nominal and real convergence,
- an adequately established central parity aligned with the equilibrium exchange rate,
- a wide fluctuation band of +/-15% around the central parity with a symmetrical assessment of deviations from the parity,
- declared and actual ECB support in intramarginal interventions when justified.

Conclusions

Greater freedom to use macroeconomic policy instruments, consistency with the characteristics of the catching-up process, previous experience with the exchange rate and monetary policy in Poland and the possibility of using the exchange rate as a mechanism to absorb shocks are arguments for a broad fluctuation band in ERM II. The adoption of a pegged exchange rate prior to joining the euro area would mean that the freedom of monetary policy instruments would be restricted almost identically as in the case of the euro adoption, yet without any profits resulting from full participation in the European Monetary Union (e.g. stability and liquidity mechanisms).

These arguments lead to the conclusion that ERM II should be regarded as a technical euro area eligibility criterion with minimum two-year participation. This two-year period, nonetheless, should not be treated dogmatically but rather flexibly depending on the scenario of meeting the criteria. Given the specific objectives of macroeconomic

²⁶ W.H. Buiters, C. Grafe, *Anchor, float or abandon ship: exchange rate regimes for the accession countries*, "BNL Quarterly Review", No. 221/2002, pp. 111–142.

²⁷ J. Jonas, *Euro adoption and Maastricht criteria: Rules or discretion?*, "Economic Systems", No. 30(4)/2006, pp. 328–345.

policy and high costs of non-implementation, it is difficult to regard ERM II as a mechanism for verifying the readiness to participate in the euro area (for an economy undergoing real convergence). It is rather a tool for assessing the macroeconomic policy capacity for stabilizing the exchange rate, prices and public finances simultaneously on the path to the euro area.

Taking into consideration the substantial size of the Polish economy and previous experience of other countries with fulfilling the exchange rate criterion, it seems reasonable to seek a change in the exchange rate criterion interpretation. First and foremost, in order to benefit from the advantages of the standard fluctuation band of +/-15% around the central parity, the asymmetric interpretation of the criterion fulfilment (+15/-2.25%) must be abandoned. This will reduce, though not eliminate, the risk of the zloty appreciation pressure while in ERM II. To enhance the credibility of a broad band while ensuring protection against destabilizing capital flows that may lead to a currency crisis, it seems also important to change the ECB role in intramarginal interventions. A wide fluctuation band with the ECB support option in exceptional circumstances should help comply with the nominal convergence criteria and at the same time allow reaping the benefits of the monetary policy autonomy. The ECB and the European Commission should be flexible and pragmatic in assessing compliance with the exchange rate criterion, while also demonstrating the same attitude when evaluating the fulfilment of the other convergence criteria.

Bibliography

- Bakker B.B., Gulde A.M., *The Credit Boom in the EU New Member States: Bad Luck or Bad Policies?* "IMF Working Paper", No. 10/130, 2010.
- Balli F., Basher S.A., Ozer-Balli H., *From home bias to Euro bias: Disentangling the effects of monetary union on the European financial markets*, "Journal of Economics and Businesses", No. 62/2010.
- Berganza J.C., Bronto C., *Flexible inflation targets, forex interventions and exchange rate volatility in emerging countries*, "Journal of International Money and Finance", No. 31/2012.
- Bilski J., Janicka M., Konarski M., *Integracja rynków walutowych wybranych krajów Europy Środkowej z rynkiem euro w perspektywie ich przystąpienia do ERM II i Unii Gospodarczo-Walutowej*, „Materiały i Studia NBP”, No. 291/2013.
- BIS (2010), *Annual Report*.

- Bofinger P., Wollmershauser T., *Managed Floating: Theory, Practice and ERM II*, Paper prepared for the CEPR/Deutsche Bank Research Workshop 2003.
- Buiter W.H., Grafe C., *Anchor, float or abandon ship: exchange rate regimes for the accession countries*, "BNL Quarterly Review", No. 221/2002.
- Brzozowski M., Śliwiński P., Tchorek G., *Wpływ zmienności kursu walutowego na strukturę napływu kapitału. Implikacje dla Polski*, „Materiały i Studia”, No. 309. National Bank of Poland, 2014.
- Calvo G.A., Leiderman L., Reinhart C.M., *Inflows of Capital to Developing Countries in the 1990s*, "The Journal of Economic Perspectives", Vol. 10, No. 2/1996.
- Crespo-Cuaresma J., Égert B., MacDonald R., *Non-Linear Exchange Rate Dynamics in Target Zones: A Bumpy Road Towards a Honeymoon, Some Evidence from the ERM, ERM2 and selected new EU Member States*, "CESifo Working Paper", No. 1511/2005.
- D'Adamo G., Rovelli R., *The Role of the Exchange Rate Regime in the Process of Real and Nominal Convergence*, "IZA Discussion Paper", No. 7627/2013.
- ECB, *Agreement of 16 March 2006 between the European Central Bank and the national central banks of the Member States outside the euro area laying down the operating procedures for an exchange rate mechanism in stage three of Economic and Monetary Union*, 2006.
- ECB, *Resolution of the European Council of 16 June 1997*, 2006.
- Égert B., Kierzenkowski R., *Exports and Property Prices in France: Are They Connected?*, "The World Economy", Vol. 37, No. 3/2014.
- Ghosh A.R., Kim J., Qureshi M.S., Zalduendo J., *Surges*, "IMF Working Paper", No. 22/2012.
- Jimborean R., *The exchange rate pass-through in the new member states*, Document De Travail No 341, Banque de France, 2011.
- Jonas J., *Euro adoption and Maastricht criteria: Rules or discretion?*, "Economic Systems", No. 30(4)/2006.
- Kapuściński M., Łyziak T., Przystupa J., Stanisławska E., Sznajderska A., Wróbel E., *Mechanizm transmisji polityki pieniężnej w Polsce. Co wiemy w 2013 roku?*, „Materiały i Studia NBP”, No. 306/2013.
- Kontolemis Z., *Exchange rates are a matter of common concern: policies in the run-up to the euro?*, "European Commission, Economic Papers", No. 191/2003.
- Kowalewski P., *Lessons to be Learnt from the ERM and their Applicability to the Accession Economies Seeking to Join the ERM2*, "WIIW Research Reports", No. 302/2004.
- Krugman P., *Target Zones and Exchange Rate Dynamics*, "The Quarterly Journal of Economics", No. 106(3)/1991.

- Krugman P., *Are currency crises self-fulfilling?*, in NBER Macroeconomics Annual 1996, Volume 11', NBER Chapters, National Bureau of Economic Research, Inc.
- Lane P.R., *Capital Flows in the Euro Area*, European Commission, "Economic Papers", No. 497/2013.
- Lavrac V., *ERM 2 Strategy for Accession Countries*, Institute for Economic Research, "Working Paper", No. 19/2003.
- López J.R., Mendizábal H.R., *On the Choice of an Exchange Regime: Target Zones Revisited*, Documento de Trabajo Serie Economía E2002/10, Fundación Centro de Estudios Andaluces, 2003.
- Lutkowski K., *Czy autonomiczna polityka pieniężna rzeczywiście stoi na straconej pozycji*, „Bank i Kredyt”, No. 11–12/2000.
- Magud N., Reinhart C., Vesperon E., *Capital Inflows, Exchange Rate Flexibility, and Credit Booms*, "IMF Working Paper", No. 12/41, 2012.
- Michalczyk W., *Uwarunkowania kursu złotego względem euro w perspektywie przystąpienia do mechanizmu ERM 2*, „Finanse. Czasopismo Komitetu Nauk o Finansach PAN, Komitet Nauk o Finansach PAN”, nr 1(6)/2013.
- Mitra P., *Capital Flows to EU New Member States: Does Sector Destination Matter?*, IMF, Working Paper, No. 11/67, 2011.
- NBP, *Raport na temat pełnego uczestnictwa Rzeczypospolitej Polskiej w trzecim etapie Unii Gospodarczej i Walutowej*, 2009.
- NBP, *Ekonomiczne wyzwania integracji Polski ze strefą euro*, Warszawa 2014.
- Ostry J.D., Ghosh A.R., Habermeier K., Chamon M., Qureshi M.S., Reinhardt D.B.S., *Capital Inflows: The Role of Controls*, "IMF Staff Position Note", nr 10/04, February 2010.
- Papasprou Th., *EMU Strategies: Lesson from Greece in view of EU enlargement*, Paper presented at the Hellenic Observatory, The European Institute, London School of Economics, 2004.
- Polański Z., *Poland and the Euro Zone Enlargement: Monetary Policy, ERM II, and Other Issues*, "Atlantic Economic Journal", No. 32(4)/2004.
- Reitz S., Taylor M., *Exchange Rates in Target Zones – Evidence from the Danish Krone*, "QBER Discussion Paper", No. 1/2013.
- Rubaszek M., Serwa D., *Analiza kursu walutowego*, C.H. Beck, Warszawa 2009.
- Sławiński A., *Ewolucja mechanizmu kursowego w Polsce*, „Gospodarka Narodowa”, nr 7–8/1999.
- Stavarek D., *Ability of the New EU Member States to Fulfill the Exchange Rate Stability Convergence Criterion*, University Library of Munich, Germany, "MPRA Paper", No. 1202/2006.
- Tchorek, G., Brzozowski, M., Śliwiński, P. *Determinants of capital flows to emerging and advanced economies between 1990 and 2011*, "Portuguese Economic Journal", No. 16(1)/2017.

- Tchorek G., *Konwergencja nominalna i realna a uczestnictwo złotego w ERM II*, „Gospodarka Narodowa”, nr 10/2004.
- Torój A., *Przegląd doświadczeń innych państw związanych z wprowadzeniem euro: wypełnienie kryterium stabilności kursowej*, Ministerstwo Finansów „Europracowania”, nr 4/2011.
- Trenca I., Mihaia B., Curimana M., *The compliance of the Romanian leu with the Exchange Rate Stability Criterion: a hypothetical assessment*, “Procedia Economics and Finance”, No. 32/2015.
- Williamson J., *Exchange Rate Regime for Emerging Markets: Reviving the Intermediate Option*, Institute for International Economics, Washington D.C., September 2000.
- Winkler A., Mazzaferro F., Nerlich C., Thimann Ch., *Official Dollarisation/ Euroisation: Motives, Features and Policy Implications of Current Cases*, ECB, “Occasional Paper Series”, No. 11/2004.
- Wójcik C., *Dylematy polityki kursowej na drodze do członkostwa Polski w Europejskiej Unii Gospodarczej i Walutowej*, „Gospodarka Narodowa”, No. 7–8/2001.
- Woźniak A., *Przenoszenie zmian kursu walutowego na inflację w Polsce*, „Bank i Kredyt”, nr 45(6), 45(6)/2014.

Key words: Maastricht Criteria, Foreign Exchange, Financial Aspects of Economic Integration JEL: F45, F36, F31

Abstract

This article presents considerations for the exchange rate regime choice from the point of view of the Polish zloty participation in the European Exchange Rate Mechanism II (ERM II). The first part defines the conditions for an exchange rate mechanism conducive to nominal convergence and macroeconomic stability of the Polish economy before and after the euro adoption. The assessment indicates that the above objective can be achieved with a broad (+/-15%) fluctuation band.

The second part contains arguments for greater flexibility of the European Commission (EC) and the European Central Bank (ECB) in assessing the fulfilment of the exchange rate criterion as a necessary condition for taking advantage of a broad +/-15% fluctuation band. Furthermore, an emphasis is put on the need for the ECB support in intervening within this band when justified. These measures should reduce the risks of ERM II participation and make the mechanism more useful in supporting nominal and real convergence in catching up economies.