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AN OVERVIEW TO THE EXCHANGE RATE STABILITY AS A CRITERION OF THE ACCESSION TO THE EURO ZONE

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Abstract

The paper's objective is to present the results of an analysis of the exchange rate convergence criterion fulfilment by the European Union member states which still use their national currencies and the indication of the fundamental determinants that affect their ability to meet it. There is essential legislation on this criterion indicated, as well as on the ERM2 system which is directly related to it, and the stability of the currencies of EU countries is also briefly examined. The major conclusions include the statement that the interpretation of legal provisions on the exchange rate convergence criterion allows large subjectivity in assessing its fulfilment by each country. On the other hand, significant fluctuations in exchange rates during recent years, can impede considerably their stabilisation prior to the accession to the euro area and extend the necessary stay in ERM2 system, which in turn will increase the risk of speculation connected with it. Therefore, justified to a certain extent may seem proposed abolition of the obligation to formal accession to ERM2 and replacing it with a quantitative criterion related solely to exchange rate fluctuations.

Keywords: exchange rate, convergence criteria, ERM2, euro zone.

JEL classification: F31, F41, O24.

Introduction

Influencing exchange rates of currencies by the authorities which issue them is a common phenomenon in the modern global economy. At its base, there is primarily a conviction of the need for more stable environment for international economic flows. In the case of the European Union member states, another reason for shaping the exchange rate emerges – its stability is one of the convergence criteria, which determine the possibility of joining the euro zone.

The objective of this paper is the presentation of the results of an analysis how this criterion is met by the EU countries which do not use the common currency yet and the indication of the elementary conditions that affect their ability to fulfil it. In the first part of the article, several determinants arising from the provisions of European law and from their implementation in practice are signalled, and then a focus is made on a brief analysis of statistical data.

1. Influencing the exchange rate and the Maastricht Treaty

Economic authorities influence the exchange rate in order to achieve two main, direct goals – to adjust it in the desired direction and to stabilise it. The former of these objectives is not the subject of this study, however, the consequences of changes in the exchange rate are widely analysed in available literature. In turn, stabilising the national currency's relation against other means of payment also carries a number of economic consequences. Moreover, their occurrence is very often the primary intention of shaping the exchange rate.

A basic effect of the stabilisation of the relation between the national means of payment and other currencies is a higher level of certainty in international flows. A low degree of national currency's value fluctuations causes that entities maintaining economic relations with foreign countries may take long-term decisions less burdened with the exchange rate risk. This kind of risk often represents a barrier to entry by domestic companies on the path of internationalisation[1]. Choosing to enter new markets or to start up production in other countries is certainly easier when the authorities conduct effective and responsible currency policy, focused on the stabilisation of the exchange rate.

A similar dependence also applies to investors on financial markets. Admittedly, in practice, because of the enormous value of speculative capital pouring between countries, in the face of significant tensions or crises, central banks have been – and probably will be – helpless. Nevertheless, a declaration of credible monetary authorities to aim at maintaining the exchange rate at a constant level contributes undoubtedly to less uncertainty in making investment decisions on the global financial market. Therefore, in this dimension, an appropriate – i. e.

resulting in stabilisation – exchange rate policy supports the achievement of a general economic policy goal, which is the national income growth, due to foreign investment and trade expansion of domestic entities[2].

These premises – among others – are reflected in the Maastricht Treaty, in determining the criteria to be met by countries aspiring to the euro zone. The Treaty states that a condition for full participation in Economic and Monetary Union is "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 currency of any other Member State"[3] and „without severe tensions"[4]. In practice, this means the necessity of formal country's accession to the ERM2 mechanism and maintaining during the designated period the stable exchange rate of own currency within appointed bands (generally, ±15% in relation to a fixed central rate).

A quite controversial issue was once an answer to the question whether this condition, formulated casually in the Treaty as keeping the exchange rate within the range set by the European Monetary System, requires official accession to the mechanism. There were proposals to consider this criterion to be met if the currency of a country which has not even formally joined ERM2, during a two-year period was characterised by prescribed stability[5]. This was to eliminate possible speculative attacks that might arise in the case of a formal authorities' declaration to keep the exchange rate tight. However, the deliberation was cut short by the Community bodies which are to recognise the fulfilling the convergence criteria by a country[6] and the discussion on this subject subsided.

Thus, the Tractate provisions and the practice indicate that this criterion requires that a candidate country to the euro zone for at least two years:

- has formally been a member of ERM2,
- has not devaluated its currency on own initiative (a revaluation or a devaluation on the initiative of other parties is not prohibited),
- has maintained its currency's market rate in the band of ±15% in relation to the central rate – respecting such a fluctuation band is necessary but not sufficient, because in addition it is required that the country:
- has avoided "severe tensions" with regard to the rate of its currency.

It should be emphasized that according to the Treaty, the EU member countries that kept their own currencies – even those where entering the euro zone is not a priority – are obliged to treat their exchange rate policy as "a matter of common interest"[7]. Such a general recommendation was explained in the European Council's resolution of 1997, dedicated to defining the regulations of a new exchange rate mechanism (i. e. ERM2), which came into

force on the beginning of 1999. The resolution stated that the ERM2 would connect national currencies to the euro and would function basing on stability-oriented economic policies of the Community member states. At the same time, it delegated competences to constitute operating procedures for the mechanism to the European Central Bank, in cooperation with the national central banks outside the euro zone[8].

2. The Exchange Rate Mechanism ERM2

The main goals of the ERM2 introduction were defined in the abovementioned resolution as: disciplining policies (monetary, fiscal and structural one) in member states with the aim of achieving sustainable convergence and facilitating the adoption of the common currency; achieving stable economic environment in the common market, due to mitigation of fluctuations in nominal and real exchange rate; preventing foreign exchange markets from distortions by means of cooperative interventions; ensuring that the states that were going to join the euro zone after 1999 would be treated in a similar manner regarding the fulfilment of the exchange rate convergence criterion; subordinating the exchange rate system to the need of caring for price stability[9].

These goals and the essence of the ERM2 indicate that one of its most important functions is to test the appointed central rate as a proper candidate for the conversion rate of the national currency to the euro and possibly to correct it for a more optimal fit to the economic determinants[10]; Tchorek 2004, p. 36]. It is indicated by two conclusions that can be drawn from the fact that the market value of the domestic currency does not deviate too much from the parity for at least a two-year period. Firstly, the economic situation in a country is stabilised so satisfactorily and such a high level of convergence with the euro zone was achieved that fundamental factors do not cause major appreciative or depreciative tensions in the foreign exchange market. After the adoption of the common means of payment, such tensions could cause distortions in functioning of the single-currency economy – with negative consequences both for the country and other member states. Secondly, if the market rate stays in a long period – and two years can be defined as a sufficiently long period – near the central parity, it means that the chosen exchange rate is likely to be the equilibrium one (the probability depends obviously on the scale of interventions in the foreign exchange market), and the parity in consequence is most suitable for adoption as the rate of conversion[11].

However, as it was already mentioned, the introduction of a currency to the ERM2 system alone is not enough for the fulfilment of the exchange rate convergence criterion. It is also

crucial to avoid devaluation and "severe tensions". What is remarkable, a kind of asymmetry in Community authorities' tolerance to central rate adjustments should be noted in this context. While a devaluation, according to Treaty regulations, is considered to be a serious instability of the currency and a reason for the failure in the convergence criterion fulfilment, a revaluation – as proved in practice – is permissible. The European Commission has formally recognized the appreciation tendencies in countries joining the euro zone in the past as "consistent with underlying fundamentals"[12]. When one takes into consideration the fact that especially in the period before the accession to the common currency area, member states conduct policies aimed at price stability, then that is a true statement indeed; furthermore, it mitigates an existing contradiction between the exchange rate convergence criterion and the inflationary one. The aforementioned asymmetry concern also the interpretation of the notion of "severe tensions" in the exchange rate, occurrence of which in theory close the path of a state to the euro area. When assessing exchange rate fluctuations and classifying them as "severe", the ECB takes into account, among others, the development of the factors determining the exchange rate level (e. g. interest rate differentials) and the scale and efficiency of foreign exchange interventions[13]. From the publications of the EU bodies, it is possible to receive signs that an appreciation, if it does not cause the market rate deviations to exceed the fifteen-percent ceiling, is not described as "severe tensions". On the other hand, there are no such signals with regard to a depreciation, which is interpreted as the asymmetric narrowing of the lower part of the fluctuation band. Furthermore, it is indicated in the literature that as a benchmark for fluctuations below the central rate may still be utilised the previous limit functioning within the European Monetary System, which was –2.25% (and not –15%)[14].

If one accepts this narrow fluctuation band as a fact, another problem emerges. While the ERM2 central banks are required to take part in unlimited interventions at the margins (i. e. in the basic form – when a deviation is of 15%), intramarginal interventions are not a subject of such an obligation. Moreover, the principles of the mechanism even define ceilings of financing this kind of interventions by loans from other central banks[15]. Therefore, keeping the exchange rate in narrower bands (as it turns out, needed to fulfil the convergence criterion) may be difficult – not only because of possibly increased frequency of interventions, but also with regard to probable isolation of the domestic monetary authorities in its activities. A kind of way out from the situation is formal setting narrower exchange rate bands, which obliges the European Central Bank to support interventions at lower deviations. But the EU authorities at the phase of country's accession to the ERM2 may basically disagree to it, as well as domestic authorities may not want it because of the higher speculative risk[16].

Since the start of ERM2 in 1999, the currencies of the following EU member states have participated in it: Denmark (since the beginning), Greece (for two years, until the end of 2000), Slovenia (for two and half years, 28.06.2004–31.12.2006), Estonia (for six and a half years, 28.06.2004–31.12.2010), Cyprus and Malta (for two and half years, 2.05.2005–31.12.2007), Slovakia (for three years, 28.11.2005–31.12.2008), Latvia (since 2.05.2005) and Lithuania (since 28.06.2004). Noteworthy is the fact, that some countries unilaterally adopted within the ERM2 more strict bands for exchange rate fluctuations: Denmark has applied the limit of ±2.25%, Latvia – ±1%, Lithuania and Estonia have implemented a currency board, and as for Malta, the band has been removed at all. Thus, presently only three countries are members of the ERM2, and all three of them with bands narrower than permissible ±15%: Denmark, Lithuania and Latvia.

3. The stability of floating exchange rates in the European Union

Judging from the length of stay in the system of countries that have already adopted the common currency (in most cases, not much more than required two years), by signals coming from the authorities of the member states only aspiring to join the euro area[17], and also referring to the experience of the early nineties' currency crisis, one can notice that keeping the national currency in ERM2 is treated rather as a "necessary evil"[18] than a method of stabilising the exchange rate. This seems to result mainly from possible speculative attacks, necessity of conducting foreign exchange interventions and finally, from the frequent difficulty of reconciling the pursuit of limiting the exchange rate fluctuations with other objectives of monetary policy (mainly with the care for low inflation).

Such an approach is also justification for the fact that as many as six out of seven European Union member states that have not adopted the euro yet and have not entered the ERM2 either (Czech Republic, Poland, Romania, Sweden, Hungary, Great Britain) have currencies with a floating exchange rate, and among them only Romania manages it officially; Bulgaria alone has implemented a currency board system[19]. But what is important, if one accepts an average exchange rate for the years 2009–2010 as a hypothetical central relation in case of non-ERM2 countries, the fluctuations in the value of any currency in this period would not exceed the bands of ±15% around it. The largest scale of average, daily market exchange rate deviations from the actual or hypothetical central rate in this period were characteristic for the Swedish krona (amplitude equal to more than 26%) and the zloty (more than 23%). Therefore, these currencies utilise almost entire available thirty-percent fluctuation range. In the case of all currencies with

floating exchange rates, it is hard not to notice a considerable appreciation tendency in this regard. Clearly observable, continuous strengthening of their relations against the euro may significantly hamper keeping the market rate in required proximity to the future central rate set within the ERM2 – even without taking possible speculative attacks into account – for a period longer than a year or two.

Not without significance for assessing the stability of floating exchange rates of the European Union member states' currencies were also the consequences of the crisis phenomena, which affected the foreign exchange market with particular intensity in the second half of 2008 and first half of 2009. It should be noted that during this period the largest part of the value, i. e. approx. 35%, was lost by the zloty, and also by the forint – approx. 28%. Other currencies' worth fell by around 20%. In this context, one should borne in mind that the phenomenon of depreciation in the presence of a recession in the global economy is essentially inherent in the floating exchange rate regime and in fact, one of its major advantages. It is because the depreciation results in the improvement in price competitiveness of exports and inhibits the transfer of crisis phenomena (the fall in demand) from the global economy into domestic one through the channel of foreign trade. It was particularly perceptible in the case of Polish economy, which in 2009 was the only one in the EU with a positive rate of GDP growth.

In order to analyse the degree of exchange rate stability, one can also use a key measure commonly used for this purpose, among others by the European Central Bank and EU bodies, which is the ERV (Exchange Rate Volatility) indicator. It is defined as a standard deviation of predicted (basing on current observations) fluctuations of a currency's exchange rate against the euro during the next year.

As it can be seen (table 1), during recent three years there were two periods of considerable unsteadiness of examined exchange rates. In the period July 2008 – June 2009, i. e. at the time of substantial adjustments in exchange rates caused by the global crisis reaching Europe, the values of the ERV index jumped from about 10% on average to as much as over 30% in the case of Poland and Hungary (again). In May 2010, when the indicator's level for each analysed currency significantly increased another time, the biggest growth applied to these two countries, too. However, in early 2011 the situation looks stabilised once again. Except January, since more than half a year, the ERV values have not exceeded reasonable ceiling of 10%.

Table 1. The volatility (ERV) of floating exchange rates of European Union member states' currencies in successive months of 2008–2011 (in %)

Year	Month	CZK	GBP	HUF	PLN	RON	SEK
2008	01	5.7	7.5	6.0	5.7	14.6	3.8
	02	4.9	6.1	13.0	5.9	9.3	4.2
	03	7.9	11.5	11.7	6.7	10.9	3.9
	04	5.6	11.2	6.1	4.6	9.9	3.4
	05	4.5	8.3	7.5	5.2	7.8	3.4
	06	6.0	6.4	11.2	4.0	5.2	3.5
	07	13.5	6.7	10.1	7.2	12.0	4.0
	08	8.0	7.7	9.9	6.4	10.6	3.4
	09	9.3	6.8	9.5	15.1	8.6	6.1
	10	**21.6**	15.0	**34.9**	**30.9**	17.8	15.4
	11	12.8	16.4	16.5	18.0	15.2	11.6
	12	7.8	**23.0**	11.8	13.3	10.7	19.5
2009	01	16.0	**21.7**	**22.1**	**26.0**	12.2	14.9
	02	16.8	16.2	19.4	**28.2**	5.5	17.8
	03	14.5	13.1	18.9	17.7	3.9	15.5
	04	9.0	11.9	16.7	**21.9**	8.0	11.2
	05	8.8	8.0	**21.0**	16.9	6.6	11.8
	06	7.9	14.0	16.5	10.2	4.0	11.0
	07	5.4	9.2	12.5	13.6	3.4	10.6
	08	6.3	5.7	15.0	14.6	2.6	9.3
	09	4.2	9.7	6.9	9.6	4.5	6.8
	10	5.9	13.2	8.3	9.6	2.3	8.9
	11	8.4	8.3	10.8	10.7	2.5	7.7
	12	8.3	8.5	8.6	6.3	5.5	6.3
2010	01	6.2	8.7	6.9	9.4	7.6	5.5
	02	4.9	8.1	6.3	10.8	4.7	7.5
	03	4.5	7.2	6.6	8.4	3.6	6.4
	04	3.8	7.5	9.8	7.2	4.6	5.0
	05	10.3	15.5	18.5	**22.3**	5.1	10.5
	06	6.5	9.2	19.7	14.1	6.9	6.6
	07	5.1	7.6	16.1	8.6	5.3	6.4
	08	2.8	6.9	10.8	8.5	3.6	6.3
	09	2.8	10.1	8.4	6.4	4.5	6.4
	10	3.4	9.4	8.8	7.9	3.9	6.9
	11	3.8	7.5	8.8	9.5	3.0	6.9
	12	3.5	7.6	7.7	7.2	2.5	4.8
2011	01	5.6	9.7	10.5	10.7	2.3	6.0
	02	4.6	7.7	7.9	8.5	2.3	6.7
	03	3.6	5.7	5.6	7.0	5.2	8.5
	04	3.2	8.3	5.9	6.5	3.8	6.0

Source: own calculations based on the data provided by European Central Bank (www.ecb.int, 3.05.2011). Shaded are the values over 10%; bold are those over 20%.

Conclusions

On the basis of the presented results of the analysis of exchange rate stability determinants for European Union member states that have not yet adopted the euro and of actual formation of their currencies' rates, it is possible to formulate some general conclusions. Firstly, the stabilisation of the exchange rate should not be treated by authorities merely as a means for achieving the goal of joining the common currency area, but rather as an objective of currency policy itself. It is because this stabilisation contributes to a number of positive phenomena in foreign economic relations, resulting from higher certainty in international flows. Secondly, it must be remembered that formal accession to the ERM2, although assumed to result in a higher degree of the exchange rate stability, may cause tensions in the foreign exchange market, being a consequence of speculation and the desire to "test" the authorities by market entities (vide European currency crisis in first half of the nineties). Thirdly, the authorities of states aspiring to the euro zone must borne in mind that the construction of the exchange rate convergence criterion, including in particular the concept of "severe tensions", leaves much room for subjective interpretations of events in the foreign exchange market, and therefore, an evaluation of this condition fulfilment by the Community bodies may be different from the position of the country's government. Finally, when choosing to participate in the ERM2 mechanism, and especially thinking about rapid accession to the common currency area, it should be taken into account that substantial fluctuations taking place in recent years on foreign exchange markets, may significantly hinder the stabilisation of exchange rates and contribute to a longer stay in the mechanism, which in turn will mean an increased speculative risk or even exposure to crisis phenomena.

Thus, a radical, although to some extent justified proposal may constitute previously mentioned abolition of the necessity of formal accession to the ERM2 (voluntary participation) and replacing it with a quantitative criterion related solely to the formation of the exchange rate. The determination of the width of the permissible fluctuation band should certainly be preceded in such a case by extensive research and simulations. But undoubtedly, it would reduce the risk of speculative attacks and, consequently, could increase motivation of next countries to adopt the euro.

Notes

[1] Copeland (1994), pp. 17–18.
[2] Michalczyk (2007), pp. 26–27.
[3] *Treaty*... (1992), art. 121, pt. 1.
[4] *Protocol*... (1992), art. 3.
[5] Kowalewski (2001), pp. 171–172; Bąk (2008), p. 18; Schadler et al. (2005), p. 84.
[6] *Policy*... (2003).
[7] *Treaty*... (1992), art. 124, pt. 1.
[8] *Resolution*... (1997).
[9] Ibidem, art. 1.
[10] Schadler et al. (2005), pp. 7–8; Tchorek (2004), p. 36.
[11] Michalczyk (2010), s. 100–101.
[12] *Convergence*... (2008a), p. 30.
[13] *Convergence*... (2008b), p. 12.
[14] *The Acceding*... (2004), p. 6; Bąk (2008), p. 19; *Raport*... (2004), pp. 105–106; Borowski et al. (2003), p. 23; Schadler et al. (2005), pp. 7 and 84; Deroose, Baras (2005), p. 137; Tchorek (2004), p. 35.
[15] *Agreement*... (2006), art. 8.
[16] Michalczyk (2010), p. 106–107.
[17] *The Acceding*... (2004), pp. 6–8.
[18] Michalczyk (2010), p. 99.
[19] *De Facto*... (2008).

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