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The Euro – A "MUST" for Small European States?

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Georg-August-Universität Göttingen

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The Euro – A "MUST" for Small European States?

Renate Ohr and Mehmet Özalbayrak*

Abstract

This paper deals with the question of what impact membership of the European Monetary Union (EMU) has had on small European states. We will also analyze whether or to what extent a large number of small member states affect the EMU itself when they vastly outnumber the large countries. We conclude that the small countries in the European Union are far from creating a homogeneous group. They differ in the length of EU membership, income per capita, membership and non-membership of the EMU, production structure, foreign trade policy, and stability readiness. However, they do share some characteristics, particularly their relatively high openness, through which domestic macroeconomic variables are easily influenced by external shocks. The welfare gains of a small country joining the eurozone depend on the extent to which the benefits (if existent) of higher financial credibility outweigh the loss of autonomous monetary policy. Finally, with regard to their significance in the EMU, in no case should cutbacks be made for small countries concerning the stability requirements.

Keywords: Euro, European Monetary Union, economic integration, small open economy.

JEL: E42, E5, F15, F33, F55, O52

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1. Introduction

This paper deals with the question of how the common European currency, the euro, affects small European states – differentiating between member and non-member states of the European Monetary Union (EMU). We will also analyze whether or to what extent a large number of smaller member states affect the EMU when they vastly outnumber the larger countries.

First we will try to separate and define a "small state" within Europe. Following this, the economic characteristics of small states will be elaborated in order to find an answer to the question of whether being a member of the EMU gives small countries in particular an advantage or a disadvantage. Afterwards we shall discuss the consequences of a large amount of smaller states in the monetary union for the stability of the euro. A short conclusion will be drawn at the end of the paper.

2. The definition of a small state within Europe

In order to define the size of a country, the population size, economic performance (based on GDP per capita and/or GDP in purchasing power standards (PPS)) and territorial size are usually taken into account.¹ To measure the size of a country within an integration area, political relevancy (meaning the political influence on decisions affecting the whole integration area) is also an important factor that needs to be taken into account. This means that in the case of the EU, the voting rights in the Council of Ministers or the number of representatives in the European Parliament could also be taken into consideration to determine the size of a state; when referring to the EMU, the voting rights on the governing board of the European Central Bank (ECB) could also be a factor to be considered.

When comparing countries with similar development levels, generally the GDP (especially when it is measured in PPS) is closely correlated with the population size. However, when comparing countries with different development levels, the population and GDP could offer different results regarding the size of a country.

The number of votes in the European Council of Ministers and in the European Parliament is also related to the population size of the respective country. However, the distribution of the voting rights to the states is not exactly proportionate to their population size. Small countries hold disproportionately high voting rights, considering their size. According to the double majority rule (coming into effect in 2014 in the Council of

¹ See, for example, Salvatore (2001), Sepos (2005, p. 6) and the sources presented therein. Also see König/Ohr (2011).

Ministers), big and small countries for the first time will have the same voting weight (one vote for each country). However, for majority decisions, the countries that form the majority must also represent the majority of the population.² Thus, the de facto voting weight of the representatives of the small countries will approximate to the country's population size.

This is also the case with the ECB Governing Council. Until now, any country, whether small or big, has had the same voting weight. However, due to the increasing size of the European Monetary Union, it is intended that not every member of the eurozone will be represented in the central bank Governing Council any longer; only some of the members will participate in a rotation process.³ Based on this rotation method, member states will be separated into two, or if necessary three, groups, classified by GDP size and financial strength. The group with the five biggest countries will obtain four votes, and the second group with the smaller countries (regardless of how many there are) will receive at most eleven votes. However, in no case should the small countries receive so many votes that they would be considered more often in the rotation process than the bigger countries. Nevertheless, with regard to their population size and their economic potential, small countries will still enjoy an above average influence in the Governing Council, whereby their "political size," as measured by their political influence on the European monetary policy, exceeds their economic size.

Taking the population as a starting point for the delineation of large and small countries in the EU, we could identify as small states those countries that have a population size of less than 10% of the population of Germany (the largest country in the EU) (see Table 1). Countries with a population between 10% and 27% of the German population likewise could be identified as small or else as medium-sized. Only Poland (46.6%), Spain (56.1%), Italy (73.5%), Great Britain (75.5%), France (78.8%) and Germany then remain as "big" countries.⁴ If only small and big countries should be differentiated, then the Netherlands and Rumania should also be among the big countries (with 20.2% and 26.2% of the German population, respectively), whereas the country with the next smallest population – Greece – only holds 13.8% of Germany's population.

² Article 238, Lisbon Treaty

³ "Upon adoption of the euro by Slovakia the number of members of the Governing Council of the European Central Bank (ECB) exceeds 21. Article 10.2 of the Statute of the ESCB provides that as from the date on which the number of members of the Governing Council exceeds 21, each member of the Executive Board will have one vote and the number of governors with a voting right will be 15. It also specifies the rules on the rotation of the voting rights. Under the sixth indent of Article 10.2, the Governing Council, acting by a two-thirds majority of all its members, may decide to postpone the start of the rotation system until the date on which the number of governors exceeds 18. In December 2008 the Governing Council decided to postpone the start of the rotation system until such a date." Official Journal of the European Union, 18.4.2009, L 100/10.

⁴ When compared globally, most of these countries certainly have to be categorized as middle-size countries.

Table 1: Country size of the EU-27 and Switzerland

based on population size and GDP in 2009

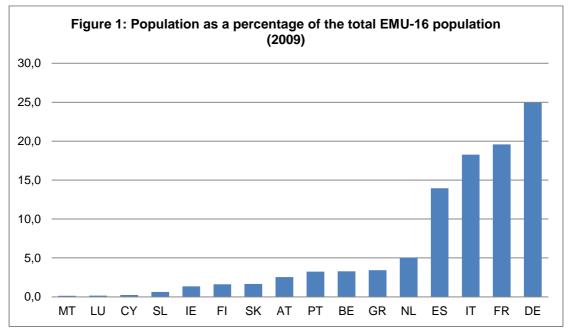
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Germany 81.880 Germany 2.404.400 2.235.923	France	64.530	Great Britain	1.568.204	1.688.002
	Germany	81.880	Germany	2.404.400	2.235.923

Source: Eurostat

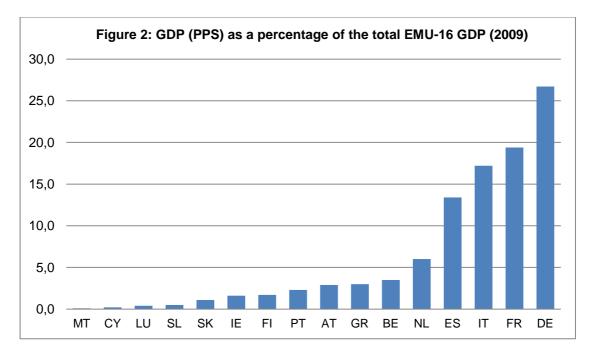
Taking the gross domestic product in purchasing power standards and the German GDP as a benchmark, we could again distinguish three groups (see Table 1): small countries with a GDP below 10%, middle-size countries with a GDP between 10% and 25% and large countries with a GDP greater than 25% of the German GDP. Viewed in this way, Spain (almost 50% of the German GDP), Italy (64.5%), France (75.1%), Great Britain (75.5%) and Germany would be regarded as large countries, in contrast to Poland and the Netherlands, which would be regarded as middle-size countries.

Dividing the EU countries into groups of small and large countries using the total population size and economic performance, the same countries would mainly be identified as big states, namely Spain, Italy, France, Great Britain and Germany. Poland, however, would be counted among the big countries due to its population, but would not due to its GDP. According to this classification, the 22 "small" states have a population size of 175 million, while the 5 visibly bigger states would account for around 315 million. Based on GDP, the 22 smaller countries in the EU would produce 31% of the total EU GDP, whereas the 5 biggest countries would be responsible for almost 69% of the European economic performance (see Table 1).

Applying these considerations to the 16 EU countries that are members of the European Monetary Union, the 4 big countries represent about 253 million citizens, whereas the remaining 12 small countries represent only 76.5 million. At the same time, the four largest member states represent around 76% of the total EMU GDP, and the 12 smaller members are responsible for the remaining 24%. Figures 1 and 2 provide a graphical illustration of the differences in population and GDP of each individual country in relation to the whole European Monetary Union.



Source: Datastream: Eurostat



Source: Datastream: Eurostat

What does this mean for the common monetary policy, i.e. for the ECB's decisions? If a vote takes place in the ECB Council, the 12 small countries would therefore represent a three-quarters majority of the national central bank presidents' votes (if they vote uniformly), even though they generate less than 25% of the national product of the EMU and only stand for just less than a quarter of the total population of the EMU. Even if the 6 members of the ECB Executive Board vote in the same way as the 4 big countries, the small countries could still form a majority, and with a consensus amongst them, affect the voting results in their favor. The question now is whether the small countries have a common agenda different from that of the big countries, especially regarding monetary policy, which could lead to common voting in the ECB Council.

3. Small open economies in the monetary union

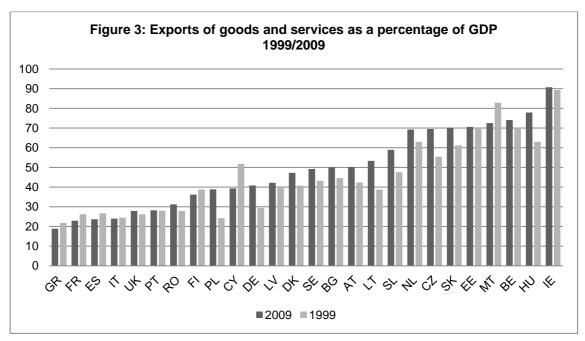
The following characteristics are often used to identify the main features of small countries⁵: a large degree of openness, highly concentrated production structure, low economies of scale in production, strong regional concentration of foreign trade and a relatively large public sector.

When referring to a "small open economy" in international macroeconomics, it is assumed that at least the prices of tradable goods are determined directly by the world

⁵ See Damijan (2001), p. 91.

market prices.⁶ The small open economy then faces an infinite price-elastic export demand as well as an infinite price-elastic import supply. The prices of imports and exports (in foreign currency) are therefore determined by world markets, so that the domestic prices of these goods are determined by the exchange rate. The so-called exchange rate pass-through in this case is 100%.⁷ However, the prices of non-tradable goods can be set nationally even in small open economies. The more open the economy, i.e. the larger the share of internationally traded goods in the GDP, the more strongly the small open economy is influenced by foreign price changes and exchange rate fluctuations.⁸ This would suggest that small open economies can draw a clear advantage of membership of a monetary union with its main trading partners: the macroeconomic target variables would then be influenced only to a much lesser degree by exchange rate fluctuations (now only by exchange rate changes in relation to third countries).

The openness of EU countries is illustrated in Figures 3 and 4. The small EU countries are clearly more open (in terms of the export and import quotas of goods and services in relation to GDP) than larger countries.

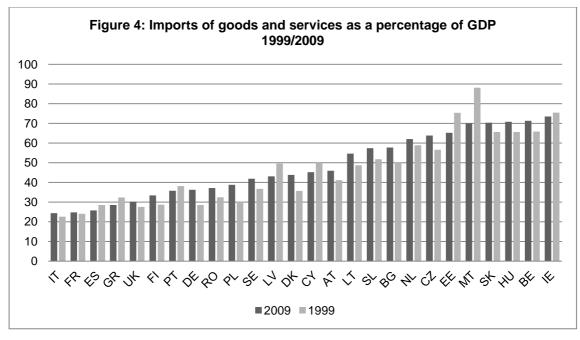


Source: Ameco database, own calculations

⁶ See Salvatore (2001), p. 72.

⁷ For the Czech Republic, Hungary, Poland and Slovenia, which can be viewed as small countries, Coricelli/Jazbec/Masten (2006) document a very high exchange rate pass-through to domestic inflation.

⁸ See Bonelo (2005), p. 14.



Source: Ameco database, own calculations

However, regarding the exchange rate pass-through, the results are ambiguous. Campa/Minguez (2006) show very different values of the exchange rate pass-through with regard to changes in the euro exchange rate. Thus, there are some small countries (Belgium, Ireland, Finland and Austria) that show a high level of exchange rate passthrough, as well as other small countries (Poland, Greece and Spain) that exhibit lower levels.

In addition, small countries have a much more limited domestic market than large countries. Economies of scale are achievable on the home markets only to a lesser extent. Since the exchange rate risks do not apply to partner countries in a monetary union, trade between member states in the EMU could be increased under certain circumstances. From this point of view, small countries in particular would profit most, since they would have access to a larger market without any exchange rate risks.

The idea that small countries could benefit more from an expansion of the free-trade area than large countries can be found in Casella (1996), who analyzes the accession of Portugal and Spain to the European Community. However, just like Badinger/Breuss (2002), who test this hypothesis for a longer period, Casella reaches the conclusion that such a "small-country effect" is not definitely empirically verifiable. Badinger/Breuss argue that a positive "small-country effect" may exist, but that it will probably be compensated for by other advantages of large countries, such as better technology, higher economies of scale in research and development or greater market power. Thereafter, Badinger/Breuss (2009) specifically analyze the effect of the euro on the trade of big and small EMU countries. They conclude that due to the introduction of the euro, small countries could improve their exports against big countries by 3 to 9%.

A fundamental prerequisite for the significant importance of this effect is, however, that the single currency may even increase trade in the euro area significantly. While initial studies on this issue anticipated a high trade-creating effect of the common currency.⁹ in more recent studies such a high trade-creating effect could not be verified. According to Baldwin (2006), the euro causes an additional trade expansion of 5 to 10% between member states. Berger/Nitsch (2008) come to the conclusion that in fact an increase in trade intensity between European countries is observable. However, if it is controlled for the trend in trade integration, the influence of the euro disappears. Finally, the first 10 years of the EMU have shown that trade in the eurozone has increased, but trade between European countries and non-members of the EMU has grown, at most, above average. Thus, the relative share of trade with member states of the EMU has even decreased (see Table 2). This result holds for both big and small countries.

For this reason, the often-assumed hypothesis of increasing synchronization of business cycles due to the common currency (endogeneity of the optimal currency area)¹⁰ is not very viable, since it implies that trade flows, and moreover intra-sectoral trade flows, increase significantly (Frankel/Rose 1998).¹¹ This fact also concerns both small and large countries similarly. However, if the assumption that small countries are characterized by greater specialization in production is applicable, small states would be more exposed to asymmetric shocks than big countries. Therefore, they are less suitable for membership of a monetary union.¹²

Another consideration states that with free movement of capital and perfect capital mobility, the exchange rate is influenced less by trade flows, but rather by shocks in the financial and capital markets. The exchange rate is therefore often determined by speculation. In particular, small open economies are often exposed particularly strongly to such circumstances. With high capital mobility, the exchange rate flexibility can lose its stabilization force (in terms of balancing trade flows) and instead may become the target of destabilizing activities, hereby mutating itself to an origin of asymmetric shocks (Mundell, 1973). In such a case, a monetary union could constitute good insurance against such asymmetric shocks. At the same time, membership of the monetary union could create better access to international credit markets (within the currency area), and thus could increase the international diversification of income sources and assets. This argument, too, could speak for small open economies joining a monetary union.

⁹ Also see Rose (2000).

¹⁰ Also see Ohr (2009).

¹¹This, however, contradicts the assumed asymmetric effect on business cycles emphasized by Krugman (1993). He suggests that a common currency creates increased specialization (inter-sectoral trade) between the members of the monetary union. ¹² See Jones/Frieden/Torres (1998), p. 2.

	Exports to the euro area as a share of total exports		Imports from the euro area as a share of total imports	
Country	1999	2009	1999	2009
Sweden	41,72	39,64	45,99	46,18
Denmark	45,40	41,30	51,82	46,42
Cyprus	24,79	37,75	38,97	53,84
Malta	39,20	35,59	53,60	57,19
Greece	48,65	43,22	57,17	45,46
Portugal	68,05	61,31	69,41	63,12
Slovakia	57,14	49,26	48,82	39,79
Slovenia	63,30	50.82	64,27	60,31
Germany	45,61	42,61	44,38	45,22
France	50,45	49,21	56,19	56,42
Italy	50,59	44,11	54,02	43,88
Netherlands	64,75	62,30	41,64	36,88
Spain	61,33	56,31	58,54	49,91

Tab. 2: Intra-EMU trade (of goods)

Source: Datastream: IMF Trade Statistics (DOTS), own calculations

Currently, we see for example in Poland, the Czech Republic and Hungary – those Eastern European countries that have neither adopted the euro nor pegged their currency to the euro – how strongly changes in the risk assessment (of a currency) can influence the exchange rates. From the beginning of 2009 until early 2010, the zloty appreciated by around 20%, and both the forint and the Czech koruna by around 14%.¹³ One of the reasons was certainly the threat of state bankruptcy of Greece, as well as the seemingly almost helpless handling of this problem by the other EMU countries, putting the stability of the monetary area into question. Whether this (relatively) high attractiveness of Eastern European assets will ultimately have positive or negative consequences remains to be seen. In small countries, such sudden capital inflows can have a strong impact on their exchange rate, and thus seriously affect their international

¹³ Source: Eurostat; monthly average values.

competitiveness. This is why Schnabl (2007) reaches the conclusion that just emerging (small) countries, the exchange rates of which tend to have an appreciating trend, may be exposed to excessive exchange rate speculation, causing high speculative capital inflows. Membership of a monetary union could protect against such a phenomenon.¹⁴

On the other hand, the EMU is not presently demonstrating the stability it appeared to have at the beginning of 2009. Thus, membership of a monetary union can also include risks. A monetary union can indeed be beneficial for small countries, when the common currency acts as a "monetary anchor" by which countries with previously weak currencies can gain more financial credibility. However, this is only the case if the monetary union succeeds in signaling sustainable credibility through its monetary institutions, therefore producing a strong currency.

By joining such a monetary union, a country reduces its risk premium, since an individual exchange rate risk no longer exists. The consequent decrease in interest rates on the one hand stimulates growth and on the other hand lowers the interest expenditures, which in turn helps to reduce government deficits. In principle, every accession country, whether big or small, which previously had a weak currency, will benefit from these advantages. However, with the accession of a big country there is the risk that a previous weakness of this country would affect the common currency, whereas the accession of a small country would affect the common currency less, if at all.¹⁵

Nevertheless, small countries that previously had a very strong currency cannot gain any further improvements by joining the monetary union. Instead they carry the risk of becoming worse off after accession, if the experiment of the common currency fails. Moreover, the recent past has shown that the initial "profits" of the reduction of risk premiums of previously weak-currency countries may be reversed if these countries do not change their national fiscal policies and wage policies to a course of stability. It has become clear for some years in the European Monetary Union that even within a monetary union, substantial changes in real exchange rates can occur as the significant real revaluations in Greece, Portugal, Spain, Ireland or Italy demonstrate. These revaluations can no longer be compensated for by nominal exchange rate adjustments.¹⁶ Figure 5 shows the real exchange rate changes of the EMU countries towards Germany. The resulting problems (loss of international competitiveness, current account deficits,

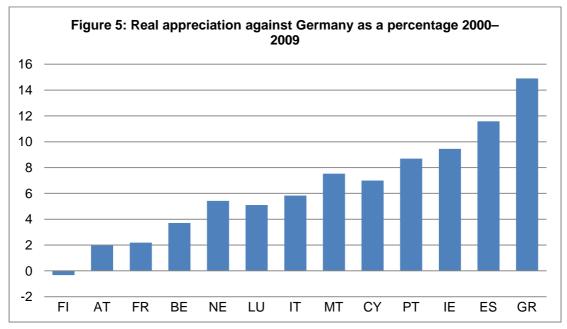
¹⁴ However, if the exchange rates follow a "random walk" (without any trend), flexible exchange rates are better suited to reducing speculative capital inflows (Schnabl, 2007, p. 13).

¹⁵ At least, this was assumed before the Greek crisis.

¹⁶ See Ohr (2009).

increasing external debt) not only affect the respective country, but also the monetary union as a whole, as the example of Greece shows.

Finally, in a small country the welfare gains of joining a monetary union depend on the extent to which the advantage of higher credibility outweighs the losses of losing the monetary policy autonomy previously held. The higher the welfare gains are, the more homogeneous the business cycles in the monetary union are, since only then does a common monetary policy fit all equally well.¹⁷ If it (still) can be assumed that the monetary policy of the ECB is assigned more to large countries than to small countries, it is necessary that the small countries do not show any asymmetric shocks compared with the large countries. The more similar the production structures are, the more likely symmetric shocks are.¹⁸



Source: IMF, Eurostat, own calculations

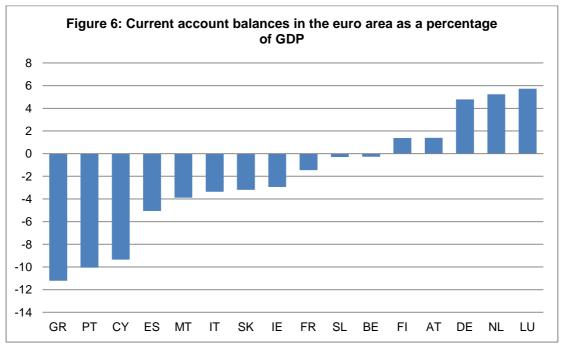
Regarding the question of whether the Eastern European accession states, which except for Poland are described as small countries, should join the monetary union as soon as possible, the most recent developments in the monetary union especially show the risks involved with this step. If countries that differ significantly in their economic structures and preferences from the other members join the monetary union, growing imbalances will result due to increasing current account deficits (see Figure 6). Initially, these deficits are often easily financed by capital inflows, since the accession to the monetary union is

¹⁷ See Ohr/Schmidt (2001), p. 433.

¹⁸ Considering the Eastern European EU accession countries in this context, it appears that they are more prone to asymmetric shocks than the average of the euro countries (Brixiova/Morgan/Wörgötter, 2009, p. 16).

mostly connected with a leap of faith. Such easy financing of exaggerated claims that are not justified by the country's own national product can lead to asset bubbles, over-investment and growing external debt, ultimately affecting the former positive growth effects of capital inflows.¹⁹

The way out of this dilemma requires a reduction in consumer spending and in the state deficit as well as a wage restraint. These are measures that are difficult for the government to communicate to the population and potential voters. A country with its own currency could eliminate some of these loads by depreciating the currency, a measure that shows similar effects but is rather more easily accepted by the population. However, this is not possible for a member of the monetary union. An early entry into a stability-oriented monetary union therefore has only superficial benefits for previously weak-currency countries. If these countries do not adjust their own economic policies, serious problems will arise in the long term.



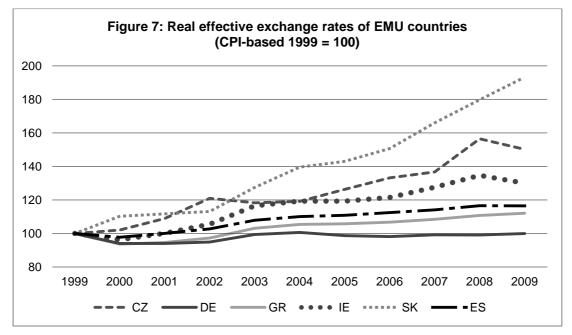
Source: IMF

In principle, these problems are valid for both big and small countries, but they can occur in small countries even faster, since they usually have a higher degree of openness than large countries. Thus, they suffer more from the real exchange rate changes that occur due to the different unit labor cost trends and different inflation rates that may still arise, to some extent, in the monetary union. Moreover, the importance of euro exchange rate changes against third countries differs from country to country, depending on the respective national inflation rates and the export structures. Figure 7 gives an illustration

¹⁹ See Schnabl (2007), p. 26.

of the different real effective exchange rates of EMU countries against their major trading partners within and outside the monetary union.

Figure 7 shows that the real effective exchange rates can turn out very differently among the members of a monetary union and that certain developments cannot be clearly attributed to small or big countries. At the same time, most (small) Eastern European accession states, which are not members of the EMU, have experienced serious appreciation (which is supposed to be attributed, at least partly, to the Balassa–Samuelson effect). As members of the monetary union with such a strong need for real appreciation, these countries would possibly have caused high tensions in the union.



Source: OECD

In summary, it can be stated that it may make sense for small countries not to join the monetary union too quickly, for two reasons: countries with high price stability and a hitherto strong and trustworthy currency (the Swiss franc) should consider carefully whether the common currency can also sustainably provide adequate stability. States with previously weak currencies or those where economic adjustment and transformation processes have not yet been completed (Eastern European accession states) should also be careful and should not give up their independent monetary policy too quickly, as they still need the possibility of (nominal) exchange rate changes to bring about real exchange rate changes.

4. The importance of small states in the European Monetary Union

The recent challenges in the European Monetary Union caused by the Greek financial crisis show that a single and relatively small country can put the stability of the entire union into question. Are small countries therefore possibly a threat to the European Monetary Union? As the results so far have shown, "small countries" in the EU or the EMU do not give a uniform picture: there are stable and less stable member countries, both big and small. However, the likelihood that the heterogeneity within the monetary union may become a problem increases as the number of members rises. Conflicts of interest, asymmetric shocks as well as differences in the readiness and potential for a stability-oriented policy are positively correlated with the number of member states. Considering the countries to be included in the monetary union in future – especially the Eastern European countries as well – it is obvious that these countries pose a greater potential threat to the stability of the union than the already-existing "small" members, like Austria, Belgium or the Netherlands.

As mentioned before, due to the present rules, the group of small member states – voting together – could overrule their bigger counterparts in the European Central Bank Council. This would however require small and big countries "per se" to have different interests regarding the monetary policy, for which there is no evidence so far. In general, however, the more potentially weak or unreliable candidates join the monetary union, even though these are small states, the higher the risk of negative effects on the stability of the European monetary policy.

Even the assumption that the accession of a very small state, like one of the Baltic countries, would not have any influence on the monetary union is probably incorrect. If such a small country transpires to be in the same situation as Greece, the conflict would be the same. Sanctions for unsound behavior are currently "blunt weapons" in the European Monetary Union, and the postulate of European solidarity is held up by politics. If an exception is made only for one country – even for a very small country – referring to the no-bailout clause (as happened in Greece), other countries would rely on it. Then the monetary union would not become a community of stability, but a redistributing community. The reason is that the alternative – the possible withdrawal of a country from the monetary union – is still viewed as a serious problem for the entire community, and a subsequent break-up of the monetary union is feared.

This fear must be qualified, however. It must be realized that the larger a community is, the more important is the possibility that countries may withdraw from the union. Just as the voluntary withdrawal of countries from the EU is now anchored in the Treaty of

Lisbon, an exit option from the European Monetary Union should be dealt with among the euro member states.²⁰ The exit of unsound countries could even strengthen the overall monetary union if it is the result of a consistent stance of the ECB and the other members of the monetary union, which do not want to be forced to bail out unsound partner countries.

Of course, the exit from a monetary union is associated with very high costs. The respective countries, as a rule, have a very high level of public debt, which is denominated in euro. After a withdrawal from the monetary union and the introduction of a national currency, the debt would then be denominated in a foreign currency. Due to initial strong depreciation of the new national currency, the debt service and repayments in foreign exchange would become extremely expensive. On the other hand, sharp depreciation can quickly bring about the necessary improvement in competitiveness, which could otherwise be achieved only through strong wage and price cuts, which are often not accepted by citizens.

In any case, against this background, future accession candidates (and these are, except for Poland, especially small Eastern European countries) should consider carefully whether they should delay the accession, to build up sufficient stability potential in order to avoid the risk of a subsequent and costly exit.

On the other hand, if the union would like to permit a relatively rapid entry of other (small) countries to the euro area, the sanctions of the Stability and Growth Pact should be tightened considerably,²¹ that is, they should be applied automatically without any negotiations. At the same time, it should be ensured that a country with a high self-inflicted deficit must stabilize on its own, and should not expect any help from a partner country. Only in this way would there be enough incentives to make a European Monetary Union with many (mostly small) member countries remain a stable union.

5. Conclusion

Small countries in the EU are far from creating a homogeneous group. They differ in the length of EU membership, income per capita, membership and non-membership of the European Monetary Union, production structure, foreign trade policy and stability readiness. However, they do share some common characteristics, particularly their

²⁰In extreme cases, it could even be considered whether member countries should be able to force another member, which is characterized by continuing destabilizing behavior, to withdraw from the monetary union.

²¹ In contrast to the reform of the Stability and Growth Pact in 2005.

relatively high openness, through which domestic macroeconomic target variables are easily affected by foreign shocks. However, this alone does not allow a definite assessment of the advantages and disadvantages of EMU membership. Ultimately, even in a small country, the welfare gains of joining a monetary union depend on the extent to which the benefits (if existent) of higher financial credibility outweigh the loss of an autonomous monetary policy.

Concerning the European Monetary Union it holds that small member countries per se are not more problematic than their bigger counterparts. However, the more potentially unsound candidates join the monetary union – even if they are tiny states – the higher the risk of negative impacts on the stability of the European monetary policy and thus on the entire monetary union. Therefore, with regard to their significance in the EMU, in no case should cutbacks be made for small countries concerning stability requirements, either in regard to the convergence criteria or in regard to the implementation of the Stability and Growth Pact and the no-bailout clause.

References:

- Badinger, Harald/Breuss, Fritz (2002), Do small countries of a trade bloc gain more of its enlargement?, IEF Working Paper, No. 46, Vienna.
- Badinger, Harald/Breuss, Fritz (2009), Country size and the trade effects of the euro, in: Review of World Economics, Vol. 145, pp. 207–223.
- Baldwin, Richard (2006), In or Out: Does it Matter? An Evidence-Based Analysis of the Euro's Trade Effects, CEPR, London.
- Berger, Helge/Nitsch, Holger (2008), Zooming out: The trade effect of the euro in historical perspective, in: Journal of International Money and Finance, Vol. 27, pp. 1244–1260.
- Bonelo, Michael (2005), The challenges of EMU for a small, open economy, in: Breuss, Fritz/Hochreiter Eduard (eds.), Challenges for Central Banks in an Enlarged EMU, Springer, Vienna, pp. 13–21.
- Brixiova, Zuzana/Morgan, Margaret/Wörgötter, Andreas (2009), Estonia and the Euro adoption, OECD Economics Department Working Papers No. 728.
- Campa, José Manuel/Minguez, José Gonzalez (2006), Differences in exchange rate pass-through in the euro area, in: European Economic Review, Vol. 50, pp. 121–145.
- Casella, Alessandra (1996), Large countries, small countries and the enlargement of trade blocs, in: European Economic Review, Vol. 40, pp. 389–415.
- Coricelli, Fabrizio/Jazbec, Bostjan/Masten, Igor (2006), Exchange rate pass-through in EMU acceding countries: Empirical analysis and policy implications, in: Journal of Banking and Finance, Vol. 30, pp. 1375–1391.

- Damijan, Joe P. (2001), Main economic characteristics of small countries: Some empirical evidence, in: Salvatore/Svetliéciéc/Damijan (eds.), Small Countries in a Global Economy: New Challenges and Opportunities, Houndsmill, pp. 91–130.
- Frankel, Jeffrey/Rose, Andrew (1998), The endogeneity of the optimal currency area criteria, in: Economic Journal, Vol. 108, pp. 1009–1025.
- Jones, Erik/Frieden, Jeffrey/Torres, Francisco (1998), EMU and the smaller member states, in: Jones/Frieden/Torres (eds.), Joining Europe's Monetary Club. The Challenges for Smaller Member States, Houndsmill, pp. 1–18.
- König, Jörg/Ohr, Renate (2011), Small but beautiful? Economic impacts of the size of nations in the European Union, *cege* Discussions Papers No. 128, Göttingen.
- Krugman, Paul (1993), Lessons of Massachusetts for EMU, in: Torres, F./Giavazza, F. (eds.), Adjustment and Growth in the European Monetary Union, Cambridge, pp. 241–261.
- Mundell, Robert (1973), Uncommon arguments for common currencies, in: Johnson/Swoboda (eds.), The Economics of Common Currencies, Harvard University Press, Cambridge pp. 115-132.
- Ohr, Renate (2009), European Monetary Union at ten: Had the German Maastricht critics been wrong?, Diskussionsbeiträge des Volkswirtschaftlichen Seminars, Universität Göttingen, No. 141, Göttingen.
- Ohr, Renate/Schmidt, André (2001), Europäische Geld- und Währungspolitik: Konsequenzen der gemeinsamen Währung, in: Ohr/Theurl (eds.), Kompendium Europäische Wirtschaftspolitik, Munich, pp. 417–465.
- Rose, Andrew (2000), One money, one market: The effect of common currencies on trade, in: Economic Policy, Vol. 30, pp. 7–45.
- Salvatore, Dominick (2001), The economic performance of small versus large nations, in: Salvatore/Svetliéciéc/Damijan (eds.), Small Countries in a Global Economy: New Challenges and Opportunities, Houndsmill, pp. 71–87.
- Schnabl, Gunther (2007), Exchange rate volatility and growth in small open economies at the EMU periphery, ECB Working Paper Series No. 773.
- Sepos, Angelos (2005), Differentiated integration in the EU: The position of small member states, European University Institute Florence, WP No. 2005/17.

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