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LESSONS FROM THE EURO ZONE EXPERIENCES FOR THE CEE ENTRANTS **

The unexpected phenomenon in functioning of the euro zone was relatively rapid competitiveness differentiation among the member countries. In some of the euro zone countries the main factor that contributed to the deterioration of their international competitiveness was the negative feedback loop between low level of real interest rate and unsustainable credit boom. The experiences of Spain and Ireland illustrate that unsustainable credit booms are possible also in case of these monetary union members that are highly advanced in real convergence and succeeded both in liberalizing their labor markets and keeping budgets in balance. In the case of the Central and Eastern European (CEE) catching-up economies the risk of a fall in real interest rates that might trigger unsustainable credit boom is augmented by inflationary pressures stemming from the Balassa-Samuelson effect (BSE) and the convergence of their price levels towards the average euro zone level. The important lesson from the euro zone experiences for the CEE countries is the necessity to tighten banking supervision in order to shield their economies against the risk of an unstable lending boom after joining the euro zone.

Keywords: real convergence, lending booms, international competitiveness, banking supervision

1. INTRODUCTION

The discussions on Poland's joining the euro zone focus mainly on fulfilling the Maastricht criteria. The purpose of this paper is to underline the necessity to discuss how to avoid unsustainable credit boom and the resulting deterioration of international competitiveness after Poland's joining the euro zone. The necessity to discuss this issue stems not only from the experiences of the Baltic states. Some euro zone countries – like Portugal,

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Spain and Ireland – were also exposed to a negative feedback loop between a fall in real interest rates and unsustainable credit boom that harmed their international competitiveness.

In the case of the CEE countries there are several factors that increase the risk of such a negative feedback loop. The first is still large gap between price levels in the CEE economies and the average level in the euro zone. The convergence of price levels might produce persistent inflationary differentials (Darvas, Szapary, 2008). The second factor is the wage pressure stemming from the Balassa-Samuelson effect (Balassa 1964, Samuelson 1964). The third factor is the higher equilibrium interest rate level in the CEE catching-up economies than that in the "old" euro zone economies. All three factors amplify the risk that real interest rates in the CEE countries may stay below their equilibrium levels after joining the euro zone. The low level of real interest rate may trigger unsustainable credit booms in the CEE economies as they enjoy a period of the relatively high rate of growth in disposable incomes that makes loans more affordable for households (Egert, Michajlek, 2007).

In the case of the CEE countries the inflationary pressures stemming from real convergence have been tamed by now by their autonomous monetary policies and the appreciation of the exchange rates. After Poland's joining the euro zone, the nominal appreciation of the Polish zloty will no longer neutralize inflationary pressure stemming both from the Balassa-Samuelson effect (BSE) and the convergence of the price level towards the euro zone average level. The resulting rise in inflation may trigger a negative feedback loop between a fall in real interest rates and an unsustainable credit boom. This might, in turn, result in overheating in the economy that might erode Poland's international competitiveness as was the case in the Baltic states, Portugal, Spain and Ireland. The effectiveness with which Poland will hedge its economy against this risk will decide about the actual balance of costs and benefits from joining the euro zone (Eichengreen, Steiner, 2008).

The risks for the CEE entrants stemming from the conflict between real and nominal convergence were discussed in the literature. However, the inflationary pressures stemming from the BSE were perceived mainly as an obstacle to the fulfillment of the Maastricht criteria (De Grauwe, Schnabl, 2004). Probably the reason for adopting such an approach was that in theory inflation stemming from the BSE should not harm competitiveness of an economy, as it reflects the differences between the rates of productivity growth in different countries. Such an assumption resulted in differentiation between the 'bad' inflation and the 'good' inflation stemming from the BSE. The other reason for perceiving the BSE mainly as a hindrance to fulfilling

the Maastricht criteria by the CEE countries was the assumption of large-scale pro-trade effects derived from joining the euro zone. They were expected to speed up the CEE economic integration with the euro zone. Thus, it was assumed that large pro-trade effects would reduce substantially the costs of joining monetary union (Frankel, Rose, 1998, Rose 2000).

The experiences of the first decade of the euro zone functioning shed a new light on the risks related to joining of a monetary union. The credit booms that eroded international competitiveness of some euro zone countries highlighted the risk of boom-bust cycles in the CEE countries after their joining the euro zone (Brzoza-Brzezina, 2005, Egert, Backe, Zumer, 2007, Brzoza-Brzezina, Chmielewski, Niedźwiedzińska, 2007). However, it was underlined in the literature that it was difficult to diagnose whether the high rate of growth of bank lending in the accession countries was a beginning of unsustainable credit booms or an equilibrium phenomenon driven by economic convergence (Herzberg, Watson, 2007). Thus, until recently, it was assumed that liberalization of labour markets and fiscal prudence should effectively hedge the CEE countries against boom-bust cycles after their joining the euro zone. The necessity of structural reforms was also stressed as means to enhance productivity growth. Structural reforms are necessary to make the CEE economies more flexible and able to return on an equilibrium growth path after demand or supply shock without support from monetary or fiscal policy (De Grauwe, 2006).

The experiences of some euro zone countries illustrate that labour market reforms and fiscal prudence are not sufficient to shield effectively a monetary union member against the risk of a boom-bust cycle. The paper highlights the necessity to adopt a dynamic approach to the banking supervision through giving regulators tools that would enable them to neutralize procyclicality of bank lending. The remainder of the paper is organized as follows. Section 2 discusses why some of the euro zone countries were losing their international competitiveness against other member countries. Section 3 formulates the lessons from euro zone experiences for the CEE countries. Section 4 offers policy conclusions.

2. THE WIDENING COMPETITIVENESS DIFFERENTIATION ACROSS THE EURO ZONE

The creation of the euro zone brought about a spectacular success. The implementation of a common currency has contributed to the growth in trade

and wealth in Europe (De Grauwe, Mongelli, 2005). The scale of the pro-trade effect was smaller than initially expected (Bun, Klaassen, 2002, Baldwin, 2006). Nonetheless, the creation of the euro zone will effectively enhance long-term economic growth, if Europe succeeds in achieving more political integration (De Grauwe, 2006).

The negative phenomenon was the speed of competitiveness differentiation across the euro zone economies (Landmann, 2009). Such developments were largely unexpected. Initial analyses assumed that large current account deficits of some member countries did not result from a loss of their international competitiveness. It was argued that the large current account deficits in Portugal and Greece were the natural outcome of their better growth prospects leading to an increase in investment and a decrease in savings. This led to the conclusion that the large current account deficits in Portugal and Greece were equilibrium phenomenon and there was no necessity to adjust economic policies of the both countries (Blanchard, Giavazzi, 2002). Soon it turned out that the large external imbalances within the euro zone were not transient phenomenon. The reason was the rapid competitiveness differentiation across the euro zone economies. In case of Portugal, relatively short-period of consumption spree financed by lending boom was followed by a long period of unsuccessful efforts to regain international competitiveness that did not stopped the reversal of real convergence (Christodoulakis, 2009). Soon, Spain entered a period of unsustainable credit boom that was contributing to the steady deterioration of international competitiveness and the massive widening of the trade deficit.

The main reason behind the rapid competitiveness differentiation across the euro zone economies was that in several member countries unit labour costs (ULC) were growing much faster than in the German economy (table 1). Although in small open economies, like Austria and Finland, and in France the ULC were rising faster than in Germany, the economies of these countries managed to keep pace with the German economy in terms of the real effective exchange rate (REER). The fastest deterioration of international competitiveness occurred mainly in those countries that were relatively less open and relatively less integrated with the German economy (Arghyrou, Chortareas, 2008). It might seem unexpected that the largest rise in ULC occurred in Ireland; i.e. in a small open economy that succeeded in implementing a number of structural reforms. The high rate of the ULC growth in Ireland resulted from the fact that the Irish economy was the only one that was successfully catching up with the wealthiest euro zone

countries. This resulted in a relatively high rate of growth in wages that pushed up the growth in the ULC. The rise in ULC was augmented also by the inflationary pressures stemming from the housing boom (Ahearne, Delgado, Weizsacker, 2008).

Table 1
Cumulated ULC growth (1999-2007)

Country	ULC growth
Germany	2.3%
Austria	5.9%
Finland	11.6%
Belgium	14.2%
France	17.2%
The Netherlands	21.7%
Italy	23.7%
Spain	26.4%
Portugal	27.6%
Greece	28.3%
Ireland	33.0%

Source: *Monitoring Labour Cost Developments Across Euro Area Countries*, "ECB Monthly Bulletin", November 2008, p. 70

The deteriorating competitiveness of the Italian and Portuguese economies pushed them into a period of economic stagnation. The Spanish economy enjoyed a relatively high rate of growth, but the main factor supporting this growth was a long-term housing boom. Since 2005, the growth in Spanish exports has weakened, which has been reflected in a constant widening current account deficit (Royo, 2006). In the case of the Irish and the Spanish economies the deterioration of their international competitiveness resulted not only from the higher rate of wage inflation than in other euro-zone countries. The long-term overinvestment in construction sectors of both economies directed the excessive amount of resources toward the uses characterized by low productivity growth (Lopez-Salido, Sinn, Restoy, 2005, Roubini, Parisi-Capone, Menegatti, 2007).

The speed with which several euro zone economies were losing their international competitiveness resulted also from developments in the German economy where the cumulative growth of ULC was amazingly low. It amounted to only 2% in 8 years (table 1).

There were a number of factors producing such extremely slow ULC growth in the German economy. One of them was liberalization of the labour market. In 2003, fixed-term wage contracts were liberalized. In 2004, all restrictions on temporary work were lifted (Horn, Logeay, Rietzler, 2008).

The important factor producing the low rate of growth in wages was that for decades German economy has had to cope with almost constant appreciation of the German mark against other European currencies. German trade unions learned to avoid excessive wage demands not to harm international competitiveness of the economy. In 1999, Germany joined the euro zone with overvalued exchange rate. Especially during this period a wage moderation was needed to revitalize German exports. In Italy, Spain and Portugal there was no such tradition. Before joining the euro zone all these countries were devaluing periodically their currencies to restore competitiveness of exports (Gros, 2006).

The other specific factor that put a lid on wage demands in German industry was the large scale of off-shoring. German firms were outsourcing production to Central Europe and Asia to reduce the labour costs (Sinn, 2005, Danniger, Joutz, 2007). The scale of the off-shoring was much larger in Germany than in other euro zone countries. Since the mid 1990s, the ratio of German exports to GDP almost doubled to more than 40% while in Italy, France and Spain it stayed at 20-25% (Belke, Gros, 2006). The large scale of off-shoring put a cap on wage growth in Germany, because German trade unions had to take into account that excessive wage demands might lead to more jobs migrating abroad.

Table 2

Change of nominal unit labour cost in %

	Germany	**Euro area excluding Germany**
1996	0.0	2.3
1997	-1.1	1.1
1998	0.1	0.3
1999	0.4	1.4
2000	0.6	1.4
2001	0.8	3.0
2002	0.8	3.1
2003	0.8	2.5
2004	-0.3	1.6
2005	-1.0	2.1
2006	-1.1	1.8

Source: G. Horn, C. Logeay, K. Rietzler, *Much Ado about Nothing? Recent Labor Market Reforms in Germany – a Preliminary Assessment*, “Management Revue”, Vol. 19, issue 3, 2008, p.175

The low rate of ULC growth in Germany (table 2) was a kind of ‘competitive disinflation’ that contributed to the deterioration of the

international competitiveness of the Portuguese, Italian, Spanish and Irish economies. The recent crisis may help the Southern cone euro zone countries to recover their competitiveness against the German economy, however the necessary restructuring at micro-level will probably take a long period of sub-trend growth producing relatively high unemployment and a slow growth in disposable incomes. This looks challenging from political point of view, nonetheless the Southern cone euro zone countries will probably go through a similar adjustment process that took place in France in the 1980s, when 'Franc fort' policy was adopted and French corporates started to narrow the productivity gap against their German competitors (Brenden, Weber, 1993). If such adjustment policies are not implemented in the Mediterranean euro zone economies, the EMU will be at risk (Gros, 2006).

3. THE RISK OF A NEGATIVE FEEDBACK LOOP BETWEEN FALL IN REAL INTEREST RATE AND CREDIT BOOM

The CEE countries are undergoing the process of real convergence that brings about a faster rate of productivity and GDP growth. The important driver of the real convergence are FDI inflows to the new EU countries that enable them to narrow the technological and managerial gap in relation to the euro zone countries. The situation is similar as was in Western Europe after the II World War, when the inflow of American FDI helped Europe to converge economically with the US economy (Alesina, Giavazzi, 2006).

Due to the real convergence, the rate of productivity growth in the CEE countries might be higher than in the euro zone countries for a long period of time. This could give the CEE countries a lasting competitive edge over the 'old' euro zone countries. Until now, the CEE countries were keeping these competitive edge despite the inflationary pressure stemming from the BSE. The wage pressure spreading from the tradable to the non-tradable sectors of the CEE economies was tamed by the autonomous monetary policies and the appreciation of the exchange rates. The CEE currencies were appreciating largely along with their equilibrium levels. Thus, the appreciation of the exchange rates was taming inflation pressures in the CEE countries without harming their international competitiveness.

In theory inflation resulting exclusively from the BSE does not harm international competitiveness of a catching-up economy as it reflects only the higher productivity growth in the tradable sectors of this economy. Nonetheless, if the same catching-up economy is a member of a monetary

union, the rise in inflation resulting from the BSE may produce a fall in real interest rate that may trigger a credit boom. This may push up inflation above the level suggested by the BSE and create a negative feedback loop between the low level of real interest rate and a lending boom. The risk of such a negative feedback loop was illustrated clearly by the experiences of the Baltic states that adopted currency board systems (Sławiński, 2007).

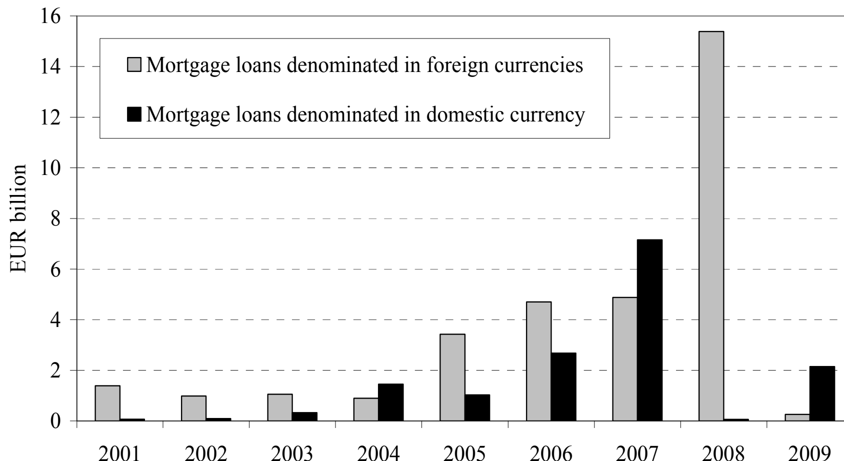
There are the two factors, apart from the BSE, that increase the risk of a negative feedback loop between low real interest rate and unsustainable credit boom in the CEE countries after their joining the euro zone. The first is that the equilibrium interest rate level in the CEE economies undergoing real convergence is higher than in the developed EMU economies. The second factor is the 40% gap between the price levels in the CEE countries and the average price level in the euro zone countries. The catching up process will produce a narrowing of this gap that might result in persistent inflation differential between the CEE entrants and the 'old' euro zone countries.

The price level gap may be closed through nominal appreciation of the domestic currency or through a rise in inflation. The Czech Republic did not decide for an early euro adoption in order to keep the Czech koruna nominal appreciation as a way to prevent the convergence of price levels through the increase in inflation (Czech National Bank, 2009).

For some of the CEE entrant countries the risk of a negative feedback loop between a low level of interest rate and a credit boom is not only a potential threat. To an extent it did materialize in the form of a rapid growth in foreign exchange mortgage lending in Hungary and Poland. Banks in both countries were offering foreign exchange mortgage loans at a substantially lower interest rate than in case of mortgage loans denominated in domestic currencies. In 2007, foreign currency lending amounted to 56% of the total loans extended to households in Hungary and to 25% in Poland (Brown, Peter, Wehrmüller, 2009).

The veritable boom in foreign exchange mortgage lending occurred in 2007 and 2008 when the 'decoupling hypothesis' triggered a flood of short-term interbank loans from the developed countries to the emerging economies (in summer 2007, financial markets came to believe that growth in emerging economies would stay high despite the recession in the developed economies). In 2008, the mortgage loans denominated in foreign currencies extended by the Polish banks grew by EUR 15 billion (chart 1). The stock of these loans almost doubled from EUR 17 billion in 2007 to EUR 32 billion in 2008.

Chart 1. Poland: Annual growth in mortgage loans



Source: NBP data

After the collapse of the Lehman Brothers the global foreign exchange swap market (through which the inter-bank loans were channeled) suddenly stopped to operate. Polish banks were cut off from foreign financing. The National Bank of Poland started to offer foreign exchange swaps to the domestic banks in order to enable them closing their financing gap. Nonetheless, foreign exchange mortgage lending to the households came to a halt.

The situation in Poland was not as difficult as in Hungary where the IMF had to offer a rescue lending. The commonly held view was that the credit crunch in Poland was not serious and it resulted exclusively from the global banking crisis. It was also widely believed that the reason why Polish banks did not suffer large losses was that they were not engaged in risky financial 'innovations' and in 'predatory' lending. This was true, but to an extent. The developments in the Polish credit market show that the foreign exchange mortgage lending was treated by the domestic banks as a kind of financial 'innovation' enabling them to increase the 'sale' of mortgage loans and incomes from fees.

In 2008, the sharp rise in the volume of the foreign exchange mortgage loans extended was achieved undoubtedly at the cost of deterioration of

lending standards. Thus, it was a kind of 'predatory' lending. Thus, not only the experiences of the Baltic states and some of the euro zone countries but also the experiences with foreign exchange mortgage lending in Hungary and Poland illustrate the risk of unsustainable credit booms in the CEE countries after their joining the euro zone.

The general lesson from all these experiences is that the labour market reforms and fiscal prudence have to be supplemented with changes in the banking supervision that should help the CEE countries to avoid unsustainable lending booms that might deteriorate their international competitiveness and harm the prospects for long-term economic growth.

The necessary changes in the banking supervision can be derived from the experiences of the recent global banking crisis. There were the three major weaknesses of the banking supervision. The first was the procyclical character of the capital adequacy ratios. The second was off-balance sheet securitization that enabled banks to circumvent the limits imposed by the capital adequacy ratios on the volume of loans extended. The third weakness was that banking supervision was not in a position to effectively stop the deterioration of the lending standards resulting from procyclical lending.

It was not by coincidence that Spain was the first country that introduced the 'dynamic provisioning' system (forcing banks to adjust their capital adequacy ratios in an anti-cyclical manner) and obligatory consolidation of balance and off-balance bank sheets to prevent misuse of securitization. These innovative changes in banking supervision were implemented despite the heavy criticism from the Spanish banks that were afraid to lose their competitive position against foreign banks. The Spanish monetary authorities were determined to tighten the banking supervision in order to substitute the loss of independent monetary policy by the adoption of the anti-cyclical regulatory approach (Garcia-Herrero, Fernandez de Lis, 2008).

The 'dynamic provisioning' and the consolidation of banks balance and off-balance sheets were innovative and favourable changes in the Spanish banking supervision that will be followed by other countries. Nonetheless, these changes were not sufficient to shield the Spanish economy against the unsustainable boom-bust cycle. This highlights the necessity to introduce also the systems of 'dynamic regulation' that would give bank supervisors authority to adjust bank lending standards to the changing phases of the business cycles. Regulators should have the right to impose caps on loan-to-value, loan-to-income and debt-to-income ratios (FSA, 2009).

The important lesson from the unsustainable housing booms in Spain and Ireland is also that these booms were augmented by the generous tax

provisions for owner occupied housing in both countries (Delgado, Weizsacker, 2008). In Spain and Ireland the tax wedge (i.e. the difference between after-tax and pre-tax real interest rate on mortgage loans) was among the largest in Europe (Noord, 2003). Previously, it was assumed that the balanced fiscal budget was an efficient way to tame a housing boom (Gerald, 2005). It turned out not to be the case. The long lasting mortgage booms in Spain and Ireland produced an ample increase in budget revenues that produced a disincentive for the governments of both countries to use fiscal tightening as a tool to prevent overheating of the economy (Honohan, 2006). Between 1997 and 2007, the share of property-related tax revenues in the Irish budget increased from 4.7% to 14% (Lane, 2008). Such a large growth in tax revenues enabled Irish government to increase expenditures without allowing for the budget deficit. Also in Spain the housing boom enabled the government to keep the state budget in balance despite constant increase in expenditures. Thus, despite the balanced budgets in Spain and Ireland the fiscal policy of the both countries was in fact procyclical.

5. CONCLUDING REMARKS

Initially, the discussions on the CEE countries membership in the euro zone were focusing on the problem of fulfilling the Maastricht criteria. There were several proposals of adjusting them for the CEE catching-up economies. As regards inflation criterion, it was proposed to take into account only tradables' prices, which would neutralize the problems produced by the BSE (Buiter, Grafe, 2002). As regards exchange rate criterion, it was proposed to adopt Willem Buiter's „*to set the date and the rate*" approach, which would allow an early euro adoption for countries that went through a disinflation process and reformed their public sectors (Buiter, 2004). Both proposals were rational, but there was no political will to adjust the Maastricht criteria for the CEE countries by taking into consideration that they have to cope with the conflict between nominal and real convergence. The only important change was the amendment of the inflation criterion which now does not regard countries with deflation as 'the best performers'.

The general lesson from the first decade of the euro zone functioning is that joining a monetary union may increase the risk of a negative feedback loop between low level of real interest rate and unsustainable lending boom. The risk of such a negative feedback loop was illustrated by the experiences

of the Baltic states. The experiences of Spain and Ireland highlighted the importance this risk, because they illustrated that unsustainable credit booms took place in the economies of these monetary union members that were highly advanced in the process of real convergence. Additionally, the developments in the Spanish and Irish economies also illustrate that even small but persistent inflationary differentials may lead to large and lasting competitive losses (Hoeller, Rae , 2007).

Previously, it was assumed that the effective shield against overheating of an economy participating in a currency zone was the liberalization of the labour market and imposing fiscal discipline (De Grauwe, Schnabl, 2004, Gerald, 2005). The experiences of Spain and Ireland illustrate that fiscal discipline and labour market reforms are not sufficient to avoid a long-term and an unsustainable credit boom. The experiences of the both countries highlight the general lesson from the recent global banking crisis on the necessity of reshaping of the banking supervision. The necessary changes are the 'dynamic provisioning' and the 'dynamic regulation'. Bank supervisors should have the authority to adjust banks' capital adequacy ratios and lending standards to the changing phases of the business cycle. Such regulatory changes are strongly advised especially for the CEE countries that intend to join a monetary zone at the cost of resigning from autonomous monetary policy and domestic currency appreciation as means of neutralizing the inflationary bias stemming from the BSE and the convergence of the price levels in their economies toward the average euro zone level.

Additionally, the Spanish experience teaches us that even bold changes in banking supervision may not be sufficient to tame the risk of a boom-bust cycle. This poses the question about other economic policy changes that might shield an economy of a monetary union member against the risk of an unsustainable credit boom that might result in an excessive rise in unit labour costs and the consequent deterioration of international competitiveness.

The experiences of Ireland and Spain showed that the factor feeding a housing boom was also generous tax provisions for owner occupied housing. Thus, the advisable tool to shield an economy against the risk of a house price boom is to implement a progressive property tax as a national economic stabilizer despite the difficult political economy of imposing such a tax (Muellbauer, 2003).

The general prescription to hedge an economy against the risk of a competitive loss after joining a currency zone are structural reforms that

enhance competition and improve the flexibility of the economy (Pisani-Ferry, Agnion, Belka, Von Hagen, Heikensten, Sapir, 2008). Scandinavian countries economic success resulted largely from ample expenditures on education and from the successful deregulation of their economies (EEAG, 2007). While the Spanish economy was gradually losing its competitiveness against German and French economies, the authorities of this country has recently launched bold institutional reforms to deregulate previously monopolized sectors of the economy including telecommunication and the energy sectors (IMF, 2008). The importance of institutional changes promoting competition is highlighted by the empirical research showing that the differences in productivity growth among various countries can be explained more by competitive environment than by access to technology, capital and skilled labour (Blanchard, 2007).

Joining a monetary union means resigning from monetary policy as a tool of demand management at the national level. The change that might increase the possibilities to use fiscal policy in such a role would be creation of independent fiscal policy councils. Such councils would also enable to reduce the influence of the 'political cycle' on the economy (Calmfors 2003, Wyplosz 2005).

The political economy of implementing structural all these institutional changes is usually challenging. However, the progress in implementing structural reforms by the CEE countries will decide on the actual balance of costs and benefits of their joining the euro zone.

REFERENCES

Ahearne, A., Delgado, J., Von Weizsacker, J., *A Tail of Two Countries,* "Breugel Policy Brief", June 2008.

Alesina, A., Giavazzi, F., *The Future of Europe: Reform or Decline*. The MIT Press, Cambridge, Massachusetts, London, 2006.

Analysis of the Czech Republic's Current Economic Alignment with the Euro Area, Czech National Bank, 2009.

Arghyrou, M. G., Chortareas, G., *Real exchange rates and current account imbalances in the Euro Area*, "Review of International Economics", Vol. 16, Issue 4, pp.747-764, September 2008.

Balassa, B, *The Purchasing-Power Parity Doctrine: A Reappraisal*, "Journal of Political Economy", No. 6/1964.

Baldwin, R. E., *In or out: does it make a difference?,* mimeo, May 2006.

Belke, A., Gros, D, *Instability of the Eurozone? On Monetary Policy, House Prices and Structural Reforms*, "Hohenheimer Diskussionsbeitrage" Nr. 271/2006, Universität Hohenheim, Stuttgart, 2006.

Blanchard, O., Giavazzi, F., *Current Account Deficits in the Euro Area. The End of the Feldstein-Horioka Puzzle?*, "Brookings Papers on Economic Activity", 2, pp. 147-186, 2002.

Blanchard, O., *Adjustment within the euro. The difficult case of Portugal*, "Portuguese Economic Journal", Vol. 6, No. 1 April 2007.

Brown, M., Peter, M., Wehrmüller, S., *Swiss Franc Lending*, "Aussenwirtschaft; Zeitschrift für internationale Wirtschaftsbeziehungen", pp. 167-181, June 2009.

Brzoza-Brzezina, M., *Lending booms in the new EU member states – will euro adoption matter?* "Working Paper Series", ECB, No. 543/2005.

Brzoza-Brzezina, M. Chmielewski, T. Niedźwiedzińska, J., *Substitution between domestic and foreign currency loans in Central Europe. Do central banks matter*. Paper for the conference *Monetary Policy Challenges Resulting from the Rapid Credit Growth in Converging Economies*, National Bank of Poland, Warsaw. November 22, 2007.

Buiter, W. H., Grafe, C., *Anchor, Float or Abandon Ship: Exchange Rate Regimes for Accession Countries*, "CEPR Discussion Paper", No. 3184/2002.

Buiter, W. H., *An Attendant Godot? Financial instability risk for countries targeting Eurozone membership*, CEPR/ESI 8th Annual Conference: EMU Enlargement to the East and West, Hungarian National Bank, Budapest, September 24-25, 2004.

Bun, M. J. G., Klaassen, F., J., *Has the Euro Increased Trade?,* "Tinbergen Institute Discussion Paper", 08/2/2002.

Calmfors, L., *Fiscal Policy to Stabilise the Domestic Economy in the EMU: What Can We Learn from Monetary Policy*, "CESifo Economic Studies", Vol. 49/2003.

Christodoulakis, N., *Ten years of EMU: convergence, divergence and new policy priorities*, The European Institute, "GreeSE Paper" No. 22, London School of Economics, January 2009.

Danniger, S., Joutz, F., *What Explains Germany's Rebounding Export Market Share?,* "IMF Working Paper", 24/2007.

Darvas, Z., Szapary, G., *Euro Area Enlargement and Euro Adoption Strategies*, "Discussion Paper" Mt-DP-2008/24, Institute of Economics, Hungarian Academy of Science, Budapest 2008.

De Grauwe, P., *On Monetary and Political Union*. Paper prepared for the CESifo Workshop on "Enlarging the Euro Area", November 24, 2006.

De Grauwe, P., Schnabl, G., *Nominal versus Real Convergence with Respect to EMU Accession: How to Cope with Balassa-Samuelson Dilemma*, "EUI Working Papers", No. 20/2004.

De Grauwe, P., Mongelli, F. P., *Endogeneities of Optimum Currency Areas. What Brings Countries Sharing a Single Currency Close Together?,* "ECB Working Paper" No. 468, April 2005.

Dobrinsky, R., *Catch-up inflation and nominal convergence*, "Economic Systems" No. 30, 2006.

Dullingham, A. J., *Evolution of France's European Monetary Diplomacy*. Paper prepared for the Fourth Biennial International Conference European Community Studies Association; Charleston, South Carolina USA, May 11-4, 1995. http://aei.pitt.edu

Egert, B., Mihaljek, D., *Determinants of house prices in central and eastern Europe*, "BIS Working Papers", No. 236, September 2007.

Egert, B., Backe, P., Zumer, T., *Private sector credit in central and eastern Europe: new (over)shooting stars?*, "Comparative Economic Studies", Vol. 49/2007, p. 201-231.

Eichengreen, B.,. Steiner, K., *Is Poland at Risk of a Boom-and-Bust Cycle in the Run-Up to Euro Adoption?* Paper for the conference *Common Currency and Its Future: Lessons for the New Member States*, NBP, Warsaw, October 2008.

Estrada, E., Jimeno, J. F., Malo de Molina, J. L., *The Spanish Economy in EMU: The First Ten Years*, "Documentos Ocasionales" No. 0901, Banco de Espana, 2009.

Financial Services Authority, *Mortgage Market Review*, "Discussion Paper", 09/3, London 2009.

Frankel, J. A., Rose, A. K., *The Endogeneity of the Optimum Currency Area Criteria*, "The Economic Journal" 108, July 1998.

Garcia-Herrero, A., Fernandez de Lis, S., *The Housing Boom and Bust in Spain: Impact of the Securitization Model and Dynamic Provisioning,* "BBVA Working Papers", September 2008.

Gerald, J. F., *Managing an economy under EMU: The Case of Ireland*, The Economic and Social Research Institute, mimeo, May 2005.

Gros, D., *Convergence or divergence for the euro laggards?* Centre for European Studies (CEPS), Brussels, July 2006.

Gros, D., *Will EMU survive 2010?*, The Centre for European Policy Studies, January 2006, www.ceps.be/wp.php?article_id=503

Herzberg, V., Watson, M., *Economic Convergence in South-Eastern Europe: Will The Financial Sector Deliver*, SUERF-The European Money and Finance Forum, Vienna 2007.

Hoeller, P. Rae, D., *Housing Markets and Adjustment in Monetary Union*, OECD, "Economics Department Working Paper" No. 550, April 17, 2007.

Honohan, P., *The Case of Ireland*. Presentation for Bank of Slovenia conference *Small Countries Coping with EMU*, Ljubljana, October 26, 2006 www.bsi.si/en

Honohan, P., Leddin, A. J., *Ireland in EMU: More Shocks, Less Insulation?*. Paper presented at the conference *Macroeconomic Perspectives*, USD, Dublin, October 7, 2005.

Horn, G., Logeay, C., Rietzler, K., *Much Ado about Nothing? Recent Labor Market Reforms in Germany – a Preliminary Assessment*, "Management Revue", Vol. 19, Issue 3, p. 161-178, 2008.

Ingves, S., *Housing and Monetary Policy – a view from an Inflation Targeting Central Bank*, A speech during the Kansas City Federal Reserve Bank conference *Housing, Housing Finance and Monetary Policy*. Jackson Hole, Wyoming, August 2007.

Landmann, O., *EMU@10: Coping with Rotating Slumps*, University of Freiburg, Department of International Economic Policy "Discussion Paper" No. 9, July 2009.

Lane, P. R., *Setting a Course for Irish Fiscal Policy*, Economic and Social Research Institute, *Budget Perspectives 2009* Conference, October 7th 2008, www.esri.ie

Lopez-Salido, J. D., Sinn,. H-W., Restoy, F., *Inflation Differentials in EMU: The Spanish Case,* Banco De Espana, Documents de Trabajo, No. 0514, 2005.

Muellbauer, J., *The U.K. and the Euro – The Role of Asymmetries in Housing and Credit Market*. (in): *Submissions on EMU from leading academics*, HM Treasury 2003.

Van den Noord, P., *Tax Incentives and House Price Volatility in the Euro Area*, "OECD Economic Department Working Paper" No. 356, 2003.

Pisani-Ferry, J., Agnion, P., Belka, M., Von Hagen, J. Heikensten, L. Sapir, A., *Coming of age: Report on the euro area*, Breugel Blueprint Series, pp. 5-60, Brussels, 2008.

Rose, A., *One Money, One Market: Estimating the Effect of Common Currencies on Trade*, "Economic Policy" 30/2000.

Roubini, N., Parisi-Capone, E., Menegatti, Ch., *Growth Differentials in the EMU: Facts and Considerations*, "RGE Monitor", June 2007.

Royo, S., *The Euro and Economic reforms: The Case of Spain?*, Paper for the conference *Euro and the Dollar*, University of Miami, April 25, 2006.

Samuelson, P., *Theoretical Notes on Trade Problems*, "Review of Economics and Statistics", 64/1964.

Sinn, H-W., *Pathological Export Boom and the Bazaar Effect. How to Solve the German Puzzle?*, "CESifo Working Paper" No. 1708, October 2005.

Sławiński, A., *Ryzyko utraty kontroli nad wysokością realnej stopy procentowej w systemie izby walutowej* [*The risk of losing control over the level of real interest rate in a currency board system*], „Ekonomista", 2/2007.

Scandinavia Today: An Economic Miracle? The EEAG Report on the European Economy 2007.

IMF, *Spain*, Article IV Consultation, Washington D.C. 2008.

Wyplosz, Ch., *Fiscal Policy: Institutions versus Rules*, "National Institute Economic Review" No. 191, 2005.

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