

Policy Department  
Economic and Scientific Policy



# WORKSHOP

## The Financial Crisis and its impact on Euro Adoption

Presentations and Briefing notes

This workshop report was requested by the European Parliament's Economic and Monetary Affairs Committee (ECON)

Only published in English.

Responsible Administrator: **MAKIPAA, Arttu**  
Policy Department Economy and Science  
DG Internal Policies  
European Parliament  
Rue Wiertz 60 - ATR 00L044  
B-1047 Brussels  
Tel: +32 (0)2 2832620  
Fax: +32(0)2 284 90 02  
E-mail: [arttu.makipaa@europarl.europa.eu](mailto:arttu.makipaa@europarl.europa.eu)

Manuscript completed in February 2009.

The opinions expressed in this document do not necessarily represent the official position of the European Parliament.







**DIRECTORATE-GENERAL INTERNAL POLICIES OF THE UNION  
- DIRECTORATE A -  
ECONOMIC AND SCIENTIFIC POLICIES**

## **Workshop Programme**

### **The Financial Crisis and its Impact on Euro Adoption**

17 February 2009  
European Parliament, Brussels  
Room PHS 4B001, 15.00-17.30  
Interpretation - EN DE FR

*Introduction: Zsolt Becsey (MEP)*

**15.00 - 16.10      Session I - Views from Academia and Research**

*Chair: Dariusz Rosati (MEP)*

**Topics discussed:** How has the financial crisis affected the prospects of euro adoption in New Member States of the EU?

**Experts:** György Szapáry  
*Professor of Economics, Central European University, Budapest*  
Leszek Balcerowicz  
*Professor of Economics, Warsaw School of Economics, Chairman of Bruegel*  
Daniel Gros  
*Director of CEPS*

**16.10 - 17.30      Session II - High Level Officials from the New Member States**

*Chair: Daniel Daianu (MEP)*

**Topics discussed:** What are the concrete plans in the New Member States for euro adoption? How has the financial crisis affected them, and in which direction?

**Experts:** Ludwik Kotecki  
*Deputy Minister of Finance Responsible for Euro Adoption, Poland*  
Ferenc Karvalits  
*Deputy Governor, Central Bank of Hungary*  
Valentin Lazea  
*Chief Economist, Romanian National Bank*  
Discussant: Hans-Joachim Klöckers, *Deputy Director-General  
Economics, European Central Bank (ECB)*

*Closing remarks: Zsolt Becsey (MEP)*

For more information on this workshop, please contact [arttu.makipaa@europarl.europa.eu](mailto:arttu.makipaa@europarl.europa.eu).



# **Curricula Vitae**

## **Session I - Speakers**

### **György Szapáry**

György Szapáry has a PhD in economics from the Catholic University of Louvain, Belgium. During 1965-66, he worked at the European Commission in Brussels. From 1966 to 1990, he worked at the IMF in Washington and during 1990-1993 he was the Resident Representative of the IMF in Hungary. From 1993 to 2007 – with a short break when he was an advisor to the Governor - he served as Deputy Governor of the National Bank of Hungary, also being member of the Monetary Council. Currently he is visiting professor at the Economic Faculty of the Central European University, Budapest and is a member of the Board of Directors of OTP Bank, Hungary.

### **Leszek Balcerowicz**

Leszek Balcerowicz is Professor of Economics at the Warsaw School of Economics and the architect of Poland's economic reforms initiated in 1989. In September 1989 Leszek Balcerowicz became Deputy Prime Minister and Minister of Finance in the first non-communist government in Poland after II World War. He was also President of the Economic Committee of the Council of Ministers. In this vital period in Poland's transition he designed and executed the radical stabilization and transformation of Polish economy. He retained his positions in the government until December 1991. From April 1995 to December 2000 he was the president of the Freedom Union, a free market - oriented party. From 1997 to June 2000 he was Deputy Prime Minister, Minister of Finance and President of the Economic Committee of the Council of Ministers. In January 2001, he was appointed to the post of the President of the National Bank of Poland, a post he held until 2007.

### **Daniel Gros**

Daniel Gros is the Director of the Centre for European Policy Studies (CEPS), in Brussels. He is originally from Germany, however he attended University in Italy, where he obtained a Laurea in Economia e Commercio, as well as the United States, where he earned his M.A. and Ph.D (University of Chicago, 1984). Subsequently he worked at the IMF, the European Commission as well as various universities.

He has worked at CEPS in 1986-88 and then continuously since 1990. At present, his research concentrates on the impact of the euro on capital and labour markets and the international role of the euro, especially in Central and Eastern Europe. He also monitors the transition towards market economies and the process of enlargement of the EU towards the east (he advised the Commission and a number of governments on these issues). He was advisor to the European Parliament 1998-2005 and member of the Conseil Economique de la Nation (2003-2005); 2001-2003 he was a member of the Conseil d'Analyse Economique (advisory bodies to French Prime Minister and Finance Minister). Since 2002 he is member of the Shadow Council organised by Handelsblatt. Since April 2005 he is President of San Paolo IMI Asset Management. He is editor of *Economie Internationale* and editor of *International Finance*. He has published widely in international academic and policy oriented journals and authored many books.

## **Session II - Speakers**

### **Ludwik Kotecki**

Ludwik Kotecki is Deputy Minister of Finance of Poland in charge of euro adoption.

### **Ferenc Karvalits**

Ferenc Karvalits is Deputy Governor of the Magyar Nemzeti Bank, the Central Bank of Hungary. He began his career at the Hungarian Credit Bank Ltd. in 1990 where he became Managing Director in 1995. From 1996 he was the Head of the Banking Department at the Magyar Nemzeti Bank (the Central Bank of Hungary), in 1998 he was nominated to Managing Director and to the Member of the Board of Directors. From 2001 he was the Deputy General Manager of the Wallis Ltd., then Managing Director and CEO of the Central-European International Bank Ltd till 2005. He was Member of the Board of Directors at the Wallis Ltd., at the Graphisoft Ltd and at the Land Credit and Mortgage Bank Ltd. where he was the President of the Board of Directors till his nomination to Deputy Governor of the MNB in 2007. From 1996 he was lecturer at the Budapest University of Economic Sciences and the International Training Center for Bankers. Between 2004 and 2005 he was a member of the Economic Advisory Board of the Prime Minister.

### **Valentin Lazea**

Born in 1958, Mr. Lazea graduated from the Management Faculty of the Academy of Economic Studies, in 1982. Later he attended a one-year post-graduate course in economics at Sussex University, Brighton, as well as courses in banking (Milan) and in financial programming (Washington DC). Mr. Lazea has joined the National Bank of Romania in 1993, initially as an economist, later becoming head of the monetary policy division. Between 1996 and 2000, he has served as a Secretary of State (Deputy Minister) at the Ministry of Finance. Since 2001, he is Chief Economist of the National Bank of Romania. In this capacity, he participates in the formulating of the monetary policy decisions, and in macroeconomic co-ordination with the Ministry of Finance. Besides his current job, Mr. Lazea is a founding member of the Romanian Center for Economic Policies (CEROPE) and president of the board of TRANSFOND, a company that performs electronic payments for Romanian banks.

### **Hans-Joachim Klöckers**

Dr. Hans-Joachim Klöckers is the Deputy Director General Economics of the European Central Bank (ECB) in Frankfurt am Main, Germany. In this function, he is in charge of the Directorate Economic Developments, which includes the three divisions Euro Area Macroeconomic Developments, EU Countries, and External Developments.



# **Presentations Session I - Views from academia and research**



Presentation by

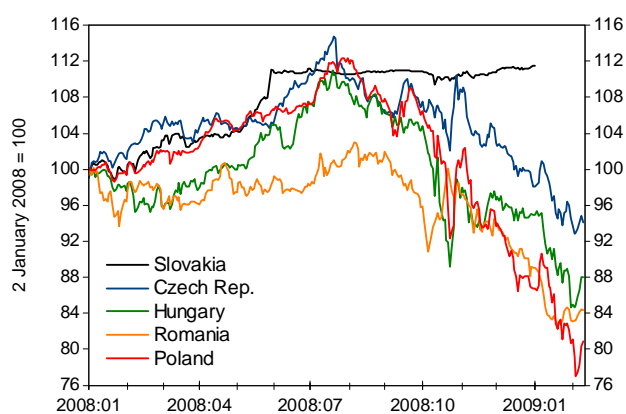
**György Szapáry**

Professor of Economics, Central European University, Budapest

## **Euro Area Enlargement: Prospects and Challenges in the Wake of the Financial Crisis**

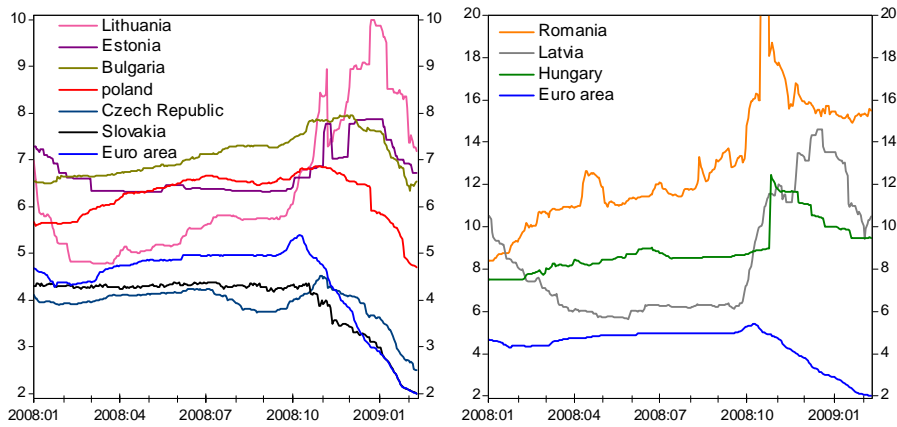
György Szapáry

**Chart 1. Nominal exchange rates against the euro, 2 January 2008 – 10 February 2009**



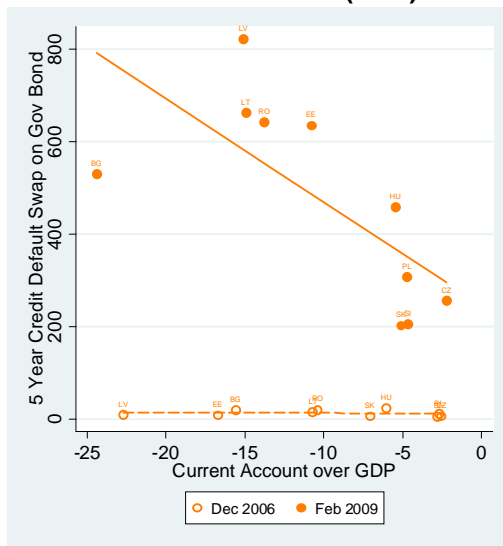
Note: an increase in the index indicates appreciation against the euro.  
Source: ECB.

**Chart 2: Three-month interbank offered interest rates, 2 January 2008 – 10 February 2009**



Note: the Romanian rate peaked at 49.81% on 20 October 2008, but for better readability of the right hand side panel, the vertical axis has a 20% cut-off.  
Source: Datastream.

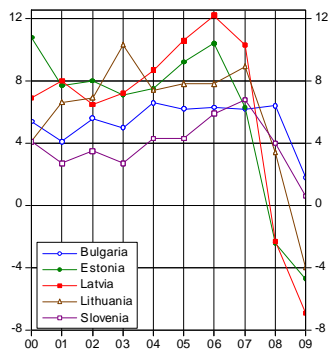
**Chart 3. Cost of insurance against government default and the current account (CDS)**



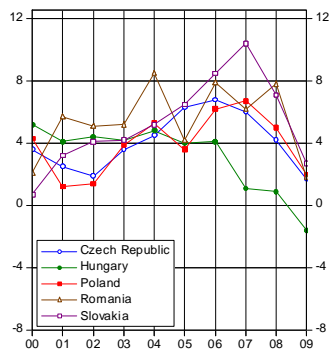
Source: Updated from Zsolt Darvas and Jean Pisani-Ferry, "Avoiding a new European divide, Bruegel Policy Brief 2008/10", December 2008.

### Chart 4: GDP growth (in %)

Countries with fixed exchange rate



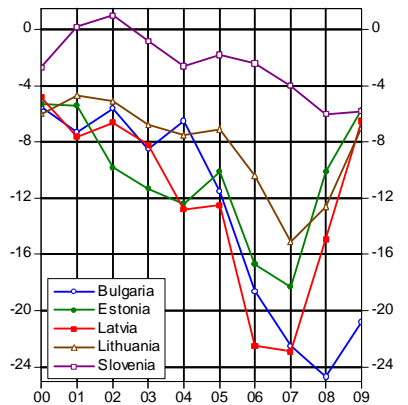
Countries with floating rate



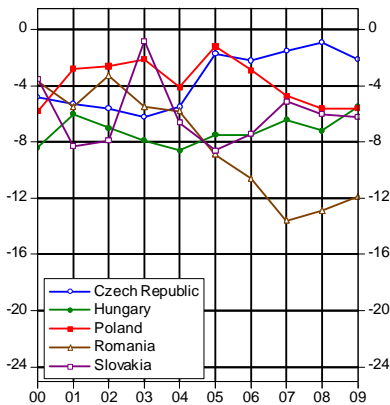
Source: Eurostat; EC January 2009 economic forecast for 2008 and 2009.

### Chart 5: Balance of the current account (% of GDP)

Countries with fixed exchange rate



Countries with floating rate



Source: Eurostat; EC January 2009 economic forecast for 2008 and 2009.

**Table 1. Performance under Maastricht before the crisis**

Harmonised Indices of Consumer Prices		Long term government bond yields		General government surplus (+) or deficit (-)		General government gross debt	
April 2008: 12-month average rate of change		April 2008		2007		2007	
Average of three lowest EU member	1.9	Average of three lowest inflation countries	4.42				
Reference value	3.4	Reference value	6.42	Reference value	-3.0	Reference value	60.0
Malta	1.90	<b>Euro area</b>	<b>4.30</b>	Bulgaria	3.4	Estonia	3.4
Slovakia	2.40	Slovakia	4.46	Cyprus	3.3	Latvia	9.7
<b>Euro area</b>	<b>2.60</b>	Slovenia	4.47	Estonia	2.8	Romania	13.0
Cyprus	3.20	Lithuania	4.59	Latvia	0.0	Lithuania	17.3
Poland	3.40	Cyprus	4.60	Slovenia	-0.1	Bulgaria	18.2
<i>Czech Republic</i>	<i>4.80</i>	Czech Republic	4.72	<b>Euro area</b>	<b>-0.6</b>	Slovenia	24.1
<i>Slovenia</i>	<i>5.00</i>	Malta	4.77	Lithuania	-1.2	Czech Republic	28.7
<i>Romania</i>	<i>6.40</i>	Bulgaria	4.80	Czech Republic	-1.6	Slovakia	29.4
<i>Hungary</i>	<i>7.30</i>	Latvia	5.93	Malta	-1.8	Poland	45.2
<i>Lithuania</i>	<i>8.00</i>	Poland	5.99	Poland	-2.0	Cyprus	59.8
<i>Estonia</i>	<i>8.80</i>	<i>Romania</i>	<i>7.34</i>	Slovakia	-2.2	<i>Malta</i>	<i>62.6</i>
<i>Bulgaria</i>	<i>10.10</i>	<i>Hungary</i>	<i>8.02</i>	Romania	-2.5	<i>Hungary</i>	<i>66.0</i>
<i>Latvia</i>	<i>13.00</i>	Estonia	na	<i>Hungary</i>	<i>-5.5</i>	<b>Euro area</b>	<b>66.6</b>

**Table 2. Fulfillment of Maastricht criteria after the crisis  
(latest available data)**

Harmonised Indices of Consumer Prices		Long term government bond yields		General government surplus (+) or deficit (-)		General government gross debt	
December 2008: 12-month average rate of change		December 2008		2009 (19 January 2009 forecast of DG ECFIN)		2009 (19 January 2009 forecast of DG ECFIN)	
Average of three lowest EU member	2.6	Average of three lowest inflation countries	3.57				
Reference value	4.1	Reference value	5.57	Reference value	-3.0	Reference value	60.0
<b>Euro area</b>	<b>3.3</b>	<b>Euro area</b>	<b>3.71</b>	Bulgaria	2.0	Estonia	6.1
Slovakia	3.9	Malta	4.17	Cyprus	-0.6	Bulgaria	12.2
Poland	4.2	Czech Republic	4.30	Czech Republic	-2.5	Lithuania	20.0
Cyprus	4.4	Slovenia	4.56	Malta	-2.6	Romania	21.1
Malta	4.7	Cyprus	4.60	Slovakia	-2.8	Slovenia	24.8
Slovenia	5.5	Slovakia	4.72	Hungary	-2.8	Czech Republic	29.4
Hungary	6.0	Poland	5.70	Lithuania	-3.0	Slovakia	30.0
Czech Republic	6.3	Bulgaria	7.76	<b>Estonia</b>	<b>-3.2</b>	Latvia	30.4
Romania	7.9	Hungary	8.31	Slovenia	-3.2	Cyprus	46.7
Estonia	10.6	Romania	8.38	Poland	-3.6	Poland	47.7
Lithuania	11.1	Lithuania	9.00	<b>Euro area</b>	<b>-4.0</b>	<b>Malta</b>	<b>64.0</b>
Bulgaria	12.0	<b>Latvia</b>	<b>9.03</b>	Latvia	-6.3	<b>Euro area</b>	<b>72.7</b>
Latvia	15.3	Estonia	na	Romania	-7.5	<b>Hungary</b>	<b>73.8</b>

Sources: Eurostat for HICP and interest rate; EC January 2009 economic forecast for government balance and debt.  
Note: The three Baltic States are members of ERMII.

## Conclusions

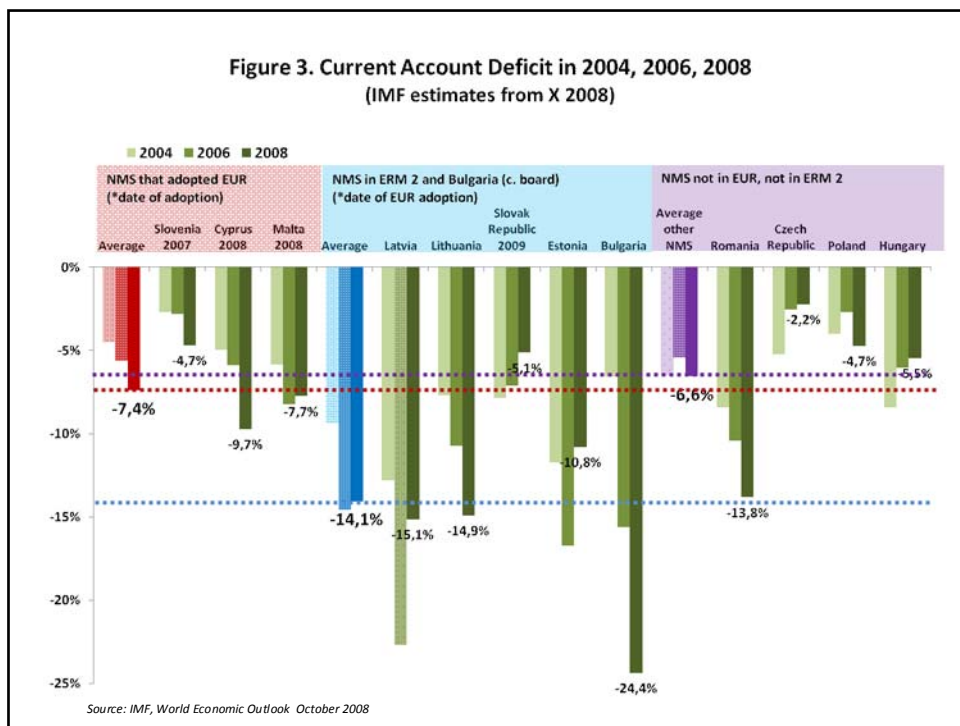
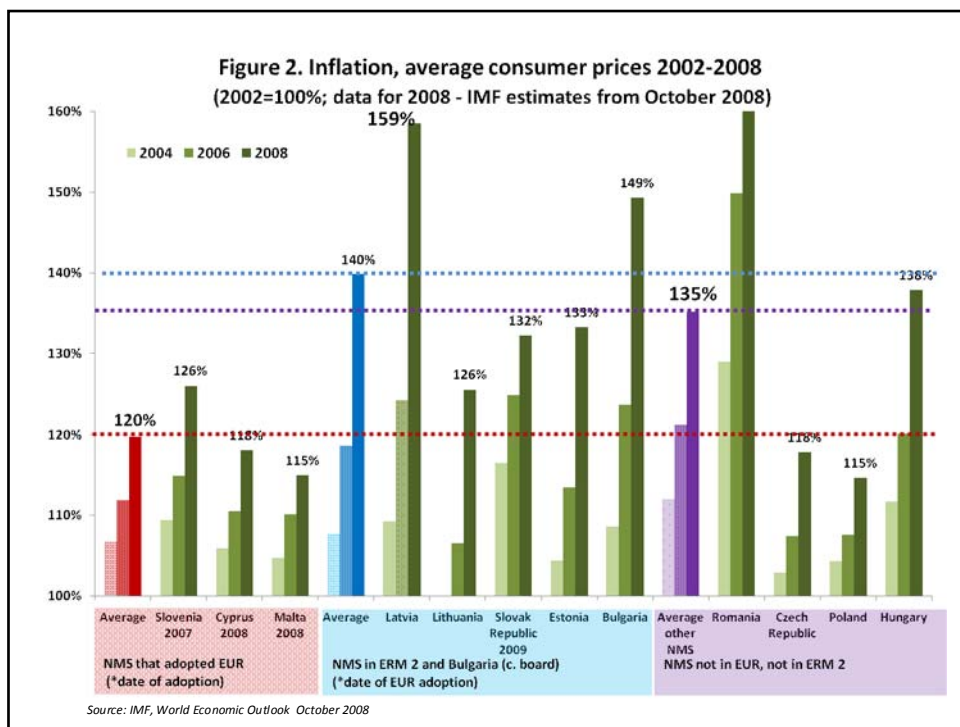
- The financial crisis has increased the attractiveness of euro area membership.
- Paradoxically, the Maastricht criteria may now be more difficult to achieve.
- Lesson: try to achieve the criteria in a sustainable manner ***in good times***, so that when bad times come, a country can benefit from the protection of euro area membership.
- The ***euro is not a cure against all risks***. Euro area membership carries itself the risk of overheating and loss of competitiveness, which can be avoided only by prudent fiscal policy and policies that strengthen productivity.

## Presentation by

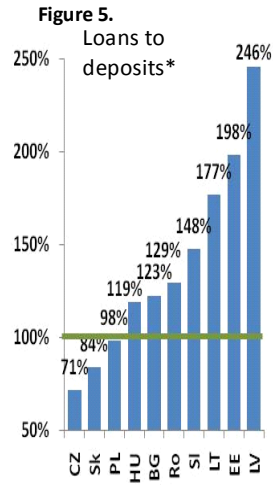
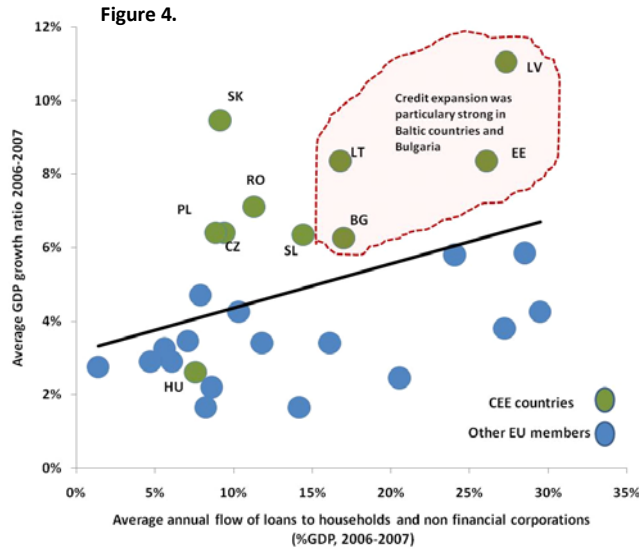
**Leszek Balcerowicz**

Professor of Economics, Warsaw School of Economics, Chairman of Bruegel

(Please note that these slides are an annex to the briefing paper below)



During 2006-2007 CEE countries experienced high GDP growth and credit boom

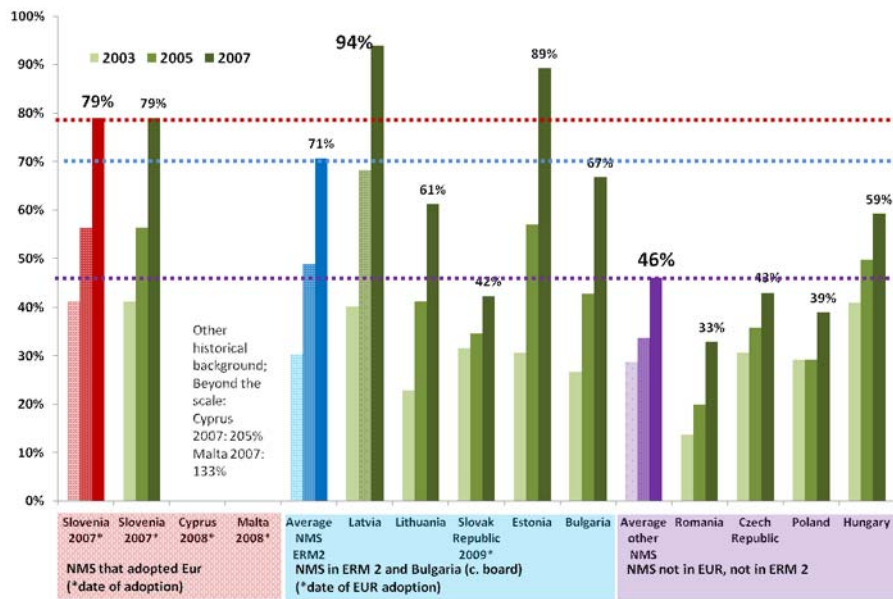


Source: ECB SDW, Bank of Lithuania

\*Loans to households and non-MFI corporations to deposits of non-MFI customers, excluding central government, September 2008

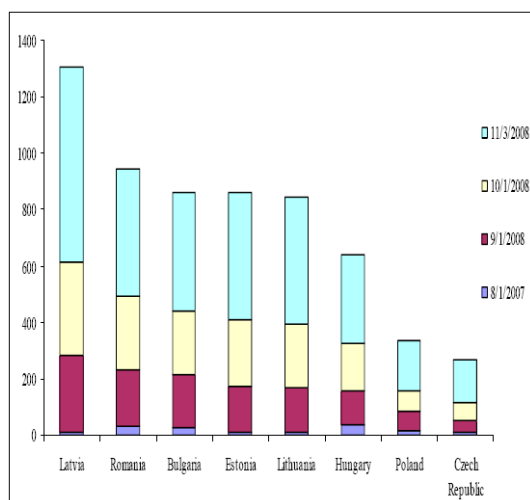
5

**Figure 6. Domestic credit to private sector (% GDP)**



Source: Malta, Cyprus, Poland and Czech R. in 2007 - ECB SDW; rest - EBRD Transition Report 2008

Figure 7. CDS spreads (5Y)



### Currently

( in basic points):

Poland (5 II 2009): 299  
 Slovakia (12 II 2009): 237  
 Hungary (5 II 2009): 455  
 Ireland (12 II 2009): 308  
 Germany(12 II 2009): 63

Source: Christoph Rosenberg, IMF, Implications for Dealing with the Financial Crisis; Press

7

Table 1. Slovakia's Transition to EUR

(in brackets – data for Poland)

	2004	2005	2006	2007	2008
<b>GDP growth</b>	5,3%	6,6%	8,5%	10,4%	7,4%
<i>(IMF WEO October 2008, 2008 - estimates)</i>	(5,2%)	(3,6%)	(6,2%)	(6,6%)	(5,2%)
<b>Inflation, average consumer prices</b>	3,5%	2,8%	4,3%	1,9%	3,9%
<i>(Annual percent change, IMF WEO October 2008, 2008 - estimates)</i>	(7,5%)	(2,1%)	(1,0%)	(2,5%)	(4,0%)
<b>Central Bank interest rate (end of year)</b>	4,00%	3,00%	4,75%	4,25%	2,50%
<i>(PL - reference rate; SK Basic interest rate of the NBS, NBP NBS)</i>	(6,50%)	(4,50%)	(4,50%)	(5%)	(5%)
<b>Current account</b>	-4,0%	-1,2%	-2,7%	-3,8%	-4,7%
<i>(%GDP, IMF WEO October 2008, 2008 - estimates)</i>	(-7,8%)	(-8,5%)	(-7,1%)	(-5,4%)	(-5,1%)
<b>Fiscal Deficit</b>	-2,30%	-2,80%	-3,50%	-1,90%	-2,30%
<i>(general government, Net lending (+) or net borrowing (-), EU Commission Autumn 2008)</i>	(-5,70%)	(-4,30%)	(-3,80%)	(-2%)	(-2,30%)
<b>Public Debt</b>	41,40%	34,20%	30,40%	29,40%	28,80%
<i>(general government gross debt ratio; EU Commission, Autumn 2008)</i>	(45,70%)	(47,10%)	(47,70%)	(44,90%)	(43,70%)
<b>Rate of exchange</b>	38,8199	37,9889	34,4789	33,7798	30,2364
<i>(1 EUR = X LCU, end of year, oanda.com)</i>	(4,0914)	(3,8634)	(3,8565)	(3,6262)	(4,1529)
<b>ERM 2</b>	No	since 28 XI	yes	yes	yes
	(no)	(no)	(no)	(no)	(no)
<b>10Y bond</b>	4,692%	3,800%	4,188%	4,673%	4,728%
<i>(Slovakia - end of year, Poland – as of the given date; yield to maturity, 2008 - preliminary data, National Bank of Slovakia; www.rynek.bizzone.pl)</i>	(6,71%)	(4,76%)	(5,48%)	(5,70%)	(5,72%)
	13 X 2008	12 X 2005	11 X 2006	10 X 2008	17 XII 2008

**Table 2. Exchange rate  
(1 LCU= X EUR), 15 II 2008 = 100%**

	PLN	CZK	HUF	ROL	SKK (EUR)	LVL (ERM II)	LTL (ERM II)	EEK (ERM II)	BGK (peg)
1 V 2008	104%	102%	105%	100%	104%	101%	100%	100%	100%
1 VIII 2008	112%	108%	114%	104%	111%	99%	99%	100%	100%
1 XI 2008	101%	106%	102%	101%	110%	98%	99%	100%	100%
15 II 2009	77%	90%	88%	86%	112%	98%	99%	99%	100%

On 28 May 2008 SKK exchange rate was changed to (30.126 SKK from 35.4424 Sk).

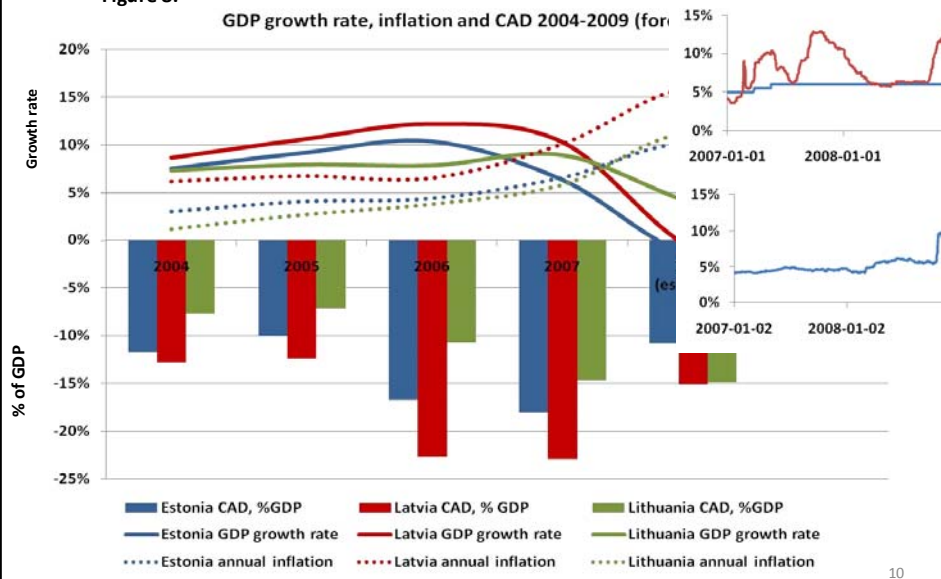
On 8 July 2008 exchange rate was confirmed.

On 1 January 2009 EUR was introduced in Slovakia.

Source: Oanda.com

Among overstretched economies of Baltic states, imbalances in Latvia have been the biggest, making the country most vulnerable to worsening international conditions.

Figure 8.



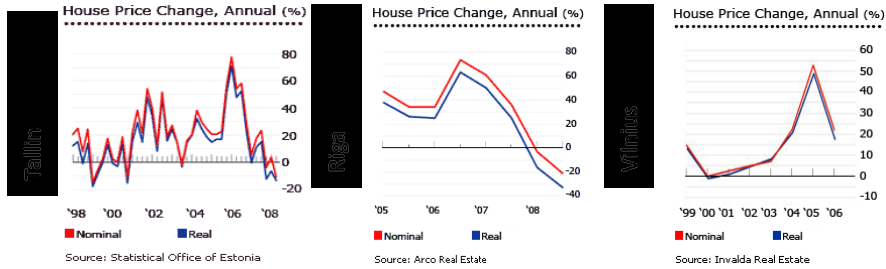
# Baltic bubble

Credit expansion financed with external funds coupled with small size of the market stimulated rapid growth of asset prices.

Average return on investment

		2003	2004	2005	2006	2007
LT	Shares	105%	68%	53%	10%	4%
	Deposits	1%	1%	2%	3%	4%
	Housing*	15%	29%	61%	29%	21%
LV	Shares	47%	44%	12%	-3%	-9%
	Deposits	Na	2%	12%	2%	3%
	Housing*	-10%	24%	64%	69%	-2%
EST	Shares	34%	57%	48%	29%	-13%
	Deposits	2%	2%	2%	3%	-5%
	Housing*	26%	24%	38%	37%	-6%

Figure 9.

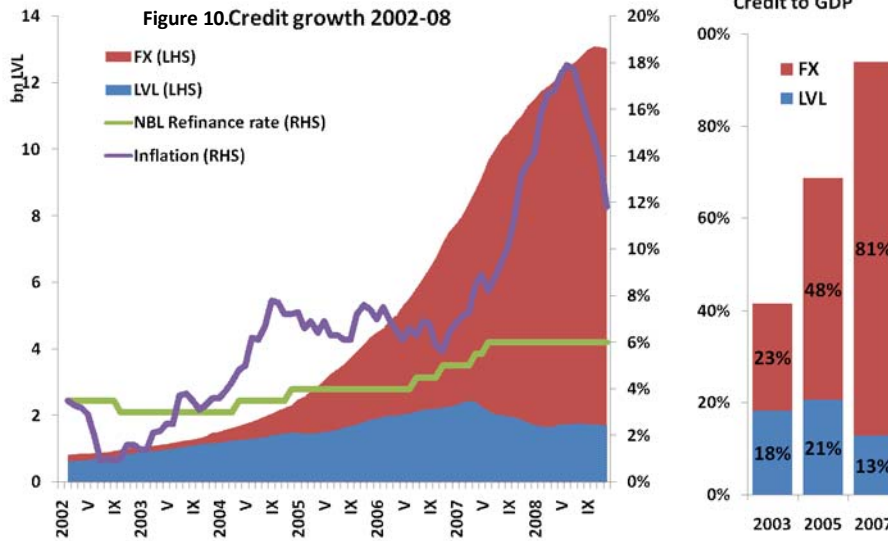


Source: globalproperty.com, Bank of Lithuania

\*without rental income, only capital gains

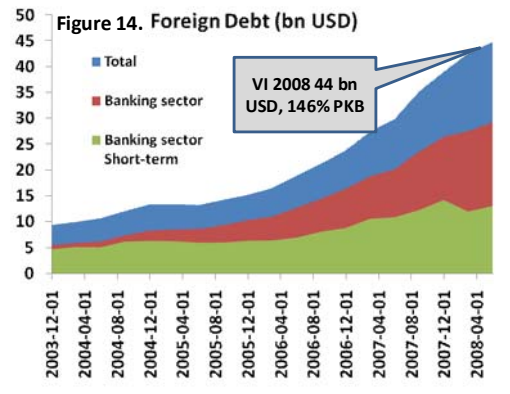
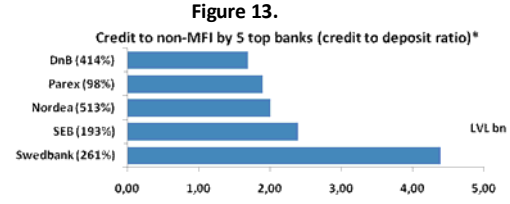
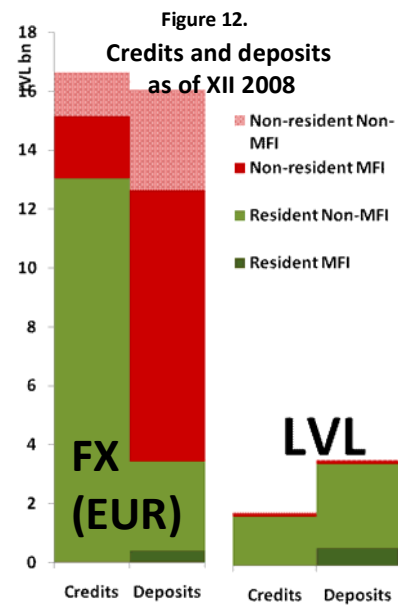
11

Credit boom led to rising inflation; tightening of monetary policy resulted in decreasing credit in LVL, but credit in FX (mainly EUR) continued to grow.



Source: Bank of Latvia

Majority of credits to non MFI-residents was financed with deposits of non resident MFIs – particularly Swedish banks, skyrocketing foreign debt to 146% GDP




Source: Bank of Latvia, Association of Commercial Banks of Latvia

\*only to non-mfis, both residents and non-residents

**Presentation by**

**Daniel Gros**

**Director of CEPS**



**A new paradigm for euro adoption**  
**Daniel Gros, CEPS**

European Parliament  
Workshop on Financial Crisis and Euro Adoption  
Brussels, Feb. 17, 2009

CEPS, 1 Place du Congrès, 1000 Brussels, +32 2 229 3911, <http://www.ceps.eu>

## The starting point:

Old paradigm:

Cost of joining euro: loss of exchange rate as adjustment instrument (certain).

Benefits:

Price stability(?) Better along, independent central bank, in euro area B-S effect!

Currency stability(?) Markets provide hedging.

## The new paradigm:

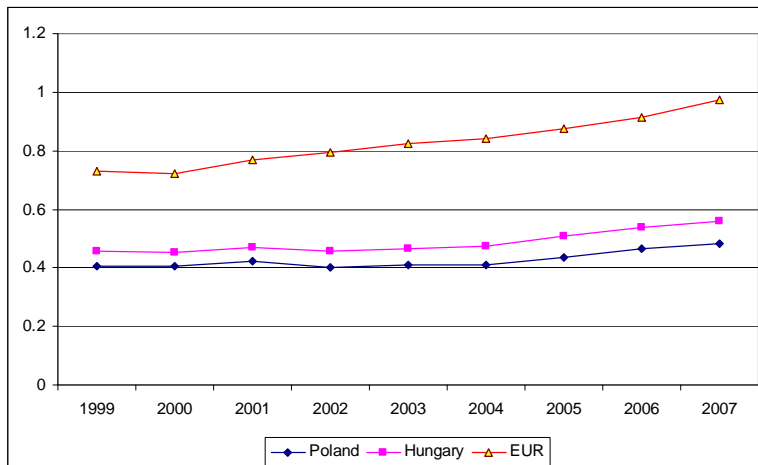
Different debate:

Exchange rate adjustment instrument or  
source of shocks?

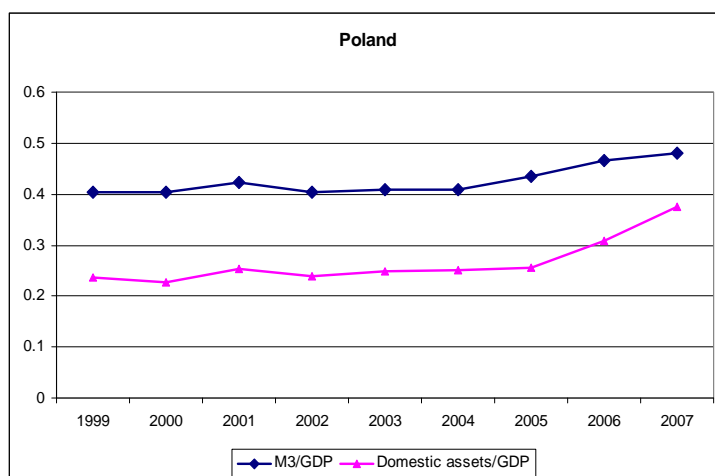
Stability for banking system.

In general importance of financial system  
stress increases with growing financial  
deepening.

## Financial deepening, M3/GDP



## Financial deepening (2)



## The new paradigm: I

Danger of foreign currency mismatches well known. But in reality difficult to avoid (Hungary: household debt in euro or SFR, Poland foreign currency bets by corporate sector).

Euro area membership takes care of this.

## The new paradigm: II

Essentially Ireland versus Iceland

(or rather Hungary versus Greece?)

In times of extreme risk aversion premium  
on (government) debt not in euro  
increases.

## The new paradigm: III

Foreign dominated banking systems.

What if euro area based banks hoard  
liquidity?

Better inside (can discount paper of local  
subsidiaries at the ECB).

(No credit crunch imposed by foreign  
mother banks in Portugal (?))

## Conclusions?

- Should look at costs and benefits anew.
- Markets are already doing it (Ireland versus Iceland).
- Transition period could become more difficult.
- Maastricht criteria still relevant? Add banking test?
- Overall: balance has swung massively in favor of joining.

## **Presentations Session II - High Level Officials from the New Member States**



Presentation by

**Valentin Lazea**

Chief Economist, Romanian National Bank



### The international financial crisis highlighted:

- The importance of real convergence in order to ensure the sustainability of nominal convergence
- The difficulties of Eurozone member – states which lacked deep restructuring

**Conclusion:** future candidates are likely to be submitted to a much thorough scrutiny.

Romania maintains its objective of entering ERM-2 on January 1, 2012 and to spend there the minimum required period. Its compliance with Maastricht Criteria is presented in the following table.

---

NATIONAL BANK OF ROMANIA



**Maastricht Criteria**  
(Nominal Convergence Indicators)

Nominal Convergence Indicators	Maastricht Criteria	Romania 2008
<b>HICP Inflation rate</b> (percent, annual average)	<1.5 pp above the three best performing Member States <b>3.2 percent*</b>	7.9
<b>Long-term interest rates</b> (percent per annum)	<2 pp above the three best performing Member States in terms of price stability <b>6.5 percent*</b>	7.7
<b>Exchange rate (vs. euro)</b> (maximum percentage change vs. 2-year average**)	+ / -15 percent	+9.7 / -14.6
<b>General government deficit***</b> (percent of GDP)	below 3 percent	5.2
<b>Government debt***</b> (percent of GDP)	below 60 percent	15.2

\*) reference level according to ECB's Convergence Report, May 2008

\*\*) Maximum percentage deviations of the bilateral exchange rate against the euro from its December 2006 average level over the period 2007 to 2008 based on daily data at business frequency. An upward/downward deviation implies that the currency was stronger/weaker than the average exchange rate in December 2006.

\*\*\*) according to ESA95 methodology, estimate

Source: European Commission - *Interim forecast, January 2009*, National Institute of Statistics, Ministry of Public Finance, National Bank of Romania

**NATIONAL BANK OF ROMANIA**



In order to become sustainable, some nominal criteria need deep structural reforms:

- A budgetary deficit of less than 3 percent of GDP requires a re-balancing and self-financing of the state pension system
- A quasi-stable exchange rate requires the observance of the correlation between productivity growth and real wage growth

**NATIONAL BANK OF ROMANIA**



## Other important structural reforms needed to ensure real convergence:

- A reduction in the share of agriculture/GDP and an increase in the share of services/GDP → a similar structure of the economy
- An incentive to investors to produce in Romania for exports, rather than for the internal market → higher degree of openness of the economy
- Encouraging internal and international mobility of labour

Because the mentioned reforms are non-monetary in essence, they require government support and strong political will.

---

*NATIONAL BANK OF ROMANIA*





## **Briefing papers**



# **Euro Area Enlargement in the Wake of the Financial Crisis: Prospects and Challenges**

György Szapáry<sup>1</sup>

The global financial crisis created new challenges for the countries which have joined the European Union since 2004 and are not yet members of the euro area. Having suffered much stronger market disturbances than the countries in the euro area, many of them have come to appreciate the protection that euro area membership can provide at times of financial crises and would like to speed up euro adoption. Paradoxically, they now face conditions that may make it more difficult for them to satisfy the requirements for joining the euro area.

## **1. Situation before the crisis**

Prior to the financial crisis, it looked like the main challenge for the new members states from Central and Eastern Europe (CEEs) will be to satisfy the inflation criterion, which stipulates that the inflation rate of a country wishing to join the euro area can not exceed by more than 1.5 percentage point the average inflation of the three best performing EU Member States in terms of price stability. As can be seen from Table 1, before the crisis, as many as eight CEEs did not meet this criterion during the 12-month period ending in April 2008. As to the other criteria, only Hungary did not meet the 3 percent of GDP fiscal deficit criterion and the 60 percent of GDP government debt criterion, and only Hungary and Romania did not meet the long term interest rate criterion

Satisfying the inflation criterion does indeed present challenges for the CEEs when they are in process of economic catching up. Catching up, that is, the convergence of the lower real GDP per capita of the CEEs toward the higher levels of the more developed euro zone countries, implies a convergence of the price levels as well. It is an every day observation that the prices of services that are not tradable internationally, such as for instance the cost of meals in the restaurants or the price of services rendered by a hairdresser, are higher in the more developed countries when expressed in the same currency. The main reason for the higher prices of non tradable goods and services in the countries with higher per capita incomes is related to the so called Balassa-Samuelson effect, but there are other factors at play as well. For a detailed examination of the factors underlying the price level convergence during the process of catching up, see Darvas-Szapáry (2008)<sup>2</sup>.

Under fixed exchange rate arrangement, the convergence of prices during the catching up process can only take place through higher inflation in the CEEs. With floating exchange rate, the price level convergence can take place by a nominal appreciation of the exchange rate or higher inflation, or by a combination of the two. As can be seen from Table 1, the highest inflation rates during the 12-month period ending in April 2008 were recorded by the three countries pegging their currencies to the euro under currency board arrangement (Bulgaria, Estonia, and Lithuania) and by Latvia, which maintains a conventional peg to the euro. The floating rate countries of Slovakia, Poland and the Czech Republic recorded the lowest inflation.

---

<sup>1</sup> Visiting Professor, Central European University, Budapest and member of the Board of Directors of OTP Bank. Former Deputy Governor of the National Bank of Hungary. Paper prepared for a workshop organized by the European Parliament on February 17, 2009 in Brussels. I am grateful for comments and assistance to Zsolt Darvas and Gergely Tardos.

<sup>2</sup> Zsolt Darvas and György Szapáry, "Euro area enlargement and euro adoption strategies", European Economy, Economic Papers 304, February 2008.

Table 1. Performance under Maastricht before the crisis

Harmonised Indices of Consumer Prices		Long term government bond yields		General government surplus (+) or deficit (-)		General government gross debt	
April 2008: 12-month average rate of change		April 2008		2007		2007	
Average of three lowest EU member	1.9	Average of three lowest inflation countries	4.42				
Reference value	3.4	Reference value	6.42	Reference value	-3.0	Reference value	60.0
Malta	1.90	<b>Euro area</b>	<b>4.30</b>	Bulgaria	3.4	Estonia	3.4
Slovakia	2.40	Slovakia	4.46	Cyprus	3.3	Latvia	9.7
<b>Euro area</b>	<b>2.60</b>	Slovenia	4.47	Estonia	2.8	Romania	13.0
Cyprus	3.20	Lithuania	4.59	Latvia	0.0	Lithuania	17.3
Poland	3.40	Cyprus	4.60	Slovenia	-0.1	Bulgaria	18.2
<i>Czech Republic</i>	<i>4.80</i>	Czech Republic	4.72	<b>Euro area</b>	<b>-0.6</b>	Slovenia	24.1
<i>Slovenia</i>	<i>5.00</i>	Malta	4.77	Lithuania	-1.2	Czech Republic	28.7
<i>Romania</i>	<i>6.40</i>	Bulgaria	4.80	Czech Republic	-1.6	Slovakia	29.4
<i>Hungary</i>	<i>7.30</i>	Latvia	5.93	Malta	-1.8	Poland	45.2
<i>Lithuania</i>	<i>8.00</i>	Poland	5.99	Poland	-2.0	Cyprus	59.8
<i>Estonia</i>	<i>8.80</i>	<i>Romania</i>	<i>7.34</i>	Slovakia	-2.2	<i>Malta</i>	<i>62.6</i>
<i>Bulgaria</i>	<i>10.10</i>	<i>Hungary</i>	<i>8.02</i>	Romania	-2.5	<i>Hungary</i>	<i>66.0</i>
<i>Latvia</i>	<i>13.00</i>	Estonia	na	<i>Hungary</i>	<i>-5.5</i>	<b>Euro area</b>	<b>66.6</b>

Source: Eurostat.

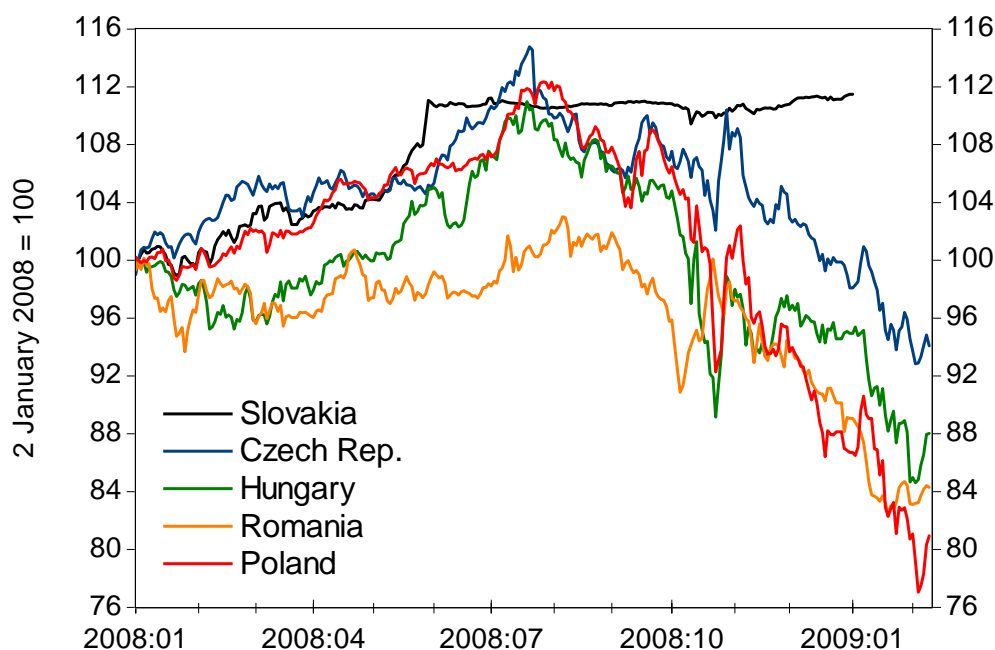
Note: Four countries, the three Baltic States and Slovakia are members of ERMII.

Besides the higher inflation associated with the real convergence process, there have been other factors that have contributed to inflationary pressures in the CEEs with fixed exchange rate. As long as the confidence in the sustainability of the fixed exchange rate remains strong, domestic nominal interest rates tend to be at or close to euro interest rates. Since the convergence effect pushed the inflation rate in the CEEs with fixed exchange rate above the inflation rate in the euro area, the domestic real interests have become very low or negative. This has led to credit booms and overheating, putting further upward pressures on prices. In these circumstances, interest rates have actually played a pro-cyclical role. The rapid growth of credit has also led to a very sharp increase in the current account deficits, reaching double digits as a ratio of GDP in the Baltic countries and Bulgaria. For these reasons, Darvas-Szapáry (2008) argues that inflation targeting with floating exchange rates is better suited than fixed rates to manage the price level catching-up process while the price level gap is still large.

## 2. The effects of the crisis

Chart 1 shows the developments since January 2008 of the exchange rates against the euro in the CEEs which do not maintain hard pegs. In Slovakia, a member of ERM2 and on track to join the euro area in January 2009, the exchange rate had hardly moved following the onset of the crisis in the summer of 2008. The Slovak currency enjoyed already the protective umbrella of the ECB and market confidence did not shake. The currencies of all the other CEEs with floating exchange rates depreciated by between 29 and 17 percent from July 2008 to February 10, 2009. As the risk appetite waned, capital was withdrawing from the emerging markets across the globe and EU membership alone did not prove to be a strong enough protection against the flight of capital from the CEEs. The most dramatic turn of events took place in Hungary in October 2008, when the government securities market came to a full stop and the central bank of Hungary had to intervene to breathe life into this market. The swift financial support from the IMF and the EU within the framework of a stand-by arrangement helped to prevent a collapse of the Hungarian financial markets, thereby helping to avoid a dangerous contagion of other markets in the region.

**Chart 1. Nominal exchange rates against the euro, 2 January 2008 – 10 February 2009**



Note:

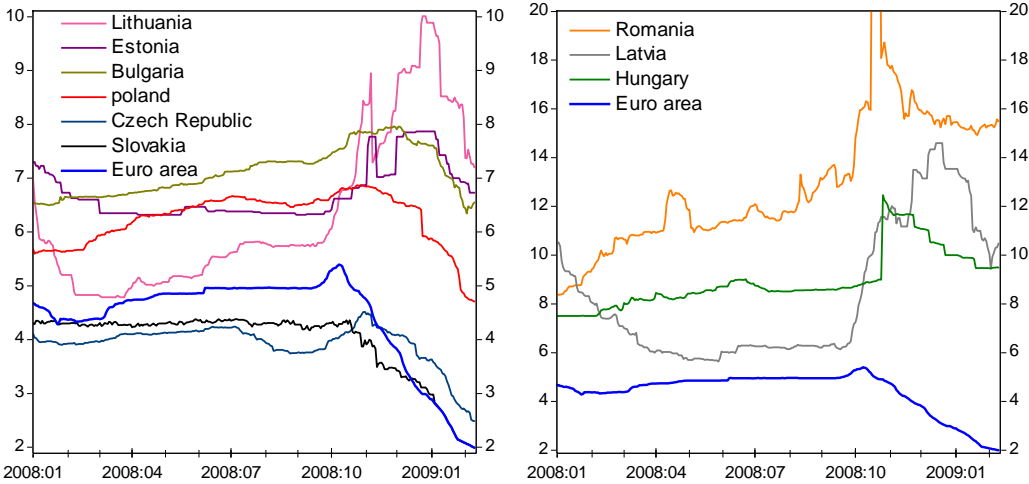
an increase in the index indicates appreciation against the euro.

Source: ECB.

Chart 2 depicts the interest rate movements in the CEEs since January 2008. The interest rates in all CEEs increased sharply in the wake of the crisis, except in euro area bound Slovakia and the Czech Republic where interest rates declined in line with euro interest rates. Compared to the other CEEs, the Czech Republic has benefited from a healthier macroeconomic situation characterized by low fiscal and current account deficits and a healthier growth than the overheated economies of many other CEEs.

Chart 3 reveals another telling story of the impact of the crisis. It illustrates the relationship between current account deficits and the cost of insurance against default on five-year government bonds (called credit default swaps, CDS) in the CEEs prior to the crisis and following it. At the end of 2006, the cost of insurance against default was low, around 50 basis points for all countries, irrespective of how large their current account deficit was (the line connecting the countries is horizontal on the axis which shows the size of the current account deficit). This is an unusual case and is indicative of the insensitivity of the markets to risks when the word is awash with liquidity and capital is chasing opportunities for earning a higher yield in an environment of low returns on financial assets. The capital inflows into the CEEs pushed down domestic interest rates so that, as mentioned, most countries met the Maastricht criterion on the 10-year interest rate, including those with very large current account deficit.

**Chart 2: Three-month interbank offered interest rates, 2 January 2008 – 10 February 2009**

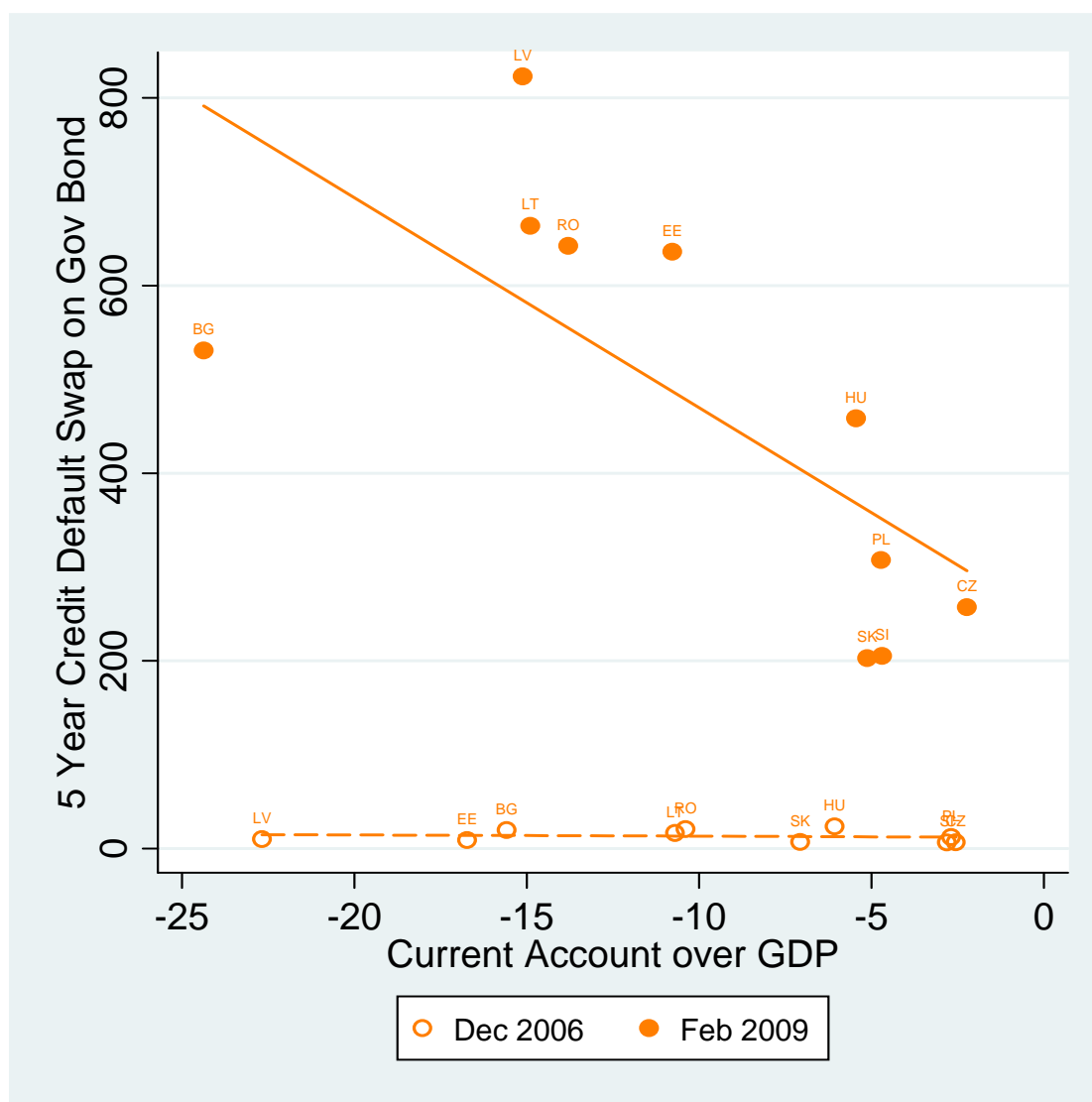


Note: the Romanian rate peaked at 49.81% on 20 October 2008, but for better readability of the right hand side panel the vertical axis has a 20% cut-off.

Source: Datastream.

Following the onset of the crisis, the cost of insurance against default rose sharply in all CEEs: the larger the current account deficit, the higher the cost of insurance became. This is illustrated on Chart 3 by the rising line toward the left connecting the countries for the data referring to November 2009. Clearly, when liquidity became scarcer world wide and risk taking diminished, the markets sanctioned more heavily the countries with high current account deficit, whether they had pegged or floating exchange rates.

**Chart 3. Cost of insurance against government default and the current account**



Note: A credit default swap (CDS) is a credit derivative contract between two counterparties. The buyer makes periodic payments to the seller, and in return receives a payoff if the underlying financial instrument defaults. CDS values for February 2009 refer to the average of the first ten days of this month.

Source: Updated from Darvas and Pisani-Ferry (2008).<sup>3</sup>

### 3. Prospects of euro area enlargement after the crisis.

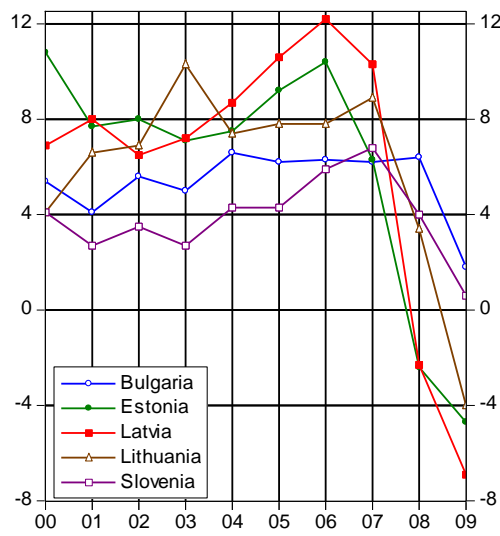
The sharp depreciations of the floating exchange rates and the associated increases in risk premia and domestic interest rates in the wake of the crisis proved once more the validity of the findings reported in the economic literature that for small open economies, an independent exchange rate is more a source of shock than a shock absorber<sup>4</sup>. For the CEEs which pegged the exchange rate to the euro, the crisis-caused shock translated into substantial increases in domestic interest rates and sharp downturns in the rates of economic growth, as these countries struggle to reduce their outsized current account deficits (Charts 4 and 5).

<sup>3</sup> Zsolt Darvas and Jean Pisani-Ferry, "Avoiding a new European divide, Bruegel Policy Brief 2008/10", December 2008.

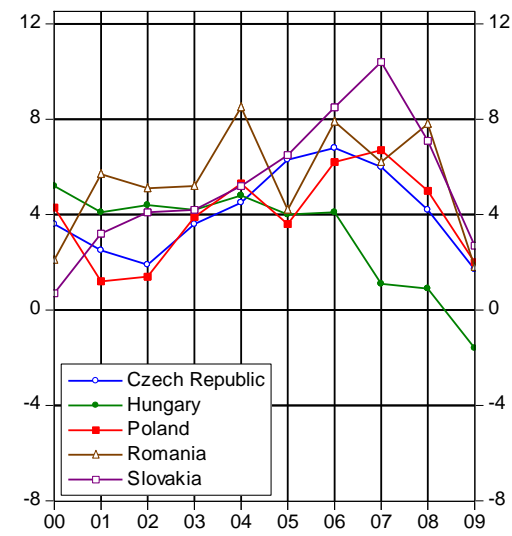
<sup>4</sup> See Darvas-Szapáry 2008, pp. 18-20.

**Chart 4: GDP growth (%)**

**Countries with fixed exchange rates**



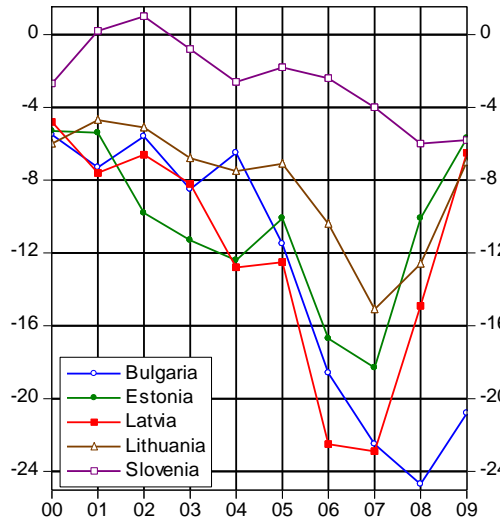
**Countries with floating exchange rates**



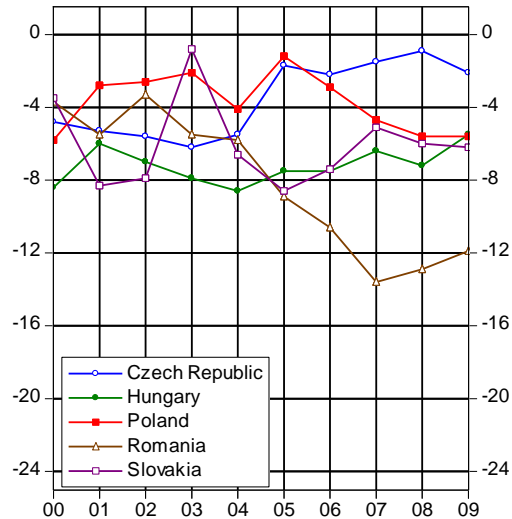
Source: Eurostat; EC January 2009 economic forecast for 2008 and 2009.

**Chart 5: Balance of the current account (% of GDP)**

**Countries with fixed exchange rates**



**Countries with floating exchange rates**



Source: Eurostat; EC January 2009 economic forecast for 2008 and 2009.

In the countries with floating rates, the economic downturn has been less sharp, as these countries had experienced less overheating fueled by excessive credit growth prior to the crisis and have been better able to maintain competitiveness.

Having experienced these shocks, many CEEs have expressed a desire to speed up euro adoption. As said earlier, before the current financial crisis, it looked like the greatest challenge for countries hoping to adopt the euro was to satisfy the Maastricht inflation criterion. Inflation is now abating in the CEEs due to their sharp economic downturn and the easing of price pressures globally. Furthermore, currently many CEEs are, at least for a while, on a real diverging rather than on a real converging trend, which will also ease the inflation due to price level convergence as discussed above. Consequently, meeting the Maastricht inflation criterion seems to be within reach of many CEEs.

Table 2. Fulfillment of Maastricht criteria  
(latest available data)

Harmonised Indices of Consumer Prices		Long term government bond yields		General government surplus (+) or deficit (-)		General government gross debt	
December 2008: 12-month average rate of change		December 2008		2009 (19 January 2009 forecast of DG ECFIN)		2009 (19 January 2009 forecast of DG ECFIN)	
Average of three lowest EU member	2.6	Average of three lowest inflation countries	3.57				
<b>Reference value</b>	<b>4.1</b>	<b>Reference value</b>	<b>5.57</b>	<b>Reference value</b>	<b>-3.0</b>	<b>Reference value</b>	<b>60.0</b>
<b>Euro area</b>	<b>3.3</b>	<b>Euro area</b>	<b>3.71</b>	Bulgaria	2.0	Estonia	6.1
Slovakia	3.9	Malta	4.17	Cyprus	-0.6	Bulgaria	12.2
Poland	4.2	Czech Republic	4.30	Czech Republic	-2.5	Lithuania	20.0
Cyprus	4.4	Slovenia	4.56	Malta	-2.6	Romania	21.1
Malta	4.7	Cyprus	4.60	Slovakia	-2.8	Slovenia	24.8
Slovenia	5.5	Slovakia	4.72	Hungary	-2.8	Czech Republic	29.4
Hungary	6.0	Poland	5.70	Lithuania	-3.0	Slovakia	30.0
Czech Republic	6.3	Bulgaria	7.76	Estonia	-3.2	Latvia	30.4
Romania	7.9	Hungary	8.31	Slovenia	-3.2	Cyprus	46.7
Estonia	10.6	Romania	8.38	Poland	-3.6	Poland	47.7
Lithuania	11.1	Lithuania	9.00	<b>Euro area</b>	<b>-4.0</b>	Malta	64.0
Bulgaria	12.0	Latvia	9.03	Latvia	-6.3	<b>Euro area</b>	<b>72.7</b>
Latvia	15.3	Estonia	na	Romania	-7.5	Hungary	73.8

Sources: Eurostat for HICP and interest rate; EC January 2009 economic forecast for government balance and debt.

Note: Four countries, the three Baltic States and Slovakia are members of ERMII.

On the other hand, with the inflow of foreign portfolio investments that had previously kept the long-term interest rates low now dried up, many countries will now have difficulties in meeting the long-term interest rate criterion. Indeed, among the non-euro area members, only the Czech Republic and Slovakia satisfied that criterion in December 2008 (Table 2), while in April 2008, only Hungary and Romania did not meet the criterion (Table 1). Furthermore, owing to the slowdown in growth and the increase in interest rates, the fiscal deficits and government debt are rising. As a result, at least four countries will not meet the deficit criterion based on the EU Commission's January 2009 forecast and this may end up to be worse, with more countries actually breaching the criterion by the time the year is out.

All in all, it now looks like satisfying the criteria for fiscal deficit and long-term interest rate will be equally challenging and probably even more difficult than meeting the inflation criterion.

Recent events on the global financial markets have convincingly demonstrated that membership in the euro area provides protection against exchange rate risks and the associated shocks at times of financial crisis. This is particularly true considering that a very large part of the credit granted to corporations and households in the CEEs has been in foreign currencies, mostly in euros except in Hungary where Swiss francs and yen were the currencies of choice. Foreign currency borrowing has been encouraged by the lower interest rates compared to the domestic interest rates. As a consequence of the depreciations of the floating exchange rates, combined with the economic downturn and the loss of jobs, the amount of non performing loans is rising. Banks are reacting by increasing loss provisioning and by cutting back lending, exacerbating the decline in economic activity. Additionally, since the mother banks are having their own difficulties in their home countries in the West, they are curtailing their provision of funds to their subsidiaries in the CEEs. While the mother banks in the euro area have access to the ECB, this facility is not available to the banks in the countries outside of the euro area. The combination of these factors will maintain the credit squeeze and keep the real lending rates high in the CEEs for the period ahead.

All these reasons have raised the attractiveness of euro area membership. Paradoxically, the challenges to satisfy the conditions for euro adoption may now be more difficult than they were before the crisis. The obvious lesson to be drawn from this is that countries should make progress toward preparing for euro adoption and satisfying the Maastricht criteria in a *sustainable manner during good times* so that when bad times arrive, they can benefit from the protection provided by being a member of the euro area.

However, it should be emphasized that the euro is not a cure against all risks. Experience has shown that the greatest risk lurking for countries in the euro area is loss of competitiveness due to excessive price and wage inflation. Once the independence of monetary and exchange rate policy has been relinquished, the burden of avoiding overheating and maintaining competitiveness falls on fiscal policy and on policies which improve productivity. The difficulties currently faced by Greece, Ireland, Portugal and Spain brought to the fore the challenges that lie ahead for the new members once they are in the euro area. The task of improving productivity most often involves structural reforms in areas and of importance that can vary from one country to the other. The types of reforms that will enhance competitiveness have been spelled out in the Lisbon agenda, the implementation of which should be as high on the list of priorities of the new Member States as satisfying the Maastricht nominal criteria.

# Financial Crisis and the Effects on Euro Adoption<sup>5</sup>

Leszek Balcerowicz, Warsaw School of Economics

16 February 2009

## I. Introduction: the definition of the problem

- 1) The basic question I will try to explore is whether the present financial crisis has changed the assessment of the effects of euro adoption by the new member countries (NMC) which are still outside EMU. In order to do that I will overview the estimates of the entry into the eurozone which were prepared before the crisis and then ask in what ways the crisis would change them.
  - The effects of euro adoption should be broken down into two:
    1. Those which appear during the transition to the EMU (the consequences of meeting the convergence criteria);
    2. The effects after the euro adoption, i.e of being a member of the eurozone;
- 2) These effects are defined as differences in the values of various variables under two states:
  1. Transition to the EMU and then operating under the EMU;
  2. Being – permanently or at least for a foreseeable future – outside the EMU, i.e having “national” monetary regime. This alternative regime will differ across countries (see later) which obviously will give rise to various estimates of the effects euro adoption.

Generally speaking, the effects are estimated – for any given country - by comparing an actual situation with the hypothetical one. For the eurozone – members the hypothetical situation is what would have happened to their economy if they were outside the EMU. For the countries outside the eurozone, the hypothetical situation is how their economic situation would look like if they were members of the eurozone.

Since hypothetical situations – by their very nature – are not observable – they have to be estimated by the models or by various cross- comparisons. It unavoidably introduces a dose of – hopefully – educated speculation into the estimates of the effects of euro-adoption.

- 3) The effects of euro- adoption can also be divided into:
  1. Direct e.g. elimination of some transaction costs, reduction in interest rates, elimination of role of exchange risks vis a vis euro, and – correspondingly – of a currency crisis.
  2. Indirect (ultimate) e.g. trade creation, the change in dynamics of FDI, benefits from increased competition, the change in the risks of financial imbalances, and in the boom- bust cycles, etc. The ultimate synthetic effect is the change in the rate of the long- run rate of growth.

This distinction is important because the indirect effects, which are the reactions to the direct effects may differ in the size or even in the sign (costs or benefits) depending on the institutional (including the policy) framework which would accompany euro adoption – relative to the framework which would existed if a country remained outside the EMU.

---

<sup>5</sup> A background paper prepared for the Workshop “The Financial Crisis and its Impact on Euro Adoption”, 17 February 2009, European Parliament, Brussels. Preliminary version.

For example, the building-up of the financial imbalances and the asset bubbles and the related potential damage to the long- run growth, would depend on the fiscal stance and on the macro-prudential policies, which would accompany the euro adoption.

The fact that the size or even the sign of certain effects depend on the institutional framework raises an important but speculative issue of how the euro adoption may influence the policies – relative to those which would have been pursued if a country remained outside EMU. Here, the distinction must be made between the transition phase and the EMU phase. In the former, the euro-related conditionality is likely to improve policies. In the latter, much of the conditionality disappears, and the impact of euro adoption on the pro-growth quality of policies is much more difficult to determine. On the normative note, this suggests that a focus should be put on the strengthening the incentive framework for good policies in the EMU. This is certainly a challenge given the policies which are presently pursued in the name of crisis management.

4) In estimating the effects of the euro adoption, a distinction should be made between the initial conditions, including especially NMS's monetary regimes. From this point of view there are- broadly speaking – two groups of countries:

1. Countries with euro-based currency boards ( the Baltics, Bulgaria).
2. Countries with flexible rate of exchange regimes (floaters), and a room for independent monetary policy (Czech Republic, Hungary, Poland, Romania).

Obviously, the set of effects in the group (2) is much larger than that in the group (1).

5) The effects of euro-adoption are conventionally defined into negative (costs) and positive (benefits). I think – still remaining in the conceptual stage – that it is useful to make some finer distinctions with respect to both:

- Costs differ both in their probability of occurrence and in their size. On the one extreme it is certain that euro adoption involves the one-time logistical cost, and it is relatively easy to estimate its size. On the other extreme, it is very difficult to estimate the probability of the increased boom-bust and the size of related damage to the economy. It is easier to say what preventive policies should be adopted in order to minimize these costs. Their estimate would then depend, inter alia, on the estimate of the probability of adopting such policies and on the assessment of their potential effectiveness in preventing the built-up of the financial imbalances and of the asset bubbles.

- The same goes for the estimate of the benefits. On the one extreme, it is certain that euro adoption would bring about the elimination of the transaction costs incurred when national currencies are exchanged against the euro. And the size of these savings should not be particularly difficult to estimate. On the other hand, estimates of the size of trade creation, or of the benefits due to increased competition are much more difficult to arrive at.

In addition, various costs and effects should be estimated in a dynamic way. In other words, a response should be given to a question of whether the respective costs or benefits would tend to grow or to increase over time.

Besides determining the kinds and the sizes of various effects a challenge is also to reduce them to one net effect. This effect should be formulated in terms of the change in rate of the long-run growth. Obviously not all the partial effects can be easily linked to this measure. As the result, the estimates of the net effect of the euro adoption are usually incomplete regarding the set of the partial effects they consider

The net effect should also be estimated in a dynamic way, i.e. one should try to assess its value over time. Therefore we would learn whether the potential net benefit of being the member of the EMU would grow or decline with time (The same goes for the potential net cost)

## **II. The Effects of the Transition to the EMU**

1. The transition to the EMU can be largely reduced to the meeting of convergence criteria. Some of these criteria has been criticized on the economic grounds, as causing unnecessary risks and costs to the countries which aspire to enter the euro zone (see, e.g. “Coming of age: Report on the euro zone”, by Jean Pisani – Ferry et al, Bruegel Blueprint 4, p. 2008)
  - The inflation criterion is found to be too restrictive. Besides it is not clear what the “sustainability” of low inflation really means.
  - The ERM mechanism may expose the aspiring countries, which at present have the floating regime, to unnecessary risks, especially if the criterion of the rate of exchange stability is interpreted in a restrictive and/or asymmetric way.
2. The fiscal criteria meet much less objections: There is a broader theme, which refers also to the present EMU members, and namely, how to strengthened the institutional framework for the fiscal discipline, especially in the view of the present fiscal expansion in most EU-15. The NMC have much less possibility to finance increased budget deficit, partly because of the crowding-out effects of the huge fiscal expansion in developed economies. It is likely that , even if the NMC’s could afford it, the fiscal expansion could produce in these economies – contractionary effects (the non – Keynesian effects).
3. The NMC’s with euro-based currency boards have already incurred the heavy costs of fixed-pegs, as well as obtained important benefits. The present financial crisis and the fiscal expansion in the developed economies deepened the sudden stop to which emerging economies are exposed. As the NMC’s countries with euro-based currency boards are very small and they are heavily euroized the only economically sensible strategy for them is a rapid adoption of euro. In this way they would eliminate a risk of a destructive currency crisis. An economically justified interpretation of inflation criterion would be especially important for these countries.
4. For the “floaters” among the NMC’s the transition to euro is much more comprehensive and complex. As distinct from the previous group it involves a radical change in monetary strategy, i.e. a transition from the free float to the managed float. The present financial crisis clearly complicates this transition. However, Slovakia managed to complete it successfully in 2008. At the same time, radically increased volatility of the exchange rates during the present crisis has highlighted the question, to what extent a freely floating exchange regime is a shock absorber and to what extent it itself generates shocks. For the “floaters” an economically sensible interpretation of the criterion of the role of exchange flexibility is of special importance.

5. Besides meeting-the sensibly interpreted-convergence criteria, the transition to euro should include reforms which would increase the net effect (i.e. reduce the costs, increase the benefits) of the membership in the EMU. In particular:
  - All NMC's should strengthen the mechanisms which would reduce the dynamics of credit booms – and the resulting busts. This especially includes the elaboration of the tools and procedures of macro-prudential regulation. (e.g. dynamic capital requirements, dynamic provisionary). Also, tax preferences which stimulate an excessive housing credit growth should be eliminated. These measures should be introduced by the present euro zone –members, too, as the common monetary policy cannot perfectly fit all the members' economic conditions, and the asset price bubbles tend to be country specific.
  - The domestic institutional framework for the fiscal discipline should be strengthen, and the flexibility of labor markets – should be increased. These reforms would reduce the costs of potential asymmetric shocks and increase the rate of growth.

### **III. The Effects of the Membership on the EMU**

1. The net effect for the NMC's with the euro-based currency board are likely to be clearly positive. This is because the main change for them would be the ultimate elimination of the risk of the damaging currency crisis. They should also reap the benefits in the form of trade creation due to the elimination of “border effects” (Rose,...). At the same time it is difficult to point out to any substantial costs due to the membership of these countries in the eurozone. They have been already suffering a destructive credit boom and bust, partly due to their peg to euro, and it is not likely that there is a danger of similar boom-bust in the near future. However, the main lessons for these countries would be to strengthened the macro-prudential supervision so as to reduce the risks of another financial crisis – this time under the euro, and-thus- to increase the related net benefit from euro adoption.
2. The calculation for the “floaters” is more complex as it involves more changes, and especially the radical change of monetary regime. This change, which also involves much lowered real interest rates, could increase the intensity of credit boom and bust and the related damage. At the same time it is unclear what are stabilizing properties of the free float for these economies (shock absorber or shock-generator) and how much the volatility of the rate of exchange affects investment, and - thus- growth. But clearly –the membership in the eurozone could increase investment. The existing research points out that the “floaters” (as well as the “fixers”) are already highly integrated and their business cycles and those of their main partners are –to a large extent- synchronized. Therefore, the costs of the ECB's monetary policy not fitting the business cycle developments do not seem to be large. All in all, the estimates of various effects of euro adoption have different signs, and their size is difficult to be precisely established. In such a situation, to estimate the net effect requires the use of models and of various approximatives. The model estimates, which I know clearly suggest that the net effect for the “floaters” should be positive, too. I don't see how the present crisis could reverse this assessment. It rather increases the potential net benefits.

The probability of such an outcome and its size would be the larger, the more fiscal and structural reforms were introduced during the transition phase and maintained later.

3. Finally, let me mention the important issue of the dynamics of the respective partial effects and – therefore- that of the net effect. It appears that the most important potential costs of having euro (interest rates being too low and thus producing the risks of financial imbalances, the costs due to the asymmetric shocks) would tend to decline with the passage of time and the real convergence of the NMC's. At the same time, the existing research suggests that euro adoption should help these economies to catch-up. Meanwhile the size of the most important benefits should not decline over time (e.g. those due to increased competition).

On this reasoning, the net benefit of the euro adoption should grow with time.