



## **ANALYSIS OF THE LONG-TERM INTEREST RATE IN THE NEW MEMBER STATES DURING THE PROCESS OF ADOPTING THE EURO**

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**PhD. Candidate Alina AILINCA \***

### **Rezumat**

Cu toate efectele ei, pozitive și negative, criza economică și financiară globală continuă să producă perturbații la nivelul piețelor, determinând totodată o analiză introspectivă a situației macroeconomice generale internaționale și naționale. În acest context, prezentul articol își propune să urmărească evoluția ratelor de dobândă ce se conformează criteriului de la Maastricht în noile state membre ale Uniunii Europene (NSM). Un argument pentru analiza acestui criteriu nominal în NSM este și faptul că această piață a titlurilor de stat pe termen lung a resimțit și ea o volatilitate ridicată în perioada 2008-2010, deși în mod paradoxal, potrivit teoriei, aceasta este mai degrabă legată de respectarea criteriului privind inflația, decât de alte criterii sau aspecte nominale și reale. Cu toate acestea, în realitate, evoluția ratelor de dobândă la titlurile de stat pe termen lung dovedește acumularea de semnale negative atât din sfera deficitelor fiscal-bugetare cât și din partea altor variabile nominale și reale macroeconomice. În acest sens, articolul argumentează de ce a fost posibilă o majorare a diferențialelor ratelor dobânzilor pe termen lung în NSM în perioada 2008-2010, în raport cu valoarea de referință și cu media zonei euro.

### **Abstract**

With all its effects, positive and negative, the global economic and financial crisis continues to cause disturbances to the markets, causing at the same time an introspective analysis of the overall

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\* *Scientific researcher, Centre of Financial and Monetary Research "Victor Slăvescu", Romanian Academy.*

macroeconomic international and national situation. In this context, the present article aims to monitor the interest rates that comply with the Maastricht criterion in the new EU Member States (NMS). An argument for the analysis of this criterion in NMS is that the market of long-term government bond yields has also experienced a high volatility during the period 2008-2010, although paradoxically, according to theory, it is rather related to the compliance with the inflation criterion, than to the other nominal and real criteria or aspects. However, in reality, the long-term government bond yields evolution shows an accumulation of negative signals, both from the fiscal-budgetary deficits and from the other nominal and real macroeconomic variables. In this way, the paper argues why the increase of long-term interest rate differentials in the NMS in 2008-2010 was possible, compared with the reference value and with the euro area average.

**Keywords:** *convergence criteria, European integration, new member states, global economic and financial crisis*

**JEL classification:** F36, G01, O52, P52, O47

Within the context of the global economic and financial crisis which determined the revaluation of the general macroeconomic situation, the market of the long-term bonds also suffered considerably. Thus, the differential of the long-term interest rates in relation to the average of the Euro zone during the analysed period, increased in almost all the new member states during the analysed period (January 2008-October 2010). As the national and international vulnerabilities aggravated, and the budget performance deteriorated, both within the Euro zone, and outside it, a stronger differentiation emerged between the extent to which the new member states accomplished the criterion of the long-term interest rates convergence. Thus, Bulgaria, Latvia, Lithuania, Poland, Hungary and Romania moved away increasingly from the reference value all along 2009, while Czech Republic and the member states which had recently joined the Euro zone, Slovenia and Slovakia, were below the reference value and even had a substantial convergence of the interest rates for the long-term state bonds.

Table no.1

Long-term interest rate according to the Maastricht criterion, annual series

Tări / perioadă	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
UE27	:	5,00	4,92	4,23	4,38	3,71	4,03	4,56	4,55	4,13
Zona Euro	5,44	5,00	4,91	4,14	4,12	3,42	3,84	4,32	4,30	3,82
Bulgaria	:	:	:	6,45	5,36	3,87	4,18	4,54	5,38	7,22
Cehia	:	6,31	4,88	4,12	4,82	3,54	3,80	4,30	4,63	4,84
Estonia	:	:	:	:	:	:	:	:	:	:
Letonia	:	7,57	5,41	4,90	4,86	3,88	4,13	5,28	6,43	12,36
Lituania	:	8,15	6,06	5,32	4,50	3,70	4,08	4,55	5,61	14,00
Ungaria	:	7,95	7,09	6,82	8,19	6,60	7,12	6,74	8,24	9,12
Polonia	:	10,68	7,36	5,78	6,90	5,22	5,23	5,48	6,07	6,12
România	:	:	:	:	:	:	7,23	7,13	7,70	9,69
Slovenia	:	:	8,72	6,40	4,68	3,81	3,85	4,53	4,61	4,38
Slovacia	:	8,04	6,94	4,99	5,03	3,52	4,41	4,49	4,72	4,71
Danemarca	5,64	5,08	5,06	4,31	4,30	3,40	3,81	4,29	4,28	3,59
Marea Britanie	5,33	5,01	4,91	4,58	4,93	4,46	4,37	5,06	4,50	3,36
Suedia	5,37	5,11	5,30	4,64	4,42	3,38	3,70	4,17	3,89	3,25
Valoarea de referință	7,32	6,87	6,78	5,84	5,65	5,03	5,59	6,23	6,03	5,28

*Source: ECB and Eurostat data from 21 December 2010, author calculation for the reference value according to ECB methodology*

It may be clearly noticed (see Table 1), following the evolution of this convergence criterion over 10 years, that only some new member states which have joined the European Union in 2004 and 2007, continued the sustainable accomplishment of this criterion.

In Romania, in 2009, the average level of the long-term government bonds with a due date according to the convergence criterion was 9.69% per year, exceeding by far the reference value and the average of the Euro zone. The 2% increase of the indicator compared to the corresponding value of 2008, reflected the increased necessities of financing the budgetary deficit in 2009, and the adverse effects of the economic recession hardly felt starting with the summer of 2009. We may also notice that the Romanian market of the long-term government bonds is very little developed, which determines a rather modest relevance of the criterion in the analysis of the nominal convergence in Romania. The orientation of the demand and offer of government bonds on the primary market, preponderantly towards

bonds with short-term maturities involves risks associated to the refinancing, but may be justified by the desire of the investors not to block their liquidities in government bonds with late maturities, particularly given the increasing pressure to finance the budget deficit. It is no surprise that the average yields of the long-term government bonds on the primary market increased until mid 2009 and decreased towards the end of 2009. The decreasing trend continued in early 2010 and remained at about 7% in late 2010, on the background of stabilized macroeconomic conditions, of the loan agreement with the international financial institutions, and of the constant monetary policy interest rate at 6.25% since May 2010 to the end of 2010.

If we analyse the monthly evolutions in the other NMS, according to the Maastricht Treaty, only Czech Republic, Slovenia and Slovakia achieved this convergence criterion, scoring average long-term interest rates below the reference value (except for a temporary exceeding in Czech Republic, in April 2009 – see Table 2).

During the period of analysis 2008-2010, Poland and Bulgaria scored values of the indicator somehow close to the reference value (in 2009, the average annual values of the two countries were 6.12% and 7.22%, respectively), while in Latvia, Lithuania, Hungary and Romania, the long-term interest rates reached much higher values than the reference value. However, in April 2010, Bulgaria, Latvia, Hungary, Poland and Romania experienced a relative improvement of the long-term interest rates convergence. If in Poland and Bulgaria, the fiscal problems and the external vulnerabilities which acted on the Bulgarian economy determined the persistence of rather high spreads on the long-term interest rates, in Latvia and Lithuania, these differentials increased because of the wide structural macroeconomic disequilibria and of the impact of the international financial crisis on the markets.

Table no.2

**Long-term interest rate according to the Maastricht criterion, monthly series**

Târni / perioadă	2008M01	2008M04	2008M07	2008M10	2009M01	2009M04	2009M07	2009M10	2010M01	2010M04	2010M07	2010M10
UE27	4,38	4,53	4,97	4,58	4,07	4,15	4,26	3,99	4,11	3,94	3,75	3,51
Zona Euro	4,20	4,30	4,77	4,32	3,89	3,86	3,91	3,89	3,76	3,89	3,61	3,37
Bulgaria	5,07	4,80	5,17	5,17	7,14	7,24	7,56	7,08	6,85	5,94	6,05	5,82
Cehia	4,56	4,72	4,90	4,53	4,21	5,25	5,41	4,50	4,28	3,84	3,97	3,43
Estonia	:	:	:	:	:	:	:	:	:	:	:	:
Letonia	5,71	5,93	6,57	6,60	10,64	11,15	12,75	13,51	13,76	10,13	10,00	9,24
Lituania	4,73	4,59	5,49	5,40	13,95	14,50	14,50	14,50	8,15	5,15	5,15	5,15
Ungaria	7,11	8,02	8,11	9,57	8,76	10,63	8,81	7,45	7,62	6,57	7,39	6,87
Polonia	5,81	5,99	6,45	6,35	5,46	6,19	6,19	6,16	6,13	5,57	5,84	5,53
Romania	7,15	7,35	7,28	8,27	9,23	9,77	11,46	9,13	9,05	6,97	7,18	7,02
Slovenia	4,39	4,47	5,02	4,66	4,70	4,77	4,33	3,86	4,00	3,94	3,87	3,56
Slovacia	4,48	4,46	5,06	4,95	4,69	4,93	5,04	4,33	4,11	3,93	3,93	3,67
Danemarca	4,09	4,06	4,37	3,57	2,80	3,18	3,37	3,60	3,57	3,34	2,72	2,46
Marea Britanie	4,15	4,28	4,78	4,43	3,44	3,50	3,74	3,34	4,01	3,96	2,97	2,80
Suedia	4,26	4,62	5,00	4,52	3,17	3,16	3,55	3,25	3,37	3,14	2,70	2,64
valoarea de referință	6,08	6,10	6,49	5,88	5,01	5,16	5,42	5,27	5,37	5,17	4,68	4,46

Source: ECB and Eurostat data from 21 December 2010, author calculation for the reference value according to ECB methodology

The situation of the fiscal positions and of the uncertainty regarding the fiscal policies of the Bucharest and Budapest governments, influenced adversely the long-term interest rates in Romania and Hungary. Thus, in 2009, the average value of the indicator according to the Maastricht criterion was 9.69% for Romania and 9.12% for Hungary, much above the reference value. However, in 2009, the maximal differentials of the long-term interest rates in relation to the reference value were scored in Lithuania and Latvia (14% and 12.36%, respectively), the same high values persisting in Latvia in the first half of 2010.

The low level of the public debt and the inexistence of a mature market for the long-term bonds in Estonia, don't allow calculating harmonized rates of the indicator. However, with the view to adopt the Euro, in order to evaluate the sustainability of the convergence process, several indicators of the financial market have been considered, such as the differentials of the spot and forward interest rates on the monetary market compared to those from the Euro zone and the interest rates for the loans granted to the population and to

the non-financial societies, with due dates that can be associated to the basic financial instrument to calculate the long-term interest rate. Also, the country ratings and the analysis of the main macroeconomic variables (such as the evolution of the payment balance or the evolution of the fiscal debt) are taken into calculation to evaluate the accomplishment of this convergence criterion. Towards the end of 2009, the improvement of the fiscal evolutions of the Estonian economy and the globally decreasing risk aversion improved the perception of the financial-monetary market actors regarding the future macroeconomic evolutions.

If we monitor the whole analysed period (January 2008-October 2010), we may notice that in late 2008 and in the first half of 2009 (particularly in April-August 2009), on the background of the increasing tensions on the international financial markets, of the fast deterioration of the public finances, of the decreased ratings for loans, of the decreasing volume of liquidities and of the general deterioration of the internal economic conditions, the long-term interest rates increased spectacularly in all new member states, reaching peak values.

From mid 2009 to early 2010, and at the end of 2010, the situation of the long-term interest rates improved dramatically (except for Latvia, which still had much higher spreads of the indicator in relation with the reference value, compared to the other NMS); the risk aversion decreased worldwide, the perception of the financial-monetary market actors regarding the fiscal evolutions improved within the context of the conditions set by the programs of international financial assistance (IMF agreements) and within the context of the anti-crisis measures. The long-term interest rates decreased continuously in Denmark, United Kingdom and Sweden since mid 2009 and throughout 2010, being clearly lower than the reference value of the convergence criterion. This reflected, on the one hand, the low inflationist pressure and, on the other hand, the sustainability of the process of fiscal consolidation. Nevertheless, in Bulgaria, Czech Republic, Poland, Romanian and Hungary, the values of July 2010 show a slight increase, which shows persisting structural disequilibria and anachronic policies associated to them (such in Romania), as well as the preservation of uncertain economic evolutions due to the public policies.

In conclusion, although the global economic and financial crisis exhausted its first round effects, it still leaves a strong print in all the new member states on the restoration of the macroeconomic disequilibria. This is also noticed in the evolution of the long-term interest rates, which cumulate and synthesize quite well all the abnormalities present on the national, regional and international financial markets: fast, sometimes brutal, modification of market behaviour due to the risk, amplification of the tensions on the international financial markets, presence of the large or increasing fiscal-budgetary deficits, internal structural deficits, temporary shortage of liquidity, as well as public policies in disagreement with the reality or lacking concrete positive effects, or effects which materialize in time.

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