

Romania and the Eurozone Accession: The Nominal Convergence Criteria

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Abstract

Through the Treaty of Accession to the European Union, Romania has committed to adopt the European currency. The purpose is to analyze how Romania meets the nominal convergence criteria necessary for the admission to the eurozone. Romania has postponed the deadlines set for joining the eurozone several times, raising questions regarding the capacity of the Romanian economy and political decision-makers to make the optimal decisions to meet the nominal convergence criteria. This research is predominantly conceptual, but it also includes elements of empirical testing. We would mention that the analysis of the nominal convergence criteria alone is not sufficient to determine whether a country is ready or not for euro adoption; a complete analysis should also take into account the analysis of the real convergence criteria as well as the cost and benefits of this process.

Key words: convergence criteria, euro, monetary union

J.E.L. classification: E52, E58

1. Introduction

Like any member state of the European Union, Romania committed through the accession pact to adopt the single currency. Therefore, Romania's integration into the eurozone is a topical issue, given the macroeconomic context. Given the situation, it is important to know and understand the provisions of the European Union, the advantages and disadvantages of integration into the eurozone, as well as the terms our country has to meet in order to comply with the obligations it assumed.

There are therefore a series of criteria for a country to be admitted in the eurozone and some guiding principles to assess how these criteria are met. First, only the states with favorable economic situations can join the eurozone. Therefore, in addition to the nominal convergence criteria, certain real convergence criteria must also be met. Second, it should be noted that all nominal convergence criteria must be met, all being considered equally important. Also, the fulfillment of these criteria is assessed exclusively on the basis of concrete empirical data, and the process is transparent. In addition, increased attention is paid to the convergence sustainability, since the economic developments are analyzed over the long term.

Joining eurozone represents a defining moment for Romania in its process of consolidating a sustainable economic stability. However, such a decision must be well-founded, supported by a sustainable fiscal position and a robust framework of internal financial stability. The macroeconomic dynamics suggest that the euro adoption in the short term is unlikely, as the convergence criteria have deteriorated rapidly in recent years.

2. Literature review

The adoption of the single European currency began in 1999, with the integration of the first group of 11 member states, joined by others over time. The eurozone is currently composed of 20 member states. Six other member states (Bulgaria, the Czech Republic, Hungary, Poland, Romania and Sweden) are outside the eurozone, having the status of states with a derogation, while Denmark

benefits from an opt-out clause provided for in the treaty protocol. Among the states not part of the eurozone, Bulgaria has been accepted into the European Exchange Rate Mechanism (ERM II) and will probably join the eurozone on January 1st, 2026.

The eurozone is expected to expand. Apart from Denmark, which benefits from the opt-out clause, Sweden has indefinitely postponed its accession to the euro area. The other 5 countries will sooner or later adopt the single European currency, with Bulgaria and the Czech Republic being the best positioned. These countries and the European institutions consider that the adoption of the single currency, only as a result of meeting the nominal convergence criteria, without an adequate preparation and a macroeconomic stability, can generate significant risks both for their stability and for that of the eurozone (Kopits, 1999, p. 23).

The debates for or against the adoption of the single European currency focus on the costs and benefits associated with the adoption of the single European currency. The benefits could result by eliminating the costs associated with the foreign exchange, the reduction of financing cost and inflation (Socol, C., Socol, A., 2007, p.53). The theory demonstrates that countries can benefit from the existence of a common currency, as it allows them to avoid many adjustment problems (Socol, A., 2011, p.90). An important issue related to the adoption of the euro is transfer control over the monetary policy independence and the exchange rate mechanism (McKinnon, 1963, p.720), as a result the national central banks can no longer use specific monetary policy instruments to mitigate domestic economic shocks. In the case of Romania, joining the Eurozone implies a transfer of monetary policy responsibilities from the National Bank of Romania to the European Central Bank, since the macroeconomic dynamics of the Eurozone will prevail over national particularities (Schipor, 2020, p.198). The advantage of joining a monetary union, consisting of minimizing the transaction costs, comes with the disadvantage of giving up the exchange rate of the national currency, as an economic policy instrument (Anastasei, 2006, p.19).

Therefore, the theory of optimal currency areas constitutes an essential theoretical framework to analyze the correlation degree of the economic shocks between Romania and the eurozone. This theory emerged from the desire to clarify the opportunities of having a fixed or flexible exchange rate (Mundell, 1961, p.658). Mundell concludes that the geographical mobility of the labor force eliminates the need for a flexible exchange rate. Kenen (1969, p.42-43) argued that the industrial diversification would contribute to the optimality of the monetary union, because it would reduce the macroeconomic effects of the structural shocks, considered to be the greatest threat to the viability of a monetary union. He argued that the monetary union should be accompanied by a fiscal union. McKinnon (1963) argued that a flexible exchange rate becomes a less efficient instrument for rebalancing the current account and more harmful to the domestic price stability, because the exchange rate changes are counterbalanced by the price changes, without the change in the real exchange rate that would have been needed to rebalance the current account.

The specialized literature generally agrees on the need to identify an optimal moment for Romania's accession to the eurozone (Drăgan, Pascariu, 2008, p.37), avoiding both unjustified haste and excessive delays. A premature adoption of the euro, in the absence of a real convergence, would not be feasible, while a significant delay could lead to a decrease in public support.

The nominal convergence criteria are intended to ensure the macroeconomic stability in the countries applying for the eurozone membership (Krugman, Obstfeld, 2006, p. 234). However, there have been numerous criticisms of the relevance, applicability and efficiency of these criteria in the economic literature and in the European political debate. One of the most frequent criticisms is that the thresholds set (e.g. a 3% budget deficit or a 60% public debt of GDP) are arbitrary and do not take into account the economic particularities of each country (Holland and Portes, 2012, p.9). These limits were set within a specific historical context and may be irrelevant in the face of different economic realities or in times of crisis. Another major criticism is that meeting the nominal convergence criteria does not automatically imply real convergence (Diaz del Hoyo et al., 2017, p.21). This discrepancy may lead to economic tensions in the post-accession period, as the less developed countries do not have the necessary mechanisms to deal with the asymmetric shocks in the absence of their own monetary policy.

The uniform application of the criteria ignores the divergences between the economic cycles of the member states (Franks et al., 2018, p.12). There has been a significant increase in synchronizing the economic cycles between the member states of the eurozone. This trend suggests that the

economic fluctuations have become increasingly aligned within the eurozone, indicating a higher degree of cyclical convergence. However, although the economic cycles have become better synchronized, the pace of the economic growth has become increasingly divergent, indicating the persistence of some structural differences between the national economies.

Another criticism to the nominal convergence criteria was driven by the experience of the eurozone sovereign debt crisis of 2009-2012, which demonstrated that the compliance with the Maastricht criteria was not sufficient to guarantee the macroeconomic stability of the member states (Franks et al., 2018, p.14). A country that was admitted to the eurozone after formally complying with the criteria, but subsequently faced a severe economic crisis, raises questions about the effectiveness of these rules as a preventive mechanism.

The nominal convergence criteria remain a necessary tool to establish a macroeconomic stability framework, but they are insufficient to guarantee a successful monetary integration. The adoption of the euro must be based on a more comprehensive approach, including real, institutional and structural convergence criteria, to ensure the long-term sustainability of participation in the eurozone.

3. Research methodology

In the early stages of a research project, choosing an appropriate methodology is essential for a deep and correct understanding of the subject. This paper mainly uses a quantitative research methodology, based on secondary data sources, such as books, scientific papers and reports provided by some international organizations.

The research objective is to observe the transformations the Romanian economy has undergone and to identify similarities with the countries of Central and Eastern Europe with the aim of exploring the opportunities and prospects of adopting the single European currency.

The research methodology is based on the analysis and interpretation of data provided by Eurostat, Romanian National Bank and European Central Bank. To achieve the desired results, I utilized theoretical research, data analysis and synthesis. The theoretical research consisted of literature review, in order to build a conceptual framework and to understand previous conclusions in the field. The data analysis was used to interpret the economic indicators and statistics published by Eurostat and other international institutions. The synthesis was applied to formulate conclusions based on the analyzed data and to identify possible future development directions for Romania.

4. Findings

According to the Treaty of Accession to the European Union, all states that become members of the European Union must adopt the single currency, the euro, after a certain period, more or less extended. Thus, a new member of EU, automatically entails its entry into the Economic and Monetary Union. Romania was admitted to the EU on January 1st, 2007, meaning that the next step is to prepare the national economy to adopt the single currency. As a candidate state, Romania is currently considered a country with a derogation from the adoption of the single currency (art. 122 of the Treaty).

The adoption of the euro by Romania is conditioned by the simultaneous and sustainable meeting of the nominal convergence criteria (European Commission, 2024, p.124-140). Romania must meet four convergence criteria of a monetary and fiscal nature:

1. The inflation rate must be at most 1.5% per year higher than that recorded in the three member states with the lowest inflation;
2. The government deficit must be less than 3% of GDP, and the public debt must be less than 60% of GDP;
3. The national currency must be stable for at least two consecutive years, meaning it must remain within the $\pm 15\%$ fluctuation margins established in the treaty;
4. The long-term interest rate must not exceed by more than 2% the rate recorded by the three best-performing member states.

Inflation rate

The price stability criterion ensures a high degree of convergence in monetary policies. The Maastricht Treaty stipulates achieving price stability, requiring states to have an inflation rate close to that of the three member states with the lowest inflation. This means that a member state must have an average inflation rate over a period of at least one year that is less than 1.5 percentage points higher than the inflation rate of the three best-performing member states.

The longer-term price evolution has reflected a volatile macroeconomic environment, particularly in the last few years. Inflation has varied significantly across the countries under review over the analyzed period. The average inflation rate has been higher in all countries under review than in the eurozone. Initially, between 2013 and 2016, the inflation was low across all countries. Therefore, the monetary policy conditions have eased considerably. Inflation started to rise in 2017, leading to some monetary policy interventions conducted by the central banks in some of the countries under review. The outbreak of the pandemic in 2020 led to a significant decline in the economic activity that year. Inflation slowed in some countries but remained persistent in others, reflecting higher food and services prices and tighter labour market conditions. Inflation rose significantly in all countries in 2021 and 2022, driven largely by sharp increases in energy prices, as well as supply and demand imbalances caused by the pandemic and macroeconomic policy measures. Since the first months of 2022, Russia's war against Ukraine has amplified inflationary pressures. To counter this rise in inflation, most central banks have started to sharply raise their policy rates in 2021. After peaking in late 2022 and early 2023, inflation began to decline sharply as a result of previous monetary policy tightening, lower global energy prices, and easing cost pressures and supply constraints.

Table no.1 Inflation rate in the period 2013-2024

	2013	2014	2015	2016	2017	2018
European Union	1.3	0.4	0.1	0.2	1.6	1.8
Bulgaria	0.4	-1.6	-1.1	-1.3	1.2	2.6
Czech Republic	1.4	0.4	0.3	0.6	2.4	2.0
Hungary	1.7	0.0	0.1	0.4	2.4	2.9
Poland	0.8	0.1	-0.7	-0.2	1.6	1.2
Romania	3.2	1.4	-0.4	-1.1	1.1	4.1

	2019	2020	2021	2022	2023	2024
European Union	1.4	0.7	2.9	9.2	6.4	2.6
Bulgaria	2.5	1.2	2.8	13.0	8.6	2.6
Czech Republic	2.6	3.3	3.3	14.8	12.0	2.7
Hungary	3.4	3.4	5.2	15.3	17.0	3.7
Poland	2.1	3.7	5.2	13.2	10.9	3.7
Romania	3.9	2.3	4.1	12.0	9.7	5.8

Source: own processing based on Eurostat

At the beginning of the analyzed period, Romania had a low level of inflation, even registering deflation in 2015 and 2016, due to the reduction of the value added tax. The average inflation rate increased sharply in 2022, by almost 8 percentage points compared to the previous year. After 2022, when it reached a peak of 12%, inflation has decreased. In 2024, the inflation rate recorded by Romania was 5.8%, significantly higher than the reference value of 2.2%. A gradual reduction of this indicator is expected, due to the previous tightening of monetary policy and the further mitigation of cost pressures and supply bottlenecks, although the situation is uncertain, as tax increases are possible due to the high budget deficit, which would have the impact of increasing prices.

Long-term interest rates

Another indicator of nominal convergence is the interest rate level, which must not exceed in the long term by more than 2 percentage points the level of the member state with the lowest rate. The Maastricht Treaty stipulates that over a period of at least one year, a member state must have had a long-term interest rate no more than 2 percentage points higher than the average of the three member states with the lowest inflation.

We notice a decrease in the average long-term interest rates in the analyzed countries by 2021. In 2022, the year when high inflation was recorded both in the European Union and in the analyzed countries, the inflationary pressure, accompanied by increasing budget deficits after the pandemic crisis, determined the increase in interest rates on short-term loans. Financing costs differ from country to country, depending on the fiscal-budgetary situation of each country. Bulgaria and the Czech Republic benefit from the lowest interest rates, unlike Romania and Hungary at the opposite pole.

Table no. 2. The interest rate in some EU member countries in the period 2013 – 2024 (the Maastricht criterion)

	2013	2014	2015	2016	2017	2018
European Union	3.09	2.21	1.38	1.09	1.33	1.38
Bulgaria	3.47	3.35	2.49	2.27	1.6	0.89
Czech Republic	2.11	1.58	0.58	0.43	0.98	1.98
Hungary	5.92	4.81	3.43	3.14	2.96	3.06
Poland	4.03	3.52	2.7	3.04	3.42	3.2
Romania	5.41	4.49	3.47	3.32	3.96	4.69

	2019	2020	2021	2022	2023	2024
European Union	0.72	0.31	0.4	2.46	3.51	3.26
Bulgaria	0.43	0.25	0.19	1.53	3.75	3.93
Czech Republic	1.55	1.13	1.9	4.33	4.44	3.98
Hungary	2.47	2.23	3.06	7.57	7.51	6.5
Poland	2.35	1.5	1.95	6.05	5.8	5.53
Romania	4.54	3.89	3.62	7.48	6.71	6.32

Source: own processing based on Eurostat

The long-term interest rates in Romania were above the interest rates in most European countries over the analyzed period. Only Hungary has recorded higher values of this indicator in the last three years. Romania is therefore the second in the top of the most expensive loans that can be taken by an EU state, and the distance from the platoon of Central European countries with a similar currency regime has been maintained. The level of interest rates remains, however, problematic, especially since the public debt has increased significantly in recent years, with significant risks related to the costs of its refinancing.

Consolidated general budget deficit and public debt

Treaty of Maastricht provides for the sustainability of the public finances; this results from a budgetary position which does not show an excessive government deficit. Article 104 describes the excessive deficit procedure: the ratio of the budget deficit to GDP exceeds the reference value of 3%, and the ratio of public debt to GDP exceeds the reference value of 60%, except in cases where the debt ratio is diminishing sufficiently and approaching the reference value at a satisfactory pace.

Until the outbreak of the health crisis caused by the coronavirus pandemic, the budget deficits of European countries (including those analyzed) were reduced, with most countries falling within the 3% of Gross Domestic Product target set by the Maastricht Treaty. The budget deficit has increased since 2020, due to additional spending on healthcare and to support the economic activities affected by the pandemic. The energy crisis and the slowdown in economic activity caused by the war in Ukraine and the increase in military spending also put additional pressure on national budgets. The budget deficit in 2024 was lower than in 2023 in four of the analyzed countries. Three countries under review recorded budget deficit-to-GDP ratios above the reference value in 2024. The deficit was above the reference value in Poland (6.6% of GDP) and significantly exceeded the reference value in Romania (9.3% of GDP) and Hungary (4.9% of GDP). The deficit is at the reference level in Bulgaria (3% of GDP) and fell below the reference level in the Czech Republic (2.2% of GDP).

Table no. 3. The general budget deficit in some EU member states in the period 2013 – 2024

	2013	2014	2015	2016	2017	2018
European Union	-3.1	-2.4	-1.9	-1.4	-0.9	-0.4
Bulgaria	-0.7	-5.4	-1.9	0.3	1.6	1.7
Czech Republic	-1.3	-2.1	-0.7	0.7	1.5	0.9
Hungary	-2.6	-2.8	-2.0	-1.8	-2.5	-2.0
Poland	-4.2	-3.7	-2.6	-2.4	-1.5	-0.2
Romania	-2.3	-1.2	-0.5	-2.5	-2.5	-2.8

	2019	2020	2021	2022	2023	2024
European Union	-0.5	-6.7	-4.6	-3.2	-3.5	-3.2
Bulgaria	2.2	-3.8	-4.0	-3.0	-2.0	-3.0
Czech Republic	0.3	-5.6	-5.0	-3.1	-3.8	-2.2
Hungary	-2.0	-7.5	-7.1	-6.2	-6.7	-4.9
Poland	-0.7	-6.9	-1.7	-3.4	-5.3	-6.6
Romania	-4.3	-9.2	-7.1	-6.4	-6.6	-9.3

Source: own processing based on Eurostat

Romania fell within the budget deficit target until 2018. Romania was placed under the excessive deficit procedure starting from 2020, when a budget deficit of 9.2% of GDP was recorded. This value was exceeded in 2024, when, amid populist measures, the Romanian government decided on an unsustainable increase in salaries and pensions. In June 2024, the European Commission found that Romania had not adopted effective measures and made recommendations for correcting the excessive deficit. It is expected that the new government will apply fiscal correction measures to bring the public finances back on a sustainable path. This fiscal correction is necessary to reduce the costs of financing the public debt and to generate sustainability for the public finances.

In 2024, the share of public debt in GDP reached 81% for the European Union, decreasing compared to previous years, while the values recorded by the analyzed states that did not adopt the single European currency were lower or significantly lower than this threshold. The share of public debt in GDP was 24.1% in Bulgaria (the lowest value among the analyzed countries) and 73.5% in Hungary (the highest value). Compared to 2020, public debt increased in the Czech Republic and Romania, and decreased in the other non-euro analyzed states (and in the European Union) mainly due to the recovery after the pandemic.

Table no. 4. The public debt in some EU member countries in the period 2013-2024

	2013	2014	2015	2016	2017	2018
European Union	86.7	86.9	85.1	84.0	81.5	79.5
Bulgaria	17.0	27.0	25.9	29.1	25.1	22.1
Czech Republic	44.1	41.5	39.5	36.2	33.8	31.7
Hungary	77.2	76.5	75.7	74.6	72.0	68.8
Poland	56.9	51.1	51.1	54.1	50.4	48.2
Romania	37.8	39.1	37.7	37.8	35.3	34.4

	2019	2020	2021	2022	2023	2024
European Union	77.4	89.5	86.8	82.5	80.8	81.0
Bulgaria	20.1	24.4	23.8	22.5	22.9	24.1
Czech Republic	29.6	36.9	40.7	42.5	42.5	43.6
Hungary	65.0	78.7	76.2	73.9	73.0	73.5
Poland	45.2	56.6	53.0	48.8	49.5	55.3
Romania	35.0	46.6	48.3	47.9	48.9	54.8

Source: own processing based on Eurostat

Romania has met the convergence criteria for one indicator, the public debt. It was 54.8% in 2024, below the 60% maximum limit set by the Maastricht Treaty. The public debt has been growing rapidly in Romania since 2020, when it rose to 46.6% from 35% the previous year. The rapid rate of increase in the public debt is worrying (around 10 percentage points in a year), which, in the absence

of some proactive measures to sustainably reduce the budget deficits, it may compromise compliance with this criterion even in 2025. From a longer perspective, between 2013 and 2024, the public debt-to-GDP ratio increased significantly in Romania (by 17 percentage points).

Exchange rate

The exchange rate of $\pm 15\%$ is another convergence criterion for the eurozone stipulated by the Maastricht Treaty. The Treaty requires compliance with the normal fluctuation margins provided for by the exchange rate mechanism of the European Monetary System for at least two years without devaluing the national currency against that of another member state. More specifically, the member state has not devalued on its own initiative the bilateral central parity of its currency against the currency of another member state during the same period.

Among all the countries analyzed, Bulgarian leva is the only currency participating in ERM II. It was included in this mechanism in 2020. The Bulgarian leva was included in ERM II at a central parity of 1.95583 leva per euro, with a standard fluctuation band of $\pm 15\%$. The other countries examined practice different exchange rate regimes, in most cases in the context of a relatively high degree of exchange rate volatility. The Romanian leu, which was traded under a managed floating exchange rate regime, recorded a stable exchange rate, while the other currencies not participating in ERM II were traded under a flexible exchange rate regime and were characterized by a relatively high level of volatility. The Czech koruna, the Romanian leu and the Hungarian forint depreciated against the euro in 2024 compared with the previous year, while the Polish zloty appreciated.

Table no. 5. The exchange rate of various currencies during the period 2013 – 2024

	2013	2014	2015	2016	2017	2018
Bulgarian lev	0.00	0.00	0.00	0.00	0.00	0.00
Czech koruna	-3.30	-5.99	0.93	0.90	2.62	2.58
Hungarian forint	-2.63	-3.99	-0.42	0.46	0.72	-3.14
Polish zloty	-0.31	0.31	0.00	4.28	2.43	-0.11
Romanian leu	0.90	-0.56	-0.04	-1.01	-1.75	-1.86

	2019	2020	2021	2022	2023	2024
Bulgarian lev	0.00	0.00	0.00	0.00	0.00	0.00
Czech koruna	-0.09	-3.06	3.08	4.19	2.29	-4.65
Hungarian forint	-2.01	-7.98	-2.07	-9.14	2.41	-3.52
Polish zloty	-0.85	-3.38	-2.75	-2.65	3.08	5.20
Romanian leu	-1.96	-1.96	-1.72	-0.20	0.31	-0.56

Source: own processing based on Eurostat

The exchange rate of the Romanian leu was characterized by a low degree of volatility. From the perspective of compliance with the nominal convergence criteria, since the national currency does not participate, for the time being, in ERM II, a central parity has not been defined in relation to which the inclusion of exchange rate fluctuations in the ± 15 percent band can be assessed. However, the position with respect to this criterion can be assessed on the basis of the calculation method used by the Central European Bank in the convergence reports, namely the calculation of the maximum percentage deviation for a two-year period of the daily exchange rate compared to the average level of the month preceding this interval. The maximum value of the deviations did not exceed the limit of the fluctuation accepted for the entire period analyzed.

The table below presents the status of meeting the nominal convergence criteria in 2024.

Table no. 6. The Maastricht criteria in Romania in 2024

Nominal convergence indicators	Maastricht criteria	Romania
Inflation rate (HICP) (percentage, annual average)	< 1.5 pp above the average of the 3 best performing EU members (reference level: 1.0%)	5.8%
Long-term interest rates (percentages per year)	< 2 pp above the average of the 3 best performing EU members in terms of price stability (reference level: 3.14%)	6.32%
Exchange rate against the euro (maximum percentage appreciation (+)/depreciation (-))	± 15 percent	- 0.56%
Consolidated budget deficit (percentage of GDP)	below 3%	9.3%
Public debt (percentage of GDP)	below 60%	54.8

Source: own processing based on Eurostat

One may notice that Romania meets two criteria in 2024, the exchange rate stability and the public debt. The last criterion has been put under doubt since this year due to its high growth rate in the recent period.

5. Conclusions

According to the calculations of the Central European Bank, Romania met all the nominal convergence criteria in 2016. Previously, in the first convergence report as a member state, Romania did not meet the price stability criterion, a criterion that has not been met in the last few years. The long-term interest rate criterion was met since 2014, but as in the case of price stability, it has not been met in recent years, increasing the costs of financing the public debt for Romania. Regarding the budget deficit, Romania was in the excessive deficit procedure during the period 2009-2013, and also re-entered this procedure in 2020, with no real prospects of exiting this procedure in the following years.

Now Romania's main concern is to reduce the budget deficit. Achieving this objective would also place the public debt on a downward trajectory and reduce the interest rate in the long-term. The nominal convergence criteria must be met in a durable and sustainable manner, not just at a certain point in time. Developments so far show that most of the criteria have not been met for most of the time since accession to the European Union, and if they are met at a given point, this does not represent a guarantee that they will be met in the future.

Merely meeting the nominal convergence criteria is not enough for a country to benefit from joining the eurozone. Furthermore, the need for some economic policies that ensure the economic stability does not end with the adoption of the euro. Sustainable real convergence is a key condition for those economies that want to adopt a common currency and be resilient to adverse shocks.

Not only the failure to meet the nominal convergence criteria represents an obstacle to the adoption of the European currency. Development gaps can represent the essential obstacle to the adoption of the euro. The differences in the economic performance between countries can lead to the accumulation of ever-increasing external deficits. Therefore, for Romania, a premature accession to the eurozone is not desirable.

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