

THE RELATION BETWEEN THE TWIN DEFICITS IN ROMANIA

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Abstract

The Romanian economy has been confronted with the persistence of macroeconomic imbalances (the so-called twin deficits) over the past decades. Romania has recorded both a budget deficit and a current account deficit every year since 1992, while the cumulated weight of these deficits in the GDP reached a historical high level in 2024 (around 17%), according to the database of the International Monetary Fund (2025). In this paper we apply standard econometric tools and use the databases of several institutions (including the International Monetary Fund (2025) and of the World Bank (2025a)) in order to assess the relation between the trade balance and the budget balance in Romania in a comparative analysis with the developments in Poland (the largest economy in Central and Eastern Europe) over the past 25 years (the period 2000 – 2024). The results of our analysis indicate a positive relation between the trade balance and the budget balance in both Romania and Poland during the analysed period. However, we also identified a negative relation between the trade balance and the dynamic of the real wage (more pronounced in Romania), which provides a solid explanation for the divergence between these economies in terms of trade balance.

Keywords: trade deficit, budget deficit, Romania, Poland.

JEL Classification: C22, F32, H62.

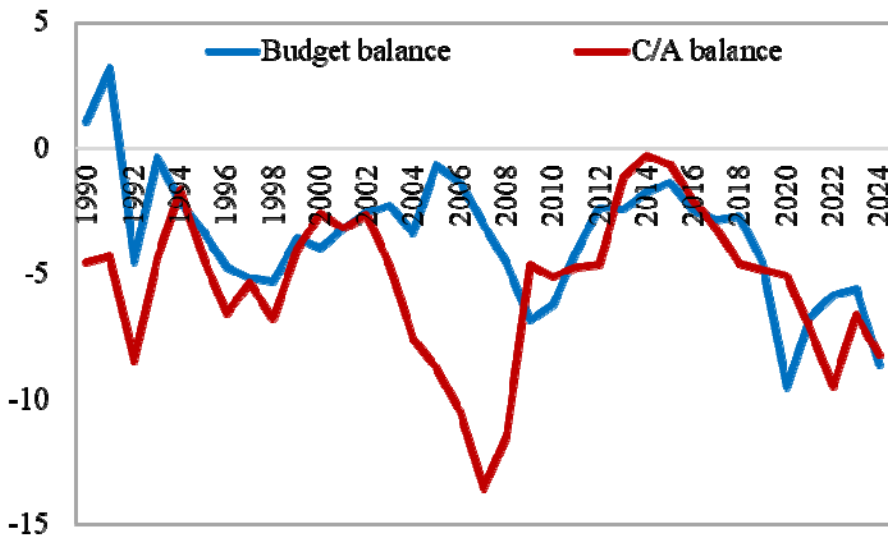
1. Introduction

The Romanian economy has been the champion of the EU economic convergence over the past decades, as emphasized by Rădulescu (2024). On the other hand, Romania has also been confronted with the persistence of macroeconomic imbalances, in the context of pro-cyclical fiscal measures, according to the World Bank (2025b). In fact, in several years Romania was the EU champion in terms of cumulated twin deficits (budget deficit and trade deficit/current account deficit).

Since 1992, Romania has recorded simultaneously a budget deficit and a current account deficit of the balance of payments, the combined share of the twin deficits in GDP reaching a record high level (around 17%) in 2024, according to the statistics of the International Monetary Fund (IMF, 2025), represented in the following chart.

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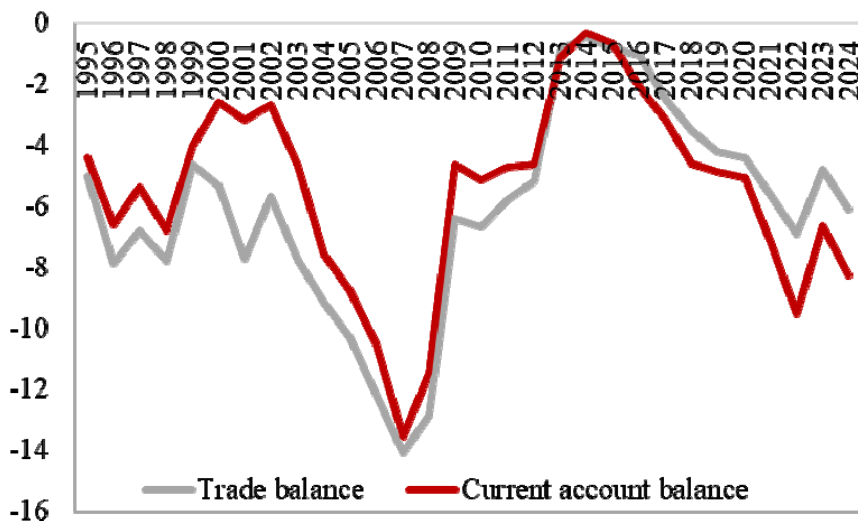
Figure 1. Budget balance (% GDP) vs. current account balance (% GDP) in Romania, 1990 – 2024



Source: representation of the author based on the statistics of the International Monetary Fund (2025).

We point out that the current account deficit in Romania is largely driven by the deficit of the trade balance in goods and services (over 70% in recent years), as can be noticed in the following chart.

Figure 2. Trade balance (% GDP) vs. current account balance (% GDP) in Romania, 1995 – 2024

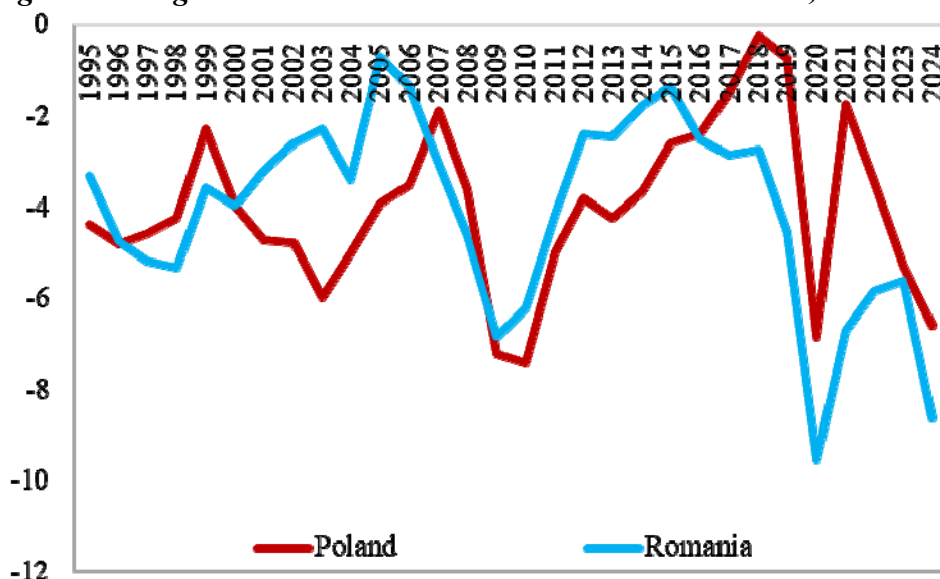


Source: representation of the author based on the statistics of the International Monetary Fund (2025), and of the World Bank (2025a).

Romania is not the only country in Central and Eastern Europe with persistent budget deficits for several decades in a row. This stance is also noticed in Poland, the largest economy in the region, with a nominal dimension of around EUR 850bn in 2024, according to Eurostat (2025).

According to the statistics of the International Monetary Fund (IMF, 2025), the average annual weight of the budget deficit in the GDP stood at the same level (4%) in both Romania and Poland during the period 1995 – 2024, as can be noticed in the following chart.

Figure 3. Budget balance / GDP ratio in Romania and Poland, 1995 – 2024



Source: representation of the author based on the statistics of the International Monetary Fund (2025)

However, unlike Romania, Poland has also recorded years with a current account surplus in recent decades, for example, in 2023 and 2024. In this context, the average annual weight of the current account balance in GDP in Poland has been significantly lower compared to Romania over the past decades, according to the statistics of the International Monetary Fund (2025). Furthermore, Poland has recorded a trade balance surplus every year since 2013, according to the database of the World Bank (2025a).

In this paper, we analyze the relation between the trade balance and the budget balance (as % of GDP) in Poland and Romania over the past 25 years (the period 2000 – 2024). We apply standard econometric tools and use the databases of the International Monetary Fund (2025) for the budget balance and

of the World Bank (2025a) for the trade balance in these countries, the first and second largest economies in Central and Eastern Europe, according to Eurostat (2025).

The rest of the paper has the following structure: Chapter 2 briefly presents the literature review on the relation between the budget deficit and the current account deficit/trade deficit; the methodology applied is presented in Chapter 3; the main results are analysed in Chapter 4; the conclusions are drawn in the last chapter.

2. Literature Review

The relation between the trade balance (current account balance) and the budget balance has been analysed by many economists in the past decades, as several countries have been confronted with the syndrome of the twin deficits.

It is the case of the United States - the largest economy in the world (with a nominal GDP above USD 30tn in the second quarter of this year, according to the estimates of the Department of Commerce (2025a)) has recorded federal budget deficit and current account deficit since 2002, according to the databases of the US Department of the Treasury (2025) and US Department of Commerce (2025b).

In this respect, there can be noticed the development of the literature on the twin deficits hypothesis, that the budget balance has an impact on the current account balance.

For instance, according to Bernheim (1988), an increase of the budget deficit by one dollar determined a decline of the current account balance by USD 0.3 in the USA (the largest economy in the world) during the period 1960-1984.

In a recent article, Dudley (2025) pointed out that the deterioration of the public finance in the USA (since the beginning of this century) has contributed to the widening of the current account deficit, its share in the GDP hovering at present at the highest level since 2008, the moment of the outbreak of the Great Financial Crisis, the most severe global economic and financial crisis since the end of the Second World War.

At the same time, the analysis elaborated by Afonso et al. (2022), considering a sample of 65 countries, confirms that budget balance had an impact on the current account balance during the period 1985 – 2015.

In Europe, Koukouritakis and Panousis (2020) applied standard econometric tools and identified a strong relation between the current account deficit and the budget deficit in Italy and Greece during 1999 – 2017. However, according to the results of this paper, the relation between these macroeconomic variables is

weak in Portugal and Spain, where the households did not increase their consumption when expansionary fiscal policies were implemented, and preferred to save more, anticipating higher taxes in the future.

The analysis of Mirdala (2015) also confirmed the twin deficits hypothesis in the European transition economies (10 countries, including Poland and Romania) during the period 2000 – 2012.

3. Methodology

In this paper we apply standard econometric tools (OLS regressions and the Hodrick-Prescott filter) and use the databases of the International Monetary Fund (2025), the World Bank (2025a), Eurostat (2025), the National of Statistics of Poland (2025), and the National Institute of Statistics of Romania (2025) in order to assess the relation between the trade balance and the budget balance in Romania and Poland over the past 25 years, the period 2000 – 2024.

We included in our analysis the evolution of the real wages in these economies.

On the one hand, we implemented the Hodrick-Prescott filter in order to distinguish between the structural/trend and the cyclical components of the macroeconomic indicators considered in our analysis: the trade balance, the budget balance, and the real wages.

This method, developed by Hodrick and Prescott (1997) is widely used in the macroeconometric research due to its transparency and simplicity, as emphasized by Bouthevillain et al. (2001) and de Castro Souza (2005). The filter of based on the following relation:

$$\text{Min} \sum_{t=1}^T (\ln Y_t - \ln Y_t^*)^2 + \lambda \sum_{t=2}^{T-1} ((\ln Y_{t+1}^* - \ln Y_t^*) - (\ln Y_t^* - \ln Y_{t-1}^*))^2 \quad (1)$$

where Y_t , Y_t^* and λ represent the macroeconomic variable, its trend component, and a smoothness parameter, for which we considered a value of 100, as recommended by the authors in the analysis with annual observations.

In our analysis, the macroeconomic indicators are the trade balance (as % of GDP), the budget balance (as % of GDP), and the annual rate of the real wage (the average nominal net wages adjusted for inflation).

On the flipside, Castro Souza (2005) emphasized the disadvantages of this filter, including the arbitrariness, imposition of symmetry on the gap (between the macroeconomic indicator and its structural component), and the end-of-sample bias.

On the other hand, we estimated the following regression for both Romania and Poland:

$$\text{TRADEBALANCETR} = C(1) + C(2) * \text{BUDGETBALANCETR} + C(3) * \text{REALWAGETR} \quad (2)$$

in which TRADEBALANCETR is the trend component of the weight of the trade balance in the GDP (our estimates considering the data from the World Bank (2025)), BUDGETBALANCETR represents the trend component of the weight of the budget balance in the GDP (our estimates considering the statistics of the International Monetary Fund (2025)), while REALWAGETR is the trend component of the annual rate of the real wages, estimated considering the statistics of Eurostat (2025), National Institute of Statistics of Romania (2025), and National Institute of Statistics of Poland (2025).

In this paper, we tested for the stationarity and autocorrelation by applying the tests Augmented Dickey-Fuller and Durbin-Watson.

Therefore, in the regression (2) we considered the first difference and we also added a lagged value of the dependent variable.

The econometric software E-Views was used in this paper.

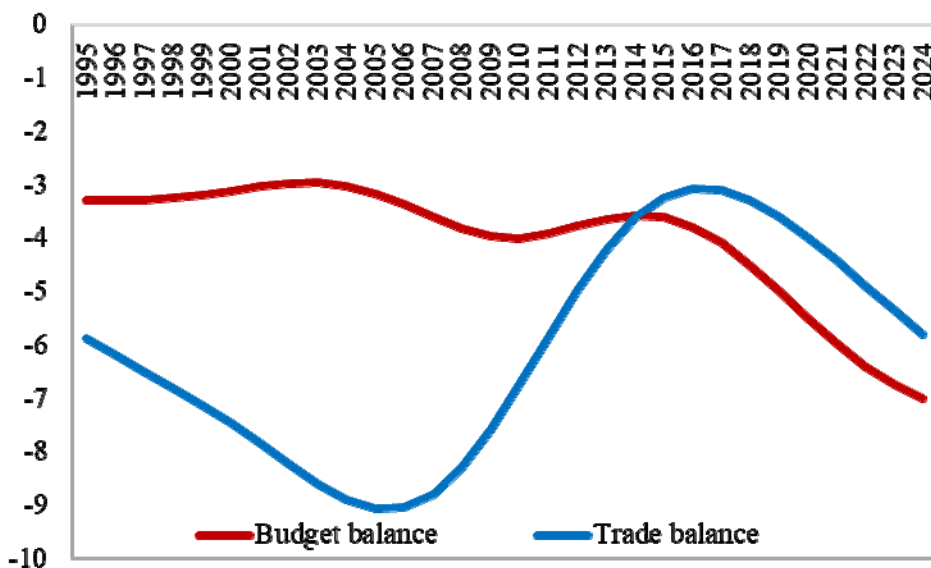
4. Interpretation of the Results

According to the results of our econometric analysis, there is a positive relation between the trade balance and the budget balance in Romania, with an estimated coefficient of 1.92 for the period 2000 – 2024. In other words, the increase of the budget deficit / GDP ratio (trend component) by 1pp contributed to the deterioration of the trade deficit / GDP ratio (trend component) by 1.92pps over the past 25 years.

Therefore, the twin deficits hypothesis is confirmed in the case of Romania, where the intensification of the budget deficit has led to a significant widening of the trade deficit.

The evolution of the trend components for the trade balance and for the budget balance, expressed as percentage of GDP, in Romania, is represented in the following chart.

Figure 4. Trade balance vs. Budget balance in Romania (% of GDP, trend components)



Source: representation of the author based on the statistics of the International Monetary Fund (2025)

It can be easily seen in Figure 4 that the fiscal consolidation process in the aftermath of the Great Financial Crisis contributed to the adjustment of the trade deficit. On the other hand, the end of the fiscal consolidation and the start of the expansionary fiscal and income policies in 2015 contributed to the widening of the trade deficit in Romania.

On the other hand, according to our econometric estimates, in 2024 the trend component of the budget deficit / GDP ratio stood at a record high level, around 7%. Last, but not least, the trend component of the trade deficit / GDP ratio in Romania widened to almost 6% in 2024, the highest level since 2011, during the period of the adjustment following the outbreak of the Great Financial Crisis.

The same positive relation is also identified in the case of Poland, but the estimated coefficient is significantly lower, only 0.79. In other words, an increase of the budget deficit / GDP ratio (trend component) by 1pp contributed to the deterioration of the trade balance / GDP ratio (trend component) by 0.79pps.

Furthermore, our analysis identified a negative relation between the trade balance and the annual rate of the real wages (nominal wages adjusted for inflation) in both Romania and Poland, with estimated coefficients of -0.90 and -0.40, respectively.

In other words, the increase of the real wages (trend component) in Romania by 1pp contributed to the widening of the trade deficit / GDP ratio (trend component) by 0.90pps in the analysed period, 2000 – 2024.

In the case of Poland, the increase of the real wages (trend component) by 1pp contributed to the deterioration of the trade balance / GDP ratio (trend component) by only 0.40pps. These results are very important, as they provide an explanation for the trade surpluses in Poland since 2013. In fact, the impact of the increase in real wages on the deterioration of the trade balance is almost double in Romania during the analysed period.

Furthermore, we point out that the real wages in Romania advanced by an average annual rate of 6.1% during 2000 – 2024, three times higher than in Poland (2.0%), according to our estimates considering the databases of the National Institute of Statistics of Romania (2025), National Institute of Statistics of Poland (2025), and Eurostat.

4. Conclusions

The results of our analysis are very important, as the focus is on the causes of the trade deficit in Romania, in a comparative analysis with the developments in Poland over the past 25 years. We identified a positive relation between the trade balance and the budget balance in both countries, but with a significant difference in terms of the estimated coefficient.

Furthermore, we also confirmed a negative relation between the trade balance and the evolution of the real wages in both countries, with a large gap in terms of the estimated coefficient.

These results point out that Romania should adjust its public finance in order to record an improvement in the trade balance. In our view, the fiscal consolidation process initiated in 2025 is very important to maintain the sovereign rating, but also to adjust the trade deficit.

However, the fiscal consolidation process is not enough to address the persistence of the trade deficit. There are also needed other structural reforms in order to improve the international competitiveness of the Romanian economy, including a balanced income policy (correlated with productivity) and measures to improve the supply in sectors with potential in this country, such as agriculture, food processing, the chemicals industry, and tourism.

In this respect, we point out that the volume of the total exports (goods and services) grew by an average annual rate of 7.2% in Romania during 2000 – 2024, similar to the pace recorded in Poland. However, the volume of the total imports (goods and services) advanced by an average annual rate of 9.8% in Romania, a higher pace than in Poland (only 5.9%).

Therefore, in order to adjust the huge trade deficit (above 6% of GDP in 2024, according to the World Bank (2025)), the policymakers should revise the income policy and address the structural challenges the supply is confronted with in several sectors with potential for development.

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