

# THE EVOLUTION OF THE MACROECONOMIC STABILISATION PENTAGON IN ROMANIA, CZECH REPUBLIC AND HUNGARY

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**Abstract:** *This paper aims to achieve the pentagon analysis of macroeconomic stabilization in Romania, Czech Republic and Hungary in the period 2000 to 2013. It is a comparative analysis of the countries above mentioned in terms of the five key targets of economic policy, aiming the increasing, dynamic balance of each economy: economic growth rate, unemployment rate, inflation rate, the budget deficit as a percentage of Gross Domestic Product, the current account deficit of the balance of payments as a percentage of Gross Domestic Product. The main objective of each economy which passes from planned to market economy should be to cease the economic decline, followed by the elimination of internal and external imbalances and only after that it should be followed by a continuous growth process. All the above mentioned indicators shall be represented on an ad hoc graduated scale. The period of research was chosen so as to obtain a view of the macroeconomic policies in transition from one period to another, in order to highlight the common as well as the main differences in the approach used for economy stabilization. Therefore I have computed the graphical analysis of macroeconomic stabilization pentagon for the three countries in the period 2000- 2013 to captures the dynamics of the economic policy mix. This benchmark tool shows the interdependence which exists between inflation and other important economic indicators. The events occurred in the period starting with 2007/2008 have raised the interest of economics researchers, highlighting the need for significant improvements in the surveillance of the economic and financial system. The global fragility generated concerns regarding the vulnerabilities and causes which led to the occurrence of such events, thus generating different measurement techniques. Despite all its advantages, this approach has a significant limitation consisting in the fact that it can only reveal a picture without surprising other imbalances that can create un-sustainability in the economy.*

**Keywords:** macroeconomic stabilization, economic growth, economic decline, imbalances, deficit, balance of payments.

**JEL classification:** G01, E5

## 1. Introduction

The purpose of this paper is to capture both the comparative analysis at the level of the three periods (pre-crisis period, the year the crisis and after crisis period) for the analyzed countries, as well as to capture the comparability of the macroeconomic decisions between the three countries analyzed Romania, Czech Republic and Hungary in the same period. The main objective of each economy which passes from planned to market economy should be to cease the economic decline, followed by the elimination of internal and external imbalances and only after that it should be followed by a continuous growth process.

This comparative analysis tool shows the interdependence that exists between inflation and other economic indicators important at the level of the three selected economies. The period of research was chosen so as to obtain a view of the macroeconomic policies in transition from one period to another, in order to highlight the common as well as the main differences in the approach used for economy stabilization. One of the limits of this

graphical representation is represented by the fact that it reveals a picture of the economy, without surprising some imbalances that create un-sustainability in the economy.

The paper is organized as follows: Second section presents us the Literature review. Third section presents the Database. Fourth section presents the Methodology used and the results. Fifth section presents the Conclusions.

## **2. Literature review**

This approach belongs to Grzegorz Kolodko ("The Vishegrad Economies in Transition: The Comparative Perspective of the Macroeconomic Stabilization Pentagon", 1994) economist and Polish Professor of economics and is called "Macroeconomic stabilization Pentagon". It is basically a graphical representation based on five key indicators: economic growth rate, unemployment rate, inflation rate, the budget deficit as a percentage of GDP, the current account deficit of the balance of payments as a percentage of Gross Domestic Product. The above mentioned indicators are represented on an ad hoc graduated scale.

In the book "Macroeconomic Problems of Transformation. Stabilization Policies and Economic Restructuring", Kolodko, Grzegorz and other economists (1994) examines the dramatic output collapse in transforming economies of Eastern Europe, formulating policies for economic recovery. The author discusses about the role of monetary policy and about the importance of exporting growth which may be used as a driving force.

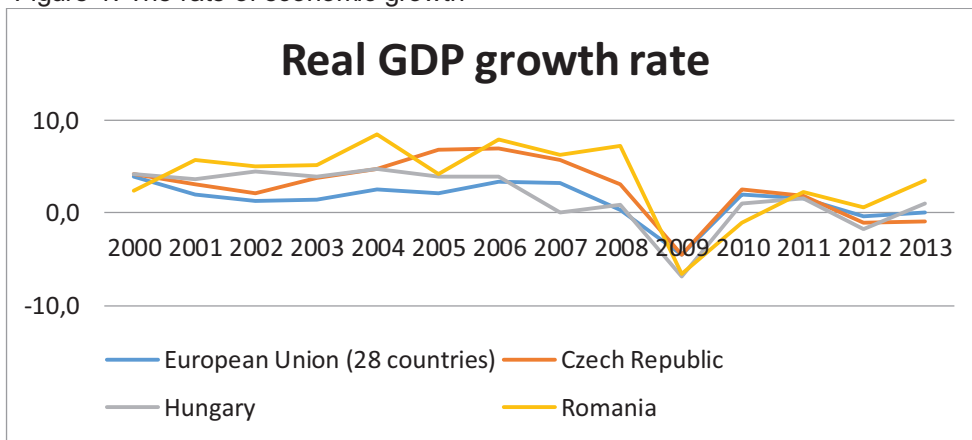
In the book "Economic reflections, Contributions to the theory of macroeconomic stabilisation", Professor Mugur Isarescu (2006)- Governor of the National Bank of Romania analyses the evolution of the Romanian macro-stabilization pentagon starting with 1989. One of the paper's conclusions of the paper is that the Romanian inflation was stooped with delay in comparison with other Vishegrad countries. Also, there was documented that outside the external policy argument, there is a strong argument for internal policy – considering the householder's aversion against the inflationary phenomenon.

## **3. The database**

Starting from the literature review in the field and based on equilibrium economic theory, I have composed a set of five main economic indicators collected during the period 2000-2013 for Romania, Czech Republic and Hungary. The database was collected from Eurostat database. The three countries were chosen because of the similarities of economically and financially highlighted during the analyzed period.

Because the economic growth does not constitute alone an economic policy objective, in the context of the last economic and financial crisis, monetary policies objectives, grouped within the pentagon of macroeconomic stabilization, follow the increase of economic growth, price stability, reduction of unemployment rate, lower current account deficit and sustainable finances. Obtaining simultaneously the above objectives, is very hard to achieve. Monetary policies decisions involve the selections of those objectives considered with priority for a specific moment against the other objectives. In the bellow graphs there are presented the evolutions of the key indicators of each economy in the research period. In order to obtain a strong and real economic growth it must be filled in the level of living of the householders, therefore the most important indicator of economic growth is real Gross Domestic Product or GDP per capita. Studying the evolution of GDP per capita in the period 2000- 2013 it is visible a continuous growth of it up to 2008, followed by a deep decrease up to 2009, followed this time by a slow increase up to 2012 when it experienced again a decrease, lower this time in comparison with that experienced in 2008.

Figure 1: The rate of economic growth

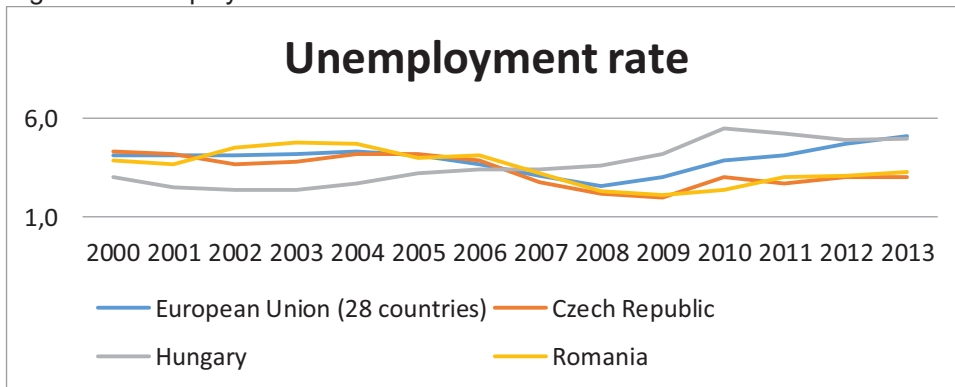


Source: Eurostat database, own graph

The sustainability of this economic growth must be correlated with other markets, governmental equilibrium and external equilibrium. When the economic growth is achieved only based on governmental deficit and/or fiscal balance deficit there is a high risk to experience a recession.

The degree of labour force occupation reveals the equilibrium of production factors market, but also economic growth. It is quantified through the unemployment rate, which is presented in the bellow figure. It experienced a high downturn starting with 2006 with its minimum point in 2008, then followed by a continuous increase.

Figure 2: Unemployment rate



Source: Eurostat database, own graph

Price stability is quantified through inflation rate, which is presented in the bellow figure. The increase of the quantity of money existent in an economy has as adverse effect the increase of prices in that economy, which is reflected through an increase of inflation rate.

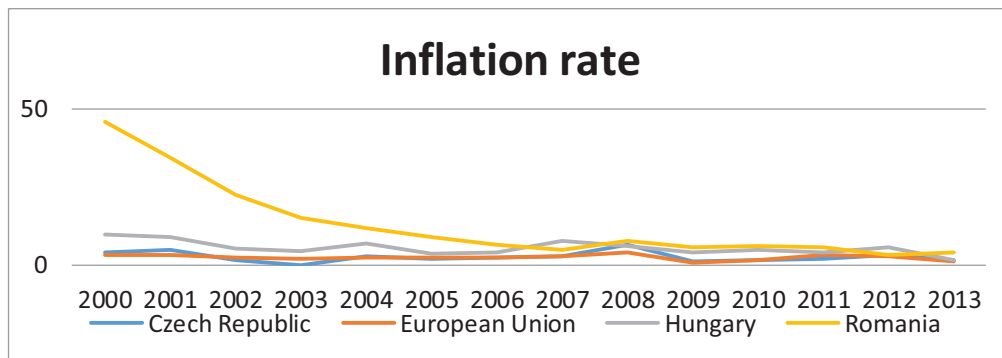
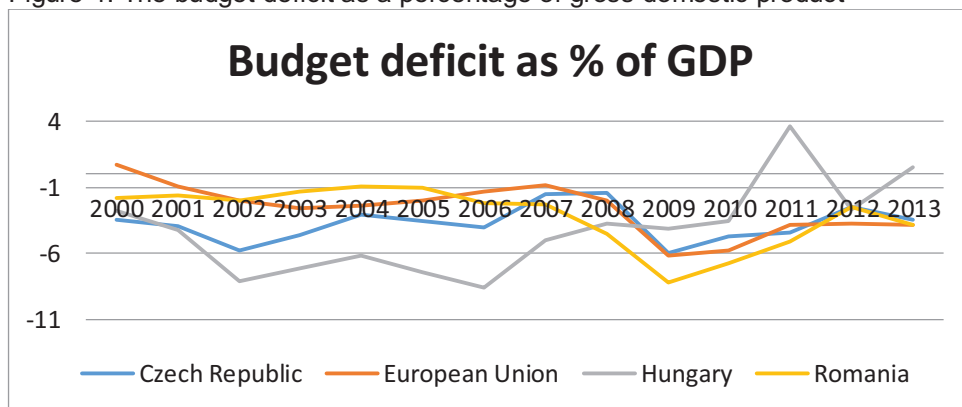


Figure 3: Inflation rate  
Source: Eurostat database, own graph

Budgetary deficit generally increases during the expansionary policies, correlated with the sustainability of the public debt through which is financed.

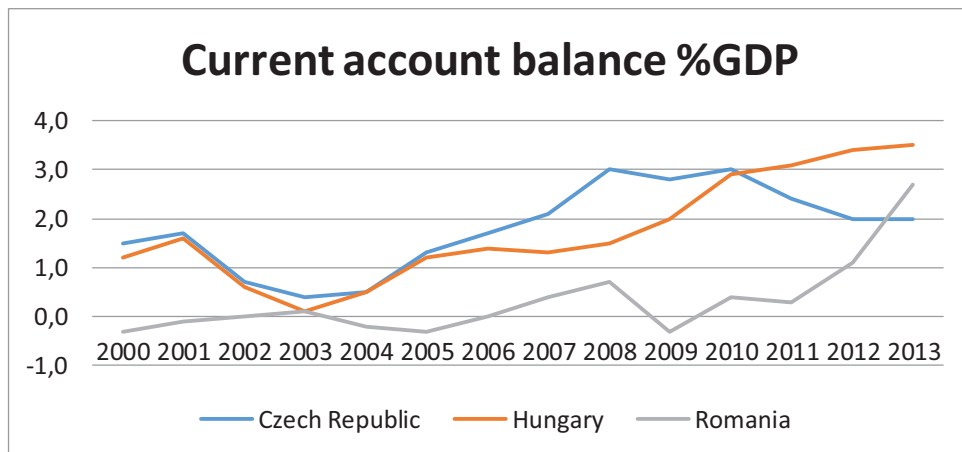
Figure 4: The budget deficit as a percentage of gross domestic product



Source: Eurostat database, own graph

Current account balances must be sustainable financed through investments and external borrowings or by decreasing of foreign reserves. On the bellow figure is presented the evolution of the current account balance as percent of GDP, a measure of the quantification of external balance. It is visible a continuous increase of its share in DGP.

Figure 5: Current account deficit of the balance of payments as a percentage of gross domestic product

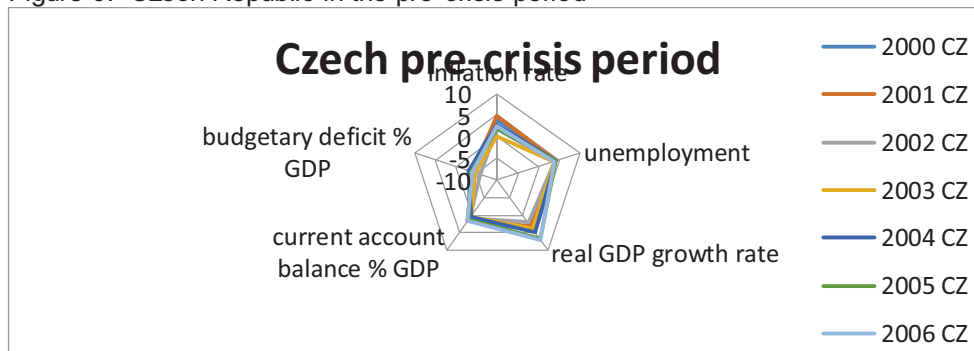


Source: Eurostat database, own graph

#### 4. Methodology and results

I have traced on an ad-hoc scale the 5 indicators for the pre-crisis period, crisis period and post-crisis period for each of the analyzed countries to highlight the change of the monetary policy form period to period: pre-crisis period (2000, 2001, 2002, 2003, 2004, 2005, 2006), crisis period (I have considered the years 2007, 2008, 2009, 2010 to reveal all the phenomenon of the crisis appearance) and crisis period (2011, 2012, 2013).

Figure 6: Czech Republic in the pre-crisis period



Source: Eurostat database, own computation

Figure 7: Czech Republic in the crisis period



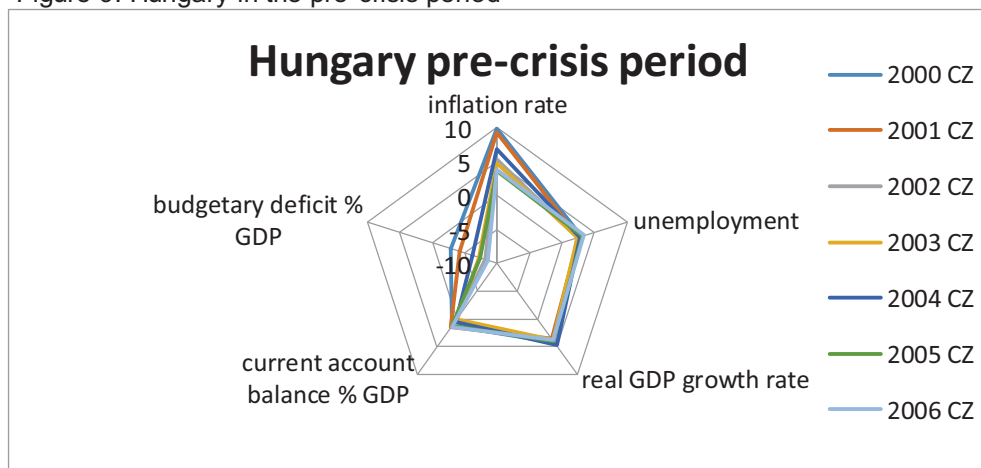
Source: Eurostat database, own computation

Figure 8: Czech Republic in the post-crisis period



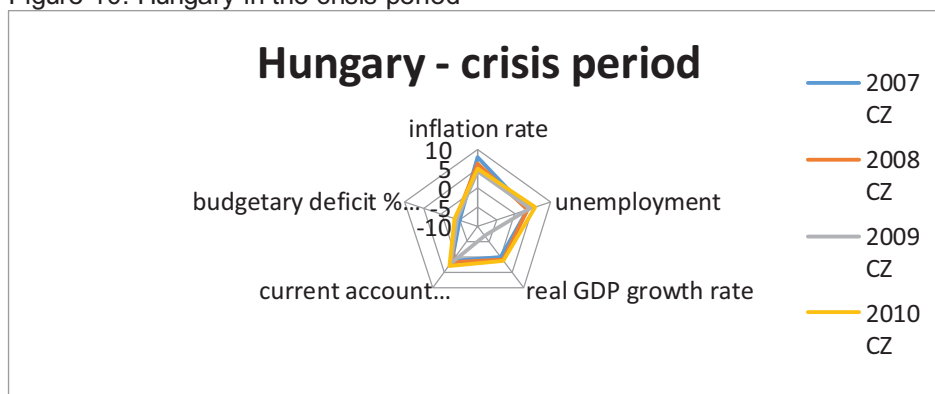
Source: Eurostat database, own computation

Figure 9: Hungary in the pre-crisis period



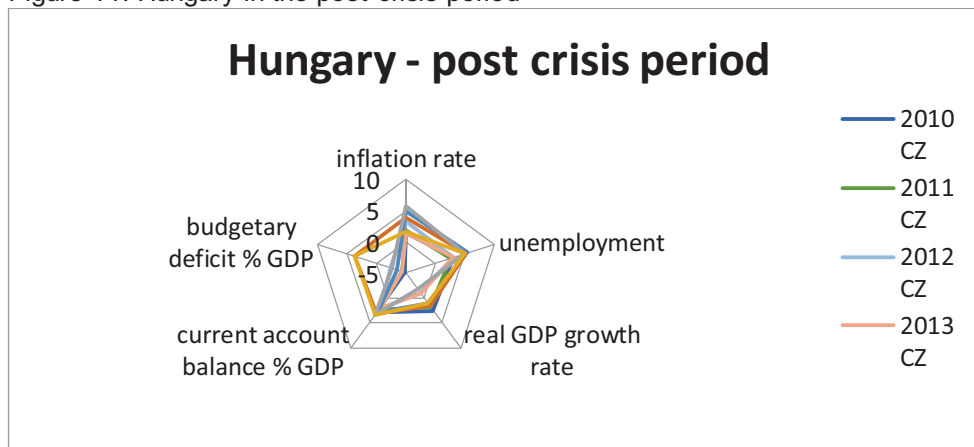
Source: Eurostat database, own computation

Figure 10: Hungary in the crisis period



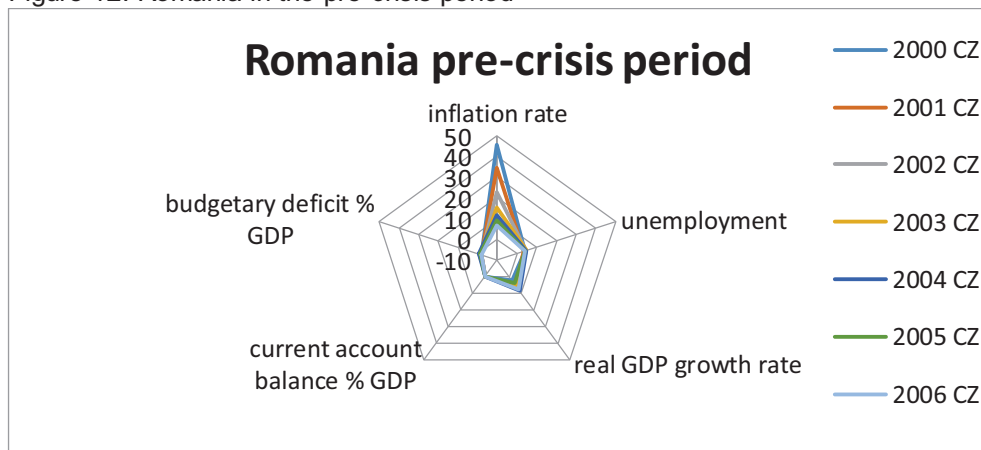
Source: Eurostat database, own computation

Figure 11: Hungary in the post-crisis period



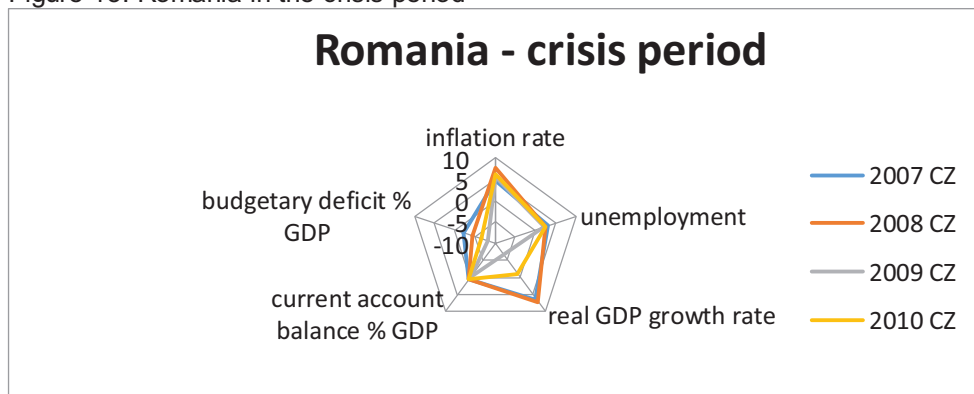
Source: Eurostat database, own computation

Figure 12: Romania in the pre-crisis period



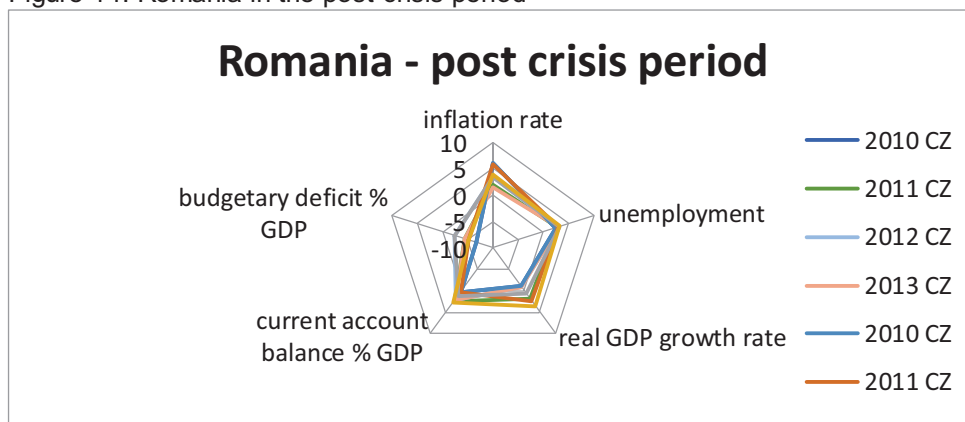
Source: Eurostat database, own computation

Figure 13: Romania in the crisis period



Source: Eurostat database, own computation

Figure 14: Romania in the post-crisis period



Source: Eurostat database, own computation

## 5. Conclusions

This comparative analysis tool showed the interdependence between inflation and other economic indicators important at the level of the three selected economies. The period of research was chosen so as to obtain a view of the macroeconomic policies in transition from one period to another, in order to highlight the common as well as the main differences in the approach used for economy stabilization. The representation is limited to the fact that it reveals a picture of the economy, without surprising some imbalances that create un-sustainability in the economy.

Because the economic growth does not constitute alone an economic policy objective, in the context of the last economic and financial crisis, monetary policies objectives, grouped within the pentagon of macroeconomic stabilization, follow the increase of economic growth, price stability, reduction of unemployment rate, lower current account deficit and sustainable finances. Obtaining simultaneously the above objectives, is very hard to achieve, therefore monetary policies decisions involve the selections of those objectives considered with priority for a specific moment against the other objectives. In the bellow graphs there are presented the evolutions of the key indicators of each economy in the research period.

In conclusion, the main solutions to overcome the actual economic and financial crisis, should be oriented to the stimulation of economic growth through increasing government expenses. Another objective should be to obtain an increase of GDP per capita which may be achieve through reduction of fiscal evasion, or by increasing the collection level of resources. Other objective should be the priority based allocation of expenses.



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