



Comparative analysis of the impact of central bank governor turnover on monetary stability

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Abstract

A high level of institutional independence enhances the effectiveness of maintaining price stability, which positively affects broader macroeconomic stability. However, changing conditions in financial markets and crisis situations often require coordination between monetary and fiscal policies. A high degree of institutional independence is a significant determinant of low and stable inflation in developed countries. In developing countries, a more relevant indicator is the turnover rate (TOR). Moreover, there are considerable discrepancies between factual and institutional independence, with this discrepancy being more pronounced in developing countries, which are often forced to align the monetary policy with the development policy of the government. The aim of this research is to identify and analyze the existence of a positive relationship between the turnover rate of central bank governors (TOR) and inflation. The analysis includes the National Bank of Serbia (NBS) and the European Central Bank (ECB) as representatives of countries at different stages of development. Descriptive analysis and Pearson correlation were employed, with results indicating a positive link between a higher turnover rate of governors and elevated inflation levels, particularly in the case of the NBS.

Keywords: independence, central bank, inflation, independence index, econometric analysis

1. Introduction

Independence of the Central bank implies its autonomy in making decisions regarding its functions, setting objectives, and applying appropriate instruments for their realization. Empirical approaches have shown that a high level of central bank independence contributes to more efficient preservation of price stability, which positively affects broader aspects of macroeconomic stability. However, in practice, central banks are not always able to fully manage all aspects of monetary policy independently. Fluctuations in financial markets have pointed to the need for improved coordination between monetary and fiscal policy, which often entails the intervention of state institutions, such as the Ministry of Finance. At the same time, central banks have in many situations been forced to act swiftly, without the possibility of waiting for approval or guidance from competent authorities. Another factor that may limit the independence of central banks is their ownership structure. In most countries, central banks are state-owned and, although not formally part of the public sector, they have the status of institutions of public importance. In addition to the primary task of preserving price stability, central banks often have a mandate to support government economic policy. Even in cases of mixed or private ownership, the central bank remains a subject with duties of public interest.

The Bank for International Settlements (BIS) conducted research on the ownership structure of central banks and monetary authorities in different countries and found that 77% of central banks in surveyed countries (Argentina, Austria, Australia, Belgium, Bulgaria, Brazil, Canada, Switzerland, Chile, China, Czech Republic, Germany, Denmark, ECB, Spain, Finland, France, Hong Kong, Croatia, Hungary, Indonesia, Ireland, Israel, India, Iceland, Italy, Japan, Korea, Mexico, Malaysia, Netherlands, Norway, New Zealand, Philippines, Poland, Portugal, Russia, Saudi Arabia, Sweden, Singapore, Slovakia, Thailand, Turkey, England, USA, Federal Reserve Bank of New York, and South Africa) are owned by the state or public sector (BIS, 2009). This does not imply that the central bank should be exposed to the influence or pressure of state authorities. Political leaders are usually oriented toward measures that produce visible macroeconomic results in the short term. In contrast, monetary policy conducted by the central bank is aimed at achieving stability over a

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longer period. Therefore, one of the key elements of central bank independence is that its top body has mandates that are longer than those of political authorities. Additional institutional stability is ensured when the mandates of monetary and fiscal policymakers do not overlap, which reduces the risk of political interference in the decision of the central bank.

The Brussels Conference of 1920 aimed to provide answers to the economic and financial challenges that arose after World War I. It was then determined that the central banks' primary task should be the preservation of price stability, but on the condition that these institutions operate independently of government authorities. This approach was inspired by David Ricardo's ideas, expressed nearly a century earlier (Rossi, 2014). In the period after World War II, there was a significant transformation in the conception of economic and monetary policy. It became a prevailing belief that moderate inflation could positively affect the maintenance of high employment levels. In this context, the role of the central bank was subordinated to the needs of the state budget, acting with very limited independence, performing the role of the lender of last resort in service of financing public spending (Rossi, 2014, as cited in Gaiotti & Secchi, 2013). However, after the stagflation in 1970s, it became clear that there was no long-term trade-off between low unemployment and high inflation. As a result, price stability once again became the key objective of monetary policy, leading to two basic institutional requirements: legal guarantees of the central bank independence and formally defined, transparent monetary policy goals (Rossi, 2014).

Although many central banks were initially founded as joint-stock companies, today most of them are state-owned and tasked with performing functions of public importance. Despite functioning as independent institutions, they maintain cooperation with their national governments. Precisely due to this specific role, almost all central banks are established on the basis of special legal acts. These regulations typically define the powers and competences of the central bank, as well as limitations in its operations, such as prohibitions on directly lending to the state, and the ways the institution is governed (BIS, 2009).

According to many authors, a greater degree of central bank independence contributes to improved macroeconomic outcomes. Advocates of independence emphasize that the effects of monetary policy will be more positive if the central bank has greater decision-making autonomy (Mishkin, 2004). This view is also supported by the evolution of the legal framework: during the 1990s, there was a noticeable rise in the legal independence of central banks, both in developed and developing countries, preceded by four decades of regulatory changes in this area (Cukierman, 2007). Global and regional changes, including globalization and the aspiration for price stability, further contributed to the affirmation of the concept of independence. An example of this is the decision of the Reserve Bank of New Zealand to introduce a new monetary regime in 1989—inflation targeting—which today represents a widely accepted approach closely linked to institutional independence of the central bank. Empirical findings also support the thesis of the favourable effects of independence. Research shows that countries with the highest level of central bank independence also achieved the best results in controlling inflation (Alesina & Summers, 1993).

After the 1970s, institutional reforms of central banks were aimed at strengthening price stability and enhancing the autonomy of monetary authorities, in order to reduce the gap between legally prescribed and actual independence. As Krstić (2003) points out, “on the one hand, internal and external depreciation of money in the long run cannot occur without an intensified expansion of the money supply in circulation, while on the other hand, the stability of the purchasing power of the national currency is the fundamental task of the central bank in a market economy” (p. 50). This quote illustrates the essential difference in conducting monetary policy within a bank-controlled system compared to a market-oriented system.

In an effort to align with the standards of financially developed countries, developing nations abandoned the practice of direct control over credit placements and interest rates by central banks, resulting in a higher level of institutional independence from the legislative and executive branches. While financial systems such as those in the United States and the United Kingdom are oriented toward market mechanisms in the implementation of monetary policy, the European Union is dominated by a model of banking intermediation. The financial system of the Republic of Serbia, similar to the European model, involves an active role of the central bank in guiding banking sector regulations. In this context, the National Bank of Serbia (NBS) is tasked with harmonizing the domestic legal framework with the *acquis communautaire* of the European Union in line with accession negotiations (European Commission, 2014). In addition, the NBS directs its monetary policy toward greater alignment with the policy of the European Central Bank, both in terms of defining objectives and in applying the instruments for their implementation, thereby making a significant contribution to Serbia's EU integration process.

The global financial crisis in 2008 led to a re-examination of the dominant, legally institutionalized concept of central bank independence. The accelerated process of financial globalization enabled the rapid spread of the crisis, which began in the United States, to other parts of the world. In such an environment, the normatively defined independence of the central bank began to be interpreted and applied differently, depending on the level of market development in individual countries. The concept of independence, originally based on the assumption of full national monetary sovereignty, gradually gave way to a globalized model in which the monetary sovereignty of many countries became substantially limited. This transformation raises the question of whether, under the changed conditions of the world economy, it is still

possible to analyse the independence of central banks as a key prerequisite for their effectiveness in the same way as in earlier models. In this context, globalization imposes the need to reconsider the meaning and applicability of a large number of traditional economic concepts.

Parallel to the emergence of the subprime mortgage crisis in the United States, caused by excessive risky lending, a debt crisis developed in the European Union as a consequence of unsustainable budgetary spending and insufficient public revenue in certain member states. These structural problems within the world's leading economies led to the sudden collapse of the global financial market, with the most developed economies entering into recession by the end of 2008. The decline in economic activity was mitigated through extensive stimulus measures, which partially alleviated the negative consequences of the crisis at the global level. One of the first responses of the European Central Bank was to lower the reference interest rate, but upon reaching the zero lower bound, the possibility of further action through the traditional interest rate channel was lost. As a result, the central banks of the leading economies resorted to the use of non-standard monetary policy instruments as part of their anti-crisis strategies (European Commission, 2014).

In order to support the financial sector during the crisis, the European Central Bank implemented the concept of "enhanced credit support", which encompassed a series of credit interventions aimed at increasing liquidity and strengthening the balance sheets of banks. As part of its non-standard measures, the ECB complemented its regular operations with Longer-Term Refinancing Operations (LTROs), in order to provide longer-term and more stable financing conditions. Since 2009, several Asset Purchase Programmes (APP) have been carried out with the aim of stimulating economic growth in the euro area and consistently achieving the price stability objective, defined as inflation below, but close to, 2% (ECB, 2020a).

In addition, Targeted Longer-Term Refinancing Operations (TLTROs) were developed, enabling credit institutions to obtain financing for a period of up to four years. The purpose of these measures was to ease lending conditions for the private sector and to encourage banks to increase credit activity toward the real economy. As concerns over the sustainability of public debt in certain countries became increasingly pronounced during 2010, the European Union, in cooperation with the International Monetary Fund, established the European Financial Stability Facility (EFSF) in May of the same year, with a total capacity of €750 billion, aimed at preserving the financial stability of the eurozone (ESM, 2010).

The COVID-19 pandemic caused not only a global health crisis but also deep financial instability, requiring urgent intervention by monetary authorities. The European Central Bank responded by expanding the scope of its existing Asset Purchase Programme (APP), with the aim of providing additional liquidity to the financial system. As a response to the mounting pressure on financial markets, the ECB also introduced the Pandemic Emergency Purchase Programme (PEPP), launched only six days after it became evident that the initial measures were insufficient to stabilize the markets (ECB, 2020b). This program represented a new instrument of economic support in times of crisis.

The results of research on the level of central bank independence based on existing indices (the results of an analysis of institutional independence in selected developed and developing countries in 2010, measured by the LVAU, LVAW, CBIU, and CBIW indices conducted by Dincer and Eichengreen (Dincer & Eichengreen, 2014)) indicate a higher degree of institutional independence in emerging market countries compared to developed economies. However, as Dincer and Eichengreen (2014) emphasize, "there is no evidence that countries with stronger institutions have strengthened the independence of their central banks, perhaps because the level of central bank independence was already high". These indices often include measures of the governor's political exposure, such as term length and frequency of turnover in that position. Theoretically, a lower turnover rate may indicate a higher degree of central bank independence. Nevertheless, in practice, a longer tenure of governors may result from their cooperativeness with political structures rather than from true institutional autonomy. In this context, proper interpretation of the level of independence requires consideration of the broader socio-political environment, as well as the specific models of organization and functioning of the central bank in the observed country. In addition to the organization of central banks characteristic of countries within a monetary union (ECB), "the prevailing model of organization is a single central bank, a model that exists in nationally homogeneous states, as well as a model of a complex central banking system characteristic of federal and confederal states (FED)" (Krstić, 2003).

In accordance with the research objective, the paper is structured into several interconnected sections. Following the introductory discussion of the concept of central bank independence, the second part analyzes the impact of the degree of monetary authority independence on the inflation rate. The third part is devoted to the frequency of governor turnover as a potential indicator of institutional stability. The final segments of the paper cover the methodological framework, analysis of results, and concluding considerations.

2. The impact of central bank independence on the inflation rate

Although the concept of central bank independence gained prominence only at the end of the 20th century, particularly during the 1990s with the introduction of inflation-targeting regimes, the idea of the need for institutional separation of

monetary authority from political influence goes much further in the past. One of the first economists to explicitly emphasize this need was David Ricardo, a representative of the classical school of economics. In his posthumously published work “Plan for the Establishment of a National Bank” (Ricardo, 1824), Ricardo criticized the Bank of England for subordinating itself to the interests of the executive branch, stressing the necessity of institutional reform. His proposal for an independent central bank was based on three key principles: (1) the separation of money creation from money spending, (2) the prohibition of financing the government budget deficit, and (3) the institutional accountability of the central bank through transparent public reporting on monetary policy (Rossi, 2014). The first modern institutional model to apply these principles in practice was the German Federal Bank – Deutsche Bundesbank, established in 1957 with the adoption of the Bundesbank Act (Gesetz über die Deutsche Bundesbank). This law guaranteed both operational and institutional independence of the central bank, with price stability defined as the primary objective, independent of political cycles or the short-term fiscal needs of the government. With its institutional design and credibility, the Bundesbank became a model for monetary reforms in other countries, and its influence was particularly evident in the creation of the European System of Central Banks (ESCB) and in shaping the statute of the European Central Bank (ECB) (Issing, 2005). Significant contributions to the theoretical and empirical analysis of the concept of central bank independence were made by modern authors such as Cukierman (1992), who developed an index of legal central bank independence and analyzed its impact on inflation performance, as well as Alesina and Summers (1993), who demonstrated that greater central bank independence correlates with lower average inflation, without negative effects on economic growth. These studies were crucial in formulating arguments in favor of institutionally separating monetary policy from political influence.

One of the most significant contributions to the empirical measurement of central bank independence was made by Cukierman, Webb, and Neyapti (1992), who developed a comprehensive index known as the CWN index. This index combines two key dimensions: legal (institutional) independence and actual independence, measured through the frequency of governor turnover. The authors analyzed a large number of countries in order to examine the relationship between the level of central bank independence and macroeconomic indicators, particularly inflation. The analysis showed that a high level of legally established central bank independence is an important determinant of low and stable inflation in developed countries. However, in developing countries, this relationship is not statistically strong, which is partly explained by the greater discrepancy between *de jure* and *de facto* independence, that is, the gap between formal and actual independence. This difference is particularly pronounced in emerging market economies (Cukierman et al., 1992). The rate of central bank governor turnover, as a factual indicator, proved to be strongly associated with inflation performance in developing countries. Frequent changes of governors indicate political instability and low institutional autonomy, which negatively affects the credibility of monetary policy and price stability. The CWN index encompasses several components of legal independence, including: the central bank’s authority in implementing monetary policy, procedures for resolving conflicts between the central bank and the government, defining price stability as a priority within monetary objectives, restrictions on financing budget deficits, and the procedures for appointing and dismissing governors (Ostojić, 2009, p. 133).

One of the most significant contributions to the quantitative measurement of institutional independence of central banks is the LVAW index developed by Cukierman, Webb, and Neyapti (1992) - a weighted average of the aforementioned characteristics. All variables in the index were numerically assessed on a scale from 0 (low level of independence) to 1 (maximum level of independence). Based on this, the LVAU index was also constructed as the unweighted version of the LVAW index, in order to enable comparisons of results independently of the subjective importance of each component (Cukierman, 1992). The study covers a period of four decades (1950–1989) and a sample of 72 countries, including 21 developed and 51 developing countries. The analysis was structured across four observed periods (by decades), which made it possible to monitor the dynamics of institutional changes and to compare different phases of economic development. Special attention was devoted to the differences in the degree of institutional independence between developed and developing countries, with the results showing significant disparities in the continuity and stability of monetary institutions.

Based on the earlier methodological foundations established by Cukierman, Webb, and Neyapti (1992), more recent studies have expanded the scope and depth of analyses of central bank institutional independence. Particularly notable is the work of Dincer and Eichengreen (2013), who introduced two new indicators: CBIU (Central Bank Independence – Unweighted) and CBIW (Central Bank Independence – Weighted). These indicators include updated and expanded dimensions of independence that were not covered by earlier indices. New components were added that relate to restrictions on the reappointment of governors, the rules and conditions for the (re)appointment of other members of the governing board, the degree of participation of representatives of the executive branch (government) in the work of the central bank’s board, and the government’s ability to intervene in the formulation of exchange rate policy. These additions allow for a more refined analysis of institutional relations between the government and the central bank, as well as a better assessment of the true autonomy of monetary authorities. In their study, Dincer and Eichengreen applied this new methodology to a broad sample of countries, providing data covering the period up to 2010, thereby ensuring continuity and comparability with the earlier indices from Cukierman’s analysis. Dincer and Eichengreen confirmed the findings of earlier studies: in developed economies, a higher degree of legal independence continues to be associated with lower inflation, while in developing countries the results are more heterogeneous and often depend on the quality of institutions

and the political environment. However, what they particularly emphasize is the trend of convergence of institutional frameworks, influenced by international standards such as the EU criteria, and the recommendations of the IMF and the World Bank.

While most indices of central bank independence measure the legal (de jure) framework, numerous studies indicate that the actual autonomy of institutions often differs from what is prescribed by law. For this reason, empirical literature emphasizes the importance of using indicators of de facto independence, among which the central bank governor turnover rate (TOR) stands out in particular. The frequency of governor changes reflects the degree of political interference in the work of the central bank, and thus the stability of monetary institutions. A high turnover rate often indicates that governors are dismissed before the end of their term due to changes in government, which is especially pronounced in developing countries where the institutional framework is less consolidated. Such interruptions in a governor's mandate compromise the continuity of monetary policy and reduce its predictability and credibility.

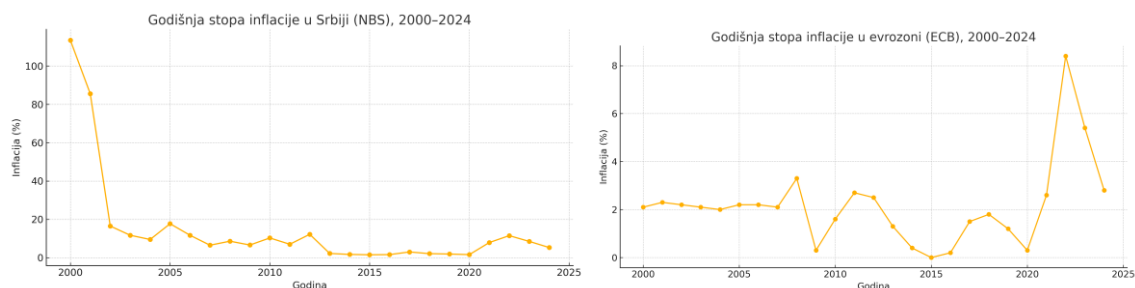
In this paper, the governor turnover rate index is used as an independent variable in the econometric analysis, examining its impact on the inflation rate in developing countries. The validity of this approach is also confirmed by modern indices such as the CBIW index (Dincer & Eichengreen, 2014), which incorporates factors such as restrictions on the reappointment of governors and the method of appointing board members into its methodology, thereby seeking to quantify the de facto dimension of institutional independence. TOR represents an empirically valid indicator of de facto institutional independence, which can serve as a supplement or corrective to legally defined indices in the analysis of developing countries, where formal independence often does not guarantee the operational autonomy of the central bank.

3. The frequency of governor turnover as an indicator of monetary institution stability

In the context of modern measurements of central bank institutional independence, such as the CBIW and CBIU indices developed by Dincer and Eichengreen (2014), it is particularly important to recognize the role of governor turnover frequency as an indicator of de facto independence. Although these indices are primarily based on legal provisions, they also include elements related to the stability and procedure of (re)appointing governors and members of governing boards. The governor turnover rate not only has empirical value as a variable but also represents an operationalization of the de facto aspect of independence that the CBIW index seeks to systematize. This connection further justifies the use of such an indicator in the analysis of developing countries, where the gap between formal and actual independence often plays a crucial role in price stability and overall macroeconomic performance.

In order to examine the potential relationship between the stability of central bank leadership and the level of inflation, this paper applies the descriptive method, which analyzes the basic characteristics of the observed variables, as well as Pearson's correlation, which represents a statistical indicator of the linear relationship between two quantitative variables and measures the direction and intensity of their interdependence. In this way, it is possible to determine to what extent and in which direction the central bank governor turnover rate (TOR) is related to the average annual inflation rate. The analysis is conducted on the example of two institutions representing countries at different levels of economic development, the National Bank of Serbia (NBS) as a representative of a developing country, and the European Central Bank (ECB) as a representative of developed countries. Based on the available data on TOR and inflation for the period 2000–2024, a comparative analysis was carried out in order to identify possible regularities that indicate the existence of a connection between institutional stability and price stability. The text includes a graphical representation of the annual inflation rate in Serbia and the euro area for the period 2000–2024, as well as both graphical and tabular representations of the governor turnover rate, which is calculated as the ratio of the number of governors in a given period to the number of years in that period.

Figure 1. Annual Inflation Rate in Serbia (2000–2024)



Source: Systematized by the authors according to: International Monetary Fund. (2024). *World Economic Outlook Database, April 2024*. <https://www.imf.org/en/Publications/WEO/weo-database/2024/April>

Table 1. Calculation of TOR for the NBS and the ECB

Central bank	Analysis period	Number of governors	Number of years	for (yr)
NBS	2003 – 2024	5	21	0.24
ECB	1998 – 2024	4	26	0.15

Note: The National Bank of Serbia, as the independent central bank of the Republic of Serbia, was established in its current institutional and legal framework in 2003 with the adoption of the Law on the National Bank of Serbia, following the dissolution of the Federal Republic of Yugoslavia and the abolition of the National Bank of Yugoslavia. The ECB was founded in 1998. Therefore, the data refer to different time periods, and the analysis was adjusted to these starting points.

Source: Systematized by the authors according to: European Central Bank. (2021). *The European Central Bank: Organisation and tasks*. <https://www.ecb.europa.eu/ecb/orga/tasks/html/index.en.html>; National Bank of Serbia. (2025). *Governors*. https://www.nbs.rs/sr/o_nbs/istorijat-NBS/guverneri/index.html

The European Central Bank represents the institution with the highest level of independence among central banks worldwide. It enjoys exceptional institutional autonomy, including full independence in formulating and defining its inflation target (ECB, 2021). The financial independence of the ECB is ensured through its own budget, with its capital not coming directly from the budget of the European Union, but being provided by the national central banks of the Eurosystem member states. The term of office of the ECB president is longer than five years, while the term of the members of the Executive Board is set at eight years without the possibility of reappointment, which further strengthens the personal independence of this institution. The National Bank of Serbia also possesses a high degree of institutional independence, defined by law and aligned with European central banking standards. The independence of the NBS is reflected in its autonomy in determining monetary policy and in the instruments for its implementation, as well as in the status of the governor, who is elected for a term of six years with the possibility of reappointment (National Bank of Serbia, 2019). The financial independence of the NBS is guaranteed by the fact that it operates outside the state budget system and uses its own funds. Its primary goal is to achieve and maintain price stability, with the possibility of supporting the government's economic policy, provided that such support does not jeopardize the attainment of the NBS's primary objective. This institutional framework enables relatively stable and independent conduct of monetary policy in line with market principles.

Based on the available data on TOR and inflation for the period from 2000 to 2024, a comparative analysis was carried out in order to identify possible regularities indicating the existence of a relationship between institutional stability and price stability. For this purpose, the descriptive method was applied, presenting the basic characteristics of the observed variables, specifically for the National Bank of Serbia (NBS) and the European Central Bank (ECB).

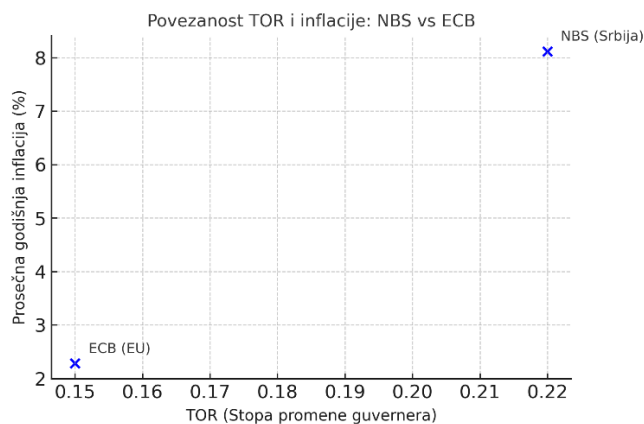
Table 2. The average value of inflation and the TOR index for the NBS and the ECB as representative institutions of countries with different levels of economic development

Institution	Average inflation (%)	TOR (average annual value)
NBS	8.12	0.24
ECB	2.28	0.15

Source: Systematized by authors according to: European Central Bank. (2021). *The European Central Bank: Organisation and tasks*. <https://www.ecb.europa.eu/ecb/orga/tasks/html/index.en.html>; International Monetary Fund. (2024). *World Economic Outlook database April 2024*. <https://www.imf.org/en/Publications/WEO>; National Bank of Serbia. (2025). *Governors*. https://www.nbs.rs/sr/o_nbs/istorijat-NBS/guverneri/index.html

Although the sample includes only two entities, the comparison indicates a positive correlation between the governor turnover rate and the level of inflation, which is particularly pronounced in the case of the National Bank of Serbia. To further illustrate this relationship, Pearson's correlation was calculated between the observed variables. The obtained correlation value is 1.0, indicating a perfect positive linear relationship in the given sample. This finding is also presented graphically in figure 2.

The selection of the National Bank of Serbia and the European Central Bank for comparative analysis is based on their symbolic and structural positions within two different systems—a developing country aspiring to European Union membership, and a highly developed economic and monetary union. EU member states, such as Germany and France, as well as former member the United Kingdom, possess strong institutional capacities, fiscal discipline, and developed financial markets, which allow their central banks to operate with a high degree of autonomy. On the other hand, Serbia, as a country formally engaged in the process of European integration, occupies a position between that of a developing country and an emerging market. Within such an institutional framework, the independence of the central bank, although legally prescribed and formally aligned with European standards, often must be adjusted to the specific challenges of the domestic economy.

Figure 2. TOR and inflation: NBS and ECB

Source: Systematized by authors according to: European Central Bank. (2021). *The European Central Bank: Organisation and tasks*. <https://www.ecb.europa.eu/ecb/orga/tasks/html/index.en.html>; International Monetary Fund. (2024). *World Economic Outlook database April 2024*. <https://www.imf.org/en/Publications/WEO>; National Bank of Serbia. (2025). *Governors*. https://www.nbs.rs/sr/o_nbs/istorijat-NBS/guverneri/index.html

In contemporary international frameworks, the institutional independence of the central bank represents a norm promoted by developed countries as the foundation of macroeconomic stability. However, in practice, an asymmetry is observed—those very countries, when faced with crises (e.g., the financial crisis of 2008 or the pandemic crisis of 2020), resort to non-standard monetary policy measures that deviate from the classical principles of monetary autonomy. At the same time, developing countries, including Serbia, are expected to adhere to the principles of independence, even in situations when they are forced to coordinate monetary policy with the developmental goals of the government.

Central banks in the financial systems of developed market economies and those of emerging markets exhibit varying degrees of functional autonomy. In developing countries, price and financial stability can be maintained as long as the leading world economies remain stable. However, when global disruptions occur, achieving monetary policy objectives in developing countries becomes significantly more difficult, even when their central banks nominally enjoy high institutional and *de facto* independence. This is confirmed by the experience of Serbia, where the central bank, despite its legal autonomy, often has to act in coordination with the government's economic policy in order to mitigate externally induced shocks.

“Advocates of an independent central bank believe that macroeconomic performance improves as the central bank becomes more independent” (Mishkin, 2019). However, this concept was transferred from developed countries, where there is no strong need for developmental interventions, and where central banks predominantly focus on maintaining price stability. In underdeveloped and transitional economies, the priorities are different—a strong and coordinated development policy is required. Therefore, in developing countries, the central bank cannot ignore developments in the real sector, such as GDP growth and the unemployment rate. Alongside controlling inflation, it is compelled to support the overall economic policy of the state.

4. Conclusion

The analysis of the relationship between the central bank governor turnover rate (TOR) and the average annual inflation rate in this paper was carried out using the descriptive method and Pearson's correlation, based on the example of the National Bank of Serbia and the European Central Bank. These institutions were observed as representatives of countries at different levels of economic development—Serbia as a developing country and the European Union as a developed economic integration.

The significance of Pearson's correlation in this context lies in its ability to quantify, in a simple and reliable way, the direction and strength of the linear relationship between TOR and inflation. The results obtained indicate a positive correlation—a higher TOR in the case of Serbia coincides with a higher level of inflation compared to the EU. This finding is consistent with theoretical views according to which personal and institutional stability of the central bank contributes to a greater degree of monetary policy credibility and, consequently, to lower and more stable inflation. In developing countries, which face weaker institutional capacities and frequent political influences, this relationship becomes even more pronounced, as continuity in the governor's mandate also functions as a signal of central bank independence in a broader sense.

The results of this paper indicate that the governor turnover rate can serve as a valid indicator of the *de facto* independence of the central bank, particularly in developing countries. In the context of global challenges and institutional asymmetries,

understanding this relationship can contribute to a more precise definition of the institutional framework of monetary policy and to the improvement of price stability as one of the key macroeconomic objectives.

References

- Alesina, A., & Summers, L. H. (1993). Central bank independence and macroeconomic performance: Some comparative evidence. *Journal of Money, Credit and Banking*, 25(2), 151–162. <https://doi.org/10.2307/2077833>
- Bank for International Settlements. (2009). *Issues in the governance of central banks: A report from the Central Bank Governance Group*. <https://www.bis.org/publ/othp04.pdf>
- Cukierman, A. (1992). *Central bank strategy, credibility, and independence: Theory and evidence*. MIT Press.
- Cukierman, A. (2007). Central bank independence and monetary policymaking institutions: Past, present and future. *European Journal of Political Economy*, 23(4), 722–736. <https://doi.org/10.1016/j.ejpoleco.2007.06.003>
- Cukierman, A., Webb, S. B., & Neyapti, B. (1992). Measuring the independence of central banks and its effect on policy outcomes. *The World Bank Economic Review*, 6(3), 353–398. <https://doi.org/10.1093/wber/6.3.353>
- Dincer, N. N., & Eichengreen, B. (2013). Central bank transparency and independence: Updates and new measures. *International Journal of Central Banking*, 9(1), 189–253.
- Dincer, N. N., & Eichengreen, B. (2014). Central Bank Transparency and Independence: Updates and New Measures. *International Journal of Central Banking*, 10(1), 189–259.
- European Central Bank. (2020a). *Monetary policy: Non-standard monetary policy measures*. <https://www.ecb.europa.eu/mopo/implement/omo/html/index.en.html>
- European Central Bank. (2020b). *ECB announces €750 billion Pandemic Emergency Purchase Programme (PEPP)*. https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200318_1~3949d6f266.en.html
- European Central Bank. (2021). *The European Central Bank: Organisation and tasks*. <https://www.ecb.europa.eu/ecb/orga/tasks/html/index.en.html>
- European Central Bank. (2021). *The monetary policy strategy of the ECB*. <https://www.ecb.europa.eu/home/search/html/index.en.html>
- European Commission. (2014). *Republic of Serbia – Progress Report*. http://www.seio.gov.rs/upload/documents/eu_dokumenta/godisnji_izvestaji_ek_o_napretku/Izvestaj_o_napretku_dec14.pdf
- European Stability Mechanism. (2010). *The €750 billion weekend: The EFSF is born*. <https://www.esm.europa.eu/>
- Gaiotti, E., & Secchi, A. (2013). *Monetary policy and fiscal dominance in Italy from the early 1970s to the adoption of the euro: A review (Questioni di economia e finanza, No. 141)*. Banca d'Italia. <https://www.bancaditalia.it/pubblicazioni/qef/2012-0141/index.html?com.dotmarketing.htmlpage.language=1&dotcache=refresh>
- International Monetary Fund. (2024). *World Economic Outlook Database, April 2024*. <https://www.imf.org/en/Publications/WEO/weo-database/2024/April>
- International Monetary Fund. (2024). *World Economic Outlook database April 2024*. <https://www.imf.org/en/Publications/WEO>
- Issing, O. (2005). *The role of central banks in the euro area*. MIT Press.
- Krstić, B. (2003). *Bankarstvo*. Ekonomski fakultet, Univerzitet u Nišu.
- Mishkin, F. S. (2019). *The economics of money, banking, and financial markets (13th ed., Global ed.)*. Pearson.
- Narodna banka Srbije. (2019). *Zakon o Narodnoj banci Srbije*. Službeni glasnik RS, br. 72/2003, 55/2004, 85/2005 – dr. zakon, 44/2010, 76/2012, 106/2012, 14/2015, 40/2015 – odluka US, 44/2018 i 95/2018 i 95/2018, 44/2019. <https://www.nbs.rs>
- Narodna banka Srbije. (2025). *Guverneri*. https://www.nbs.rs/sr/o_nbs/istorijat-NBS/guverneri/index.html
- Ostojić, S. (2009). *Nezavisnost centralne banke: teorijski i empirijski aspekti*. Beograd: Ekonomski fakultet.
- Ricardo, D. (1824). *Plan for the establishment of a national bank*. London: John Murray.
- Rossi, S. (2014). Central banking in question: On the case for establishing an unconditional basic income. *Review of Keynesian Economics*, 2(2), 246–262. <https://doi.org/10.4337/roke.2014.02.07>
- Rossi, S. (2014, November 19). Monetary policy and the independence of central banks – The experience of the European Central Bank in the global crisis [Speech]. *University of Verona, University Complex of Vicenza, Vicenza*. <https://www.bis.org/review/r141125e.pdf>