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DE JURE OR DE FACTO CENTRAL BANK INDEPENDENCE? WHAT TRULY CURBS INFLATION IN MOROCCO: EVIDENCE FROM BANK AL-MAGHRIB

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ABSTRACT

Amid increasing concerns about inflationary pressures and institutional reforms in emerging economies, understanding the effectiveness of central bank independence has become particularly crucial. This study aims to evaluate the extent to which de jure and de facto central bank independence contribute to inflation control in Morocco, with particular emphasis on the roles of legal autonomy and governor stability in shaping monetary outcomes. Using annual data from 1988 to 2024, de jure independence is measured using a PCA-based synthetic index, while de facto independence is proxied by governor turnover. The relationship between independence and money supply growth, used as an indirect channel of inflation, is examined using an Autoregressive Distributed Lag (ARDL) model to capture both short and long-run dynamics. The findings reveal a long-run cointegrating relationship among money supply, legal independence, and turnover. De jure independence significantly reduces long-run monetary expansion, whereas governor turnover affects only short-run monetary tightening. By jointly examining legal and actual independence using a composite index and updated data, this study provides new empirical evidence for Morocco and offers policy-relevant insights for emerging economies seeking sustained monetary discipline.

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INTRODUCTION

The concept of central bank independence has given rise to a curious opportunity to quantify it, leading to a distinction between two complementary dimensions: de jure independence and de facto independence. Especially after numerous studies have shown that the latter two indicators help curb inflation.

Beginning with the pioneering work of Bade and Parkin (1978) and the influential legal index developed by Cukierman, Webb, and Neyapti (1992), the quantification of de jure central bank independence has progressively evolved through updated datasets and methodological refinements. More recent extensions, such as Garriga (2016) and Romelli (2022, 2025), provide

broader country coverage and revised legal indicators, confirming the persistent negative association between legal independence and inflation.

Regarding de facto independence, governor turnover remains a widely used proxy, following Cukierman and Webb (1995), with contemporary studies continuing to employ turnover-based measures to capture effective autonomy (Higgins and Qureshi, 2025; Strong, 2021). These contributions further extend the empirical assessment of de facto central bank independence across both developing and advanced economies.

Building on this, the Moroccan case provides a relevant context for reassessing the role of central bank independence in achieving low inflation. Bank Al-Maghreb, after the reinforcement of its status, conducts monetary policy mainly through the key interest rate and thereby influences the money supply, thereby indirectly affecting inflation. Given the theoretical and empirical evidence showing that independent central banks tend to maintain lower inflation (Kydland & Prescott, 1977; Rogoff, 1985; Garriga & Rodriguez, 2023), it becomes necessary to examine whether both the statutory framework, de jure and de facto, effectively contribute to inflation control in Morocco.

This research aims to empirically examine the extent to which de jure and de facto independence contribute to inflation control in Morocco. The central question that emerges is therefore the following: **To what extent do de jure and de facto central bank independence lead to effective inflation control in Morocco, given that Bank Al-Maghrib primarily influences inflation indirectly through monetary policy targeting the money supply?**

To guide this analysis, the paper is structured as follows. The first section presents the literature review, divided into two parts: background on the quantification of central bank independence, followed by studies examining the relationship between central bank independence and inflation. The second section is devoted to the empirical study. Finally, the paper concludes with a discussion of the key results and their implications for the effectiveness of monetary policy in Morocco.

LITERATURE REVIEW

Background on the Emergence of Central Bank Independence Quantification

The need for central bank independence to ensure low inflation levels has always been emphasized. Central bank independence enables it to conduct monetary policy smoothly, control inflation, reduce inflationary bias, limit political pressure, and increase credibility, with the aim of maintaining price stability (Goodhart C.A.E., 1989). Economic theory shows that when monetary authorities use monetary policy in a discretionary manner to stimulate short-

term activity, they create a time-inconsistency problem that weakens their credibility and destabilizes expectations (Kydland and Prescott, 1977).

However, several institutional or contractual solutions have been proposed, such as delegation to a conservative central banker or incentive mechanisms to discipline monetary policy (Kenneth Rogoff, 1985). Thus, the role of political instability in monetary policy-making quickly became apparent. Analysis of political business cycles shows that electoral pressures accentuate opportunistic behavior and amplify macroeconomic instability (William Nordhaus, 1975). Aisen and Veiga (2007) demonstrate that political instability is associated with higher inflation volatility. So, the institutional independence of the central bank appears essential to ensure intertemporal consistency, protect monetary policy from short-term political interests, and ensure lasting price stability.

The issue of central bank independence has gradually given rise to a wealth of literature seeking to quantify this concept. Indeed, beyond the theoretical debate over the relevance of an autonomous monetary authority, researchers quickly sought to quantify its degree to assess its effects on macroeconomic performance, particularly on price stability. This distinction has resulted in the identification of two complementary dimensions: de jure independence, which concerns the legal and statutory framework established by the central bank's founding documents, and de facto independence, which pertains to the actual exercise of autonomy in political and institutional contexts.

On the one hand, the first work aimed at measuring the legal independence of central banks dates back to the pioneering study by Bade and Parkin (1978). Followed by Alesina (1988), who showed that a country's political structure directly influences the conduct and credibility of its monetary policy. Grilli, Masciandaro, and Tabellini (1991) make a decisive contribution to the empirical measurement of central bank de jure independence. Their index provides a normative and comparative measure of de jure independence, enabling empirical evidence that greater institutional autonomy for central banks is associated with better monetary discipline and lower long-term inflation in advanced economies. This provided a solid basis for international comparisons and inspired the construction of more comprehensive indices, such as that of Cukierman, Webb, and Neyapti (1992) (LVAU index). The authors also show a significant negative correlation between legal independence and inflation in industrialized countries, while no robust relationship is observed in developing countries, where the gap between legal provisions and actual practices is often significant.

Garriga (2016) extends the Cukierman, Webb, and Neyapti framework by systematically coding central bank legislation and identifying statutory reforms affecting independence,

covering 182 countries over the period 1970-2012, particularly developing economies. Importantly, it highlights the sensitivity of empirical results to sample selection and uncovers numerous reforms including restrictions of independence previously overlooked in the literature.

More recently, Romelli (2022) introduced a dynamic index of central bank independence based on a comprehensive dataset covering 154 countries over the period 1972–2017. Beyond refining the measurement of de jure independence, this contribution sheds light on the determinants and timing of central bank reforms, showing that institutional changes are shaped by past levels of independence, regional convergence effects, political transitions, IMF programs, and inflationary pressures. By emphasizing the endogenous and political nature of institutional reforms, this work significantly advances the empirical analysis of central bank design. An updated extension of the Central Bank Independence Extended (CBIE) index further expands this framework by extending country coverage to 155 economies over the period 1923-2023. The updated dataset documents a large number of design reforms and highlights a renewed global commitment to strengthening central bank independence in recent years, despite growing political scrutiny (Romeli, 2025).

While de jure independence reflects the formal provisions enshrined in law, de facto independence manifests itself in the day-to-day practice of monetary policy. To assess the latter, Cukierman, Webb, and Neyapti (1992) proposed, in addition to the indices of legal independence and effective independence, an empirical indicator of central bank de facto independence: the turnover rate of central bank governors. The turnover rate of central bank governors is based on the assumption that frequent changes in governors reflect low central bank independence. This indicator is defined as the average annual number of governor renewals (Ghrissi Mhamdi, 2009), calculated as follows:

Turnover rate per period: Number of changes/term of office

With regard to political influences, their impact on the central bank is measured by an index that examines the probability that a central bank governor will be replaced shortly after a change of government. This de facto index aims to capture the direct influence of political dynamics on the stability of monetary authorities, distinguishing between changes in governors linked to political transitions and those driven by other administrative or institutional factors. The results presented by Cuckierman and Webb (1995) highlight marked differences across countries. On average, nearly a quarter of political changes are followed by the governor's replacement within six months, but this proportion is higher in developing economies. This political vulnerability is particularly high in countries with mixed or unstable regimes that

alternate between democracy and authoritarianism, where the probability of a governor being replaced following a major transition exceeds 60%. Conversely, countries with stable institutions, such as the United States or Germany, have an index close to zero, reflecting the absence of a systematic link between political change and monetary leadership turnover.

Central bank independence and inflation

Looking at empirical studies, the question about the relationship between central bank independence and inflation level remains open, and how to address it differs, but the results remain the same: the majority of studies confirm the same relationship.

Brumm (2011) suggests that inflation and CBI (central bank independence) are negatively correlated and jointly determined. Andriani and Gai (2013) found that CBI has an inverse effect on inflation, while the turnover rate of the governor is not significant. This confirms that greater CBI is needed to lower inflation (Posso and Tawadros, 2013). In the same vein, Garriga (2016) reassesses the relationship between legal central bank independence and inflation and finds a negative and statistically significant association in a broad global sample, while also emphasizing the sensitivity of the results to sample composition.

By examining the independence, higher turnover rates lead to higher inflation; however, for CFA zone countries, central bank autonomy has no effect on inflation, but inflation is driven by other variables such as the fixed exchange rate regime and commodity price shocks (Strong, 2021). These results are consistent with Aisen and Veiga (2008), who find that de facto independence reduces inflation volatility in developing countries. Furthermore, Higgins and Qureshi (2025) empirically show that frequent changes in central bank leadership (governor) are associated with more volatile inflation rates. Across developed and developing countries, they find that the monetary policy stance often changes across governor tenures, accounting for between 10% and 23% of the variation in inflation.

Garriga and Rodriguez (2023) showed that legal central bank independence is directly and unconditionally associated with lower inflation volatility for 96 developing countries. The magnitude of this effect is larger in more democratic countries, even after accounting for the endogeneity of CBI and inflation. In the same vein, for an emerging economy, the causality analysis indicates a unidirectional causal relationship between inflation and central bank independence. The analysis reveals that central bank independence has a statistically significant and pronounced effect on disinflation in Turkey and Brazil (Tutgun and Unlu, 2025). However, central bank independence reduces inflation, with its impact remaining much larger in the long term, and this applies to developing countries (Athanasopoulos et al., 2025). In line with the inverse relationship between inflation and central bank independence, Gojčaj's

(2025) results confirm this relationship for Western Balkan countries. Thus, considering the unusual periods that recorded a sharp rise in inflation and which are referred to as inflation tail risk, Jácome and Pienknagura (2025) emphasize the said negative relationship, where high central bank independence is associated with reductions in the likelihood of high inflation episodes, moreover, the benefits of central bank independence in terms of reducing high inflation accumulate over time.

And with this, we will contribute to the existing literature by examining the legal and actual impacts of central bank independence on inflation, with a focus on the Moroccan central bank, Bank Al-Maghreb.

Several studies have already analyzed Bank Al-Maghreb's degree of independence and its effects on inflation. There is a negative correlation between the legal and actual independence of the BAM and inflation, but the BAM's independence is a necessary but not sufficient condition for reducing inflation in Morocco (Saidi and Moudine, 2022). Yahaya et al. (2022) reported a significant negative correlation between central bank independence and inflation across 14 African countries, including Morocco. They recommend greater independence for central banks to increase the likelihood of achieving lower inflation. In response to the question of the importance of institutional quality for the central bank, Mouatassim et al. (2025) found that increased central bank independence is associated with lower inflation. However, institutional quality does not reduce inflation directly; rather, it enhances the negative relationship.

Although the negative relationship between central bank independence and inflation is well documented, existing studies rarely examine de jure and de facto independence jointly, nor do they clearly distinguish their short- and long-run effects, particularly in emerging economies such as Morocco. Moreover, most analyses focus directly on inflation outcomes, paying limited attention to the monetary transmission channel through which central banks operate. Consequently, empirical evidence remains limited on whether legal and actual central bank independence effectively translate into monetary discipline over time. Based on this gap, the following hypothesis is proposed:

H1: De jure and de facto independence strengthen inflation control in Morocco.

METHODOLOGY

The aim is to explore the extent to which legal and real central bank independence affects inflation. Given that Bank Al Maghreb intervenes through monetary policy, namely the key interest rate, it primarily targets the money supply in the economy to indirectly influence

inflation. This brings us to our first variable, the money supply MS (issued from Bank Al Maghreb database), which we measured by its year-on-year growth rate. Our study will focus on the period between 1988 and 2024, a choice made primarily because of the structural adjustment program implemented by the International Monetary Fund and the World Bank in 1985. This period also saw fluctuations in the appointments of Bank Al Maghreb governors, which is primarily related to the governor turnover rate TOR, our second variable, which we measured as follows:

In accordance with the methodology proposed by Cukierman (1992). The TOR reflects the institutional stability of the Central Bank: a high frequency of changes in governors indicates weak de facto independence, while prolonged stability reflects greater decision-making autonomy. For greater clarity of the coefficients, we convert this frequency into a percentage using **TOR $_{\%}$=(Number of changes of governor/length of the period under review)*100**. During the chosen period, Bank Al-Maghrib was headed successively by the following governors:

a. Ahmed Bennani (1985-1989)
b. Mohammed Seqat (1989-2003)
c. Abdellatif Jouahri (2003-2024)

Three sub-periods were identified in our sample:

a. Ahmed Bennani's term of office (1985-1989): Although our database begins in 1988, we consider the entire term of office (4 years) in order to calculate the TOR correctly. There was a change of governor in 1989 (arrival of Seqqat), therefore:

$$\mathbf{TOR_1 = 1/4 *100 = 0.25*100 = 25}$$

b. Mohammed Seqqat's term of office (1989-2003): A change occurred in 2003 (arrival of Jouahri), for a total duration of 15 years, therefore:

$$\mathbf{TOR_2 = 1/15 *100 = 0.0667*100 = 6.67}$$

c. Abdellatif Jouahri's term of office (2003-2024): considered to run from 2003 to 2024 for methodological purposes, in order to avoid a constant zero TOR and to reflect the principle that a long term of office translates into greater de facto independence. A TOR close to zero thus indicates a more stable and independent central bank, therefore:

$$\mathbf{TOR_3 = 1/21 *100 = 0.048*100 = 4.8}$$

In our study, we relied on 3 widely used indicators of judicial independence: the Cukierman, Webb & Neyapti index (LVAU), the Grilli, Masciandaro & Tabellini index (GMT), and the CBIE index developed by Romelli (2022), whose data are drawn from central bank legislations obtained from official websites and other sources. However, a preliminary analysis (**Table 1**) showed that these three indices are extremely highly correlated, with correlation coefficients greater than 0.99 in all cases. Such a strong correlation can lead to multicollinearity issues if all three variables are included simultaneously in an econometric model.

Table 1. Correlation Matrix of judicial independence indicators

	CBIE	**GMT**	**LVAU**
CBIE	1	0.994	0.999
GMT	0.994	1	0.996
LVAU	0.999	0.996	1

Source: Authors, E-views13

To avoid this bias and synthesize the information common to these three measures, we applied Principal Component Analysis (PCA). The results of the PCA (**Table 2**) show that the first principal component alone explains more than 99% of the total variance. This indicates that the three indicators actually reflect the same underlying dimension of legal independence.

Table 2. Principal components correlation

	Eigenvalue	**Difference**	**Proportion**
Comp1	2.99361	-0.5778	0.9979
Comp2	0.00639	0.7887	0.0021
Comp3	0	-0.2100	0.0000

Source: Authors, Stata19

We therefore retained only the first principal component as a synthetic measure of de jure independence. The resulting index (CLI) is then used as the sole explanatory variable in econometric estimates.

The most widely used cointegration techniques are the Engle-Granger (1987) and Johansen (1988, 1991, 1996) cointegration tests. However, these usual modelling techniques recommend the use of an integrated series of the same order I(0) or I(1). To address these limitations,

Pesaran and Shin (1998) and Pesaran et al. (2001) introduced a more versatile and less constraining approach. The Autoregressive Distributed Lag (ARDL) model, in fact, allows for testing long-term relationships through bounds testing across series with different integration orders, and it also provides more accurate estimates with smaller sample sizes. Thus, the ARDL enables the simultaneous analysis of long-term dynamics and short-term adjustments. In view of the above considerations, we rely on the ARDL method to examine the impact of dejure and de facto central bank independence on inflation. It is in this context that equation will be expressed as follows:

$$\Delta MS_t = \beta_0 + \sum_{i=1}^{P} \beta_1 \Delta MS_{t-i} + \sum_{i=0}^{q} \beta_2 \Delta CLI_{t-i} + \sum_{i=0}^{q} \beta_3 TOR_{t-i} + \theta_1 MS_{t-1} + \theta_2 CLI_{t-1} + \theta_3 TOR_{t-1} + \varepsilon_t \quad \textbf{(1)}$$

Where Δ denotes the first difference operator; $\beta_1 - \beta_3$ represent the coefficients of Error Correction Model (ECM); $\theta_1 - \theta_3$ are the coefficients of the long-term relationship; p is lag length of the dependent variable; q is lag length of the explanatory variables; and ε_t is an error term i.i.d (0, σ_μ^2).

RESULT AND DISCUSSION

Stationnarity test

Table 3. Results of the Augmented Dickey-Fuller (ADF) Test

	Model 3		Model 2		Model 1			
Variable	**ADF**	**p-value**	**ADF**	**p-value**	**ADF**	**p-value**	**Conclusion**	**Integration Order**
MS	-1.558	0.128	1.682	0.101	-1.232	0.195	Non stationary	I(1)
CLI	1.896	0.066	1.064	0.294	-0.932	0.305	Non stationary	I(1)
TOR	-0.932	0.357	3.65	0.0009			Stationary	I(0)

Source: Authors, Eviews13

Based on the results presented in **Table 1** above, none of the variables are integrated of order two. Instead, they exhibit a combination of I(0) and I(1) integration orders. The endogenous variable, MS, is integrated of order one, whereas the exogenous variables are either I(0) or I(1). Consequently, the conditions for applying the ARDL estimation are satisfied.

Determination of the Optimal Lag Length

Given our limited sample size, we restricted the maximum to three lags to avoid a loss of degrees of freedom that could compromise estimation reliability. This choice strikes a balance between capturing short-run dynamics and preserving enough observations for robust results.

ARDL Bound Test

Table 4. Pesaran's F-Bounds Test Results

F-Bounds Test Null Hypothesis: No levels relationship				
Test Statistic	**Value**	**Significance**	**I(0)**	**I(1)**
F-statistic	**12.66040**	10%	2.63	3.35
k	2	5%	3.1	3.87
		2.5%	3.55	4.38
		1%	4.13	5

Source: Authors, Eviews13

Before proceeding to the long and short-term interpretations, we first need to verify whether a long-run cointegration relationship exists among the variables. To do so, we apply the bounds testing approach developed by Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Specifically, we compare the computed F-statistic with the critical values of I(0) and I(1). As shown in **Table 2**, the F-statistic **(12.66040)** exceeds all the I(1) critical values at the 10%, 5%, 2.5%, and 1% significance levels. This result confirms the existence of a long-run cointegration relationship among the variables.

Model Robustness and Specification Diagnostics

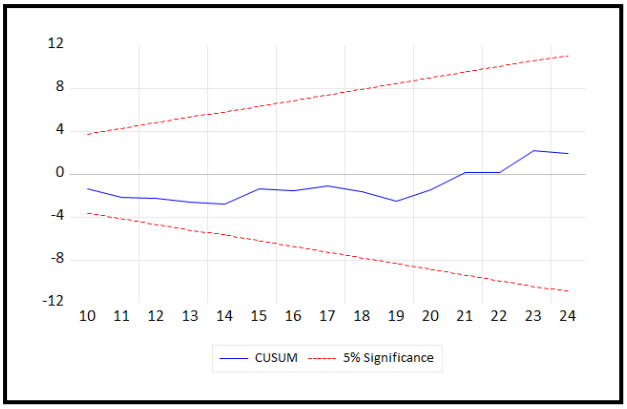
Table 5. Results of Model Robustness and Specification Diagnostics

Diagnostic test	**Statistic**	**Decision**
Normality	0.2789	Residuals are normally distributed
Autocorrelation	0.8128	No residual autocorrelation
Heteroscedasticity	0.2540	Residuals are homoscedastic
Ramsey Specification Test	0.6317	The model is correctly specified
Stability Test	Cusum and Cusum Sq	Our model is stable (see Figure 1 and 2)

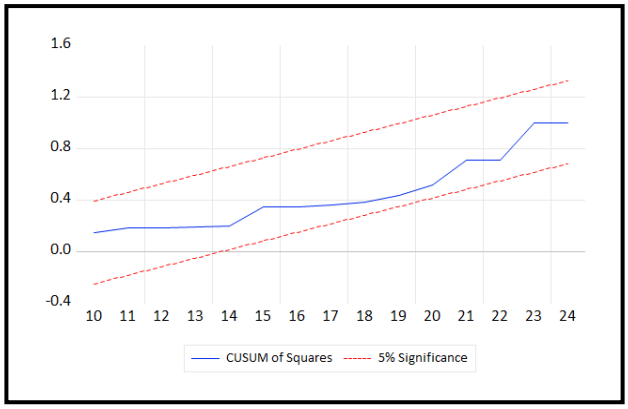
Source: Authors

Figure 1. Plot of CUSUM test

Figure 2. Plot of CUSUM squared



Source: Authors, Eviews



Source: Authors, Eviews

The diagnostic tests confirm the overall validity of our model. The normality test indicates that the residuals are normally distributed, while the heteroscedasticity test suggests that they are homoscedastic. Furthermore, the autocorrelation test shows no evidence of serial correlation in the residuals. The Ramsey specification test supports that the model is correctly specified. Finally, the CUSUM and CUSUM of squares tests reveal that the stability condition holds, as the statistics remain within the critical bounds, confirming that our model is stable **(see Figures 1 and 2).**

Short run dynamics

Table 6. ECM Regression / Short term dynamics coefficients

Variable	Coefficient	Std.Error	t-Statistic	Prob.
D(CLI)	0.6998	0.4498	1.5556	0.1324
D (CLI (-1))	3.3600	0.5043	6.6626	0.0000
D (CLI (-2))	1.6268	0.5870	2.771	0.0104
D(TOR)	-0.0505	0.7993	-0.0632	0.9501
D (TOR (-1))	-0.3877	0.0860	-4.5065	0.0001
CointEq (-1)*	-0.6839	0.0908	-7.5311	0.0000

Source: Authors, Eviews

The short-run results show that institutional factors shape Morocco's monetary dynamics in distinct ways. While changes in legal independence (CLI) have no immediate effect on the money supply, their influence becomes clear over time: the positive and significant coefficients at one and two lags (3.36 and 1.63, respectively) indicate that higher legal independence gradually leads to an expansion of monetary aggregates. By contrast, governor turnover (TOR) tends to have a tightening effect, as reflected in the negative and significant coefficient at the first lag (−0.388). Finally, the strongly negative error-correction term (−0.684) confirms that

deviations from long-run equilibrium are corrected relatively quickly, underscoring the stability and consistency of the institutional–monetary adjustment process.

Long run dynamics

Table 7. Long dynamics coefficients

Variable	Coefficient	Std.Error	t-Statistic	Prob.
CLI	-1.7796	0.6989	-2.5461	0.0174
TOR	-1.0852	1.2856	-0.8441	0.4066
C	13.4112	7.2547	1.8486	0.0764

Source: Authors, Eviews

The long-run results indicate that institutional independence has a significant negative effect on monetary expansion. The coefficient for the legal independence index shows that greater central bank institutional independence is associated with a reduction in the money supply. In contrast, governor's turnover is statistically insignificant. Overall, the results indicate that the formal strength of central bank independence, rather than the rotation of its leadership, shapes long-run monetary behavior.

CONCLUSION

This study examines the impact of the central bank independence on inflation in Morocco over the period 1988-2024. Considering the results, they are mixed, and reveal differentiated short- and long-run effects. In the short term, legal independence's influence becomes evident after two years, according to the results, indicating that greater legal independence gradually leads to an expansion of monetary aggregates. This suggests that as Bank Al-Maghreb gains credibility and autonomy, it can adjust liquidity conditions more confidently in the aftermath of institutional reforms. As for the governor turnover, it tends to have a tightening effect, suggesting a more cautious policy stance when leadership changes.

By contrast, the long term is completely different, whereas the legal independence forms a negative relationship with inflation, consistent with the findings of Yahaya et al. (2022); Garriga and Rodriguez (2023); Jácome and Pienknagura (2025); Mouatassim et al. (2025), where stronger autonomy enhances monetary discipline and supports tighter control over liquidity. However, the turnover rate was insignificant in the long term, suggesting that changes in leadership do not materially affect long-run monetary outcomes once institutional structures are accounted for.

According to the results, legal independence only pays off in the long term, unlike actual independence, which negatively affects inflation in the short term. Our results match the

previous ones with the same negative impact, although it is divided between the two indicators, despite being the same, in the short and long term. On the one hand, this makes sense, as the rise in legal independence means the Bank Al Maghreb has more control over the money supply, thereby indirectly influencing inflation. On the other hand, periods of instability in the Bank Al Maghreb governor are characterized by a decline in the growth rate of money supply, which is obvious, since if it is not controlled, the balance will be disrupted. After achieving stability, the central bank governor's stability, monetary policy becomes a matter of legal independence, and then there is freedom to choose objectives, instruments, and so on, that enable it to control inflation.

Actual independence, therefore, appears to operate differently across time horizons. While leadership changes may generate short-term prudence in monetary policy, sustained price stability ultimately depends on consolidated legal independence. Thus, Bank Al-Maghreb's statutory autonomy emerges as a key structural factor in containing inflationary pressures. This implies that strengthening and preserving the legal autonomy of Bank Al-Maghreb should remain a central priority for policymakers seeking long-term price stability. Institutional credibility and statutory protection appear to be more decisive than temporary leadership dynamics in anchoring inflation expectations. However, this does not imply that governor stability should be neglected. While leadership changes do not significantly affect long-run monetary outcomes, our results indicate that turnover exerts a short-term tightening effect, suggesting that stability in central bank leadership contributes to smoother policy adjustments and reduces transitional uncertainty.

As with any empirical study, this research is subject to certain limitations. Although money supply growth constitutes a relevant channel through which Bank Al-Maghreb conducts monetary policy and indirectly influences inflation, it remains an intermediate variable and may not fully capture the complexity of inflation dynamics. Inflation is also shaped by other transmission mechanisms, including interest rate pass-through, exchange rate fluctuations, fiscal interactions, external shocks, and expectations formation. Future research could therefore complement this approach by incorporating direct inflation measures, additional macroeconomic variables, or structural modeling frameworks in order to provide a more comprehensive assessment of how central bank independence affects price stability in Morocco.

References

Aisen, A., & Veiga, F. J. (2007). Political instability and inflation volatility. *IMF Working Paper*

Aisen, A., & Veiga, F. J. (2008). Political instability and inflation volatility. Public Choice, 135(3–4), 207–223.

Andriani, Y., & Gai, P. (2013). The effect of central Bank Independence on price stability : The case of Indonesia. *Bulletin of Monetary, Economics and Banking*

Athanasopoulos, A., Masciandaro, D., & Romelli, D. (2025b). *Long Run Inflation : Persistence and Central Bank Independence*. SSRN. https://doi.org/10.2139/ssrn.5110065

Baumann, P. F. M., Schomaker, M., & Rossi, E. (2021). Estimating the effect of central bank independence on inflation using longitudinal targeted maximum likelihood estimation. *Journal of Causal Inference*, *9*(1), 109-146. https://doi.org/10.1515/jci-2020-0016

Brumm, H. J. (2011). Inflation and central bank independence : Two-way causality? *Economics Letters*, *111*(3), 220-222. https://doi.org/10.1016/j.econlet.2011.02.005

Cukierman, A., Web, 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

Cukierman, A., & Webb, S. B. (1995). Political Influence on the Central Bank : International Evidence. *The World Bank Economic Review*, *9*(3), 397-423. https://doi.org/10.1093/wber/9.3.397

Garriga, A. C. (2016). Central Bank Independence in the World: A New Data Set. International Interactions, 42(5), 849–868. https://doi.org/10.1080/03050629.2016.1188813

Garriga, A. C., & Rodriguez, C. M. (2023). Central bank independence and inflation volatility in developing countries. *Economic Analysis and Policy*, *78*, 1320-1341. https://doi.org/10.1016/j.eap.2023.05.008

Ghizlane SAIDI & Chourouk MOUDINE. (2022a). *The Inflation-Independence Relationship of the Central Bank : A check for the case of Bank Al-Maghrib*. https://doi.org/10.5281/ZENODO.6401740

Ghrissi, M. (2009). Evaluation du degré d'indépendance de la Banque Centrale de Tunisie. *Munich Personal RePec Archive*

Gojčaj, V. (2025). Does Central Bank Independence Affect Inflation? *Journal of Central Banking Theory and Practice*, *14*(3), 161-183. https://doi.org/10.2478/jcbtp-2025-0027

Goodhart, C. (1989). The Conduct of Monetary Policy. *The Economic Journal, Vol. 99, No. 396, pp. 293-346*

Grilli, V., Masciandaro, D., Tabellini, G., Malinvaud, E., & Pagano, M. (1991). Political and Monetary Institutions and Public Financial Policies in the Industrial Countries. *Economic Policy*, *6*(13), 341. https://doi.org/10.2307/1344630

Higgins, C. R., & Qureshi, I. A. (2025). Changes in central bank leadership and inflation dynamics. Southern Economic Journal, 91(4), 1440–1473. https://doi.org/10.1002/soej.12763

Jácome, L. I., & Pienknagura, S. (2025a). Central bank independence and inflation tail risks—Evidence from emerging markets. *Journal of International Money and Finance*, *153*, 103285. https://doi.org/10.1016/j.jimonfin.2025.103285

Kydland, F. E., & Edward, C. P (1977). Rules Rather than Discretion : The Inconsistency of Optimal Plans. *Journal of Political Economy*. https://www.jstor.org/stable/1830193

Mouatassim, A., Kchikeche, A., Echaoui, A., & El Hiri, A. (2024). *Central Bank Independence and inflation in the MENA Region : Does institutional quality matter?* SSRN. https://doi.org/10.2139/ssrn.4894302

Parkin, M., & Bade, R. (1978). Central Bank Laws and Monetary Policies : A Preliminary Investigation. *Economic Working Papers Archive*

Pesaran, M.H. and Shin, Y. (1998) An Autoregressive Distributed-Lag Modelling Approach to Cointegration Analysis. Econometrics and Economic Theory in the 20th Century: The Ragnar Frisch Centennial Symposium, 31, 371-413.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, *16*(3), 289-326. https://doi.org/10.1002/jae.616

Posso, A., & Tawadros, G. B. (2013). Does greater central bank independence really lead to lower inflation? Evidence from panel data. *Economic Modelling*, *33*, 244-247. https://doi.org/10.1016/j.econmod.2013.04.005

Rogoff, K. (1985). The Optimal Degree of Commitment to an Intermediate Monetary Target. *The Quarterly Journal of Economics*, *100*(4), 1169. https://doi.org/10.2307/1885679

Romelli, D., 2022. The political economy of reforms in central bank design: evidence from a new dataset. Economic Policy, 37(112), pp. 641-688

Romelli, D., 2025. Trends in central bank independence: a de-jure perspective. In Farvaque, E., and Stanek, P. (eds), Are Central Banks Still Conservative?, Edward Elgar Publishing.

Seyhun, T., & Atilla, Ü. (2025). *The Impact of Central Bank Independence on Inflation and Economic Growth : A Long-Run Panel Analysis for Emerging Economies*. https://doi.org/10.5281/ZENODO.17402935

Strong, C. O. (2021). Political influence, central bank independence and inflation in Africa: A comparative analysis. European Journal of Political Economy, 69, 102004. https://doi.org/10.1016/j.ejpoleco.2021.102004

Yahaya, A., Saidu, M. T., & Sadi, A. (2022). Effects of Central Bank Independence and Financial Stability on Inflation in Selected African Countries. *CBN Journal of Applied Statistics. 13(2).*