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Strategic Regulatory Reforms for National Economic Security: A Comparative Analysis of Transitional Stability

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Abstract
In the context of increasing geopolitical uncertainty, transitional economies face the challenge of implementing regulatory reforms while maintaining national economic security. This study examines the impact of government regulatory mechanisms on security outcomes, with a focus on institutional quality and macroeconomic stability.

Using a cross-sectional econometric framework based on 25 European countries (2024), the analysis applies OLS and alternative specifications, including interaction, nonlinear, and threshold models. The findings indicate that institutional quality, proxied by the Index of Economic Freedom, is the most significant determinant of national security, exhibiting a strong negative relationship with the Global Peace Index (GPI). Military expenditure shows a nonlinear effect, with a threshold of approximately 2.5% of GDP beyond which its impact becomes destabilizing. Additionally, inflation shocks exceeding 5% significantly deteriorate security outcomes.

The results highlight that national economic security is primarily driven by institutional efficiency and macroeconomic stability, supporting an "active stabilization" approach to economic governance.

Keywords: government regulation; national security; transitional economies; macroeconomic stability; institutional quality.

JEL Classification: H12; K20; O11; P16; P35.

Introduction

State regulation of the economy is one of the key components of the mechanism for ensuring national security, as it is aimed at adjusting market processes in order to minimize external and internal threats, stabilize socio-economic development, and support strategic sectors of the economy. In view of the current globalization and increased transnational financial, military, and environmental risks, traditional security instruments require integration with economic regulatory mechanisms, which expands the range of regulator's tasks and necessitates a revision of approaches to economic regulation.

Economic security covers a wide range of aspects: financial system stability, energy independence, food security, development of high-tech industries, innovative capacity of the state, etc. In this context, the functions of government regulation include: establishing "barriers" to unfair competition, supporting national producers in strategically important sectors, stimulating investments in critical infrastructure, as well as shaping fiscal and monetary policies capable of counteracting economic shocks.

Mixed models that combine market incentives and administrative regulations are gaining popularity in Central and Eastern European countries, which introduced mechanisms for state support for innovation, while establishing strict antitrust rules (Jonek-Kowalska, 2023; Medve-Bálint & Éltető, 2024). In this study, national security is considered as a broad system of economic stability, energy and food security, institutional capacity, and social cohesion that influence a state's ability to resist external and internal threats. According to the GPI, the economic impact of violent acts in 2023 was about $19.1 trillion, or 13.5% of global GDP, indicating a strong link between economic decisions and security (IEP, 2024)

In the policy documents of the world's leading countries, there is a clear trend towards integrating economic security into national security strategies (Armstrong *et al.,* 2025). This shift from a purely military-oriented view of national security to a deep integration of economic security reflects a reassessment of the state's resilience in the face of complex, non-traditional threats. This means a paradigm shift in state management, where economic policy becomes an instrument of geopolitical competition and national survival. Such an approach requires more holistic and integrated management, blurring the lines between economic and security areas.

The economic sustainability of the state, the ability to maintain strategic autonomy, which includes control over critical industries and technologies, becomes paramount. This means a paradigm shift in public administration, where economic policy becomes an instrument of geopolitical competition and national survival. Such an approach requires a more holistic and integrated management, blurring the boundaries between economic and security areas.

The aim of the paper is to study the relationship between individual mechanisms of government regulation and economic security indicators, in particular, to identify possible effects. To aim was achieved through the fulfilment of the following research objectives:

- analyse theoretical approaches to understanding government regulation of the economy and economic security;
- determine the impact of existing mechanisms and instruments of government regulation of the economy on security;
- identify key challenges and develop recommendations for optimizing government regulation mechanisms to strengthen national security.

1. Literature Review

The issue of the optimal ratio of market mechanisms and state intervention in the economy remains one of the most debatable issues in modern economic science. It becomes particularly important in the context of ensuring national security, where economic stability is fundamental for defence capability, sovereignty, and stability of society. Supporters of market mechanisms emphasize the efficiency, innovation, and flexibility of private initiative. Supporters of state intervention consider it necessary to prevent systemic risks, especially in times of crisis or in the face of hybrid threats. Such a fundamental dichotomy creates theoretical difficulties, which are reflected in the complex approaches of modern researchers.

The methods and techniques of public administration are undergoing transformations in the current conditions, which necessitates a rethinking of its traditional functions through the prism of security. Researchers analyse the modern sphere of public administration with an emphasis on building innovative management competencies that can not only generate public value, but also ensure national security in the face of growing risks and the complexity of public challenges (Serhieiev *et al.,* 2025). However, this approach does not take into account the limitations of implementation in the face of resource constraints and institutional weakness.

Chao (2024) defines national security as a dynamic system with an acceptable level of risks, which is similar to the systems approach to research (Bondarenko *et al.,* 2022). These scholars emphasize the critical importance of strategic analysis and coordination of intelligence activities. However, Chao focuses on the technical aspects of risk management, while other research pays more attention to institutional coordination mechanisms. Aleksandrova *et al.* (2021) demonstrate an intermediate position, considering economic security as the most important component of national security, which allows for the integration of both approaches.

The geopolitical context poses additional challenges for theoretical models. Kryshtanovych *et al.* (2022) demonstrate how Russian aggression stimulated European security integration, but also revealed structural problems of the EU in countering threats. The above analysis emphasizes the limitations of traditional institutional approaches in crisis situations.

Approaches to economic security are characterized by significant fragmentation. Similar classifications are proposed, covering financial stability, energy independence and food security (Idisi, 2021; Banna *et al.,* 2023). However, this view does not identify clear criteria for prioritizing components. In contrast, Hnatenko (2021) structures economic security factors according to internal and external criteria, which allows for a more systematic approach to the analysis of causal relationships.

Regarding the importance of financial stability, studies by Alpanda & Aysun (2022) have shown that the destabilizing and stabilizing effects of regulation are economically important and are amplified when global banks have a higher probability of default and regulation is more effective in reducing financial market risk. Control and stress tests prevent crises that can turn into threats to national security (Van Loo, 2022).

Greater diversity of economies as sources of international investment, the main drivers of the growing attention to the security implications of international investment include the participation of state investors who may pursue the strategic goals of their sponsors, the decline in consensus on the values and rules of international economic interaction, and concerns about the security of supply of essential goods and services (OECD, 2024a).

There is a noticeable consensus in the literature on hybrid models that combine market incentives with administrative measures. Some studies do not take into account state efforts in strategic sectors based on different instruments (Aggarwal & Reddie, 2025). However, most studies lack a unified model that would take into account different institutional levels, technological base and geopolitical environment of different countries. For example, Kuchmak *et al.* (2024) propose a structural classification of components of economic security, but the interaction of the market and the state in different development scenarios are not clearly formalized. Other authors emphasize a balanced industrial policy, but do not offer a universal methodology for assessing the effectiveness of measures in different regimes: from highly developed economies to countries with weak institutions (Gryshchenko *et al.,* 2024).

A systematic analysis of academic literature shows that government regulation of the economy in the context of national security is a broad issue, covering the theory of regulation, legislative and institutional approaches, sectoral policies, and international cooperation. There is a consensus on the need for hybrid models that combine market incentives with administrative measures. At the same time, the literature shows a lack of a generalized model that can take into account the specifics of countries with different levels of institutional development and technological resources. Further research should be aimed at creating adaptive assessment models, as well as in-depth analysis of the interaction of institutions in different political and economic contexts.

2. Research Design, Data, and Econometric Methodology

This study adopts a quantitative cross-sectional research design to examine the relationship between government regulatory instruments and national economic security indicators. The cross-sectional approach is appropriate for capturing structural differences across countries with heterogeneous institutional frameworks and levels of economic development, using data corresponding to the year 2024.

The empirical analysis is based on a purposive sample of 25 European countries, selected to ensure representativeness across varying stages of economic development and regulatory environments. The inclusion criteria comprised the availability of complete and

comparable data for all variables and the exclusion of countries experiencing active armed conflicts, in order to avoid extreme distortions in military expenditure and security indicators.

The dependent variable is the Global Peace Index (GPI), employed as a proxy for national security. The index ranges from 1 (highest level of peace/security) to 5 (lowest level), and reflects multidimensional aspects of societal safety, conflict intensity, and militarization (Institute for Economics & Peace, 2024).

The independent variables include key macroeconomic and institutional indicators:

- the Index of Economic Freedom (0–100 scale), used as a proxy for regulatory quality and institutional performance (Heritage Foundation, 2025);
- gross domestic product (GDP), expressed in U.S. dollars and log-transformed to account for scale effects (World Bank Group, 2024);
- the annual inflation rate, measured as the percentage change in the Consumer Price Index (CPI) (World Bank Group, 2024);
- military expenditure as a percentage of GDP, reflecting defence-related spending (Institute for Economics & Peace, 2024);
- the government budget deficit as a percentage of GDP (OECD, 2024b).

The selection of the Economic Freedom Index as the central explanatory variable is grounded in its capacity to capture institutional efficiency, regulatory transparency, and the protection of property rights. The underlying hypothesis assumes a significant relationship between institutional quality and economic resilience, defined as the ability of a state to absorb external and internal shocks without compromising systemic stability.

The baseline econometric specification is estimated using the Ordinary Least Squares (OLS) method:

$$GPI_i = \beta_0 + \beta_1 \ln(GDP_i) + \beta_2 Inflation_i + \beta_3 EconomicFreedom_i + \beta_4 MilitaryExp_i + \beta_5 Deficit_i + \varepsilon_i,$$

where i – denotes the country index, ε – represent the stochastic error term.

Prior to estimation, descriptive statistical analysis was conducted to evaluate central tendencies, dispersion, and distributional properties of the variables, allowing for the identification of potential outliers and deviations from normality. Pearson correlation analysis was subsequently applied to assess pairwise linear relationships and detect possible multicollinearity issues.

To enhance robustness and capture potential nonlinear and conditional effects, three alternative model specifications were estimated. First, an interaction model incorporating the interaction between ln(GDP) and Economic Freedom was used to test whether the impact of economic development on national security depends on institutional quality. Second, a nonlinear specification including second-degree polynomial terms for military expenditure was employed to identify potential threshold effects. Third, a threshold model was developed by introducing a binary variable capturing inflation shocks, defined as inflation rates exceeding 5%, in order to assess the impact of macroeconomic instability on security outcomes.

Model diagnostics were systematically performed to ensure the reliability of the estimations. Multicollinearity was assessed using the Variance Inflation Factor (VIF), heteroscedasticity was tested through the Breusch–Pagan test, and the normality of residuals was evaluated using the Jarque–Bera test. Additionally, outlier diagnostics were conducted using Cook's distance and standardized residuals.

The empirical analysis was implemented using Stata for the baseline econometric estimations and R software for robustness checks and alternative model specifications. The final stage of the methodology involved a comparative synthesis of regulatory instruments across countries, integrating econometric findings with qualitative policy analysis to identify effective strategies for strengthening national economic security.

3. Research Results and Discussion

The empirical analysis begins with the estimation of a baseline cross-sectional econometric model, where the Global Peace Index (GPI) serves as the dependent variable. The initial correlation analysis indicates statistically meaningful relationships among key variables, providing preliminary support for the proposed model specification. In particular, economic freedom exhibits a strong negative correlation with GPI, while military expenditure demonstrates a moderate positive association, suggesting a potentially counterintuitive relationship between defence spending and national security outcomes.

The results of the baseline OLS regression are presented in Table 2, following the descriptive statistics reported in Table 1. The model demonstrates satisfactory explanatory power, with an R^2 of 0.62 and an adjusted R^2 of 0.529. The overall model is statistically significant (F-statistic $p < 0.001$), confirming the joint relevance of the selected predictors.

Table 1: Descriptive Statistics of the Main Variables

Parameter	Indicator
R-squared	0,620
Adj. R-squared	0,529
Prob (F-statistic)	0,000504
AIC	-19,59
BIC	-13,09

Source: Authors' calculations based on data from World Bank, OECD, Institute for Economics & Peace, and Heritage Foundation.

Table 2: Results of the Baseline OLS Regression Model

Variables	coef	std err	t	P>|t|	0.025	0.975
Const	1,9410	0,257	7,565	0,000	1,398	2,484
ln_GDP	-0,0298	0,019	-1,569	0,133	-0,069	0,010
Inflation	0,0124	0,011	1,137	0,270	-0,011	0,036
EconomicFreedom	-0,0123	0,003	-4,378	0,000	-0,018	-0,006
MilitaryExp	0,1547	0,059	2,625	0,017	0,032	0,278
Deficit	0,0108	0,012	0,881	0,389	-0,015	0,037

Note: Dependent variable: GPI (Global Peace Index). Robust standard errors are reported. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. ln_GDP denotes the natural logarithm of GDP; EconomicFreedom represents the Index of Economic Freedom.

Source: Authors' estimations

Among the explanatory variables, Economic Freedom emerges as the most robust and statistically significant determinant of national security ($\beta = -0.0123$, $p < 0.001$). The negative coefficient indicates that higher levels of economic freedom are associated with lower GPI scores, reflecting improved peace and stability. Substantively, an increase of 10 points in the

Economic Freedom Index corresponds to a reduction of approximately 0.123 points in GPI, highlighting the critical role of institutional quality in enhancing national resilience.

Military expenditure is also statistically significant (β = 0.1547, p < 0.05), but with a positive sign, indicating that higher defence spending is associated with a deterioration in the peace index. These finding challenges traditional assumptions within security theory, suggesting that excessive militarization may generate internal or external destabilizing effects rather than improving overall security.

In contrast, macroeconomic variables such as GDP (log-transformed), inflation, and budget deficit do not exhibit statistically significant effects in the baseline specification (p > 0.05). This result suggests that their influence on national security may be indirect, potentially operating through institutional or structural channels rather than through direct linear relationships.

Diagnostic tests confirm the robustness of the baseline model. No significant multicollinearity is detected (VIF values within acceptable limits), the Breusch–Pagan test indicates the absence of heteroscedasticity (p = 0.138), and the Jarque–Bera test confirms the normal distribution of residuals (p = 0.687). These results support the validity of the OLS estimations.

To further investigate the stability and complexity of the identified relationships, three alternative model specifications were estimated.

The interaction model (Model 2) incorporates an interaction term between economic development (ln GDP) and institutional quality (Economic Freedom). The results from Table 3, show an improvement in explanatory power (adjusted R^2 = 0.594; AIC = −22.37), with all main effects remaining statistically significant. Although the interaction term itself is not statistically significant (p > 0.05), the model suggests that the impact of economic development becomes more pronounced in environments characterized by higher institutional quality.

Table 3: Results of the Interaction Model (Model 2)

Variables	Estimate	Std. Error	t value	Pr(>|t|)	Sig.
Intercept	3,722049	0,890469	4,180	0,000448	***
log(GDP)	-0,249486	0,111305	-2,241	0,036410	*
EconomicFreedom	-0,030119	0,012128	-2,484	0,021901	*
MilitaryExp	0,192427	0,058573	3,285	0,003677	**
log(GDP):EconomicFreedom	0,002043	0,001515	1,348	0,192664	

Note: *** significance level p <0.001, ** p <0.01, * p < 0.05. Coefficients represent estimated marginal effects controlling for interaction.

Source: Authors' estimations using R software

The nonlinear model (Model 3), which includes second-degree polynomial terms for military expenditure, demonstrates the highest explanatory power (adjusted R^2 = 0.616; AIC = −23.91). The results from Table 4, reveal a statistically significant nonlinear (U-shaped) relationship between military spending and national security. The estimated coefficients indicate that beyond a threshold of approximately 2.5% of GDP, further increases in military expenditure exacerbate negative effects on the peace index. This finding highlights the existence of diminishing and eventually adverse returns to defence spending.

Table 4: Results of the Nonlinear Model (Model 3)

Variables	Estimate	Std. Error	t value	Pr(>|t|)	Sig
Intercept	2,126e+00	2,007e-01	10,592	4,07e-10	***
EconomicFreedom	-1,271e-02	2,958e-03	-4,297	0,000319	***
poly(MilitaryExp, 2)1	8,042e-01	2,575e-01	3,123	0,005056	**
poly(MilitaryExp, 2)2	-4,311e-01	1,927e-01	-2,237	0,036267	*
Deficit	2,026e-02	1,091e-02	1,857	0,077466	

Note: The model includes second-degree polynomial terms for military expenditure (poly(MilitaryExp, 2)). *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. The coefficients capture nonlinear (U-shaped) effects.

Source: Authors' estimations using R software

The threshold model (Model 4) introduces a binary variable capturing inflation shocks, defined as inflation rates exceeding 5%. This specification yields the best overall model fit according to the Akaike Information Criterion (AIC = −24.03), while maintaining high explanatory power (adjusted $R^2 = 0.612$). The inflation shock variable is positive and statistically significant ($\beta = 0.296$, $p < 0.01$), indicating that macroeconomic instability has a substantial adverse impact on national security. Countries experiencing inflation above the 5% threshold exhibit significantly higher GPI scores, reflecting reduced stability (see Table 5).

Table 5: Results of the Threshold Model (Model 4)

Variables	Estimate	Std. Error	t value	Pr(>|t|)	Sig.
Intercept	2,18040	0,17620	12,375	1,24e-11	***
EconomicFreedom	-0,01222	0,00271	-4,508	0,000178	***
MilitaryExp	0,13738	0,05425	2,533	0,018908	*
Inflation_Shock	0,29619	0,09421	3,144	0,004739	**

Note: Inflation_Shock is a dummy variable equal to 1 if inflation exceeds 5% and 0 otherwise. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Source: Authors' estimations using R software.

A comparative assessment of model performance (Table 6) confirms the superiority of the alternative specifications over the baseline model. In particular, Models 3 and 4 provide enhanced explanatory power and improved statistical fit, while also capturing nonlinearities and threshold effects that are not observable in the linear baseline framework.

Table 6: Comparative Evaluation of Model Performance

Model	Adj R^2	AIC	Significant variables (p<0.05)
Baseline	0,529	-19,59	EconomicFreedom, MilitaryExp
Model 2	0,594	-22,37	log(GDP), EconomicFreedom, MilitaryExp
Model 3	0,616	-23,91	EconomicFreedom, MilitaryExp (sq.)
Model 4	0,612	-24,03	EconomicFreedom, MilitaryExp, Inflation_Shock

Note: Model comparison is based on Adjusted R^2 (explanatory power) and Akaike Information Criterion (AIC). Lower AIC values indicate better model fit.

Source: Authors' compilation based on regression outputs.

The best alternatives were Model 4 with the lowest AIC (-24.03) and Model 3 with the highest Adj R^2 (0.616) and nonlinearity. Models 3 and 4 improve explanatory power (Adj R^2 > 0.61) and statistical quality (AIC < -23.9). Inflation shocks and nonlinearity of military spending are key factors for GPI forecasting. Exceeding 5% annual inflation increases reduce stability ($\beta_{shock}=0.296$). The MilitaryExp effect becomes nonlinearly negative at >2.5% of GDP. Economic freedom remains significant in all models ($\beta \approx -0.012$).

The obtained data allow the interpretation of the identified patterns as a result of the implementation of structural reforms in public governance. In particular, the transition to "active stabilization" models and the introduction of mechanisms for digital transparency form the basis for ensuring the state's financial resilience. Modelling results confirm that such reforms have a direct impact on macroeconomic stability indicators: budget resilience is achieved by adhering to the identified efficiency threshold for military expenditures (up to 2.5% of GDP), exceeding which creates excessive fiscal pressure. National currency stability is maintained through instruments that mitigate inflationary shocks, as keeping inflation within 5% is a critical condition for preventing destabilization of the entire security system. Thus, structural transformations of the regulatory framework are a necessary condition for maintaining the state's long-term financial capacity.

Economic security, especially in a dynamic and geopolitically tense environment, involves many qualitative factors, expert judgments and incomplete information (e.g., assessment of “threats”, “over-dependence”). Fuzzy logic is well suited to reflect the above nuances that deterministic models may miss. This methodological feature reflects the growing maturity in the field, recognizing that “security” is not always quantitative. A more adaptive and flexible approach to analysis allows for better decision-making in complex uncertain environments.

A comparative analysis presented in Table 7 summarizes various tools and their application by different countries or blocs.

Table 7: Comparative Analysis of Economic Regulation Instruments for National Security

Country/ Block	Regulatory Instrument	Examples of Policies/Actions	Objective in the Context of National Security
USA	Tariffs	High tariff on all imports, reciprocal tariffs, additional tariffs on China, tariffs on steel, aluminium, autos	Protecting sovereignty, strengthening national and economic security, reducing trade imbalances
	Investment Screening	Revision of investment policy with emphasis on limiting bilateral investments with China in technology, critical infrastructure, and healthcare.	Protecting national security from threats associated with foreign investment
	Industrial Policy	R&D Investment (semiconductors, AI), quantum technologies), support for domestic production of pharmaceuticals and critical minerals, use of DPA.	Technological leadership, supply chain resilience, self-sufficiency, job creation
EU	Investment Screening	Recommendations to review outbound investments in non-EU countries; selection of 47 strategic projects for raw materials	Protecting national security and public order, ensuring access to raw materials

Country/ Block	Regulatory Instrument	Examples of Policies/Actions	Objective in the Context of National Security
	Industrial Policy	Competitiveness Compass for economic growth; Clean Industrial Deal for energy cost reduction and circular economy	Increasing economic dynamism, market stability, reducing dependence on external suppliers
China	Export Control	Proposed restrictions on export of battery technologies, expanded controls on export of key minerals, strengthened controls on rare earth mining	Achieving self-sufficiency in core technologies, economic impact
	Tariffs	Additional tariffs on imported goods from US	Response to US tariffs
Japan	Investment Screening	Strengthening screening of inward FDI by lowering the threshold for equity acquisition in certain sectors	Protection of critical infrastructure and technology
	Industrial Policy	Economic Security Promotion Act (2022), significant government subsidies for the semiconductor industry	Strategic autonomy, technological leadership

Source: Authors' compilation based on United States Studies Centre (2025), Information Technology Industry Council (2025), Dodge (2025), Schramm (2025), Armstrong et al. (2025).

The comparative analysis in Table 7 reflects the paradigm shift from economic liberalism to a state-centric security economy. Countries do not perceive openness as an absolute positive, but use regulatory barriers, screening, and priority investments as tools of strategic autonomy. This requires the state's ability to ensure the functioning of critical sectors without external dependence. From the perspective of public administration, this approach involves the formation of new institutional configurations that combine security, economic, and technological vectors.

The results of the econometric analysis confirm the key role of economic freedom in ensuring national security, which is consistent with the theoretical developments of the neoliberal economic school. At the same time, it should be noted that the study has several methodological limitations that should be taken into account when interpreting the results.

The analysis is based on data from 25 countries, which may limit the possibilities of distributing the results to a larger number of countries with different levels of development and institutional structure. The cross-sectional analysis does not establish all the connections and does not take into account the dynamic effects of government regulation on national security. The model does not include socio-cultural determinants (level of trust in society, historical context), which can significantly affect the effectiveness of regulatory instruments.

The negative coefficient of economic freedom indicates that a one-unit increase in the Index of Economic Freedom predicts a decrease in the GPI, which means an improvement in peace and security. The positive effect of military spending on the GPI is noticeable. The result contradicts the traditional assumption that higher defence spending automatically improves national security. Nonlinear analysis (Model 3) found that the negative effect of military spending increases when the threshold of 2.5% of GDP is exceeded, which may indicate that excessive military spending creates tensions in international relations.

The significance of inflation shocks (Model 4) suggests that macroeconomic instability is a critical factor in national security. The threshold effect at around 5% annual inflation is consistent with empirical studies that identify this level as the limit of structural instability of the economy (Navarro & Tomé, 2022).

Our results correlate with the findings of Cherniavskyi et al. (2021), who confirmed the positive impact of a stable GDP rate and high-quality government regulation on economic security (Cherniavskyi et al., 2021). Similarly, the study by Streltsov et al. (2021) demonstrates a close correlation between indicators of public administration efficiency and economic security, which confirms the significance of our approach to measuring economic freedom as dependent on institutional quality (Streltsov et al., 2021).

Bobrovska et al. (2021) described a high level of investment security, which is consistent with our findings on the positive impact of transparency and public investment on economic sustainability (Bobrovska et al., 2021). The importance of the effectiveness of tax revenues in the regulatory policy system in ensuring the economic security of the state was emphasized, which is fully consistent with our findings on the role of current transformations in public administration (Abramova et al., 2022). The Ukrainian case demonstrates increased public spending transparency, in particular in the defence sector, which confirms the trend we identified to strengthen economic security through open government reporting (Nate et al., 2023).

Azerbaijan's experience in building an economic security system confirms the significance of digitalization of public services (particularly through the "ASAN service" system) as a key factor in reducing transaction costs. Contemporary research emphasizes that for resource-based transitional economies such as Azerbaijan, the pursuit of innovative drivers of economic development capable of generating added value, combined with institutional reforms, is critical for ensuring macro financial stability amid geopolitical instability (Aliyev, 2025). This correlates with the proposed "active stabilization" model, where the state acts not merely as a regulator but as a guarantor of critical infrastructure protection against external shocks through adaptive fiscal manoeuvring.

At the same time, our results partially contradict the findings (Narita, 2025) on the negative impact of democracy on economic growth. This contradiction can be explained by different methodological approaches and time frames of analysis, which emphasizes the importance of contextual consideration of institutional factors. The study by Falcón-Cortés et al. (2022) on corruption risks in public procurement is not fully consistent with our findings on the unconditional positive effect of institutional reforms. This indicates the need to take into account the specifics of the approach to assessing the effectiveness of government regulation (Falcón-Cortés et al., 2022).

The results of the study have important implications for shaping of national security strategies. The statistically significant impact of economic freedom (the highest coefficient among all variables) indicates the need for systemic institutional reforms aimed at deregulation, protection of property rights and lowering barriers to entrepreneurial activity. The identification of the threshold effect of military spending indicates the need for strategic planning of the defence budget, taking into account the principle of diminishing returns and the potential negative effects of excessive militarization.

The critical role of inflation control (5% threshold) emphasizes the importance of coordinating monetary and fiscal policies to ensure price stability as a prerequisite for national security. The identification of threshold effects for both military spending and inflation expands the understanding of the mechanisms of interaction between economic policy and state security, which is important for the development of the theory of economic security as an interdisciplinary field of knowledge.

Conclusion

Government regulation of the economy is becoming a critically important tool for ensuring national security in the face of global challenges. The paradigm has shifted from a purely military approach to the integration of economic security, as economic stability is the basis for the survival of the state. Modern states apply a hybrid approach, combining elements of regulation with direct interventions in critical sectors through tariffs, export controls, and industrial policy.

The study confirmed the key role of institutional factors in shaping economic security. The basic regression model showed that the Index of Economic Freedom is a significant negative determinant of the GPI, indicating an improvement in peace with higher values of economic freedom. At the same time, military spending turned out to be a positive factor increasing risks, signalling a deterioration in peace with an increase in military budgets.

Improving the regulatory environment (reducing excessive regulations, protecting property rights, and making procedures more transparent) is directly correlated with a GPI decrease. This suggests that there is a need to reform government regulation with a focus on efficiency and accountability.

The results on military spending reflect a dilemma: a certain level of defence spending is necessary to deter threats, but excessive growth can undermine domestic stability. Nonlinear analysis indicates a threshold (>2.5% of GDP) beyond which additional spending exacerbates the degradation of the socio-economic environment.

The identification of the impact of inflationary “shocks” as a significant factor in the deterioration of the GPI emphasizes the importance of macroeconomic policies aimed at containing sudden inflation jumps above critical levels (over 5%). These consequences quickly translate into increased uncertainty and destabilization.

Practical recommendations include:

- the public policy should be oriented towards reducing excessive regulation and protecting property rights;
- it is necessary to determine the limits of effective defence investments, avoiding excessive budgetary burden;
- it is necessary to strengthen the tools for early detection of inflationary surges based on monetary and fiscal measures.

The findings confirm that the integration of institutional reforms with macroeconomic strategies is necessary to strengthen economic security. Further research may focus on empirically assessing the long-term consequences of economic policies and finding the optimal balance between national interests and a stable international order.

Credit Authorship Contribution Statement

The authors contributed collaboratively to the development of this study. Mazur, H. was responsible for conceptualization, validation, and overall project administration. Dakal, A. contributed to the investigation, methodological design, and critical revision of the manuscript. Krasnostanova, N. prepared the original draft and supported the computational and software-related components. Kolach, S. conducted the formal analysis and data curation. Guliyev, R. and Oglu, H. supervised the research process and contributed to the visualization of results. All authors have read and approved the final version of the manuscript.

Conflict of Interest Statement

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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N/A.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Ethical Approval Statement

This study relies exclusively on secondary data from publicly available and reputable international databases (World Bank, OECD, Institute for Economics & Peace, Heritage Foundation). No human participants, personal data, or sensitive information were involved. Consequently, ethical approval was not required, in accordance with standard research ethics guidelines and institutional policies.

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