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ECONOMIC RESILIENCE VS EFFICIENCY: IMPLICATIONS FOR ECONOMIC SECURITY IN TIMES OF CRISIS

REZILIENȚA ECONOMICĂ VS EFICIENȚA: IMPLICAȚII PENTRU SECURITATEA ECONOMICĂ ÎN PERIOADE DE CRIZĂ

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Abstract: *Eficiența economică și reziliența sunt două componente esențiale ale securității economice, aflate într-o relație complexă complementară, dar și uneori tensionată. Reducerea costurilor și creșterea productivității pot duce la performanțe mai bune pe termen scurt, dar, în absența unor mecanisme de adaptare, pot crește vulnerabilitatea în fața șocurilor externe. Într-un context de instabilitate globală, reziliența capătă un rol crucial în menținerea sustenabilității economice, iar studiul comparativ al indicatorilor macroeconomici dintre Republica Moldova și Lituania arată cum diferențele structurale și instituționale influențează nivelul de dezvoltare economică. În acest sens, consolidarea echilibrată a eficienței și rezilienței devine o condiție necesară pentru asigurarea stabilității economice pe termen lung.*
Cuvinte cheie: *reziliență, eficiență, securitate economică, securitate demografică, crize economice*
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INTRODUCTION

The analysis of the continuous developement of the world's economic powerhouses throughout decades highlights that the fundament of a flourishing macroeconomic system consists of two components which shall always be balanced, those being the pursuit of economic optimization, and the investments directed to maximise resilience for an overall robust economy.

CORE CONTENT : Because of the diverging goals of efficiency and resilience, one striving to strip away every unnecessary cost, while the other aims to provide immunity against shocks and crisis, in times of instability, be it economical, political or social, an asymmetric focus directed to either imperative can jeopardize the national prosperity. However, to properly understand the role of each index, the concepts must be deeply surveyed and examined, while taking in regard real life examples of their implementation. Firstly, for a comprehensive approach, we need to develop awareness of why economic efficiency is crucial nowadays. Scarcity underpins the need for efficiency, as limited resources require careful distribution to enhance welfare with minimised waste. Thereby, the main objective is to obtain the greatest feasible results from a given quantity of inputs. Businesses seek higher outputs with lower costs to remain competitive and profitable, while the states aim to distribute and exploit the public resources responsibly. At the macro level, weak efficiency reduces productivity growth, constrains wages, narrows the tax base, and lowers the resources available for social protection, defense, and strategic investment. According to the OECD, multifactor productivity is a major driver of economic growth and changes in living standards, and there are different types of efficiencies distinguished to optimise the use of labour, capital, raw materials, and time. Efficiency is not merely a managerial preference but a condition for sustained national performance, commonly associated with process redesign, technology adoption, and administrative upgrade.

A vivid worldwide calamity, which lasted from 2019 to 2023, underlined the type of efficiency implemented to make the assets be directed towards the goods and services that people value most, this being the allocative efficiency. In 2020, during the early stage of COVID-19 vaccine

development, all finances were streamlined towards the pharmaceutical industry. The European Investment Bank itself signed in June 2020 a €100 million loan to help finance the research, development and advanced manufacturing facilities of BioNTech's vaccines, which then helped 2 billion doses be delivered around the world. Moreover, as the doses were insufficient to cover all members of the community, the policymakers encountered ethical and economic issues when creating the order of priority for receiving the vaccines. In allocative terms, it was decided that vaccinating frontline workers, elderly people, and others at high risk had a bigger impact than giving the same dose to someone less exposed. It saved more lives, kept hospitals from being overwhelmed, and helped reduce the knock-on effects on the economy. (European Investment Bank, 2020)

Beyond this case, other types of efficiency can be detected, such as technical, economic and the X-efficiency. Besides, there is also the dynamic efficiency, which concentrates on improvement over time through the introduction of new technologies, innovations and quality upgrade of products. A state can look efficient in the short term by cutting public spending, but that often comes at a cost. If it underinvests in innovation, workforce skills, cybersecurity, or resilient infrastructure, it risks trading future productivity for short-term budget savings. On the other hand, one might wonder what is the trade-off of the progress provided by those advancements, aside the initial investments for their infiltration. An interesting occurrence is when the economy is overheating, because having all industries operate at full capacity means there is likely no alternative to improve a branch without harming the position of the other. This concept is called the Pareto efficiency, and it underscores the boundary beyond which trade-offs are unavoidable. That is why opportunity cost needs to be studied and considered directly. Every decision aimed at improving efficiency uses resources, capital, time, management focus, and political support, that could have been allocated elsewhere. At the government level, directing limited fiscal resources toward one "efficient" reform can mean giving up another policy that might strengthen long-term resilience. Thus, while Pareto concept helps set a theoretical benchmark, opportunity costs shows how difficult real-world choices actually are.

Another detail to be considered before commiting to the more efficient change is the timing. The demographic crisis of Japan, which's population has been declining steadily since 2005, and the fertility rate hit in 2024 the low of 1.15, shows that boosting efficiency through automation, digital tools, or better processes is no longer optional, it is necessary. With nearly 30% of population aged 65 and over in 2024, official projections suggest that by 2070 Japan's population might fall from 123.4 million to about 87 million people. This kind of demographic shift puts real pressure on the economy, especially when it comes to sustaining growth and maintaining a sufficient workforce. In this context, while it is undoubtedly preferable to implement efficiency improvements late rather than never, a preventive approach, where efficiency is strengthened before systemic imbalances emerge, remains considerably more effective and less costly in the long term. Nevertheless, by calculating certain indicators that measure the effectiveness of current processes, the strategic plan of optimisation timeline can be mapped more precisely. For example, Time Efficiency, calculated as the ratio of standard time allowed to the actual time taken, expressed as a percentage, measures how effectively time is used to complete tasks; Process Cycle Efficiency (PCE) measures the proportion of time within a process dedicated to value-added activities, while an investment's measure of efficiency is its Return on Investment (ROI). Depending on ROI, which can be expressed as a ratio by dividing an investment's return by its cost, an investment can be deemed as efficient and relevant or not. (Britannica, 2026)

On the other hand, efficiency does not guarantee resilience against crisis to a state. What actually makes an economy robust is its level of economic security, and when stocks or reserves are reduced to improve efficiency, the safety cushion disappears, along with the capacity of an economy to absorb the shocks. Overall, the economic security is the condition of having a stable and reliable economic position, determined by two wide-ranging divisions, those being the economic vulnerability and the level of resilience. The greater import dependency, the lower the level of export diversification, and the deeper the integration into global markets, the more vulnerable the

government becomes. Although globalisation brings undeniable benefits, such as the expansion of product choice, the increased economic growth and the access to a wider labour pool, the level of interconnection with other states can increase sensitivity to external shocks, such as the supply chain disruption and geopolitical tensions, because naturally the exposure to them is bigger.

Following the theory of Lino Briguglio, economic security also comes down to how resilient an economy is. This division measures the abitily of economy to withstand the challenges coming its way, and precisely how developed is the crisis management strategy, and what is the potential of shock absorption. Undoubtedly, it is nothing short of far-fetched for an economy to remain unthreatened by the heightened global instability of nowadays. The Russo-Ukrainian war, which started in 2022, the Israeli-Palestinian conflict, and the escalation of the U.S.-Iran conflict in 2026 have totally disrupted the function of key markets. For example, Ukraine's role as a major grain exporter meant that the war quickly impacted global food markets, while sanctions reshaped energy flows, particularly in Europe. Tensions in the Middle East have also increased uncertainty in oil markets, pushing prices upward. And as a result, economies that are highly dependent on imports, characterized by limited diversification, or deeply integrated into global supply chains have proven to be particularly vulnerable. In such a context, resilience, through institutional preparedness, and adaptive policy frameworks, creates the fundamental condition for maintaining stability. In fact, to ensure that states can track their level of resilience, there are 5 dimensions of economic security that help evaluate comprehensively the condition of economy. The demographic, ecological, financial, informational and the energy securities are being charecterised by sets of specific indicators that each government updates officially on a regular basis. They asses the weak points and aid in forecasting a reinforcing strategy that would eventually eliminate them.

For a multifaceted analysis, comparing two states is the best way to create an all-encompassing conclusion regarding their progress of development, especially if the countries have a close onset. As an instance, two states that share a similar historical past are Moldova and Lithuania. Both being post-Soviet economies, Lithuania having declared its independence in March 1990 and Moldova in August 1991, a key rol in their subsequent development was played by the former's early integration into Western institutions, particularly the European Union, and the macroeconomic indicators that describe the dimensions perfectly highlight that.

Analising the financial security, indicators such as banking sector stability and current account balance will be very telling of the actual condition of the economies. As well as the inflation rate, for high inflation means that prices are increasing quickly, while low inflation means that prices are growing more slowly. As of March 2026, the inflation in Moldova is higher than in Lithuania, the rates being of 5.8% and 4.8%. This shows that Moldova has a more fragile macroeconomic environment, fact underlined also by the foreign exchange reserves, which consist of 5059,08 USD million for Moldova and 6206.10 USD million for Lithuania in 2026.

Following with an analysis of the demographic sector, Lithuania's life expectancy is of 76.5 years, the infant mortality rate of 2.9% as of 2026, whereas in Moldova, because of a combination of structural economic constraints, healthcare system limitations and lifestyle-related risk factors, the life expectancy is of 71.6 years, while the infant mortality rate reaches 9.3%. On the other hand, even if a higher fertility rate shows the potential of population growth, it being 1.7 births per moldovan women compared to the 1.15 registered in Lithuania, the exponential growth of the net migration rate brings a threat to the economic security of Moldova, as the 45.87% increase in migrations from 2023 to 2024 is an extremely alarming concern. The labour force participation rate in Moldova declined to 42.1% in the fourth quarter of 2025, compared to 44.9% in the previous quarter. A comparable, albeit less pronounced, decrease was also recorded in Lithuania, where the rate fell from 63.8% to 62.6%. Despite the shared downward trend, Moldova's substantially lower participation level reflects more profound structural challenges, including emigration, demographic pressures. (Worldometer, 2026)

Informational security also is a crucial dimension of economic security, as it reflects a country's ability to protect its digital infrastructure, ensure data integrity, and maintain the continuity

of economic activities in an digitalized environment. The widely used indicator, the National Cyber Security Index (NCSI), measures the preparedness of countries to prevent and respond to cyber threats, and according to the latest data, Lithuania ranks slightly higher, with an NCSI score of 95.00, compared to Moldova's 94.17, but despite this difference, Moldova's performance remains remarkably strong, which suggests that, although there are broader structural vulnerabilities in other dimensions, the position in the informational security domain is solid and should not be considered a significant weakness. (NCSI, 2024)

Finaly, ecological and energy security are deeply interconnected dimensions of economic security too, as the structure of energy production not only determines environmental sustainability but also directly influences a country's exposure to external shocks. Thereby, the progress Moldova has made is notable, with renewable energy accounting for 24.5% of gross final electricity consumption in 2025, driven by an increase in the number of producers and installed capacity. However, despite this improvement, according to data from the National Bank of Moldova, energy import dependency exceeds 70%, exposing the economy to significant external risks, particularly in periods of price volatility and geopolitical instability. To mitigate this vulnerability, Moldova must look toward the strategic model of regional peers like Lithuania, for in 2025, renewable energy sources accounted for 77% of its electricity generation, which represents a substantial increase from 18% in 2010. (Logos Press, 2026)

RECOMMENDATIONS: Moldova's energy import dependency exceeding 70% demonstrates that economic efficiency cannot be sustained without energy security. Governments facing similar vulnerabilities should accelerate the transition toward renewable energy through fiscal incentives, public-private partnerships, and access to dedicated European funds. Lithuania's model, growing its renewable energy share from 18% in 2010 to 77% in 2025, represents a strategically replicable benchmark. Moreover, Moldova's 45.87% increase in net migration between 2023 and 2024 represents a critical warning signal. A declining labour force erodes the fiscal base, constrains growth potential, and amplifies demographic vulnerabilities. Retention policies, encompassing improved wage conditions, access to affordable housing, and expanded professional opportunities in underdeveloped regions, are essential to stabilising human capital.

CONCLUSION: As this article highlights, efficiency and resilience are not mutually exclusive objectives but complementary ones. Governments should adopt long-term planning frameworks that simultaneously assess efficiency gains and their impact on systemic resilience, thereby avoiding the trap of short-term optimisation at the expense of structural economic security. Tools such as the NCSI index, Briguglio's dimensions of economic security, and indicators like PCE and ROI can be integrated into a national economic security dashboard, providing policymakers with a comprehensive and dynamic basis for decision-making.

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