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SMALL COUNTRIES IN THE CONTEXT OF EU SOCIO-ECONOMIC SECURITY: A CASE OF SELECTED COUNTRIES*

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Abstract. Security is one of the most important and interesting issues in the modern world. The importance of security stems from the many changes that shape the expected, unwavering functioning of states. The definition of socio-economic security in the subjective and objective procedural dimension allows one to reflect the complexity and multi-aspect nature of economic, social and political processes and, through this, visualise changes, predict risks, and build action scenarios. Ensuring socio-economic security is becoming one of the main goals of countries' domestic and foreign policy, and initiatives in this area are taken with full awareness of the changes in the international arena. The lack of a unified toolkit for the assessment of socio-economic security complicates the processes of economic stabilisation and territorial development. The category of economic security is complex, multifaceted and has many features. Therefore, the use of a multi-factor approach to the assessment of economic security is justified. The evaluation of economic security is possible if formal approaches using specific indicators are used. The practical implementation of the analytical and regulatory components of ensuring economic security requires an economic assessment based on and compared to threshold values. It is necessary to continuously study the economic situation according to the selected system of indicators to control the level of economic security and develop expected threat preventive measures. The article aims to create a methodology for assessing socio-economic security and use it to determine the socio-economic security of Latvia in the context of EU countries.

Keywords: socio-economic security; methodology; Latvia; the EU

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1. Introduction

The concept of socio-economic security is multifaceted. Dankevych, Stoyanova-Koval, Polova, Los, Burdeina and Kazak (2024) draw attention to state of economic security and directions of restoration socio-economic development and food security in the conditions of war in Ukraine. Tvaronavičienė (2024) discusses security issues related to accessibility of countries to rear Earth elements. Many researchers try to define the concept of socio-economic security, paying more attention to one or another element of the analysis of socio-economic security (object, subject, their relationship). Classical researchers define socio-economic security in different ways, and here are some examples. Bellany (1981) defines socio-economic security as relative freedom from war, coupled with a relatively high expectation that defeat will not be a consequence of any war that should occur. Svirko, Dykyi, Dyka and Trostenyuk (2022) point to importance of budget security as a dynamic determinant of the socio-economic development of Ukraine.

These definitions highlight the object of socio-economic security – the state and political nature, and they emphasise traditional (military) threats to socio-economic security and the importance of force. Of course, it should be noted that critical studies of socio-economic security, constructivism, postmodernism, etc., emphasise the discursive perception of socio-economic security, talk about the importance of identity for socio-economic security, the expansion and deepening of socio-economic security, non-state actors, etc. A significant part of the attempts to expand the boundaries of socio-economic security research in the late twentieth century were based on neorealism and neoliberalism without violating the fundamental principles of positivism. While it was recognised that, in a changing international system, more attention needed to be paid to new, non-military threats and other actors in the global system (not just states), the assumption that there were real, objective sources of threats was maintained. In this sense, traditional studies of socio-economic security and conventional theories of international relations have retained the "objectivist" approach to socio-economic security inherent in neorealism.

Li and Xue (2021), Somych, Opaliuk, Potapiuk, Ovcharuk and Oliinyk (2022) agree that the field of international socio-economic security studies should be substantially broader compared to the field of military security studies. The processes of globalisation, which have created a new type of threat, have required broadening the definition of socio-economic security. Scientists and other stakeholders emphasize importance of the study of international socio-economic security issues related to environmental change and their potential threat to regional development (Chehabeddine et al., 2022). In Europe public concern about the growing number of immigrants and terrorism has increased (Kriviņš et al., 2021). Issues and social security (welfare) and physical security were raised in this regard. All this is summarised by the attitude towards socio-economic security, which we believe is pursuing freedom from threats. Within the context of the international system, this would mean the ability of states and societies to maintain their independent identity and functional integrity. These and other changes in the international system have given new arguments to researchers in international relations and socio-economic security studies who seek to eliminate the monopoly of the military aspect in their research. International Labour Organization (2019) have significantly expanded the concepts of socio-economic security and threat, clearly identifying political, social, economic and environmental threats along with military ones.

Both politicians and scientists emphasise that the nature of the socio-economic security of states and the specifics of threats are changing – we are talking about a decrease in the significance of traditional military threats and an understanding of new types of threats and their appearance in studies of socio-economic security (Sikimić, 2022). The changing international situation and the specifics of socio-economic security also require new methods that allow one to more accurately identify objects of socio-economic security, assess the nature of threats and predict their impact on the socio-economic security of the state. This often influences practical political measures taken to ensure national, regional or global socio-economic security, which has led to numerous theoretical attempts to rethink socio-economic security problems and to search for new models of socio-economic security problems, objects and analysis.

The European Union's (EU) approach to social and economic security has increasingly adopted multidimensional frameworks that address the complexity and dynamism of contemporary challenges. Researchers have emphasised that economic and social security are intertwined phenomena, requiring integrated methodologies encompassing demographic, environmental, technological, globalisation, and social dimensions (Şerban & Jianu, 2023; Pakhucha et al., 2023). For example, Şerban and Jianu (2023) developed an Economic and Social Security Index. They found that the EU demonstrates comparatively higher performance than other geopolitical groups, validating the necessity of a multidimensional approach to security. This is consistent with broader evaluations highlighting the need for simultaneous monitoring of economic indicators and social quality of life parameters (Bulatova et al., 2021).

In addressing socio-economic security specifically, studies highlight the need for comprehensive strategic initiatives to mitigate risks and enhance resilience amidst technological shifts and evolving threat landscapes (Lyzun & Ozarko, 2023; Tokar, 2024). Lyzun and Ozarko (2023) assert that enhancing technological advantages and forming wide-ranging partnerships are vital in countering contemporary economic threats. Complementing this perspective, Tokar (2024) compares the performance of EU Member States with non-EU nations like Ukraine, recommending targeted policy interventions driven by quantitative assessments. These approaches underscore the importance of harmonised policy frameworks that promote economic competitiveness while securing the socio-economic fabric of member states against internal and external shocks (Cornes & Sandler, 1996; Lyzun & Ozarko, 2023; Tokar, 2024).

The analysis of differing socio-economic conditions among member states reveals significant heterogeneity, posing opportunities and challenges for EU policy. Bağlıtaş and Atik (2023) present statistical evidence indicating that older and newer EU members show distinct profiles in economic security, suggesting that national contexts can influence overall regional performance. Such studies illustrate that an in-depth understanding of regional nuances is indispensable for effective policy formulation and strategic planning (Bağlıtaş & Atik, 2023).

The EU's pursuit of comprehensive security extends into broader strategic partnerships, as Metelenko, Voronkova, Nikitenko and Silina (2025) noted. Their work discusses the formulation of the European Neighbourhood Policy, aimed at stabilising and securing the region through cooperative economic, political, and social initiatives. Bulatova, Osaulenko and Zakharova (2021) proposed that this external security dimension complements internal monitoring systems, categorising member states based on economic, socio-demographic, and environmental security variables. Together, these analyses demonstrate that the EU's security strategy is oriented toward responding to immediate vulnerabilities and establishing long-term resilience through systemic monitoring, intergovernmental cooperation, and proactive policy adjustments (Bulatova et al., 2021; Metelenko et al., 2025).

EU faces multifaceted challenges in ensuring socio-economic security among its member states, particularly concerning smaller countries. Among the most researched issues regarding small countries within the EU is the relationship between small member states and the Union's security and defence policy (Pedi, 2021). Şerban and Jianu (2023) developed an Economic and Social Security Index that integrates several dimensions, such as demographic trends, globalisation, and economic factors, illustrating that high relative performance in socio-economic security is not uniformly distributed across the EU. This evidence emphasises that small states, often coping with limited resources, may be disadvantaged when standard convergence mechanisms are applied uniformly without considering their specific contexts.

Regarding security, small member states face distinct challenges regarding defence and foreign policy integration. Ivančík (2022) analyses how small states perceive and engage in the EU's security and defence integration. Given their typically limited economic and military capacities, these states adopt strategies that often emphasise cooperation and collective security rather than unilateral power projection. Pedi (2020) discusses the unique position of small EU members in the broader context of European security and defence, demonstrating that their integration

into a collective security framework can strengthen their military posture and contribute indirectly to socio-economic security by reducing overall regional insecurity. Understanding this interplay between defence and socio-economic policies is critical, as a secure environment is essential for sustainable economic development.

The effectiveness of small states in influencing EU decision-making processes is crucial for ensuring that their socio-economic interests are adequately represented. Panke (2015) examines the role of small states in EU decision-making, revealing that while these states may be outnumbered or lack economic clout, strategic alliances and negotiation tactics enable them to exert influence. Such dynamics are significant for socio-economic security, determining how resources, regulatory frameworks, and convergence policies are formulated and implemented across the Union.

The broader context of EU economic security also indicates that vulnerabilities extend beyond military threats or geopolitical instability, including economic disruptions. The integrated index developed by Șerban and Jianu (2023) further illustrate these sensitivities. Small states must navigate a dual challenge: reinforcing their security through active participation in EU defence initiatives while aligning with socio-economic policies that buffer against economic shocks.

The article aims to develop a methodology for assessing socio-economic security and to use it to determine the socio-economic security of Latvia in the context of EU countries. The authors intend to use statistical methods to construct an index of the socio-economic security of EU countries in the period from 2012 to 2022.

2. Methodology

The theoretical basis of this study is systems theory, where a system is most often understood as a set or arrangement of objects that are so relativised or connected that they form a unity or whole, which can also be attributed to the concept of “socio-economic security. The term “system” is also used as a name for two ontologically different categories: things and abstract creations; the basic properties of a system are:

- the behaviour of each element influences the behaviour of the whole, but no element has an exclusive influence on the whole;
- each subset of elements, selected according to some criterion, influences the system's functioning, but none of the subsets has an exclusive influence (therefore, the system is an indivisible whole).

Systems theory (cybernetics) and catastrophe theory can serve as a basis for understanding transdisciplinary phenomena such as socio-economic security: systems theory seeks to explain the functioning and dysfunctions of systems that generate crises and risks, the complexity of which is enhanced by the multiplicity of interactions that unite the various components of a catastrophe; within the framework of “catastrophe theory”, there is a catastrophe when a continuous change in causes leads to discontinuous change in consequences, so catastrophes are prepared continuously over a long period before suddenly breaking out. This implies the formalisation of discontinuities in the evolution of systems, which should be analysed and modelled using economic and mathematical methods. The above theories may be applied to certain diffusion phenomena, including socio-economic security (Yunus, 2009; United Nations, 2015).

According to systems theory, socio-economic security is a set of methods (ways) of functioning and performing complex activities, as well as all organisational principles, all norms and rules in force in this field, and an extensive and ordered set of system elements connected by certain logical relationships. The systems analysis procedure imposes certain laws and rigour of behaviour, which include the definition of:

- the accuracy of determining the boundaries and the internal part of the system;
- the constancy of the distinction made between the system and its environment during the study;
- the completeness of system division (into subsystems);

- the abstractness of the systems (and their subsystems) under consideration;
- the functionality, that is, the division of the system into subsystems according to the type of functions they perform as a whole.

Using the systems approach will allow us to identify the elements of the socio-economic security system at any level, as well as their properties and situations that determine the emergence of threats. It may be stated that a necessary condition for the emergence of threats is the presence of at least two elements:

- the source of the threat;
- the dangerous object.

In other words, according to our proposed approach, a socio-economic threat is a situation in which the potential of threats exceeds or is equal to the potential of socio-economic security. Another condition for the emergence of threats is the existence of connections between these elements, which, interacting with each other, activate the socio-economic security system. This approach allows one to obtain additional elements for describing socio-economic threats, such as:

- the direction and focus of the threat, which allows one to analyse the sum and product of threats, that is, the form of impact of many threat sources on one object;
- the trajectory of threat states allows one to distinguish between threat phases, such as growth, fading or periodic threat.

These are necessary and sufficient conditions for identifying threats to socio-economic security. The systems method allows one to determine how the system of socio-economic security and its individual elements function, what and who makes decisions on this matter and also allows one to:

- identify subsystems of socio-economic security;
- coordinate the control elements of the system of socio-economic security;
- determine the nature of the impact of the areas of socio-economic security on the control elements;
- legal regulations governing the functioning of the system;
- determine the criteria and indicators of the system of socio-economic security;
- the impact of the system on threats from the environment.

With an objective approach, the systems analysis of socio-economic security covers threats that may be national, regional, local or individual; in addition, depending on the goal adopted, the study may cover different types of subjects/entities (state, region, enterprise).

The main task of research within the framework of Catastrophe Theory is to determine the fundamental regularities of the transition of socio-economic structures from the state of normal functioning to an emergency or catastrophic state, as well as the principles of their functioning and cooperation in the process of the changes mentioned above. In addition, catastrophe theory deals with constructing scientific foundations for diagnosing, monitoring, and forecasting threats and methods for preventing threats and disasters and eliminating their consequences. On this basis, quantitative and qualitative parameters of the decisions taken are determined.

We have systematised the main provisions and principles of theoretical concepts of socio-economic security research; the results of this analysis are presented in Figure 1.

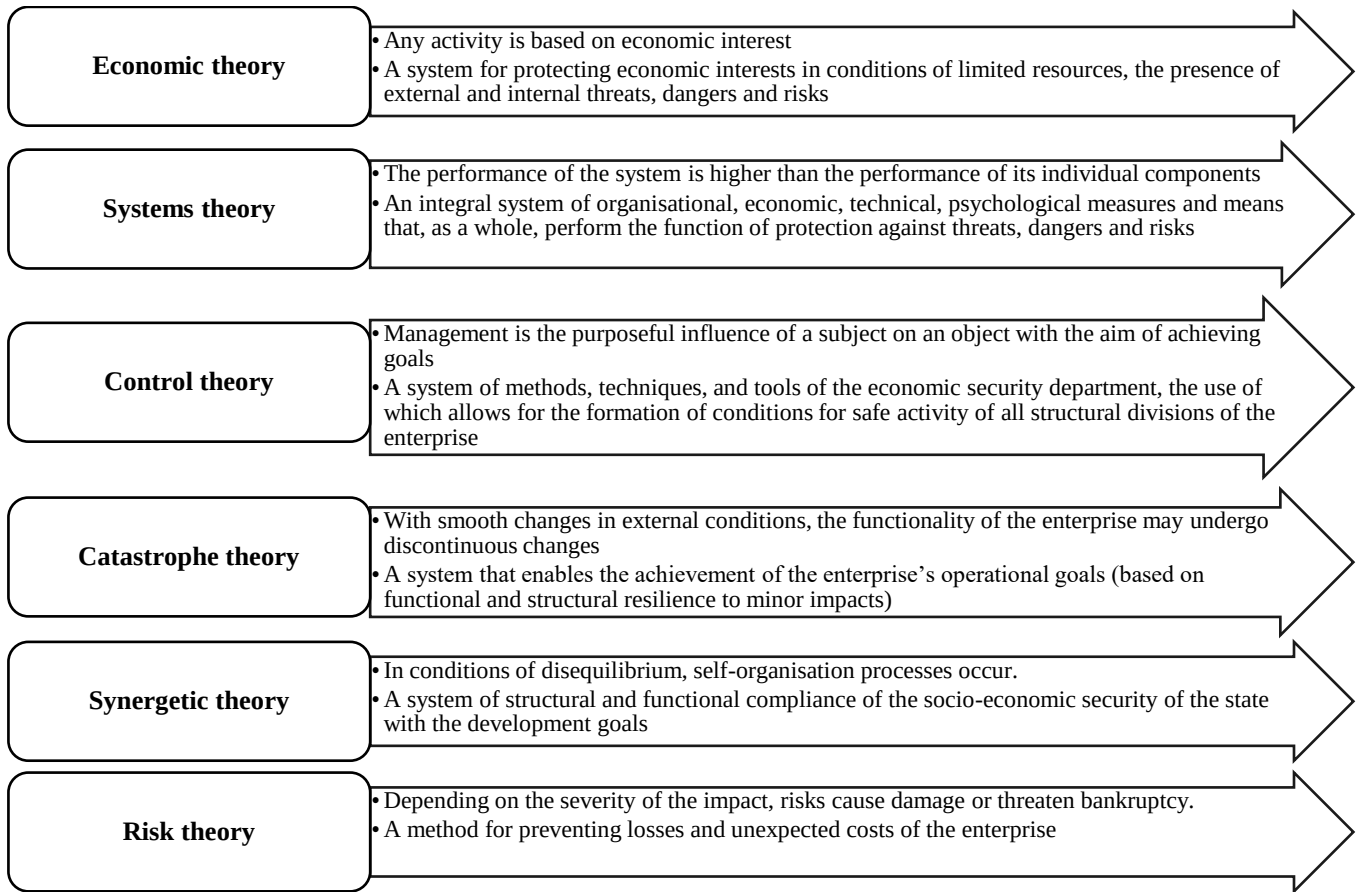


Figure 1. Basic theoretical concepts of socio-economic security research
 Source: systematised by the authors based on the European Commission (2023) data

Among the alternative approaches to the strictly economic vision, we can mention the “historical approach”, which aims to shift the interpretation of phenomena related to the provision of socio-economic security from disciplinary particularism to a more general point of view, where the effectiveness of a national system is analysed in relation to its future on the physical, economic, social and political territory. Therefore, through the history tool, this approach approaches the subject without missing its geographical aspect, which finds its functional dimension in the “state”. At least two points of emphasis help understand the features of this approach compared to those already described. They concern, on the one hand, the role of the state in the methodology of analysis and, on the other hand, the need to integrate socio-economic security into the system of relations and the social, institutional and political spheres surrounding it (Zubko, 2024). In fact, in security studies, the country dimension is considered as one of the places where the problem manifests itself with special characteristics (due to its extent, changes, social weight, etc.). On the other hand, in the historical approach, the state is rather a strategic choice for research purposes, a place and level at which to observe the problems of a crisis, where all factors (economic, social, institutional, political) play their role.

By critically questioning socio-economic security's original motives and goals, the historical approach provides essential information on the context within which this economic category plays a vital role in everyday life. This is important for any intervention policy that views the security issue not as an isolated issue but as part of the system of relations. The comparison between individual cases or, at different times, might be the best method for testing the effectiveness of conventional interpretive schemes of the economic type (which are often deductive). However, the shortcomings of this approach cannot be ignored: the absence (lack) of historical data or even research on the

economic history of socio-economic security is certainly no more significant than the absence of a reference model for the analysis of systemic linkages, with the latter representing strengths at the conceptual level and weaknesses at the operational level. This characteristic, which does not allow standardisation of the method, risks making the analysis results inaccurate or subjective.

Of particular significance is the identification of types of threats to socio-economic security depending on the area of their occurrence. This is because such an understanding of risks and threats is fundamental and is based on the development of anti-crisis management methods for the state's socio-economic security. At the same time, in addition to socio-economic security, there are social, political, environmental and other threats related to general national security. The practical experience of managing complex economic systems shows that many threats to socio-economic security are generated in areas not directly related to entrepreneurial activity. Moreover, this influence on economic processes may be significant and form long-term negative trends in the country's economic development. Therefore, it is necessary to isolate this type of threat in the system of socio-economic security but to only consider them from the point of view of generating threats to the economic system, and the primary regulatory interaction with such threats should be left in the field of general national security:

Therefore, it may be stated that, as regards the sphere of economic threats to the socio-economic security of the state, they may manifest themselves in structural deformations of industry and production sectors, delays in the development of the country's infrastructure in relation to modern requirements and the general deterioration of its condition; a reduction in the country's overall raw material potential under the condition of an increase in the resource intensity of the industry; destructive trends in the monetary and financial provision of the country, as well as an increase in inflationary trends in the national economy.

Threats generated in the social sphere may manifest themselves as a drop in the incomes of the country's population, a decrease in the level of social guarantees for the population from the state, a general deterioration of the demographic situation, a general increase in the level of intense social tension; an increase in the share of the low-income population in the overall population structure. Information threats may manifest themselves as the development of unstable state policy in the information sphere, associated with an insufficient level of information protection; structural disproportions in the information provision of the country as a whole; the failure to comply with the guarantees of information security of market entities and citizens of the country; a critical increase in the level of dependence of information technologies on foreign rights holders and manufacturers, etc.

Threats to socio-economic security that may arise in the legal sphere manifest as the general imperfection of the country's legislative and regulatory system and its compliance with global democratic standards. In addition, the risks of this plan include the imperfection of the legal mechanism that ensures compliance with the requirements of the law for all subjects of economic relations. Environmental threats may manifest themselves as the widespread use of dirty technologies in production activities, the low level of environmental standards of production, an increase in the number of accidents and disasters caused by human activity in areas of the industrial output that pose an increased risk to the environment; and a general increase in harmful and polluting emissions from industrial enterprises.

Threats related to the military sphere are manifested as the possibility of military aggression from Russia and other authoritarian states characterised by similar moral and cultural degradation of their populations, insufficient funding of the country's armed forces, and a discrepancy between the level of material and technical support of the national armed forces and modern requirements. Therefore, to ensure the effective functioning of the country's national economy, it is necessary to solve several problems that arise in the field of socio-economic security and negatively affect the economic system.

There is no doubt that there are many approaches to assessing socio-economic security. However, the common feature of their complexity, and therefore effectiveness, is the general degree of coverage of factors influencing the state of socio-economic security and its changes, as well as of indicators proving the emergence of risks and threats to specific areas of economic activity or the national economy of the country as a whole.

To obtain a unified list of indicators of socio-economic security that would give the most effective results in the process of the assessment of its state, it is possible to determine the main criteria, based on which a system of indicators is created that form the basis of the methodology for the assessment of the socio-economic security of the state (Figure 2).

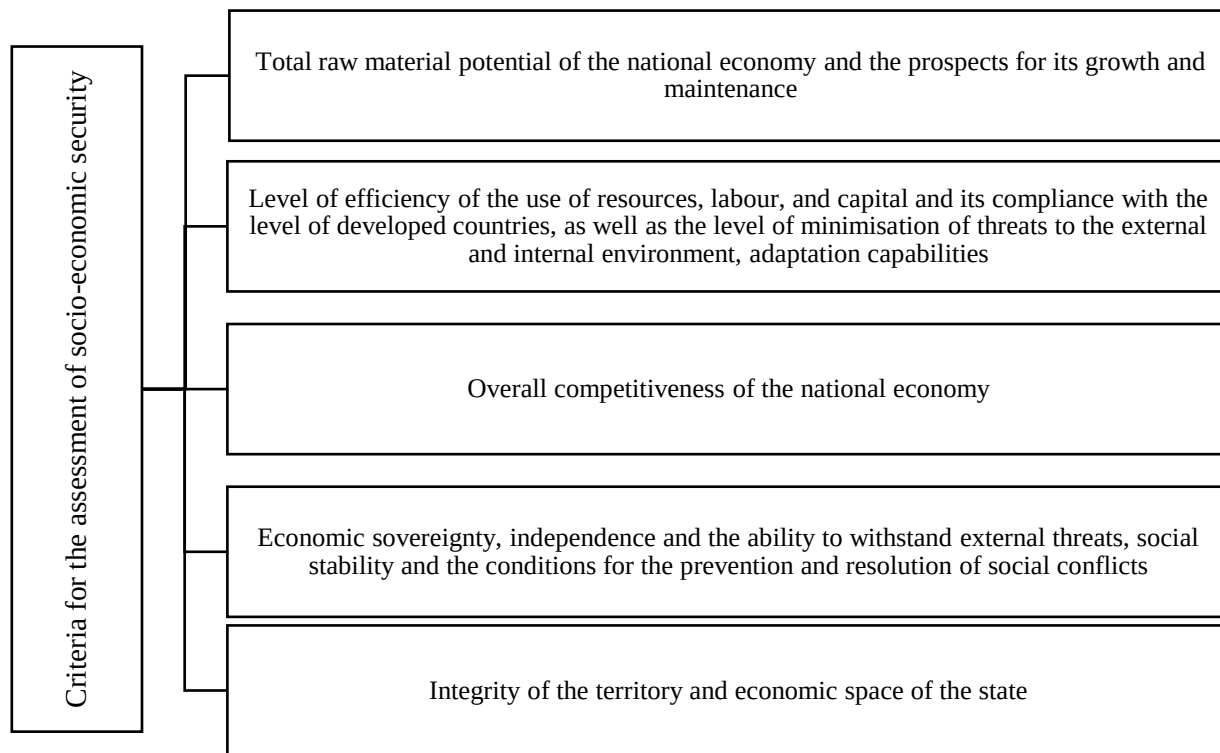


Figure 2. Criteria for the assessment of the state of the socio-economic security of the state

Source: systematised by the authors based on Podgorna et al., 2020; Mavlutova et al., 2021

We believe that the creation of a methodology for the assessment of the state of the socio-economic security of the state should be based on taking into account as many security indicators as possible for a specific period of time and should not lead to the determination of the current state of security in the economic system, but should also focus on making a forecast of future development.

Taking a significant number of indicators into account may lead to the assessment model becoming too cumbersome for its practical application in implementing state regulatory policy in the security field. The way out of this situation is by using assessment models based on the determination of an integral security indicator that considers a significant number of factors influencing the state of socio-economic security, the influence of which is calculated using a unified methodology (Reshetnyak, 2020). At the same time, the number of factors included in such models may change dynamically depending on the needs in connection with the calculations and the current situation in the national economy. If necessary, specific security indicators may be added to the model, or those whose influence is currently too small to change the value of the integral indicator of the state's socio-economic security may be excluded.

Individual indicators of socio-economic security may have different values. Moreover, since the comprehensive model should be able to take the development of changes in security indicators into account, an objective need arises to formulate their integral index function, which will reflect the mathematical value.

To summarise, multi-aspect indices comprehensively and relatively accurately assess the degree of socio-economic security of a country. A common objection to development indices is that they focus too much on the qualitative elements of socio-economic security, leaving its quantitative measurement in the background. Meanwhile, international statistics on social issues are becoming increasingly detailed. Socio-economic security is no longer determined only by gross domestic product, average annual production, the number of flats built, and the illiteracy rate but also by average daily living expenses per capita or population size.

To construct an appropriate set of variables, the analysis presented here used variables proposed for such studies by international organisations. In this paper, it was assumed that the level of socio-economic security should be identified with a set of "capabilities", the conditions in which an individual functions, the resources available, the environment that determines their condition, and the potentials that may be realised.

They allow economic, social and psychological needs to be met. At the same time, "capabilities" express society's preferences as a consequence of its previous choice. Consequently, the determinants of the level of socio-economic security are the individual elements of states of capabilities that allow individuals to satisfy their needs, which are also an expression of the preferences of these needs and their ordering from the point of view of a team. For this paper and the studies conducted, the following groups of determinants, expressed as states of capabilities, were additionally designated (Figure 3).

Therefore, this method allows for the necessary calculations to be performed relatively quickly and, in general, provides an objective response to changes in the socio-economic security of the state in the past. It allows one to identify the devastating consequences and the impact of risks and threats at the moment. As we can see, a vital element of any system for the assessment of socio-economic security of the state is the criteria for such an assessment, based on which the deviation from standard or calculated values, as well as the presence or absence of threats to the economic system, are determined. The peculiarity of such criteria is their functional ability to reflect the main aspects of the stability of the economic system under which it will function most effectively.

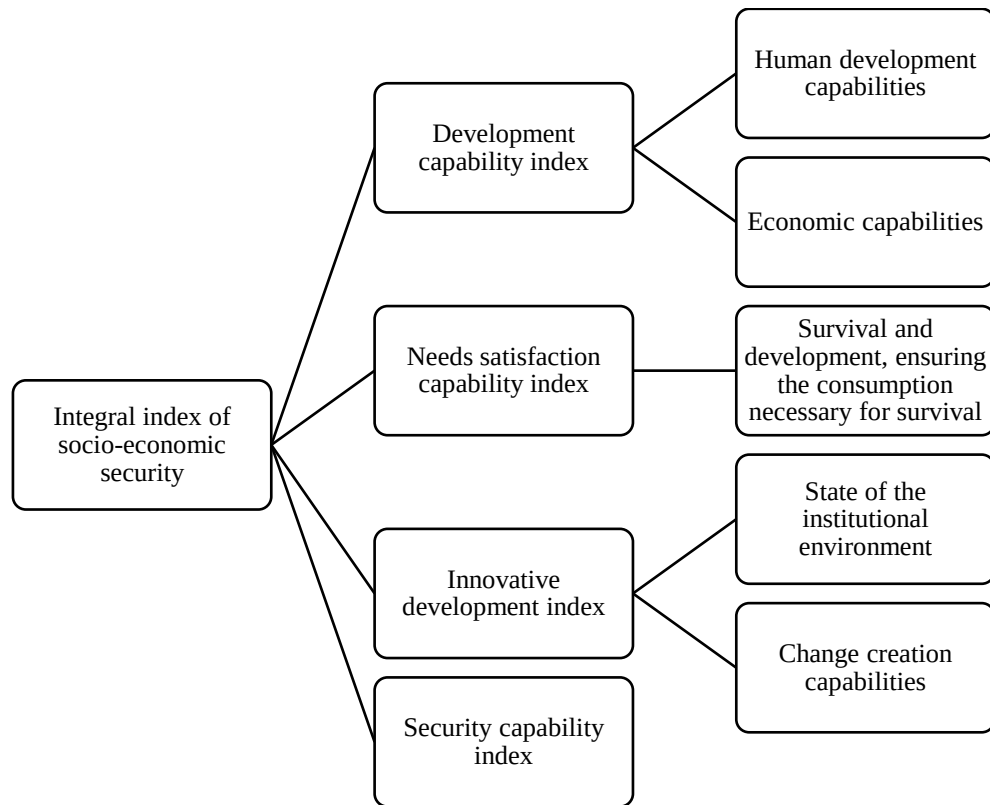


Figure 3. Scheme of the integral indicator of the level of socio-economic security

Source: developed by the authors

- 1) Needs satisfaction capability index (survival and development, ensuring the consumption necessary for survival);
- 2) security capability index;
- 3) development capability index: a) human development capabilities; b) economic capabilities;
- 4) innovative development index: within the framework of the concept of sustainable development: a) change creation capabilities; b) state of the institutional environment as the possibility of the existence of the current and future generations;
- 5) integral index of socio-economic security.

The calculation of each index is based on the statistical indicators of the Statistical Office of the European Union. Table 1 presents a complete description of the content of the integral indicator of the level of socio-economic security, and Annex 1 presents a complete list of used indicators and links to statistics with regard to their changes on the website of Eurostat.

Table 1. Description of the structure of the integral indicator of the level of socio-economic security

Subindex	Indicators
Needs satisfaction capability index (survival and development, ensuring the consumption necessary for survival)	HICP – annual data (average price index and rate of change)
	Own home price index
	Purchasing power parities (PPPs), price level indices and real expenditures for ESA 2010 aggregates
	Euro yield curves – annual data
	Industrial countries' effective exchange rates
	Self-rated health depending on gender, age and degree of urbanisation
	Self-reported unmet need for medical examination by sex, age, stated underlying cause, and degree of urbanisation
	Persons at risk of poverty or social exclusion
	Average and median income
Security Capability Index	Convergence indicators
	Export and import
	Pollution, dirt or other environmental problems
	Employment rates by sex, age, educational attainment level and citizenship
	Unemployment
	Net social security benefits
	Industrial production
Development Capability Index	Government revenue, expenditure and main aggregates
	Government expenditure by function (COFOG)
	Main national accounts tax aggregates
	Annual financial reports for the general government sector
	Government deficit/surplus, debt
	GDP and its main components (output, expenditure and income)
Innovative Development Index	Population by educational attainment level, sex, age and degree of urbanisation (%)
	data on employment in knowledge-intensive activities at the national level
	HRST by category, sex and age
	Graduates by educational attainment level, programme focus
	Training enterprises
	Internet purchases by individuals (until 2019) Financial activities over the Internet (2020 onwards)
	Patent applications to the EPO by country of applicants and inventors
	Applications for European Union trade marks (EUTM)
	Persons with tertiary education (ISCED) and/or employed in science and technology
	Graduates by educational attainment level, programme focus, sex and field of education
	Total high-tech trade in million Euros and as a percentage of total
	GERD by sector of performance
	Share of R&D personnel and researchers in total active population
	Share of GBARD in total general government expenditure

Source: developed by the authors based on Eurostat (2024)

Since the index structure includes heterogeneous indicators with different units of measurement, we chose the method of bringing them to a common form and shape; for this purpose, the specific weight of each indicator in the total sum of indicators was calculated. Thus, the author's proposed methodology for the calculation of the integral indicator of the level of socio-economic security consists of the following stages:

1. Determination of the main aspects of socio-economic security that are of the highest priority for the current stage of development. Within the context of disclosing the purpose of this study, these are four aspects: the capability of the state to meet the needs of the population (survival and development, ensuring the consumption necessary for survival); the capability of the state to security; the capability of the state to development; the capability of the state to innovative development.
2. Selection of statistical indicators characterising the aspects of the level of socio-economic security determined in the first step, the data on which are available on the official websites of statistical agencies and international organisations.
3. Systematisation of indicators into sub-indices of socio-economic security within the context of the identified aspects of the level of socio-economic security.
4. Conversion into relative indicators (calculation of the total sum of all indicators and the specific weight of each) by calculating the specific weight of each indicator for each country in the total sum within each indicator using the formula:

$$I_j = \frac{X_{ij}}{\sum_{i=1}^n X_{ij}} \quad (1)$$

where X_{ij} is the value of indicator j for the i -th country;

$\frac{X_{ij}}{\sum_{i=1}^n X_{ij}}$ is the sum of the values of indicator j for all countries;

N is the number of countries.

5. Calculation of sub-indices I_i based on the indicators obtained for each country using the formula:

$$I_i = \frac{\sum_{j=m}^M X_{ij}}{M} \quad (2)$$

where $\sum_{j=m}^M X_{ij}$ is the sum of the indicators within one sub-index for the i -th country;

M is the number of indicators in the sub-index.

6. Calculation of the integral indicator of the level of socio-economic security for each country I_{sebi} using the formula:

$$I_{sebi} = \frac{\sum (INS_i + ISC_i + IDO_i + IID_i)}{4} \quad (3)$$

INS_i is the needs satisfaction capability sub-index;

ISC_i is the security capability sub-index;

IDO_i is the development capability sub-index;

IID_i is the innovative development sub-index.

The proposed methodology is a synthesis of several well-known and widespread methods of analysis: ABC analysis, multi-criteria analysis, AHP methodology developed by Thomas Saaty (Saaty, 1990; Sehra et al., 2012). This

methodology is based on the decomposition of a given decision-making problem into a hierarchical structure that consists of a main goal at the top of the hierarchy, followed by n criteria and/or sub-criteria (Saaty, 1990).

3. Research results

After obtaining the values of each sub-indices, the integral indicator of the level of socio-economic security was calculated, which is the average value of all sub-indices. Figure 4 shows the changes in Latvia's needs satisfaction capability sub-index compared to the EU average and Latvia's ranking among the 27 analysed countries of the European Union.

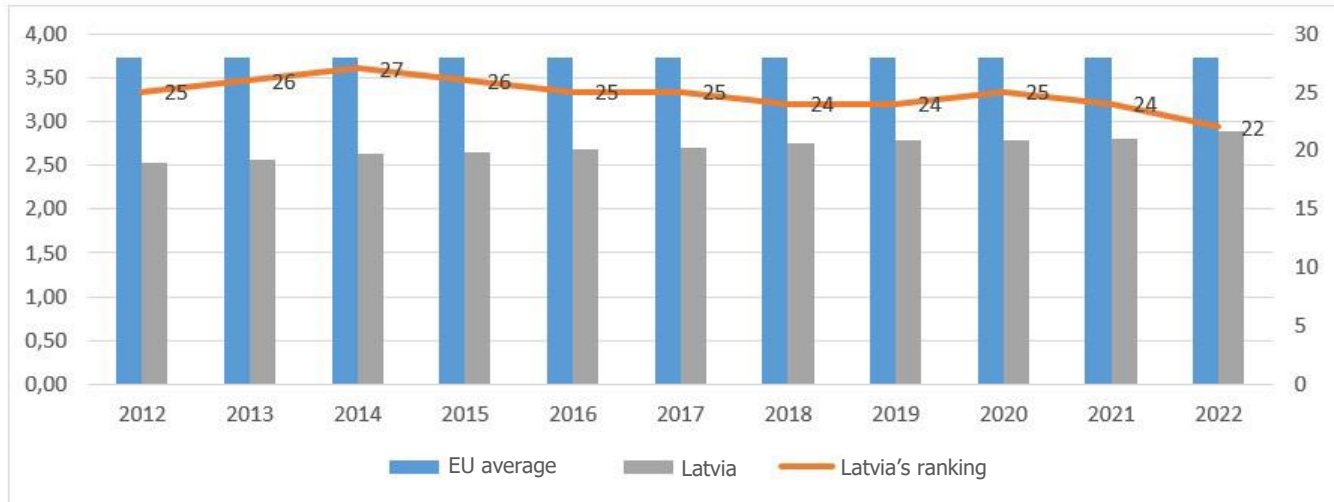


Figure 4. Changes in Latvia's needs satisfaction capability sub-index compared to the EU average, as well as to Latvia's ranking among the 27 analysed countries of the European Union

Note: The value of the needs satisfaction capability sub-index is highlighted in grey (Latvia); the EU average is in blue, and Latvia's ranking is in orange.

As we can see, Latvia's ranking has slightly improved (by 3 positions) during the analysed period from 2012 to 2022, reaching 22nd place. At the same time, the comparison with the average value for all the EU countries shows a fairly large lag, almost 20–32% in different periods. If we analyse each of the indicators included in this sub-index, it is worth noting that Latvia ranks best in the following indicators: HICP – annual data (average price index and rate of change); purchasing power parities (PPPs), price level indices and real expenditures for ESA 2010 aggregates; self-reported need for medical examination by sex, age, stated underlying cause, and degree of urbanisation. The country ranks worst in indicators such as the proportion of people at risk of poverty or social exclusion and average and median income. Let's compare the maximum and minimum values of the sub-index. We can note that the level of Latvia's needs satisfaction capability sub-index is only 37.6% of the maximum value, demonstrating a significant gap between the analysed country and a high level of socio-economic security (Figure 5).

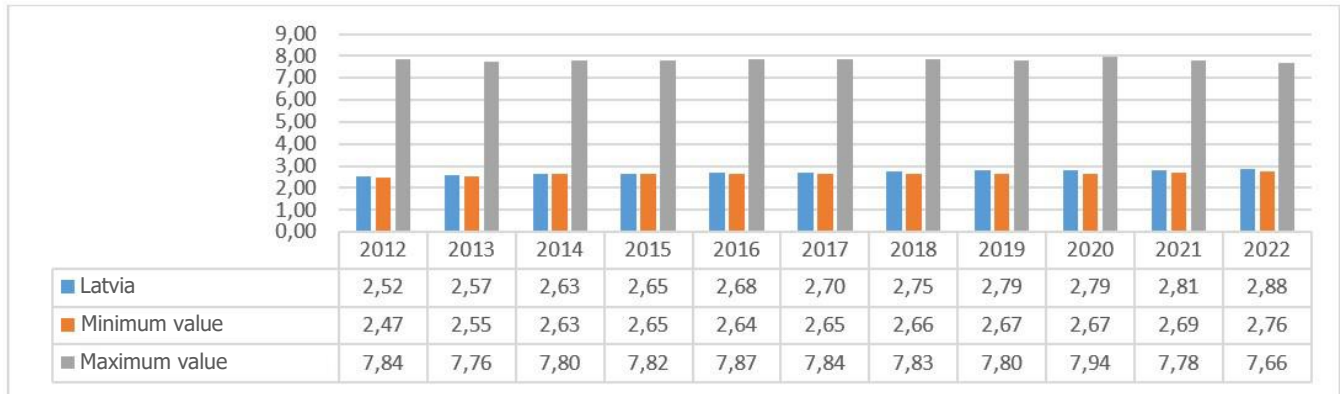


Figure 5. Changes in Latvia's needs satisfaction capability sub-index compared to the maximum and minimum values in the EU

Latvia has improved its position regarding the needs satisfaction capability sub-index during the analysed period because, since 2014, the minimum value was obtained first by Bulgaria and then, for an extended period, from 2017 to 2022, by Croatia. As for the maximum value, this position was held by Germany throughout the entire period.

Figure 6 shows the changes in Latvia's security capability sub-index compared to the EU average and Latvia's ranking among the 27 analysed countries of the European Union.

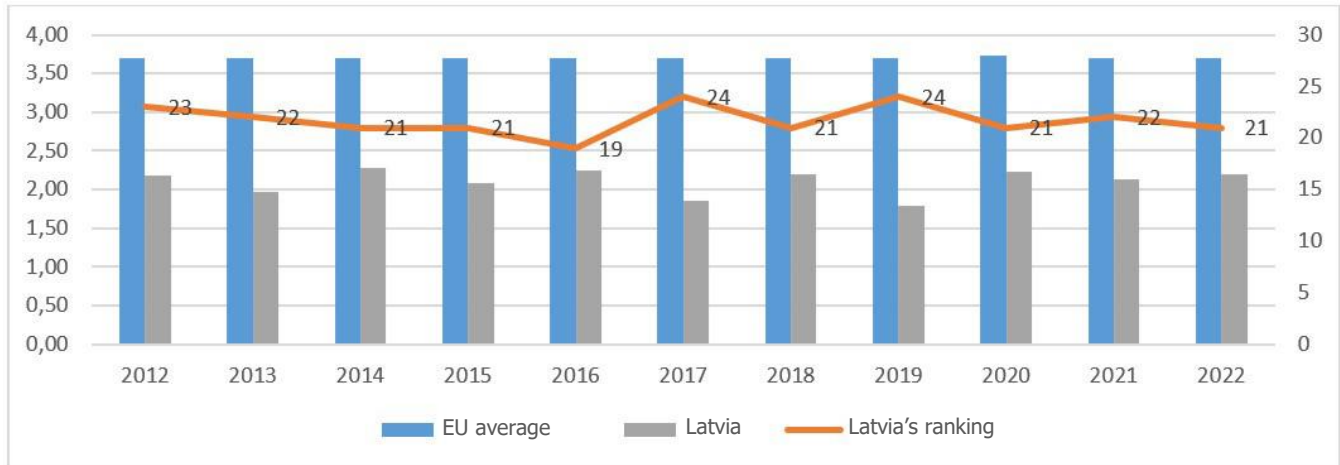


Figure 6. Changes in Latvia's security capability sub-index compared to the EU average, as well as to Latvia's ranking among the 27 analysed countries of the European Union

The data of Figure 6 show us that, during the period from 2012 to 2022, Latvia's ranking in the analysed sub-index improved by 2 positions, and Latvia is in 21st place (in 2012: 23rd). A comparison with the average value of the security capability sub-index across EU countries shows trends similar to the needs satisfaction capability sub-index: we see a significant lag of 40–45% in the sub-index level in different periods. If we analyse each of the indicators included in this sub-index, it is worth noting that Latvia ranks best in the following indicators: Convergence indicator; Pollution, dirt and other environmental problems; Employment rates by sex, age, educational attainment level, citizenship; Unemployment.

The country ranks worst in net social security benefits and industrial production indicators. Let's compare the maximum and minimum values of the sub-index. We can note that the level of Latvia's needs satisfaction capability sub-index is only 14.9% of the maximum value, demonstrating a significant gap between the analysed country and a high level of socio-economic security (Figure 7).

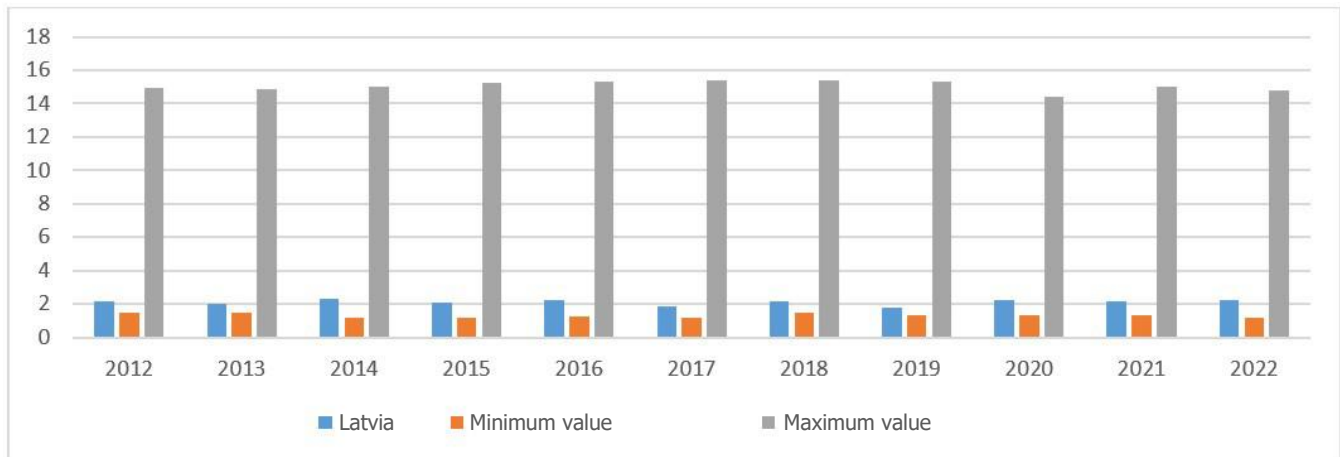


Figure 7. Changes in Latvia's security capability sub-index compared to the maximum and minimum values for the EU

A lower level of development capability characterises Latvia's security capability sub-index. Due to the international economic situation and the expanding international economic ties, socio-economic security should be considered within the market context. Moreover, only in market relations can the general well-being of individual interest groups be expected. Nevertheless, some security threats are not particularly market-related. Firstly, market relations increase the number of shortcomings that threats may eliminate. Secondly, by their very nature, market relations are associated with a certain insecurity because they are open. No one can be sure of their future in the market, which entirely depends on consumer choice. While this is a paradox: the market contributes to wealth creation and socio-economic security in a social sense, it is an environment not inextricably linked to instability. Therefore, socio-economic security is an important goal but must be addressed in view of other goals. From an economic point of view, it should be borne in mind that any security measure has its price, and it is entirely unacceptable to say that any price can be paid for security (such a policy in itself would be an indicator of economic insecurity). Moreover, as has already been said above, talking about safety in general only makes sense when there is a guarantee of responsible storage. Thus, socio-economic security cannot be sacrificed directly for the sake of security. At the same time, according to researchers, Riga is the only city among the Baltic capitals where the death rate exceeds the birth rate and where more people leave than arrive. The reason for this may be a relatively large number of Riga residents who are unsatisfied with either life in the city or the progress in quality of life over time. The reasons cited for this are poor quality of housing, the improvement of which is hampered by complex building formalities, safety, environmental pollution, and the quality of management (Krasnopjorovs, 2022).

Government measures or private initiatives may check socio-economic security. A particularly significant factor is the activity of private individuals, which is usually neglected when considering measures to check socio-economic security. Although the market, as already mentioned above, is always associated with uncertainty about the future and, therefore, with a certain degree of insecurity, at the same time, it demonstrates a dynamic process in which the most diverse needs of individuals, as well as the need for security, are satisfied. It is related to insurance services, the futures market, savings and other financial instruments. However, indirect impacts are even more necessary as the market creates opportunities for the emergence of products that reduce insecurity: alternative energy sources, better conditions for communication and trade in transport, as well as any other new product increase not only economic well-being but also opportunities, along with socio-economic security. Ultimately, it is about motivating people to engage in activities that help address socio-economic security issues when they become most pressing. In Latvia, this has become especially acute in the conditions of the energy blockade. Therefore, regarding socio-economic security, Latvia's security capability is critical, so state policy must allow it to expand.

Figure 8 shows the changes in Latvia's development capability sub-index compared to the EU average and Latvia's ranking among the 27 analysed countries of the European Union.

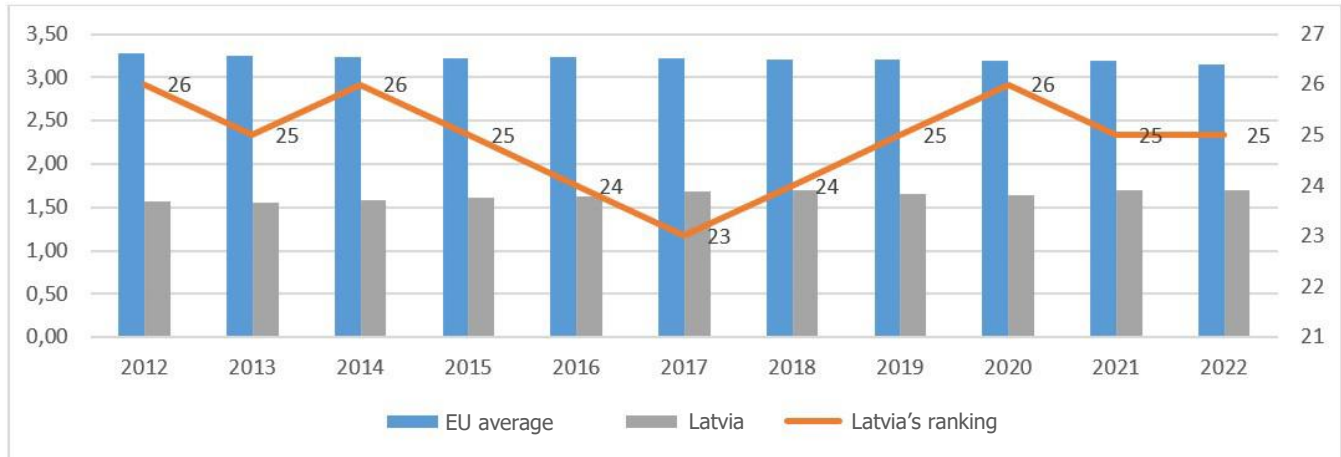


Figure 8. Changes in Latvia's development capability sub-index compared to the EU average, as well as to Latvia's ranking among the 27 analysed countries of the European Union

As we can see, Latvia's ranking, as in the sub-index descriptions above, has slightly improved (by 1 position), reaching 25th place. It can be seen that in 2017, the ranking was even lower, but in 2018 already, this sub-index began to deteriorate again. This is due to the fact that after 2017, assistance to states from EU funds slightly decreased.

The comparison with the average value for all the EU countries shows a large lag, almost 20–32%, in different periods. If we analyse each of the indicators included in this sub-index, it is worth noting that Latvia ranks best in the following indicators: Government revenue, expenditure and main aggregates; Government expenditure by function (COFOG); Annual financial reports for the general government sector. The country ranks worst in indicators such as Main national accounts tax aggregates, Government deficit/surplus, debt, GDP and its main components (output, expenditure and income). Let's compare the maximum and minimum values of the sub-index. We can note that the level of Latvia's needs satisfaction capability sub-index is only 15–18% of the maximum value, demonstrating a significant gap between the analysed country and a high level of socio-economic security (Figure 9).



Figure 9. Changes in Latvia's development capability sub-index compared to the maximum and minimum values in the EU

It should be noted that Latvia is primarily lagging in two aspects: the amount of financial investments and the fact that the programmes are implemented with interruptions and in a campaign-like manner. At the same time, they are subordinated to the planning periods of the EU funds and are of an intermittent nature (Kubliņš, 2023).

Figure 10 shows the changes in Latvia's innovative development sub-index compared to the EU average and Latvia's ranking among the 27 analysed countries of the European Union.

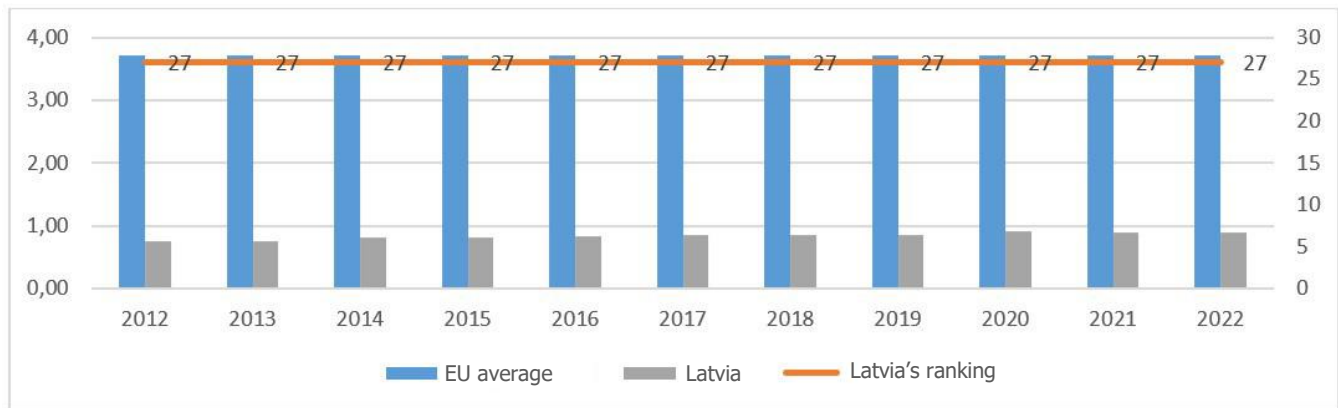


Figure 10. Changes in Latvia's innovative development sub-index compared to the EU average, as well as to Latvia's ranking among the 27 analysed countries of the European Union

Figure 10 shows a very low level of innovative development, which is reflected in the fact that the country ranks last in this sub-index for the period analysed (27). Let's examine each of the indicators included in this sub-index. It is worth noting that Latvia ranks best in the following indicators: Population by educational attainment level, sex, age and degree of urbanisation (%); Internet purchases by individuals; Graduates by educational attainment level, programme focus, sex and field of education.

Figure 11 presents data comparing Latvia and EU averages with regard to the socio-economic security index.

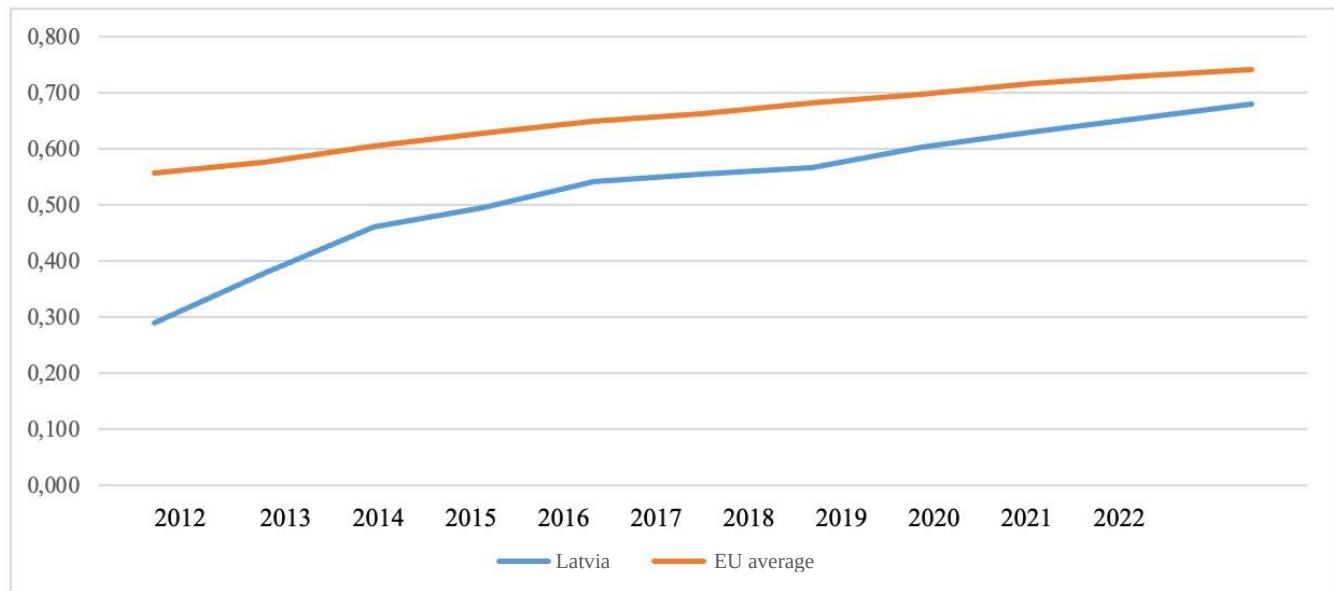


Figure 11. Comparison of Latvia and the EU average based on the Integral Index of Socio-Economic Security

Let's compare the maximum and minimum values of the sub-index. We can note that the level of Latvia's needs satisfaction capability sub-index is less than 10–15% of the maximum value, which demonstrates a very severe gap between the analysed country and a high level of socio-economic security. This is because Latvia develops fewer new products and prototypes necessary to increase added value and allow us to compete more fully. The fact that funding is provided on a company-by-company basis and is irregular means that, compared to their competitors, Latvian companies cannot plan more than a year, consequently resulting in the impossibility of high innovation activity (Kubliņš, 2023).

Conclusions

The methodology for the assessment of socio-economic security developed by the authors contains four aspects: the capability of the state to meet the needs of the population (survival and development, ensuring the consumption necessary for survival); the capability of the state for security; the ability of the state for development; the capability of the state for innovative development. Each aspect was populated with available statistical indicators and converted into relative values (calculation of the total sum of all indicators and the specific weight of each) by calculating the specific weight of each indicator for each country in the total sum within each indicator.

An important factor in favour of choosing this methodology is that the methods associated with it provide the possibility of using tools that allow the assessment of individual aspects of socio-economic security with different units of measurement. In addition, this method makes the decision-making process more flexible and open to discussion. Also, it increases the potential for responding to changing parameters or criteria (in the case of their replacement). Another advantage of such methods is the possibility of their application to tasks of varying degrees of complexity and at any level of organisation, from the level of departments to the strategic level of the industry and the country.

Just as the assessment of selected areas of socio-economic security may be objective, based on statistical data, it may also be subjective, based on the results of sociological surveys. The proposed system of indicators will provide a comprehensive assessment of key aspects of socio-economic security; such systematisation allows one to assess the level of socio-economic security in the areas most important for its formation. In addition, obtaining statistical data in other aspects is difficult due to their absence or lack of public access; however, this method allows for expanding the analysis in the case of the availability of statistical data.

The presented results of the calculation of the socio-economic security sub-indices allow us to say that, when comparing Latvia with the average European level, the level of this country is significantly lower in terms of all the socio-economic security sub-indices. The worst situation is observed in the field of innovative development; in addition, the country is affected by crisis trends. Thus, harsh financing conditions will continue to put pressure on private investment, while companies will face significant production costs due to energy prices and the gradual substitution of imports of Russian goods. The energy crisis and tighter monetary policy put pressure on regional activity, so Latvia's main economic partners (Lithuania, Estonia, Germany) will experience sluggish growth, preventing strong export recovery. Ultimately, it is public investment that will make the greatest contribution to economic growth through increased social and security spending, as well as investment in energy and transport infrastructure (Coface for Trade, 2024).

An analysis of Latvia and the EU average with regard to the needs satisfaction capability index shows that Latvia lags behind the European average, with a slight increase in the value in 2016. Still, in 2017, this increase was eliminated, and the value decreased. Somewhat different trends may be observed as regards the changes in the comparison of Latvia and the EU in terms of the Security Capability Index: an annual increase in these indicators may be noted, but the level of Latvia's sub-index is lower than the European average, although the gap is narrowing.

It should be noted that the comparison of Latvia's values and the EU average in terms of the Development Capability Index is similar to the situation with the Security Capability Index. At the same time, a comparison using the Innovative Development Index shows that Latvia's value exceeded the EU average in 2021. Similar trends may be observed as regards the Integral Index of Socio-Economic Security.

References

- Agarski, B., Kljajin, M., Budak, I., Tadic, B., Vukelic, D., Bosak, M., & Hodolic, J. (2012). Application of multi-criteria assessment in evaluation of motor vehicles' environmental performances. *Tehnicki Vjesnik - Technical Gazette*, 19(2), 221-226. <http://hrcak.srce.hr/file/124742>
- Bağlıtaş, H., & Atik, H. (2023). Economic security and physical safety in the European Union: a multivariate statistical analysis. *Nicel Bilimler Dergisi*, 5(1), 64-89. <https://doi.org/10.51541/nicel.1206457>
- Bellany, I. (1981). Towards a theory of international security. *Political Studies*, 29(1), 100-105. <https://doi.org/10.1111/j.1467-9248.1981.tb01276.x>
- Bulatova, O., Osaulenko, O., & Zakharova, O. (2021). Monitoring and evaluation of the level of development of the european regional security complex. *Baltic Journal of Economic Studies*, 7(1), 27-38. <https://doi.org/10.30525/2256-0742/2021-7-1-27-38>
- Chehabeddine, M. R., Grabowska, S., & Adekola, A. F. (2022). Building a model for securing regional development from ecological threats. *Insights into Regional Development*, 4(2), 22-40. [https://doi.org/10.9770/ird.2022.4.2\(2\)](https://doi.org/10.9770/ird.2022.4.2(2))
- Coface for Trade. (2024). Available at: [Tableau de bord des Risques économiques](https://www.coface.fr/actualites-economie-conseils/tableau-de-bord-des-risques-economiques/fiches-risques-pays/lettonie). <https://www.coface.fr/actualites-economie-conseils/tableau-de-bord-des-risques-economiques/fiches-risques-pays/lettonie>
- Cornes, R., & Sandler, T. (1996). *The Theory of Externalities, Public Goods and Club Goods*. 2d ed. Cambridge, UK: Cambridge University Press. <https://doi.org/10.1017/CBO9781139174312>
- Dankevych, A., Stoyanova-Koval, S., Polova, O. Los, Z., Burdeina, N., & Kazak, O. (2024). State of economic security and directions of restoration socio-economic development and food security in the conditions of war. *Financial and Credit Activity-Problems of Theory and Practice*, 2(55), 441-460. <https://doi.org/10.55643/fcaptop.2.55.2024.4170>
- European Commission. (2023). An EU approach to enhance economic security. Available at: https://ec.europa.eu/commission/presscorner/api/files/document/print/en/ip_23_3358/IP_23_3358_EN.pdf +
- Eurostat. (2024). https://ec.europa.eu/eurostat/databrowser/explore/all/economy?lang=en&subtheme=gov.gov_gfs10&display=list&sort=category
- International Labour Organization. (2019). Socio-economic security programme. Definitions: What we mean when we say “economic security”. Available at: <http://www.ilo.org/public/english/protection/ses/download/docs/definition.pdf>
- Ivančík, R. (2022). O Európskej bezpečnostnej a obrannej integrácii v kontexte prístupu malých členských štátov európskej únie k nej. *Vojenské Reflexie*, 17(2), 28-47. <https://doi.org/10.52651/vr.a.2022.2.28-47>
- Krasnopjorovs, O. (2022). *Kā Rīgai panākt Viļņu, Tallinu un Ziemeļeiropu?* [How can Riga catch up with Vilnius, Tallinn and Northern Europe?]. Available at <https://www.makroekonomika.lv/ka-rigai-panakt-vilnu-tallinu-un-ziemeļeiropu-laikssecinajumiem>
- Kriviņš, A., Teivāns-Treinovskis, J., & Tumulavičius, V. (2021). Issues of state and national security: Religiously inspired terrorism in the Baltic States: internal and external factors. *Insights into Regional Development*, 3(1), 65-79. [https://doi.org/10.9770/ird.2021.3.1\(4\)](https://doi.org/10.9770/ird.2021.3.1(4))
- Kubliņš, I. (2023). *Valsts atbalsts biznesam un eksportam - Baltijas valstu salīdzinājums*. [State support for business and export - a comparison of the Baltic countries]. Available at: <https://www.plz.lv/atbalsts-biznesam-un-eksportam-baltijas-valstu-salidzinajums/>
- Li, X., & Xue, Q. (2021). An economic analysis of information security investment decision making for substitutable enterprises. *Managerial and Decision Economics*, 42(5), 1306-1316. <https://doi.org/10.1002/mde.3310>

- Lyzun, M., & Ozarko, K. (2023). Economic security of the EU and Ukraine: new challenges and threats. *Visnik Mariupol's'kogo Deržavnogo Universitetu Seriâ Ekonomika*, 13(25), 117-127. <https://doi.org/10.34079/2226-2822-2023-13-25-117-127>
- Mavlutova, I., Babenko, V., Dykan, V., Prokopenko, N., Kalinichenko, S., & Tokmakova, I. (2021). Business restructuring as a method of strengthening company's financial position. *Journal of Optimization in Industrial Engineering*, 14, 105-115. <https://doi.org/10.22094/joie.2020.677839>
- Metelenko, N., Voronkova, V., Nikitenko, B., & Silina, I. (2025). Strategic Partnership in Business: Theory, Methodology, Practice / Edited by M.P. Sahaidak. Kyiv: KNEU. pp. 169-191. <https://doi.org/10.35668/978-966-926-502-9-8>
- Pakhucha, E., Sievidova, I., Romaniuk, I., Bilousko, T., Tkachenko, S., Diadin, A., & Babko, N. (2023). Investigating the Impact of Structural Changes: The Socio-Economic Security Framework. *European Journal of Sustainable Development*, 12(1), 180. <https://doi.org/10.14207/ejsd.2023.v12n1p180>
- Panke, D. (2015). Small states in EU decision-making: how can they be effective? Monograph Chapter <https://doi.org/10.4337/9781784711443.00014>
- Pedi, R. (2020). Small EU member states and the European security and defence integration. In: Voskopoulos, G. (eds) European Union Security and Defence. Contributions to Political Science. Springer, Cham. https://doi.org/10.1007/978-3-030-48893-2_4
- Podgorna, I., Babenko, V., Honcharenko, N., Sáez-Fernández, F. J., Fernández, J. a. S., & Yakubovskiy, S. (2020). Modelling and Analysis of Socio-Economic Development of the European Union Countries through the DP2 Method. *WSEAS Transactions on Business and Economics*, 17, 454-466. <https://doi.org/10.37394/23207.2020.17.44>
- Reshetnyak, O. (2020). Research of the status of scientific and technical development of the countries of the world. *Journal of Economics and International Relations*, 10, 41-51. <https://doi.org/10.26565/2310-9513-2019-10-04>
- Saaty, T. L. (1990). How to make a decision: The analytic hierarchy process. *European Journal of Operational Research*, 48(1), 9-26. [https://doi.org/10.1016/0377-2217\(90\)90057-i](https://doi.org/10.1016/0377-2217(90)90057-i)
- Sehra, S.K., Brar, Y. S., & Kaur, N. (2012). Multi criteria decision making approach for selecting effort estimation model. *International Journal of Computer Applications*, 39(1), 10-17. <https://doi.org/10.5120/4783-6989>
- Șerban, A., & Jianu, I. (2023). Developing an Economic and Social Security Index for Euro-Atlantic area countries: a panel data analysis. *Journal of Business Economics and Management*, 24(1), 112-135. <https://doi.org/10.3846/jbem.2023.18610>
- Sikimić, M. (2022). Security of European critical infrastructures outside the European Union: a review of the Western Balkans national laws. *Insights into Regional Development*, 4(2), 63-72. [https://doi.org/10.9770/ird.2022.4.2\(5\)](https://doi.org/10.9770/ird.2022.4.2(5))
- Somych, M., Opaliuk, T., Potapiuk, I., Ovcharuk, E., & Oliinyk, A. (2022). Economic security of Ukraine: Management aspect through the prism of socio-economic development in the context of international ratings. *Politics & Policy*, 50(4), 810-833. <https://doi.org/10.1111/polp.12481>
- Svirko, S., Dykyy, A., Dyka, O., & Trostenyuk, T. (2022). Budget security as a dynamic determinant of the socio-economic development of Ukraine. *Financial and Credit Activity-Problems of Theory and Practice*, 6(47), 280-293 <https://doi.org/10.55643/fcaptop.6.47.2022.3913>
- Tokar, V. (2024). Ensuring economic security: comparison of EU member states and Ukraine. *Baltic Journal of Economic Studies*, 10(3), 332-339. <https://doi.org/10.30525/2256-0742/2024-10-3-332-339>
- Tvaronavičienė, M. (2024). The Transition towards Renewable Energy: The Challenge of Sustainable Resource Management for a Circular Economy. *Energies*, 17, 4242. <https://doi.org/10.3390/en17174242>
- United Nations. (2015). Sendai Framework for Disaster Risk Reduction 2015–2030. Human Rights Documents online. https://doi.org/10.1163/2210-7975_hrd-9813-2015016
- Yunus, M. (2009). Economic security for a world in crisis. *World Policy Journal*, 26(2), 5-12. <https://doi.org/10.1162/wopj.2009.26.2.5>
- Zubko, T. (2021). Genesis of the concept of "economic security of the enterprise". *Herald of Kyiv National University of Trade and Economics*, 135(1), 75-89. [https://doi.org/10.31617/visnik.knute.2021\(135\)06](https://doi.org/10.31617/visnik.knute.2021(135)06)

Annex 1. Complete list of indicators used and links to statistics regarding their changes on the Eurostat website

No.	Indicator name	Reference
1	Needs satisfaction capability index (survival and development, ensuring the consumption necessary for survival)	
1.1	HICP – annual data (average price index and rate of change)	https://ec.europa.eu/eurostat/databrowser/view/trng_cvt_01s\$defaultview/default/table
1.2	Own home price index	https://ec.europa.eu/eurostat/databrowser/view/PRC_HPI_OOA/default/table
1.3	Labour cost index	https://ec.europa.eu/eurostat/databrowser/view/lc_lci_r2_a/default/table?lang=en&category=labour.lc.lci
1.4	Industrial countries' effective exchange rates	https://ec.europa.eu/eurostat/databrowser/view/ert_eff_ic_a/default/table?lang=en&category=ert.ert_eff
1.5	Average and median income	https://ec.europa.eu/eurostat/databrowser/view/tepsr_wc310/default/table?lang=en&category=es.tesip.tesov
2	Security capability index	
2.1	Convergence indicators	https://ec.europa.eu/eurostat/databrowser/view/nama_10_pc/default/table?lang=en&category=na10.nama10.nama_10_aux
2.2	Export and import	https://ec.europa.eu/eurostat/databrowser/view/nama_10_exi\$defaultview/default/table
2.3	Pollution, dirt or other environmental problems	https://ec.europa.eu/eurostat/databrowser/view/cei_pc031/default/table?lang=en&category=cei.cei_pc
2.4	Employment rates by sex, age, educational attainment level and citizenship	https://ec.europa.eu/eurostat/databrowser/view/lfsi_emp_a/default/table?lang=en&category=labour.employ.lfsi.lfsi_emp
2.5	Unemployment	https://ec.europa.eu/eurostat/databrowser/view/une_rt_a/default/table?lang=en&category=labour.employ.lfsi.une
2.6	Net social security benefits	https://ec.europa.eu/eurostat/databrowser/view/spr_net_ben\$defaultview/default/table
2.7	Industrial production index	https://ec.europa.eu/eurostat/databrowser/view/sts_inpr_a/default/table?lang=en&category=sts.sts_ind.sts_ind_prod
3	Development capability index	
3.1	Government revenue, expenditure and main aggregates	https://ec.europa.eu/eurostat/databrowser/product/view/gov_10a_main?category=gov.gov_gfs10.gov_10a
3.2	Government expenditure by function (COFOG)	https://ec.europa.eu/eurostat/databrowser/view/gov_10a_exp/default/table?lang=en&category=gov.gov_gfs10.gov_10a
3.3	Main national accounts tax aggregates	https://ec.europa.eu/eurostat/databrowser/view/gov_10a_taxag/default/table?lang=en&category=gov.gov_gfs10.gov_10a
3.4	Annual financial reports for the general government sector	https://ec.europa.eu/eurostat/databrowser/view/gov_10a_ggfa/default/table?lang=en&category=gov.gov_gfs10.gov_10a
3.5	Government deficit/surplus, debt	https://ec.europa.eu/eurostat/databrowser/view/gov_10dd_edpt1/default/table?lang=en&category=gov.gov_gfs10.gov_10dd
3.6	GDP and its main components (output, expenditure and income)	https://ec.europa.eu/eurostat/databrowser/view/nama_10_gdp\$defaultview/default/table
4	Innovative development index	
4.1	Population by educational attainment level, sex, age and degree of urbanisation (%)	https://ec.europa.eu/eurostat/databrowser/view/edat_lfs_9916/default/table?lang=en&category=degurb.degurb_edat
4.2	Data on employment in knowledge-intensive activities at the national level	https://ec.europa.eu/eurostat/databrowser/view/tgs00039/default/table?lang=en&category=t_scitech.t_htec
4.3	HRST by category, sex and age	https://ec.europa.eu/eurostat/databrowser/view/tsc00025/default/table?lang=en&category=t_scitech.t_hrst
4.4	Total high-tech trade	https://ec.europa.eu/eurostat/databrowser/view/htec_trd_tot4\$defaultview/default/table
4.5	Patent applications to the EPO by country of applicants and inventors	https://ec.europa.eu/eurostat/databrowser/view/pat_ep_tot\$defaultview/default/table
4.6	Internet purchases	https://ec.europa.eu/eurostat/databrowser/view/isoc_ec_ibuy/default/table?lang=en&category=isoc.isoc_i.isoc_iec
4.7	Total high-tech trade in million euro and as a percentage of total	https://ec.europa.eu/eurostat/databrowser/view/htec_trd_tot4\$defaultview/default/table

4.8	GERD by sector of performance	https://ec.europa.eu/eurostat/databrowser/view/rd_e_gerdtot\$defaultview/default/table
4.9	Share of R&D personnel and researchers in total active population	https://ec.europa.eu/eurostat/databrowser/view/rd_p_perslf/default/table?lang=en&category=scitech.rd.rd_p
4.10	Share of GBARD in total general government expenditure	https://ec.europa.eu/eurostat/databrowser/view/gba_nabste/default/table?lang=en&category=scitech.rd.gba

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