

STUDIA

**SOUČASNÉ VÝZVY EVROPSKÉHO
PROSTORU: OD GEOPOLITICKÝCH
A BEZPEČNOSTNÍCH HROZEB K REGIONÁLNÍ
A DIGITÁLNÍ ADAPTACI**

Jiří DUŠEK a kol.



Vysoká škola evropských a regionálních studií, z. ú.

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Ing. Jiří ALINA, Ph.D.; doc. PhDr. PaedDr. Silvia BARNOVÁ, Ph.D., MBA; doc. JUDr. PhDr. Jiří BÍLÝ, CSc.; prof. Berislav BOLFEK, Ph.D.; doc. dr. sc. Jurica BOSNA; doc. Ing. Jozefína DROTÁROVÁ, Ph.D., MBA; doc. Ing. Jiří DUŠEK, Ph.D. (předseda); RNDr. Růžena FEREBAUEROVÁ; PhDr. Jan GREGOR, Ph.D.; doc. Ing. Marie HESKOVÁ, CSc.; doc. MUDr. Lenka HODAČOVÁ, Ph.D.; PhDr. Štěpán KAVAN, Ph.D.; Dr. Mgr. Josef KŘÍHA, Ph.D., LL.M.; doc. Ing. Petra PÁRTLOVÁ, Ph.D.; doc. PhDr. Miroslav SAPÍK, Ph.D.; doc. Ing. Ladislav SKOŘEPA, Ph.D.; doc. Ing. Jaroslav SLEPECKÝ, Ph.D., MBA; doc. Ing. Jarmila STRAKOVÁ, Ph.D.; doc. JUDr. Roman SVATOŠ, Ph.D.; prof. PhDr. Miroslava SZARKOVÁ, CSc.

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Od geopolitických a bezpečnostních hrozeb k regionální
a digitální adaptaci

Autoři: Jiří Dušek a kol.

Vydavatel: Vysoká škola evropských a regionálních studií, z. ú.
Žižkova tř. 1632/5b, 370 01 České Budějovice
e-mail: info@vsers.cz, www.vsiers.cz

Recenzenti: Ing. Jiří Alina, Ph.D.
doc. JUDr. PhDr. PaedDr. Slávka Krásna, Ph.D. et Ph.D.

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AUTORSKÝ KOLEKTIV

DUCHOŇ Ľubomír	kap. 4.2
DUŠEK Jiří	kap. 2.4, anotace, úvod, závěr
HOREMUŽ Martin	kap. 1.1
HUDÁKOVÁ Jarmila	kap. 3.2
KOČVARA Jaroslav	kap. 1.3
KOPER Ján	kap. 2.1
KORENKOVÁ Marcela	kap. 3.2
KOVÁČIK Marián	kap. 3.1
KUBÁT Michal	kap. 2.3
KYPSONOVÁ Iva	kap. 1.3
LEVICKÝ Michal	kap. 3.2
LIKHONOSOVA Ganna	kap. 3.3
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VALACH Maroš	kap. 3.1
VÍGHOVÁ Agneša	kap. 3.2
YAKOVENKO Yaroslava	kap. 4.1
ZAPLATINSKYI Vasyl	kap. 1.2

ANOTACE

Předkládaná vědecká monografie přináší komplexní a interdisciplinární analýzu klíčových transformačních výzev, které zásadním způsobem formují bezpečnost, institucionální stabilitu a socioekonomický rozvoj současného evropského prostoru. Publikace je strukturována do čtyř provázaných tematických celků. První část se zaměřuje na geopolitické posuny v důsledku probíhajícího konfliktu na Ukrajině, scénáře vývoje evropské energetické bezpečnosti a nezávislosti do roku 2035 a specifické asymetrické CBRN hrozby v synergii s šířením dezinformací. Druhý blok reflektuje otázky institucionálního vládnutí a legitimacy zastupitelské demokracie v EU, ekonomickou nákladovost volebních procesů, dopady celní politiky USA a protekcionismu na podnikatelské prostředí a komparaci modelů transformace municipálních struktur i meziobecní spolupráce v Evropě. Třetí oddíl je věnován prostorové analýze socioekonomických disparit v regionech zemí Visegrádské skupiny, finančnímu zdraví a sektorovým specifickým mikropodniků ve strukturálně znevýhodněných regionech a využití nástrojů udržitelného marketingu a ESG ukazatelů k vyrovnávání finančních nerovnováh s důrazem na eliminaci greenwashingu. Závěrečná část zkoumá fenomén digitálního rozpojení (digital decoupling) v globální ekonomice a aplikaci umělé inteligence v projektovém řízení v souladu s mezinárodními standardy informační bezpečnosti. Kniha je určena akademické obci, tvůrcům veřejných politik, představitelům územní samosprávy i odborníkům z praxe podnikového a bezpečnostního managementu.

Klíčová slova:

bezpečnostní architektura, CBRN hrozby, celní politika, dezinformace, digitální rozpojení, energetická bezpečnost, ESG, geopolitika, mikropodniky, municipální struktury, regionální disparity, umělá inteligence, udržitelný marketing, veřejná správa, volební procesy, Visegrádská skupina.

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- D72 Political Processes: Rent-Seeking, Lobbying, Elections, Legislatures, and Voting Behavior
- F13 Trade Policy; International Trade Organizations
- F51 International Conflicts; Negotiations; Sanctions
- F52 National Security; Economic Nationalism
- H77 Intergovernmental Relations; Federalism; Secession
- H83 Public Administration; Public Sector Accounting and Audits
- L26 Entrepreneurship
- M31 Marketing
- O33 Technological Change: Choices and Consequences; Diffusion Processes
- Q43 Energy and the Macroeconomy
- R11 Regional Economic Activity: Growth, Development, Environmental Issues, and Changes
- R58 Regional Development Planning and Policy

ANNOTATION

The presented scientific monograph delivers a comprehensive and interdisciplinary analysis of the key transformational challenges fundamentally shaping the security, institutional stability, and socio-economic development of the contemporary European space. The publication is structured into four interconnected thematic sections. The first part examines geopolitical shifts resulting from the ongoing conflict in Ukraine, development scenarios for European energy security up to 2035, and specific asymmetric CBRN threats combined with disinformation campaigns. The second block reflects on institutional governance and the legitimacy of representative democracy in the EU, the economic efficiency and costs of electoral processes, the impacts of US tariff policy and renewed protectionism on the business environment, and comparative models of municipal restructuring and inter-municipal cooperation across Europe. The third section is devoted to spatial analyses of socio-economic disparities across Visegrad Group regions, the financial resilience and sectoral specifics of microenterprises in disadvantaged districts, and the application of sustainable marketing tools and ESG indicators to level financial imbalances while preventing greenwashing. The final section explores the phenomenon of digital decoupling in the global economy and the deployment of artificial intelligence in project management in strict compliance with international information security standards. The monograph is intended for academics, public administration officials, regional policy makers, and corporate managers.

Keywords:

artificial intelligence, CBRN threats, customs policy, digital decoupling, disinformation, electoral processes, energy security, ESG, geopolitics, microenterprises, municipal structures, public administration, regional disparities, security architecture, sustainable marketing, Visegrad Group.

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system together with other actors not friendly to the EU (China, Iran, or the BRICS group in general), which would have far-reaching (negative) impacts for the EU.

1.2 UKRAJINA VE STRUKTUŘE EVROPSKÉ ENERGETICKÉ BEZPEČNOSTI V KONTEXTU RUSKÉ AGRESE (UKRAINE IN THE STRUCTURE OF EUROPEAN ENERGY SECURITY IN THE CONTEXT OF RUSSIAN AGGRESSION)

The ongoing Russian aggression against Ukraine, which began in 2014 and escalated into a full-scale war in 2022, has become a catalyst for profound transformations in the European energy security system. Large-scale destruction of infrastructure, disruptions in energy supplies, and sanctions policies have led to a rethinking of the structure of energy dependence, an acceleration of the transition to renewable energy sources, and the formation of the concept of energy autonomy.

The European Union, which until 2022 was almost half dependent on Russian energy imports, was forced to reorient its policy towards diversification of sources, expansion of infrastructure connections, and technological modernization. In this process, Ukraine has acquired a new strategic role – not only as a transit country, but also as a potential partner in the formation of a common energy space capable of ensuring the flexibility and stability of regional systems.

The scientific problem is the need to systematically assess how the war changed the parameters of energy security in Europe, determine the potential of Ukraine in its new architecture, and develop development scenarios until 2035. The study is based on a combination of economic, technological, and geopolitical factors that shape the modern model of energy sustainability.

Research Objective

The purpose of the research is a comprehensive analysis of the transformation of European energy security in the context of Russian aggression against Ukraine, identification of key challenges and opportunities for Ukraine as a participant in the European energy space, as well as modeling scenarios for the development of the energy system of Europe and Ukraine for 2025–2035, taking into account geopolitical, economic and technological factors.

Research methods

The study uses an integrated interdisciplinary approach that combines: content analysis of official documents, analytical reports, research; system analysis to identify key components of energy security (infrastructure, supply, prices, technologies, regulatory framework); comparative analysis of EU and Ukrainian practices and policies; scenario method to develop future scenarios.

The State of Ukraine's Energy Security

As a result of the full-scale Russian aggression against Ukraine, the country's energy system has suffered unprecedented destruction. Damage to critical infrastructure facilities – power plants, substations, transmission networks, and oil pipelines – has significantly weakened national energy security (Lisovyi, Andrukh, 2025). In 2022–2025, Russian missile strikes on energy facilities caused the loss of over 50% of peak generation capacity, leading to massive outages, a lack of electricity reserves, and a decrease in the stability of the energy system (Regional Centre for Energy Policy Research, 2024, Yarovyi, 2025).

The gas sector remains a key element of Ukraine's energy security, but at the same time one of the most vulnerable. Before the war, Ukraine produced about 65–70% of its natural gas needs. However, due to hostilities, mining of deposits, and loss of control over some territories, domestic production decreased by almost

a third. According to the Energy Information Administration (EIA), gas consumption in 2023 was about 696 billion cubic feet, which is 3% more than a year earlier, but with a clear trend towards a decrease in industrial consumption. After the cessation of Russian gas transit through Ukraine from January 1, 2025, the structure of flows changed dramatically: the share of the Ukrainian route in European imports decreased from 11% in 2021 to less than 5% in 2024 (Yafimava, 2024). To minimize risks, Ukraine has intensified its diversification policy: agreements have been concluded to import liquefied natural gas (LNG) through Polish terminals in Świnoujście, and joint projects have been launched with gas transmission system operators in Slovakia, the Czech Republic, and Romania (Kolisnyk, 2024). In parallel, energy efficiency programs for households and industry are being developed, which makes it possible to reduce dependence on external suppliers.

Ukraine's oil infrastructure has also suffered critical damage, primarily the Kremenchuk Refinery, which was the country's main refining enterprise. The loss of this facility, as well as the destruction of transport corridors and oil depots, led to a sharp decline in domestic production. While in 2021 Ukraine produced 61.5 thousand barrels of oil per day, in 2023 this figure fell to 7.1 thousand barrels. However, for example, in 2024 Ukrnafta increased oil and gas production by 0.6% and 6.5%, respectively, compared to 2023 (PAT "Ukrnafta", 2024). New import channels contributed to market stabilization. The main suppliers of petroleum products were EU countries – Poland, Lithuania, Greece, and Turkey. Their share in the structure of energy imports exceeded 75%, which indicates high external dependence, but at the same time, effective integration of Ukraine into the European energy space (DiXi Group, 2025).

State policy is currently focused on diversifying supply sources and modernizing backup systems. Projects for the development of biofuels, increasing strategic reserves of petroleum products, and exploring the prospects for the production of "green" hydrogen and synthetic fuels in cooperation with foreign

countries and independently (Doniec, 2024; Patryliak, 2025). These measures are consistent with the decarbonization course set out in the National Energy Strategy until 2050.

The power sector has suffered the most systematic attacks. The destruction of the thermal Zmiivska and Trypilska TPPs and hydroelectric power plants, the undermining of the Kakhovka HPP, and missile attacks on high-voltage infrastructure facilities led to significant losses of generation capacity. Ukraine lost more than 9 GW of generation capacity, which required an urgent restructuring of the supply system (Yalova et al., 2025). The situation has not improved since then.

One of the most significant steps was the connection of the Ukrainian power grid to the European ENTSO-E system, which allowed for bilateral electricity exchange with EU countries and to stabilize the balance of power in crisis situations. This integration solution is considered not only as a technical but also as a geopolitical step towards energy independence (Zvarych, Kharkovskyi, 2025).

The role of renewable energy is growing. Ukraine is actively developing decentralized generation systems - solar panels, wind turbines, biogas plants. According to estimates by the German Energy Agency (dena) analytical center, the potential of rooftop solar power plants in Ukraine exceeds 238 GW, which can provide up to 290 TWh of electricity annually. At the same time, the network of energy storage systems is expanding and autonomous microgrids are being created in communities, which increases resistance to attacks and man-made risks.

Thus, Ukraine's energy security is undergoing a profound transformation, combining a crisis dimension with a process of modernization. The war catalyzed the transition from a centralized, fossil-fuel model to a decentralized, technologically innovative system focused on energy efficiency, EU integration, and the development of renewable energy. While challenges remain significant – especially in the gas and oil sectors – Ukraine's ability to adapt, shape a flexible

security policy, and ensure the stability of energy supplies even in times of war is growing.

Challenges to Energy Security in Europe (2022–2025)

Before the start of Russia's full-scale war against Ukraine, the European Union remained largely dependent on Russian energy imports, particularly natural gas, which accounted for around 40–45% of total imports (Prasad, 2025). The full-scale aggression of 2022 caused unprecedented disruptions in energy supplies, sanctions pressure and geopolitical tensions, resulting in an acute energy crisis marked by a sharp increase in gas and electricity prices, a decline in industrial competitiveness and increased socio-economic tensions. In fact, the attitude towards Russian energy imports has changed as a result of Russia's aggressive actions. These aggressive actions are constantly expanding and already go beyond Russia's war against Ukraine. Thus, Russia has provoked energy instability in Europe and the need to diversify energy supply sources and abandon energy sources from Russia. To some extent, this crisis has negatively affected the Russian economy.

The EU has responded by rapidly diversifying its energy sources, increasing imports of liquefied natural gas (LNG) from the United States, Qatar, Norway and other suppliers. In parallel, a large-scale investment program in renewable energy sources and energy efficiency measures is being implemented. In particular, European companies plan to invest approximately \$600 billion in strategic sectors of the United States by 2028, and total purchases of American energy carriers (liquefied gas, oil, nuclear fuel) are expected to cost about \$750 billion (Delivorias, 2025). At the same time, a large-scale investment program in renewable energy sources (RES) and energy efficiency was launched, which exceeded \$580 billion in 2022–2025. As a result of these actions, dependence on Russian gas has decreased to a level below 15% by 2025 (Bohorodytska, 2025). Despite these efforts, European economies have faced inflationary pressures,

rising production costs and growing risks to competitiveness due to high energy costs and unstable supply (Fabbrini, 2024). The crisis has also exposed structural weaknesses in EU infrastructure – particularly in terms of networks, capacity, reserves and adaptability – which has drawn policy attention to its modernisation and transition to green technologies.

Regional characteristics of energy adaptation are presented for a few selected countries.

Germany, as one of the leading economies in Europe, plays a key role in shaping the EU's energy adaptation. In response to the energy shock, it accelerated the transition to a green energy policy, in particular through a large-scale expansion of renewables, grid development, energy storage and the integration of interregional interconnectors (McDaniel & Bailey, 2024). Germany has become a symbol of a structural shift in EU energy policy. The phasing out of Russian gas in 2022 was accompanied by the launch of new LNG terminals, the acceleration of hydrogen development and the Energiewende 2.0 program. Scenario models predict that Germany could achieve a 100% renewable and sector-integrated energy system by 2050 (Maruf, 2021).

France, with one of the most developed nuclear infrastructures in the world, has focused on increasing the efficiency of nuclear power and developing wind power in coastal regions. Its strategy is based on combining energy sovereignty with decarbonization and regional integration. France is feeling the impact of rising gas prices through imported energy components and grid integration with other countries. Causal modeling studies show that even with the low role of gas in the French energy balance, its price and restrictions on nuclear power have had a significant impact on the cost of electricity, especially due to the dependence on imported flows (Desvallées, 2025).

Hungary is demonstrating a more cautious dynamic, combining pragmatic preservation of imports from Russia with gradual diversification of sources

through participation in the southern gas corridors. This approach provides temporary stability, but reduces the country's strategic autonomy in the long term. Hungary's energy policy demonstrates an interesting balance between pragmatism and political constraints. In 2025, Hungary signed a LNG import agreement with the French company Engie, which is expected to provide around 400 million m³ of gas annually – around 5% of the country's consumption – as part of a diversification of supplies (Xinhua, 2025). Hungary continues to maintain energy ties with Russia, including gas supplies via the TurkStream pipeline. The Hungarian government has often opposed tougher EU energy sanctions, arguing that its “energy security is a sovereign right.” Despite geopolitical pressure, Budapest is trying to maintain maneuverability in energy policy.

Slovakia remains in a difficult position in terms of energy security. Although the country is making efforts to diversify its supplies, it is still heavily dependent on Russian gas, in particular through the TurkStream route. The government has previously stated that it is ready to veto EU sanctions if gas supply guarantees are not met. In addition, in 2025, Slovakia received permission from the EU as an exception to stop importing Russian gas until 2028 (Reuters, 2025). Slovakia is also actively improving its energy efficiency and developing alternative energy sources: in its national plans, it pays attention to the modernization of networks, interstate interconnections and increasing the share of renewables. At the same time, from an economic point of view, the country faces a dilemma: on the one hand, the need to guarantee cheap and stable energy, and on the other, political pressure to reduce dependence on Russia.

The Czech Republic has taken a decisive step towards reducing its dependence on Russian oil. In the first months of 2025, the government officially announced the end of Russian oil imports, providing for a replacement through the Italian TAL pipeline, which connects via Germany. This strategy demonstrates how the country can use infrastructure solutions to ensure energy

security. In addition, the Czech Republic is also investing in renewable energy, flexible grids and interconnectors with neighboring states to reduce the risks of disruptions and maintain system reliability. Scientific publications analyzing energy transitions in Central Europe emphasize that the Czech Republic is on a path of sustainable transformation, but is under pressure from rising gas prices in the short term (Tkach, 2025).

Central and Western European countries are responding to the energy challenges of Russia's war against Ukraine with different strategies that reflect their energy systems, political priorities, and resources. Slovakia and Hungary are trying to balance dependence on Russia with new alternatives, the Czech Republic has already made significant progress in abandoning Russian oil, Germany is transforming its industrial energy sector, and France is adapting its nuclear-based system to new conditions.

These examples can serve as lessons for a pan-European security architecture: diversification of routes, investments in network flexibility, interstate interconnections, price stabilization mechanisms, and legal guarantees – all of these elements should be taken into account in new pan-European energy security strategies.

Possible scenarios for the development of energy in the European Union and the role of Ukraine in these scenarios

Despite the overall progress, the energy crisis has exposed deep structural vulnerabilities of the European Union's infrastructure – insufficient network capacity, regional imbalances in access to renewable energy sources (RES), and the urgent need to increase the resilience of supply systems to external shocks (Fondazione CSF, 2024). These challenges have contributed to a policy reorientation towards energy autonomy, the application of innovations in energy storage technologies, the development of hydrogen and “smart” grids, which are becoming fundamental components of the new energy security architecture

(Durakovic et al., 2024). Some researchers indicate that Europe is gradually moving away from the model of energy interdependence towards the concepts of “energy sovereignty” and “energy solidarity” (LaBelle, 2024). Thus, the period 2022–2025 has become a stage of systemic restructuring of the European energy sector – from strong import pressure to a model of strategic flexibility and autonomy, laying the foundation for the creation of a European Energy Community less vulnerable to external control. However, the direction of this transformation will be largely determined by the geopolitical trajectory of Russia's war against Ukraine. Five potential development scenarios can be identified, each of which imposes its own requirements on Ukraine's role in European energy security.

Scenario 1: Russia's war against Ukraine continues

In a protracted war scenario, Europe will be in a state of “energy mobilization” by the end of the 2030s. Constant tension will force countries to reserve resources for defense, which will limit large-scale investments in the “green transition”. Instead of a strategic “green leap”, the EU can focus on maintaining energy security, stability and protecting industrial sectors through energy subsidies. The role of the USA, Norway and Qatar as LNG suppliers is expected to grow further. Some models show that in such a context, the share of renewables in the EU may reach only 52–55% by 2035 (Maruf et al., 2021).

The geopolitical fragmentation of the energy space may increase: Central European countries (Slovakia, Hungary) will likely retain partial dependence on Russian energy resources, while Western Europe (Germany, France) will accelerate the implementation of innovative RES solutions and hydrogen energy. Russia's invasion of Ukraine has significantly increased energy costs in Europe and forced the acceleration of the energy transformation (Hillebrand, 2023). In such a scenario, Ukraine will be in a state of continuous adaptation: on the one hand, supporting the energy supply of its own territories through strategic reserves

and international assistance; on the other, actively increasing decentralized generation and cooperating with the EU to integrate into energy markets. The Ukrainian energy sector will remain extremely vulnerable to shocks, but at the same time, strengthening cooperation with neighbors and investing in energy modernization can create an “energy pillar” at the heart of the conflict.

Scenario 2: Ending the war with a peace agreement while preserving Russia's aggressive plans

In this scenario, the war formally ends, but Russia maintains a high level of geopolitical tension and uses energy as a means of pressure – through cyber attacks, price manipulation, and gas blackmail. According to researcher Xiaotong Jing, the conflict between Ukraine and Russia in 2022 exacerbated the global energy crisis and forced European players to combine short- and long-term strategies for energy independence (Jing, 2023).

In response, the EU could form a common energy defense system – an integrated LNG market, strategic gas reserves, coordinated hydrogen and electricity exchange systems. According to estimates by Fabbrini, S. (2024), such an approach could reduce vulnerability to external shocks by 40–50%. In this scenario, the share of renewables in the EU energy balance could reach 65–70% by 2035, but the intensive digitalization of networks increases the risks of cyber threats.

A peace agreement will create a basis for Ukraine to gradually renew energy assets, attract investments, and restore renewable capacities. Ukraine can become a participant in joint European energy platforms - an importer and exporter of "green" electricity, with the ability to sell surpluses in the EU network. At the same time, the risk of Russian pressure through energy channels will remain, which will require international support and guarantees. Ukrainian legislative mechanisms and international treaties should provide protection against energy manipulation within the framework of such a peace.

Scenario 3: The disintegration of the Russian Federation into regions and the end of the war

If Russia experiences deep internal destabilization and disintegration into regional units, Europe will receive a unique opportunity to reset energy cooperation. The threat of energy blackmail will decrease - and the prospect of cooperation with de facto new actors in energy trade will arise. Some experts suggest that in such a context, the EU can approve a model of energy sovereignty, avoiding dependence on autocratic suppliers (LaBelle, 2024).

According to the assumptions of Zaghariy V. K., Kovalchuk, T. G. (2021), the share of renewables in the EU may exceed 80% by 2035, and energy costs will gradually stabilize (Zaharii, Kovalchuk, 2021). In this case, a more integrated energy space will occur, in particular in the field of hydrogen, microgrids and flexible storage technologies.

In this scenario, Ukraine could become a central link in a new European energy network: exporting electricity, producing “green hydrogen”, building resilient infrastructure with the ability to connect to various regional systems. The country would also have a chance to receive significant financing and technological contributions from the EU to restore the energy system. Success would depend on Ukraine’s ability to act as a reliable energy partner and provide legally binding guarantees for investors.

Scenario 4: Escalation of the conflict: Russian attack on NATO countries (Baltic States, Poland)

In this dramatic scenario, Russia launches an offensive on the territory of NATO member states, which will lead to a direct confrontation between the Alliance and Moscow. Europe’s energy sector will instantly switch to a war economy mode: centralized management, priority of defense needs and rapid response to attacks on energy infrastructure. In the regions of Eastern Europe, networks and supply lines become strategic targets. In response, the EU and the

US can implement a program of rapid decarbonization through the mass introduction of small modular nuclear reactors (SMRs), microgrids, autonomous storage, hydrogen systems with autonomous control. As researchers note, the cyber threat, combined with physical attacks, becomes the main front of the energy war (Aljohani, 2022). The US can strengthen its support by deploying an “Atlantic energy bridge” with a network of LNG hubs and strategic fuel reserves.

In this case, Ukraine could become a key bridgehead for supporting allies: its energy infrastructure would be strategically important for supplying resources to NATO countries. The need to protect networks, counter cyberattacks, and provide backup generation would increase exponentially. Ukrainian renewable energy and autonomous networks could become a lifeline during attacks. At the same time, the risks of destruction and humanitarian losses are extremely high, which would require large-scale international support and protection.

Scenario 5: The most likely scenario (combined)

According to experts, the most likely scenario is when the war continues in a moderate form with occasional attempts to achieve a truce, but without a final peace. In such a context, Europe will persistently strengthen energy independence, accelerate the “green transition” and the integration of energy markets, while maintaining a high level of defense readiness.

This combination allows the EU to become an energy-sovereign bloc by 2035 with 70–75% of consumption satisfied through domestic or “reliable” sources (USA, Norway, Canada). Ukraine in this context will play the role of a balance between the conflict zone and the zone of European stability: it will be able to serve as a bridge for energy transmission, as a “red line” of stability and at the same time guard its own interests.

Ukrainian renewable energy sources, hydrogen initiatives, and green energy financing programs can become key tools for integration into the European energy sector. In this scenario, Ukraine is not just a consumer, but an active

participant in the EU energy market, maintaining strategic autonomy and ensuring regional balance.

Conclusion

The modern system of energy security in Europe has undergone a radical transformation under the influence of Russian aggression against Ukraine. The war not only exposed the dependence of European states on fossil fuel imports, but also accelerated the transition to a new model – sustainable, decentralized and technologically autonomous. Ukraine, despite the large-scale destruction of energy infrastructure, became a catalyst for this process, proving its ability to ensure the stability of supplies, adapt networks to European standards and integrate into the ENTSO-E energy system. The key trend of the coming decade will be the strengthening of the strategic partnership between Ukraine and the EU in the energy sector. The European market will increasingly need Ukrainian resources – transit capacities, electricity exports, green hydrogen, as well as technological synergies in the field of cyber defense and smart grids. In this context, Ukraine is transforming from an energy security buffer to an active subject in the formation of European energy policy. Joint investment programs, mutual standardization of markets, and development of energy storage infrastructure will strengthen Europe's energy shield.

The forecast for 2025–2035 shows that Ukraine, together with the European Union, can achieve a new level of energy independence – up to 75–80% of its own energy consumption coverage from domestic or "reliable" partner sources. The growth of the share of renewable energy, the development of small modular reactors, hydrogen infrastructure and digital energy management systems will ensure not only resilience to crises, but also the formation of a united European-Ukrainian energy zone capable of guaranteeing security, stability and technological leadership in the world.

SEZNAM INFORMAČNÍCH ZDROJŮ

1. AICPA. 2017. *SOC 2 Trust Services Criteria*. American Institute of Certified Public Accountants, 2017.
2. ALI, S., MACHART, F., VIMMR, M. K. 2012. Negativní aspekty slučování municipalit: analýza akademické diskuze. In *Acta Politologica*, Vol. 4, 2012, No. 3. ISSN 1803-8220, pp. 263–283.
3. AMIGHINI, A., MCMILLAN, M., SANFILIPPO, M. 2017. FDI and Capital Formation in Developing Economies: New Evidence from Industry-level Data. In *NBER Working Paper No. w23049*. Cambridge, MA: National Bureau of Economic Research, 2017. DOI: 10.3386/w23049.
4. AZUD, J., KOPER, J. 1997. Ústavné práva a slobody. In *SAMO (Spoločnosť, armáda osobnosť)*, 1997, č. 2.
5. BAAR, V., KURFÜRST, J. 2016. Kritická geopolitika jako zrcadlo neviditelné skutečnosti: K možnostem větší použitelnosti disciplíny. In *Acta Geographica Universitatis Comenianae*, Vol. 60, 2016, No. 1. ISSN 1338-6034, pp. 3–17.
6. BARTHOLOMEEUSSSEN, T. 2001. Spoločná vec (rozvoj – partnerstvo a medziobecná spolupráca). Bratislava: Skupina budovania partnerstva s podporou Nadácie otvorenej spoločnosti – Open Society Foundation, 2001. 120 s.
7. BAUMANN, J., KRITIKOS, A. S. 2016. The link between R&D innovation and productivity: Are micro firms different? In *Research Policy*, Vol. 45, 2016, No. 6, pp. 1263–1274.
8. BENNETT, R. 1993. *Local Government in the New Europe*. London: Belhaven, 1993. 309 s. ISBN 978-18-5293-287-9.
9. BENNETT, R. 1997. *Local Government in post-socialist cities*. Budapest: Local Government and Public Service Reform Initiative, 1997. 42 s.
10. BERČÍK, P., LOVECKÝ, P. 2003. *Územné zmeny obcí v Slovenskej republike od roku 1990*. Bratislava: Sekcia verejnej správy Ministerstva vnútra SR, 2003. 314 s. ISBN 80-88842-64-6.
11. BINEK, J. a kol. 2011. *Synergie ve venkovském prostoru – Paradoxy rozvoje venkova*. Brno: GaREP, 2011. 64 s. ISBN 978-80-904308-6-0.
12. BLAŽEK, B. 2004. *Venkovy: anamnéza, diagnóza, terapie*. Brno: Era, 2004. 184 s. ISBN 80-86517-90-X.
13. BOHORODYTSKA, H. YE. 2025. Analiz tendentsii rozvytku vidnovliuvanoi enerhetyky u YeS. In *Upravlinnia zminamy ta innovatsii*, 2025, No. 14, pp. 186–191. DOI: 10.32782/CMI/2025-14-30.
14. CAPPELLANO, F., KUROWSKA-PYSZ, J. 2020. The Mission-Oriented Approach for (Cross-Border) Regional Development. In

- Sustainability*, Vol. 12, 2020, No. 12, Art. 5181. ISSN 2071-1050. DOI: 10.3390/su12125181.
15. CENTIRE. 2022. *Analýza kľúčových odvetví hospodárstva SR za roky 2019 a 2020*. Bratislava: Centire, 2022. 396 s. ISBN 978-80-570-3809-2.
 16. CEPOI, C.-O., DUMITRESCU, B. A., LEONIDA, I. 2024. Investigating the Impact of COVID-19 Policy Decisions on Economic Growth: Evidence from EU Countries. In CHIVU, L., IOAN-FRANC, V., GEORGESCU, G., DE LOS RÍOS CARMENADO, I., ANDREI, J. V. (eds.). *Constraints and Opportunities in Shaping the Future: New Approaches to Economics and Policy Making*. Cham: Springer Nature Switzerland, 2024. pp. 241–248. ISBN 978-3-031-47925-0. DOI: 10.1007/978-3-031-47925-0_19.
 17. COULSON, A., CAMPBELL, A. 2008. *Local Government in Central and Eastern Europe: The Rebirth of Local Democracy*. Oxon: Routledge, 2008. 172 s. ISBN 978-0-415-41152-3.
 18. CROUCH, C. 2000. *Coping with Post-Democracy*. London: Fabian Society, 2000. 73 s. ISBN 0716305984.
 19. CSATH, M. 2021. Sustainability Requires Balanced Economic and Social Development: The Example of the V4 Countries. In *Public Governance, Administration and Finances Law Review*, Vol. 5, 2020, No. 1, pp. 5–37. DOI: 10.53116/pgafmr.2020.1.1.
 20. ČAJKOVÁ, A., JANKELOVÁ, N., MASÁR, D. 2023. Knowledge Management as a Tool for Increasing the Efficiency of Municipality Management in Slovakia. In *Knowledge Management Research & Practice*, Vol. 21, 2023, No. 2. ISSN 1477-8246, pp. 292–302. DOI: 10.1080/14778238.2021.1895686.
 21. ČAPKOVÁ, S. a kol. 2001. *Štruktúra územnej samosprávy vo vybraných štátoch Európy: Porovnávacia štúdia*. Bratislava: Nadácia vzdelávania samosprávy SR, 2001. 140 s. ISBN 80-88947-07-3.
 22. DAHL, R. 2008. *Democracy and its Critics*. New Haven and London: Yale University Press, 2008. 397 s. ISBN 0-300-04938-2.
 23. DAVENPORT, T. H., RONANKI, R. 2018. Artificial Intelligence for the Real World. In *Harvard Business Review*, Vol. 96, 2018, No. 1, pp. 108–116.
 24. DAVEY, K. a kol. 2011. *Local Government in Critical Times: Policies for Crisis, Recovery and a Sustainable Future*. Strasbourg: Council of Europe–Centre of Expertise for Local Government Reform, 2011. 152 s.
 25. DECOVILLE, A., DURAND, F. 2017. Challenges and Obstacles in the Production of Cross-Border Territorial Strategies: The Example of the Greater Region. In *Transactions of the Association of European Schools of Planning*, Vol. 1, 2017, No. 1. ISSN 2566-2147, pp. 65–78.
 26. DELIVORIAS, A. 2025. *EU energy partnerships: United States. BRIEFING. Energy cooperation with non-EU countries* [online].

- European Parliament, 2025 [cit. 2025-10-11]. Available at WWW: <[https://www.europarl.europa.eu/RegData/etudes/BRIE/2025/769500/EPRS_BRI\(2025\)769500_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2025/769500/EPRS_BRI(2025)769500_EN.pdf)>.
27. DELPIROU, A. 2018. *La Couleur Des Gilets Jaunes*. Vie Idées. Paris: Collège de France, 2018. 8 p.
 28. DEPRAZ, S. 2019. La France contrainte des gilets jaunes. In *Analyse Opinion Critique*, Vol. 1, 2019, pp. 75–80.
 29. DESTEFANIS, S., UR REHMAN, N. 2022. *Investment and Employment Across the European Regions: An Analysis for Types of Investment* [online]. SSRN, 2022. DOI: 10.2139/ssrn.4305831.
 30. DESVALLÉES, L. 2023. In the shadow of nuclear dependency: competing energies in the French electricity sector. In *Energy Research & Social Science*, Vol. 98, 2023, Art. 102954. DOI: 10.1016/j.erss.2023.102954.
 31. DIXI GROUP. 2025. *Skilky Ukraina vytratyla na import enerhoresursiv za tretii rik povnomasshtabnoho vtorhnennia* [online]. 2025 [cit. 2025-10-11]. Available at WWW: <<https://dixigroup.org/skilky-ukrayina-vytratyla-na-import-energoresursiv-za-tretij-rik-povnomasshtabnogo-vtorgnennya/>>.
 32. DONIETS, D. M. 2024. Analiz vyklykiv ta zahroz na rynku naftoproduktiv v Ukraini. In *Biznes-Inform*, 2024, No. 1, pp. 235–240. DOI: 10.32983/2222-4459-2024-1-235-240.
 33. DURAKOVIC, G., ZHANG, H., KNUDSEN, B. R., TOMASGARD, A., DEL GRANADO, P. C. 2024. Decarbonizing the European energy system in the absence of Russian gas: Hydrogen uptake and carbon capture developments in the power, heat and industry sectors. In *Journal of Cleaner Production*, Vol. 435, 2024, Art. 140473. Available at WWW: <<https://arxiv.org/pdf/2308.08953>>.
 34. DURAND, F., DECOVILLE, A. 2020. A multidimensional measurement of the integration between European border regions. In *Journal of European Integration*, Vol. 42, 2020, No. 2. ISSN 1477-2280, pp. 163–178. DOI: 10.1080/07036337.2019.1659857.
 35. DUŠEK, J. 2025. Transformation of Settlement Structures in Europe: Trends, Challenges, and Reform Approaches. In *Land*, Vol. 14, 2025, No. 1, Art. 167. DOI: 10.3390/land14010167.
 36. EICHENSEHR, K. E. 2024. Governing the digital economy: Transatlantic accommodation and.... In *International Journal*, Vol. 79, 2024, No. 2. DOI: 10.1080/07036337.2024.2398429.
 37. EJSJ. 2023. The role of the virtual economy in advancing sustainable development: Exploring network semantics, cyber risks, and digitalization. In *European Journal of Sustainable Development*, Vol. 12, 2023, No. 2, pp. 107–125. DOI: 10.14207/ejsd.2023.v12n2p107.

38. EREMENKO, O. S. 2022. Digitalization for Ukraine's recovery. In *Efektivna ekonomika*, 2022, No. 12, pp. 1–8. DOI: 10.32702/2307-2105-2022.12.59.
39. ETEZADZADEH, C. 2015. *Smart City – Stadt Der Zukunft?* Wiesbaden: Springer Vieweg Verlag, 2015. 63 s. ISBN 978-3-658-09794-3.
40. EU PERSPECTIVES. 2025. *Europe's wake-up call: Kallas urges unity as Draghi doubts EU's power* [online]. 2025, 07.09.2025 [cit. 2025-09-29]. Available at WWW: <<https://euperspectives.eu/2025/09/europes-wake-up-call-kallas-urges-unity-as-draghi-doubts-eus-power/>>.
41. EUROPEAN COMMISSION. 2025. *White Paper for European Defence – Readiness 2030* [online]. 2025, 12.03.2025 [cit. 2025-08-22]. Available at WWW: <https://commission.europa.eu/document/download/e6d5db69-e0ab-4bec-9dc0-3867b4373019_en?filename=White%20paper%20for%20European%20defence%20%E2%80%93%20Readiness%202030.pdf>.
42. EUROPEAN PARLIAMENT. 2021. *Impacts of the COVID-19 pandemic on EU industries* [online]. Brussels: European Parliament Think Tank, 2021 [cit. 2024-02-26]. Available at WWW: <[https://www.europarl.europa.eu/thinktank/en/document/IPOL_STU\(2021\)662903](https://www.europarl.europa.eu/thinktank/en/document/IPOL_STU(2021)662903)>.
43. EUROPEAN PARLIAMENT. 2025. *Prieskum EP zima 2025 – Slovensko* [online]. Eurobarometer, 2025 [cit. 2025-09-01]. Dostupné z WWW: <<https://europa.eu/eurobarometer/surveys/detail/3492>>.
44. EUROPEAN UNION. 2009. *EU Action Plan on CBRN security* [online]. 2009 [cit. 2025-09-01]. Available at WWW: <<https://eur-lex.europa.eu/EN/legal-content/summary/eu-action-plan-on-chemical-biological-radiological-and-nuclear-security.html>>.
45. EUROPEAN UNION. 2022. *The Strategic Compass of the European Union* [online]. 2022, 22.03.2022 [cit. 2025-08-29]. Available at WWW: <<https://www.strategic-compass-european-union.com/>>.
46. EURÓPSKA ÚNIA. 2016. Nariadenie Európskeho parlamentu a Rady (EÚ) 2016/679 z 27. apríla 2016 o ochrane fyzických osôb pri spracúvaní osobných údajov a o voľnom pohybe takýchto údajov, ktorým sa zrušuje smernica 95/46/ES (všeobecné nariadenie o ochrane údajov). In *Úradný vestník Európskej únie*, L 119, 4.5.2016, s. 1–88.
47. EUROSTAT. 2024. *EU statistics on income and living conditions (EU-SILC) methodology - monetary poverty - Statistics Explained* [online]. 2024 [cit. 2024-03-15]. Available at WWW: <[https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_statistics_on_income_and_living_conditions_\(EU-SILC\)methodology-_monetary_poverty](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_statistics_on_income_and_living_conditions_(EU-SILC)methodology-_monetary_poverty)>.
48. FABBRINI, S. 2024. *Energy security and competitiveness in the EU after 2022: Structural risks and policy options*. Rome: CSF Publications,

2024. ISSN 2038-0623. ISBN 979-12-80969-16-3. Available at WWW: <https://www.fondazioneccsf.it/images/2024/Research-paper/CSF-RP_FFabbrini_EU-Energy-Crisis_October2024.pdf>.
49. FARÈ, L. 2022. Exploring the Contribution of Micro Firms to Innovation: Does Competition Matter? In *Small Business Economics*, Vol. 59, 2022, No. 3, pp. 1081–1113. DOI: 10.1007/s11187-021-00575-5.
 50. FDA. 1997. *21 CFR Part 11 – Electronic Records; Electronic Signatures*. U.S. Food and Drug Administration, 1997.
 51. FINSTAT. 2025. *FinStat - online dátový portál* [online]. Bratislava: FinStat s.r.o., 2025 [cit. 2025-09-30]. Dostupné z WWW: <<https://www.finstat.sk>>.
 52. FISUNEKO, N. O. 2023. Strategic priorities for ensuring effective economic development of Ukraine under digital transformation. In *Ekonomika ta suspilstvo*, 2023, No. 55. DOI: 10.32782/2524-0072/2023-55-43.
 53. FORBES LUXEMBOURG. 2023. *Defending the invisible: Ukraine's fight for digital sovereignty* [online]. Forbes Luxembourg, 2023 [cit. 2024-09-09]. Available at WWW: <<https://www.forbes.lu/defending-the-invisible-ukraine-fight-for-digital-sovereignty/>>.
 54. FÜRST, D. 2007. Regional Governance. In BENZ, A., LÜTZ, S., SCHIMANK, U., SIMONIS, G. (eds.). *Handbuch Governance: Theoretische Grundlagen und Empirische Anwendungsfelder*. Wiesbaden: VS Verlag, 2007. ISBN 978-3-531-14748-2, s. 353–365.
 55. GALINDO, A. J., MELÉNDEZ, M. 2013. Small is not beautiful: firm-level evidence of the link between credit, firm size and competitiveness in Colombia. In *IDB Working Paper*, No. IDB-WP-467, 2013. DOI: 10.18235/0011467.
 56. GIDLUND, J., JERNECK, M. 2000. *Local and Regional Governance in Europe: Evidence from Nordic Regions*. Cheltenham: Edward Elgar Publishing, 2000. 291 s. ISBN 1-84064-368-4.
 57. GODA, S., BÁŇAIOVÁ, K. 2018. Európska bezpečnosť z pohľadu OBSE. In *Politické vedy*, Vol. 21, 2018, No. 1. ISSN 1335-2741, pp. 176–192. DOI: 10.24040/politickevedy.2018.21.1.176-192.
 58. GRANTSEVA, V. 2025. *Call it 'sharp power' Political scientist Vera Grantseva explains the transformation of Russia's global influence* [online]. Riga: Meduza, 2025, 13.02.2025 [cit. 2025-09-12]. Available at WWW: <<https://meduza.io/en/feature/2025/02/13/call-it-sharp-power>>.
 59. GRI. 2023. *Global Reporting Initiative Standards – 2023 Update* [online]. GRI Secretariat, 2023 [cit. 2024-09-09]. Available at WWW: <<https://www.globalreporting.org>>.

60. GÜNTNER, S., SCHWEITZER, E., JAKUBOWSKI, P. 2017. *Smart City Charta: Digitale Transformation in den Kommunen Nachhaltig Gestalten*. Bonn: Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR) im Bundesamt für Bauwesen und Raumordnung (BBR), 2017. 34 s. ISBN 978-3-87994-204-6.
61. HAHARINA, K. 2022. Financial risk management and marketing sustainability: synergetic approaches. In *Herald of Khmelnytskyi National University: Economic Sciences*, 2022, No. 306(6), pp. 215–222.
62. HAN, J. 2023. The digital power paradox: U.S.–China competition, semiconductors, and weaponized interdependence. In KIM, Y., LEE, W. (eds.). *Digital governance and sustainable development*. Cham: Springer, 2023. pp. 147–168. DOI: 10.1007/978-981-19-9980-2_7.
63. HELD, D. 1991. *Political Theory Today*. Stanford: Stanford University Press, 1991. 392 s. ISBN 978-0804708981.
64. HILLEBRAND, E. (ed.). 2023. *Energy Without Russia: How Europe Has Reacted to the Supply Crisis after the Attack on Ukraine: A Survey of Country Studies*. Budapest: Friedrich-Ebert-Stiftung, 2023. 212 p. ISBN 978-615-6289-71-1. Available at WWW: <<https://library.fes.de/pdf-files/bueros/budapest/20680-20231120.pdf>>.
65. CHASTOKOLENKO, I. 2023. Strategic priorities and instruments of the state policy of informatization of the economic system. In *Visnyk Khmelnytskyi National University*, 2023, No. 316(2), pp. 45–52. DOI: 10.31891/2307-5740-2023-316-2-7.
66. IISS. 2021. *The European Union in the COVID-19 storm: economic, political and stability challenges* [online]. International Institute for Strategic Studies, 2021 [cit. 2024-02-26]. Available at WWW: <<https://www.iiss.org/research-paper/2021/02/eu-covid-19-economic-political-stability-challenges/>>.
67. ISO/IEC 27001:2022. *Information security, cybersecurity and privacy protection – Information security management systems*. Geneva: International Organization for Standardization, 2022.
68. JACOBS, J. 2016. Spatial Planning in Cross-border Regions: A Systems-theoretical Perspective. In *Planning Theory*, Vol. 15, 2016, No. 1. ISSN 1741-3052, pp. 68–90. DOI: 10.1177/1473095215570152.
69. JARRAHI, M. H. 2018. Artificial intelligence and the future of work: Human-AI symbiosis in organizational decision making. In *Business Horizons*, Vol. 61, 2018, No. 4, pp. 577–586. DOI: 10.1016/j.bushor.2018.03.007.
70. JING, X. 2023. The Russia-Ukraine War and Energy Security: Impact and Policies, From a European Perspective. In *Highlights in Business, Economics and Management*, Vol. 3, 2023, pp. 215–222. DOI: 10.54097/hbem.v3i.4745.

71. JOHN, P. 2001. *Local Governance in Western Europe*. London: SAGE Publications, 2001. 202 s. ISBN 0-7619-5636-0.
72. KAMENÍČKOVÁ, V. 2011. *Hospodaření obcí podle velikostních skupin (příjmová část rozpočtu)* [online]. Praha: Triada, 2011, 29.12.2011 [cit. 2025-03-14]. Dostupné z WWW: <<http://denik.obce.cz/clanek.asp?id=6521067>>.
73. KAŠPAROVÁ, L. a kol. 2009. *Kohezní politika: Osídlení v České republice: Partnerství měst a venkova*. Praha: Ministerstvo pro místní rozvoj ČR, 2009. 91 s. ISBN 978-80-903928-7-8.
74. KAUNERT, Ch., LEONARD, S. 2020. The European Union's Response to the CBRN Terrorist Threat: A Multiple Streams Approach. In *Revue Politique Européenne* [online]. CAIRN Info, 2020, No. 3 [cit. 2025-09-01]. Available at WWW: <<https://shs.cairn.info/revue-politique-europeenne-2019-3-page-148?lang=en>>.
75. KHAN, K. A., MOHAMMED, A. A., ROHIT, K. V., HOANG, H. C. 2023. A Sectoral Perspective on the Sustainable Growth of SMEs: Empirical Research in the V4 Countries. In *Journal of Business Sectors*, Vol. 1, 2023, No. 1. ISSN 2989-3445, pp. 10–19.
76. KILP, A., PANKHURST, J. G. 2025. The Mandate of the World Russian People's Council and the Russian Political Imagination: Scripture, Politics and War. In *Religions*, Vol. 16, 2025, No. 4, Art. 466. DOI: 10.3390/rel16040466.
77. KIPKER, D.-K., TZANETATOS, D., MALGIERI, G. 2025. Attributes of digital sovereignty: A conceptual framework. In *International Affairs*, Vol. 101, 2025, No. 4, pp. 1461–1478. DOI: 10.1080/14650045.2025.2521548.
78. KOLEKTIV AUTORŮ. 2007. *Good Practices in Intermunicipal Cooperation in Europe*. Strasbourg: European Committee on Local and Regional Democracy, 2007. 60 s.
79. KOLISNYK, M. 2024. *Yak Ukraini staty skhidnoievropeiskym hazovym khabom* [online]. Ministerstvo enerhetyky Ukrainy, 2024 [cit. 2025-10-11]. Available at WWW: <<https://mev.gov.ua/storinka/yak-ukrayini-staty-skhidnoievropeyskym-hazovym-khabom-kolonka-zastupnyka-ministra-mykoly>>.
80. KOLLÁR, D. 2022. Dezinformácie ako kľúčová bezpečnostná výzva súčasnosti v kontexte rusko-ukrajinského konfliktu. In *Politické vedy*, Vol. 25, 2022, No. 3. ISSN 1335-2741, pp. 87–109. DOI: 10.24040/politickevedy.2022.25.3.87-109.
81. KOVALCHUK, M. 2023. Marketing strategies for financial stability of enterprises under sustainable development goals. In *Bulletin of Taras Shevchenko National University of Kyiv: Economics*, 2023, No. 258(3), pp. 33–40.

82. KOZHEMIANKINA, O. 2024. Analytical toolkit for assessing financial imbalances in dynamic economic systems. In *Economics and Forecasting*, 2024, No. 1(186), pp. 44–58.
83. KULAŠIK, P., TÓTH, R. 1998. *Úvod do politológie*. Liptovský Mikuláš: Tatra revue, 1998. 163 s. ISBN 80-967988-5-5.
84. KUZIEV, N. A. 2022. Big tech and the nation-state. In DEMIR, A., DALGIC, T. (eds.). *Shaping smart and health ageing*. Cham: Springer, 2022. pp. 1–18. DOI: 10.1007/978-981-19-3682-1_1.
85. KWABENA, et al. 2024. The Geopolitics of the Russian-Ukrainian War: Implications for Africa in International Relations. In *European Journal of Development Studies*, Vol. 4, 2024, No. 4. ISSN 2736-660X. DOI: 10.24018/ejdevelop.2024.4.4.197.
86. LABELLE, M. 2024. Breaking the era of energy interdependence in Europe: A multidimensional reframing of energy security, sovereignty, and solidarity. In *Energy Strategy Reviews*, Vol. 52, 2024, Art. 101314. DOI: 10.1016/j.esr.2024.101314.
87. LAGOVYSKYI, V. V. 2023. Evolution of the concept "digital economy". In *Zbirnyk naukovykh prats Natsionalnoho universytetu*, 2023, No. 1, pp. 131–154. DOI: 10.33244/2617-5940.1.2023.131-154.
88. LAWLESS, M., O'CONNELL, B., O'TOOLE, C. 2015. Financial Structure and Diversification of European Firms. In *Applied Economics*, Vol. 47, 2015, No. 23, pp. 2379–2398. DOI: 10.1080/00036846.2015.1005829.
89. LEACH, S., DAVIS, H. 1996. *Enabling or Disabling Local Government: Choices for the Future*. Buckingham: Open University Press, 1996. 184 s. ISBN 03-351-9348-X.
90. LEVICKÝ, M. 2022. *Finančná analýza podniku*. Nitra: UKF, 2022. 117 s. ISBN 978-80-558-1861-0.
91. LICCHETTA, M., MEYERMANS, E. 2022. Gross Fixed Capital Formation in the Euro Area During the COVID-19 Pandemic. In *Intereconomics*, Vol. 57, 2022, pp. 238–246. DOI: 10.1007/s10272-022-1058-1.
92. LIDSTRÖM, A. 1998. The Comparative Study of Local Government Systems – A Research Agenda. In *Journal of Comparative Policy Analysis*, Vol. 1, 1998, No. September. ISSN 1387-6988, pp. 97–115.
93. LIKHONOSOVA, G. 2025. Managing the digitalization of marketing audit and its financial support. In *Herald of Khmelnytskyi National University: Economic Sciences*, 2025, No. 340(2), pp. 260–264. DOI: 10.31891/2307-5740-2025-340-42.
94. LIKHONOSOVA, G., MAMANAZAROV, M., ADILCHAEV, R., MAMANAZAROV, A. 2025. Socio-economic development management: marketing the use of reserves and potentials. In *Access to*

- Science, Business, Innovation in Digital Economy*, Vol. 6, 2025, No. 2, pp. 319–335. DOI: 10.46656/access.2025.6.2(5).
95. LISOVYI, A. V., ANDRUKH, O. V. 2025. Enerhetychna bezpeka Ukrainy: vyklyky viiny ta perspektyvy vidnovlennia ekonomichnoho potentsialu. In *Ukrainskyi ekonomichnyi chasopys*, 2025, No. 8, pp. 40–43. DOI: 10.32782/2786-8273/2025-8-7.
 96. MAKSYMENKO, I., AKIMOV, A., MARKOVA, S. 2024. Trends in the digital transformation of Ukraine's economy in the context of war. In *Baltic Journal of Economic Studies*, Vol. 10, 2024, No. 1, pp. 175–184. DOI: 10.30525/2256-0742/2024-10-1-175-184.
 97. MARUF, M. N. I. 2021. Open model-based analysis of a 100% renewable and sector-coupled energy system – The case of Germany in 2050. In *Applied Energy*, Vol. 288, 2021, Art. 116584. DOI: 10.1016/j.apenergy.2021.116584.
 98. MASIAK, C., BLOCK, J. H., MORITZ, A., LANG, F., KRAEMER-EIS, H. 2019. How Do Micro Firms Differ in Their Financing Patterns from Larger SMEs? In *Venture Capital*, Vol. 21, 2019, No. 4, pp. 301–325. DOI: 10.1080/13691066.2019.1569333.
 99. MASLAK, O., GRISHKO, N., ODINTSOV, M., YAKOVENKO, Y., BUCHASHVILI, K. 2021. Organizational and economic mechanisms of qualitative modeling of sustainable development of the enterprise. In *E3S Web of Conferences*, Vol. 255, 2021, Art. 02008. DOI: 10.1051/e3sconf/202125502008.
 100. MASLAK, O., GRISHKO, N., YAKOVENKO, Y., MOHAMMED, S., BUCHASHVILI, K., SZABOLCS, N. 2022. Scenarios of the logistics systems development for industrial enterprises in a view of sustainability and efficiency. In *International Journal of Global Environmental Issues*, Vol. 21, 2022, No. 2/3/4, pp. 303–321. DOI: 10.1504/IJGENVI.2022.124991.
 101. MCDANIEL, S., BAILEY, D. 2024. Winning the transition: Strategic state action in France and Germany amid the low carbon transition and energy shock. In *Competition & Change*, Vol. 29, 2024, No. 2, pp. 225–243. DOI: 10.1177/10245294241286925.
 102. MIKHAILOV, A. 2024. Modelling the interaction between financial sustainability and environmental strategies. In *Eastern European Journal of Enterprise Technologies*, 2024, No. 2(122), pp. 44–53.
 103. MIKULČÍKOVÁ, A. 2008. Pravicový extrémizmus ako reálna hrozba stability politických systémov v globalizujúcom sa svete. In LASICOVÁ, J. a kol. (eds.). *Zborník príspevkov z vedeckej konferencie s medzinárodnou účasťou Bezpečnostné fórum '08*. Banská Bystrica: Univerzita Mateja Bela, 2008. s. 165–173. ISBN 978-80-8083-575-0.

104. MINISTERSTVO FINANCIÍ SR. 2025. *Register účtovných závierok* [online]. Bratislava: Ministerstvo financií SR, 2025 [cit. 2025-09-29]. Dostupné z WWW: <<https://www.registeruz.sk/>>.
105. MINISTERSTVO VNÚTRA SR. 2024. *Plán rozvoja najmenej rozvinutého okresu Rimavská Sobota z 27. júla 2022 v znení Dodatku č. 1 z 29. apríla 2024* [online]. Bratislava: Ministerstvo vnútra SR, 2024, 29. apríla 2024 [cit. 2025-09-15]. Dostupné z WWW: <<https://www.minv.sk/?plan-rozvoja-nro-rimavska-sobota>>.
106. MISHRA, D., MISHRA, A. 2020. Application of AI in Software Project Management. In *Journal of Systems and Software*, Vol. 166, 2020, Art. 110593. DOI: 10.1016/j.jss.2020.110593.
107. MONNAT, S. M., BROWN, D. L. 2017. More than a Rural Revolt: Landscapes of Despair and the 2016 Presidential Election. In *Journal of Rural Studies*, Vol. 55, 2017, No. 227. ISSN 0743-0167, pp. 227–236. DOI: 10.1016/j.jrurstud.2017.08.010.
108. MORA, J. J., ESPADA CASTRO, A. D. 2024. The determinants of credit restrictions and their impact on micro firms: the case of Colombia. In *Journal of Economic Studies*, Vol. 51, 2024, No. 6, pp. 1231–1246. DOI: 10.1108/JES-08-2023-0403.
109. MÜLLNER, V., NEČAS, K. 2024. The Bucharest Nine Part of NATO's Eastern Flank: an Analysis of Military Investment on Equipment. In *Vojenské rozhledy*, Vol. 33, 2024, No. 3. ISSN 1210-3292, pp. 3–26. DOI: 10.3849/2336-2995.33.2024.03.003-026.
110. MYSLIMI, G., KRISDELA, K. 2015. Impact of SMEs in economic growth in Albania. In *European Journal of Sustainable Development*, Vol. 5, 2016, No. 3. ISSN 1913-9071, pp. 151–158. DOI: 10.14207/ejsd.2016.v5n3p151.
111. NATO. 2022. *NATO's chemical, biological, radiological, and nuclear defence policy* [online]. NATO, 2022 [cit. 2025-09-01]. Available at WWW: <https://www.nato.int/cps/en/natohq/official_texts_197768.htm?selectedLocale=us>.
112. NOVOSIOLOVA, T., MARTELLINI, M. 2021. Effective and comprehensive CBRN security risk management in the 21st century. In *Non-Proliferation and Disarmament Papers*, 2021, No. 75.
113. NOVOTNÁ, T. 2017. The EU as a Global Actor: United We Stand, Divided We Fall. In *Journal of Common Market Studies*, Vol. 55, 2017, No. 4. pp. 177–191. DOI: 10.1111/jcms.12601.
114. NYE, J. S. 1990. Soft Power. In *Foreign Policy*, 1990, No. 80. ISSN 0015-7120, pp. 153–171.
115. NYE, J. S. 2023. *Soft Power and Great-Power Competition: Shifting Sands in the Balance of Power Between the United States and China*. Singapore: Springer, 2023. 208 p. ISBN 978-981-99-0713-7. DOI: 10.1007/978-981-99-0714-4.

116. OECD. 2022. *Bridging the ESG data gap* [online]. Paris: Organisation for Economic Co-operation and Development, 2022 [cit. 2024-09-09]. Available at WWW: <<https://www.oecd.org/finance/bridging-the-esg-data-gap.pdf>>.
117. OECD. 2022. *La transformation numérique à l'appui de la reprise en Ukraine*. Paris: OECD Publishing, 2022. DOI: 10.1787/993997a6-fr.
118. PADDISON, R., RAE, N. 2017. Brexit and Scotland: Towards a Political Geography Perspective. In *Social Space*, Vol. 13, 2017, No. 1. ISSN 2084-7696, pp. 1–18.
119. PASARA, M. T., GARIDZIRAI, R. 2020. Causality Effects among Gross Capital Formation, Unemployment and Economic Growth in South Africa. In *Economies*, Vol. 8, 2020, No. 2, Art. 26. DOI: 10.3390/economies8020026.
120. PAT «UKRNAFTA». 2024. *Zvit pro vydobutok vuhlevodniv* [online]. 2024 [cit. 2025-10-11]. Available at WWW: <<https://www.nefterynok.info/novosti/ukrnafta-u-2024-roc-zblshila-vidobutok--nafti->>.
121. PATRYLIAK, L. K. 2025. Biopalyvo i naftove palyvo v konteksti palyvnoi nezalezhnosti Ukrainy. In *Visnyk NAN Ukrainy*, 2025, No. 2, pp. 112–120. DOI: 10.15407/visn2025.02.054.
122. PAVLÍNEK, P. 2018. Global Production Networks, Foreign Direct Investment, and Supplier Linkages in the Integrated Peripheries of the Automotive Industry. In *Economic Geography*, Vol. 94, 2018, No. 2, pp. 141–165. DOI: 10.1080/00130095.2017.1393313.
123. PAVLÍNEK, P. 2023. Transition of the automotive industry towards electric vehicle production in the east European integrated periphery. In *Empirica*, Vol. 50, 2023, pp. 35–73. DOI: 10.1007/s10663-022-09554-9.
124. PAZOUŘEK, J. 1914. *Ottův obchodní slovník*. Praha: Nákladem J. Otty, [1914]. Sv. 1. Dostupné z WWW: <<https://ndk.cz/uuid/uuid:daab425a-7309-42cb-9a9f-0b8d57c335b0>>.
125. PETRENKO, I. 2023. Financial disbalances in national economies: Structural causes and regulatory mechanisms. In *Finance of Ukraine*, 2023, No. 3(309), pp. 12–26.
126. PETROV, K. 2024. Digitalization of Regional Development and Local Survival of Local Business. In *Management & Education / Upravlenie i Obrazovanie*, Vol. 20, 2024, No. 1, pp. 33–41.
127. PLANGGER, M. 2019. Exploring the role of Territorial Actors in Cross-border Regions. In *Territory, Politics, Governance*, Vol. 7, 2019, No. 2. ISSN 2162-2671, pp. 156–176. DOI: 10.1080/21622671.2018.1447040.
128. PORVAZNÍK, J., LJUDVIGOVÁ, I., ČAJKOVÁ, A. 2018. Holistic Competence of Leadership and Managerial Subjects. In *Politické vedy*, Vol. 21, 2018, No. 2. ISSN 1335-2741, pp. 56–77.

129. PRASAD, A. 2024. *YeS zmenshyv spozhyvannia rosiiskoho hazu, yoho chastka u importi skorotylasia do 18%* [online]. Forbes Ukraine, 2024, 11.09.2024 [cit. 2025-10-11]. Available at WWW: <<https://forbes.ua/news/es-zmenshiv-spozhyvannya-rosiyskogo-gazu-yogo-chastka-u-importi-skorotilas-do-18-11092024-23562>>.
130. PRISM. 2025. *Digital decoupling* [online]. 2025 [cit. 2025-01-15]. Available at WWW: <<https://prism.sustainability-directory.com/term/digital-decoupling/>>.
131. REGIONAL CENTRE FOR ENERGY POLICY RESEARCH (REKK). 2024. *Revitalizing Ukraine's energy system* [online]. Budapest: REKK, 2024 [cit. 2025-10-11]. Available at WWW: <https://rekk.hu/downloads/academic_publications/ua_energy_web.pdf>.
132. RENAUD, F. 2018. *Current and future CBRN threats* [online]. Guyancourt: Ouvry, 2018 [cit. 2025-09-01]. Available at WWW: <<https://ouvry.com/en/current-and-future-cbrn-terrorist-threats/>>.
133. REUTERS. 2025. *YeS obiide veto Uhorshchyny i Slovachchyny dlia zaborony rosiiskoho hazu* [online]. Finclub, 2025, 17.06.2025 [cit. 2025-10-11]. Available at WWW: <<https://finclub.net/news/yes-obiide-veto-uhorshchyny-i-slovachchyny-dlia-zaborony-rosiiskoho-hazu.html>>.
134. ROMO, B. A. 2022. Digital economy. In GRECO, L. (ed.). *Handbook of Research on Digital Transformation and Challenges to Data Security and Privacy*. Hershey: IGI Global, 2022. pp. 186–205. DOI: 10.4018/978-1-7998-8382-1.ch010.
135. ROSPUTINSKÝ, P. 2021. *Európska politika susedstva s akcentom na Východné partnerstvo* [online]. Prague: Institute of International Relations Prague, 2021, 25.02.2021 [cit. 2025-09-25]. Available at WWW: <<https://www.perspectives.cz/en/article/europska-politika-susedstva-s-akcentom-na-vychodne-partnerstvo>>.
136. RUGGIERO, A. 2013. Communication challenges in CBRN terrorism crises: Expert perception. In *Journal of Contingencies and Crisis Management*, Vol. 21, 2013, Issue 3 [online]. [cit. 2025-09-01]. DOI: 10.1111/1468-5973.12065.
137. RYAN, R. M., O'TOOLE, C. M., MCCANN, F. 2014. Does bank market power affect SME financing constraints? In *Journal of Banking and Finance*, Vol. 49, 2014, pp. 495–505.
138. RYŠAVÝ, I. 2005. *Společenství obcí ještě vzbudí diskusi, ale pro venkov je jednou ze šancí* [online]. Praha: Economia, 2006 [cit. 2025-03-14]. Dostupné z WWW: <<http://moderniobec.ihned.cz/c1-17516690-spolecenstvi-obci-jeste-vzbudi-diskusi-ale-pro-venkov-je-jednou-ze-sanci>>.
139. SHEVCHENKO, I. O., LIKHONOSOVA, G. S. 2025. Transformation of public administration in the context of economic and financial security: challenges of globalization of international relations. In *Current Problems of International Relations*, 2025, No. 163(1), pp. 134–142.

140. SCHEDLER, K. 2003. Local and Regional Public Management Reforms in Switzerland. In *Public Administration*, Vol. 81, 2003, No. 2. ISSN 0033-3298, pp. 325–344. DOI: 10.1111/1467-9299.00348.
141. SCHWARCZ, P., KOVÁČIK, M., VALACH, M. 2021. The Development of Economic and Social Indicators in V4 Countries. In *Acta Polytechnica Hungarica*, Vol. 18, 2021, No. 2, pp. 47–68. DOI: 10.12700/APH.18.2.2021.2.3.
142. SCHWARTING, H., KRÖKEL, K. 2006. *Interkommunale Kooperation*. Wiesbaden: Hessisches Ministerium für Wirtschaft, Verkehr und Landesentwicklung, 2006. 87 s.
143. SIEGEL, D. S. 2021. Greenwashing: An Economic Analysis. In *Journal of Business Ethics*, Vol. 172, 2021, No. 4, pp. 797–812.
144. SMITH, N. R., DAWSON, G. 2022. Mearsheimer, Realism, and the Ukraine War. In *Analyse & Kritik*, Vol. 44, 2022, No. 2, pp. 175–200. DOI: 10.1515/auk-2022-2023.
145. SOLIK, M., BAAR, V. 2016. Koncept „Ruského sveta“ ako nástroj implementácie soft power v ruskej zahraničnej politike. In *Politické vedy*, Vol. 19, 2016, No. 1. s. 8–47.
146. STELEA, N., CALEFARIU, G. 2022. Analysis of Competitiveness of Small and Medium-sized Enterprises (SMEs) and Sustainable Regional Development – Result of European Funding in the CENTER Region-Romania. In *Ovidius University Annals: Economic Sciences Series*, Vol. XXII, 2022, No. 1, pp. 175–179.
147. SWIANIEWICZ, P. (ed.). 2002. *Consolidation or Fragmentation? The Size of Local Governments in Central and Eastern Europe*. Budapest: Open Society Institute Budapest, 2002. 329 s. ISBN 963-9419-45-1.
148. ŠWIEBODA, P. 2024. *Europe needs a 360° Economic security policy* [online]. Brussels: European Policy Centre, 2024, 10.10.2024 [cit. 2025-08-27]. Available at WWW: <<https://www.epc.eu/publication/Europe-needs-a-360-Economic-security-policy/>>.
149. ŠTATISTICKÝ ÚRAD SR. *Volby do Európskeho parlamentu* [online]. [cit. 2025-09-01]. Dostupné z WWW: <<http://volby.statistics.sk/ep/>>.
150. ŠVEC, K. 2009. Případy meziobecní spolupráce v evropských zemích: Estonsko, Finsko, Francie a Nizozemí. In *Acta Politologica*, Vol. 1, 2009, No. 3. ISSN 1803-8220, pp. 268–283.
151. TESLENKO, T. V. 2022. Evolution of economic concepts from the industrial revolution to the digital revolution. In *Humanities Studies*, Vol. 11, 2022, No. 88, pp. 62–69. DOI: 10.26661/hst-2022-11-88-07.
152. TKACH, D. 2025. The Czech Republic's National Energy and Climate Plan: Pathways to Decarbonization, Energy Security, and Industrial Transformation. In *Economics, Finance and Management Review*, 2025, No. 3(23), pp. 4–12. e-ISSN 2674-5208. DOI: 10.36690/2674-5208-2025-3-4-12.

153. TOTH, P. 2010. *Možnosti dalšího vývoje rozpočtového určení daní v ČR z pohledu zahraničních zkušeností* [online]. Praha: VŠE, 2010 [cit. 2025-03-16]. Dostupné z WWW: <http://kvf.vse.cz/wpcontent/uploads/2010/06/1218124555_sb_tothpetr.pdf>.
154. TÓTH, R. 1996. Volebné systémy. In *SAMO (Spoločnosť, armáda osobnosť)*, 1996, č. 1, s. 19.
155. TÓTH, R. 1998. *Koncepcia politického systému*. Bratislava: Úrad pre stratégiu rozvoja spoločnosti vedy a techniky Slovenskej republiky, 1998. 143 s. ISBN 978-80-968077-0-3.
156. TÓTH, R. 2007. *Základy politológie*. 2. vyd. Bratislava: Štátne pedagogické nakladateľstvo, 2007. 115 s. ISBN 80-10-01126-2.
157. TRENIN, D. 2021. *Russia's National Security Strategy: A Manifesto for a New Era* [online]. Berlin: Carnegie Russia Eurasia Centre, 2021 [cit. 2025-08-29]. Available at WWW: <<https://carnegieendowment.org/posts/2021/07/russias-national-security-strategy-a-manifesto-for-a-new-era?lang=en¢er=russia-eurasia>>.
158. UN OFFICE OF COUNTER-TERRORISM. 2019. *Chemical, biological, radiological, and nuclear terrorism* [online]. United Nations, 2019 [cit. 2025-09-01]. Available at WWW: <<https://www.un.org/counterterrorism/cct/chemical-biological-radiological-and-nuclear-terrorism>>.
159. UNCTAD. 2023. *World Investment Report 2023: Investing in Sustainable Energy for All* [online]. Geneva: United Nations Conference on Trade and Development, 2023 [cit. 2024-09-09]. Available at WWW: <<https://unctad.org/publication/world-investment-report-2023>>.
160. UNITED NATIONS GENERAL ASSEMBLY. 2006. *United Nations General Assembly Resolution 60/288, A/RES/60/288* [online]. New York, 2006, 08.09.2006 [cit. 2025-09-01]. Available at WWW: <<https://docs.un.org/en/A/RES/60/288>>.
161. VÁLKOVÁ, H. 2010. *Obcím zvoní administrativní hrana. Česko se nevyhne jejich slučování* [online]. Praha: Mafra, 2010, 25.03.2010 [cit. 2025-03-14]. Dostupné z WWW: <http://zpravy.idnes.cz/obcim-zvoni-administrativni-hrana-cesko-se-nevyhne-jejich-slucavani-1il-domaci.aspx?c=A100923_162713_domaci_hv>.
162. VAN BIESEBROECK, J. 2005. Firm size matters in Growth and productivity growth in African manufacturing. In *Economic Development and Cultural Change*, Vol. 53, 2005, No. 3, pp. 545–583.
163. VASILEVA, P., YANEVA, S. 2018. Analysis and development of the EU Action Plan to enhance preparedness against CBRN security risk. In *International Scientific Journal „Science, Business, Society“*, Vol. III, 2018, Issue 1. ISSN 2534-8485.
164. VON DER LEYEN, U. 2025. *State of the Union Address by President von der Leyen* [online]. European Commission, 2025, 10.09.2025 [cit.

- 2025-09-19]. Available at WWW: <https://ec.europa.eu/commission/presscorner/detail/en/speech_25_2053>.
165. VORONINA, T. 2023. Integration of ESG-analytics into the corporate risk management system. In *Problems and Prospects of Economics and Management*, 2023, No. 4(28), pp. 82–90.
 166. WEBER, R. H. 2023. Digital sovereignty revisited. In *Jusletter IT*, 2023. DOI: 10.38023/3533b9ee-4a5e-4f81-a9ea-6cb891d60a2d.
 167. WIESNER, C. 2025. From conceptual politics to Geopolitics: The war against Ukraine and ideological Adjustments in the changing world order. In *New Perspectives*, Vol. 33, 2025, No. 3. ISSN 2336-8268, pp. 199–217. DOI: 10.1177/2336825X251355168.
 168. WIKIPEDIA. 2025. *EU CBRN Risk Mitigation CoE Initiative* [online]. 2025, July 2025 [cit. 2025-09-01]. Available at WWW: <https://en.wikipedia.org/wiki/EU_CBRN_Risk_Mitigation_CoE_Initiative>.
 169. WORLD BANK. 2024. *Measuring Poverty Overview* [online]. 2024 [cit. 2024-03-15]. Available at WWW: <<https://www.worldbank.org/en/topic/measuringpoverty>>.
 170. XINHUA. 2025. *Hungary signs longest LNG deal with France's Engie* [online]. 2025, 02.10.2025 [cit. 2025-10-11]. Available at WWW: <<https://english.news.cn/europe/20251002/b56dbe006a104b13b42e6e25b78c052a/c.html>>.
 171. YAFIMAVA, K. 2024. *Transit of Russian gas across Ukraine: Immediate impact and implications for the European gas market in 2025 (OIES Paper NG196)* [online]. Oxford: Oxford Institute for Energy Studies, 2024 [cit. 2025-10-11]. Available at WWW: <<https://www.oxfordenergy.org/wpcms/wp-content/uploads/2024/12/NG196-Transit-of-Russian-gas-across-Ukraine.pdf>>.
 172. YALE UNIVERSITY. 2026. *State of Tariffs – 2026* [online]. New Haven: Yale University, 2026, 26.01.2026 [cit. 2026-01-26]. Dostupné z WWW: <<https://budgetlab.yale.edu/topic/trade>>.
 173. YALOVA, A. M., BONDAR, N. V., YALOVYI, O. O. 2025. Pidkhody do zabezpechennia stiikosti enerhetychnoi systemy v protsesi intehtratsii vidnovliuvanykh dzherel enerhii. In *Visnyk Pryazovskoho Derzhavnoho Tekhnichnoho Universytetu. Serii: Tekhnichni nauky*, 2025, No. 50. p- ISSN 2225-6733, e-ISSN 2519-271X, pp. 154–163. DOI: 10.31498/2225-6733.50.2025.336326.
 174. YAROVoi, T. 2025. Problemy y perspektyvy enerhetychnoi polityky v Ukraini z pohliadu natsionalnoi bezpeky. In *Litopys Volyni*, 2025, No. 32, pp. 266–271. DOI: 10.32782/2305-9389/2025.32.42. Available at WWW: <<http://litopys.volyn.ua/index.php/litopys/article/view/623/542>>.

175. YOO, T. Y. 2022. Emergence of Indo-Pacific digital economic order: US strategy and economic statecraft toward China. In *Asian Journal of Peacebuilding*, Vol. 10, 2022, No. 2, pp. 287–314. DOI: 10.18588/202211.00a320.
176. ZABOLOTSKA, L. 2024. Sustainable marketing as a strategy for business resilience in ESG-transformations. In *Marketing and Management of Innovations*, 2024, No. 1(57), pp. 118–129.
177. ZAHARI, V. K., KOVALCHUK, T. H. 2021. Tendentsii rozvytku u sviti ta Ukraini. In *Naukovyi visnyk Uzhhorodskoho natsionalnoho universytetu*, Vol. 36, 2021, pp. 70–75. DOI: 10.32782/2413-9971/2021-36-12.
178. ZALAI, K., DÁVID, A., ŠNIRCOVÁ, J., MORAVČÍKOVÁ, E., HURTOŠOVÁ, J., TUČNÍKOVÁ, D. 2016. *Finančno-ekonomická analýza podniku*. Bratislava: Sprint 2, 2016. 487 s. ISBN 978-80-89710-22-5.
179. ZAMLYNSKYI, V., KRYUKOVA, I., CHUKURNA, O., DYACHENKO, O. 2023. Digital transformation as a tool for implementation of the "Green Deal" concept in the national economy of Ukraine. In ŠKARE, M., RÔBULE, A., KRIVOKAPIC, Z. (eds.). *Green technologies and sustainable development*. Singapore: Springer, 2023. pp. 89–108. DOI: 10.1007/978-981-99-4764-5_5.
180. ZEYLIGER, V. 2025. The geopolitical conception of Russia's war on Ukraine: Neo-Eurasianism and Eurasian regionalism. In *New Perspectives*, Vol. 33, 2025, No. 3. ISSN 2336-8268, pp. 276–296. DOI: 10.1177/2336825X251361501.
181. ZVARYCH, R., KHARKOVSKYI, B. 2025. Smart-intehratsiia enerhosystemy Ukrainy do iedynoho enerhetychnoho rynku YeS: vyklyky ta perspektyvy. In *Zhurnal yevropeiskoi ekonomiky*, Vol. 24, 2025, No. 2, pp. 254–273. Available at WWW: <<https://jeej.wunu.edu.ua/index.php/ukjee/article/view/1866>>.
182. ŽÁRSKA, E. 2010. *Reforma miestnej samosprávy a jej finančné aspekty* [online]. Bratislava: NF EUBA, 2010 [cit. 2025-03-15]. Dostupné z WWW: <http://kreg.vse.cz/wpcontent/uploads/2010/04/Prezentacia_PRAHA_2.pdf>.
183. ŽÁRSKA, E. 2012. Determinanty znalostnej samosprávy. In ŠEBOVÁ, M. a kol. *Aktuálne koncepty ekonomiky a riadenia samospráv*. Košice: Technická univerzita v Košiciach, 2012. ISBN 978-80-553-1264-4, s. 105–123.
184. ŽIPAJ, T. 2023. Šírenie noriem a hodnôt Európskej únie za hranicami európskeho integračného priestoru. In *Politické vedy*, Vol. 26, 2023, No. 1. ISSN 1335-2741, pp. 39–62. DOI: 10.24040/politickevedy.2023.26.1.39-62.

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ADRESÁŘ

Ing. Ľubomír DUCHOŇ, ShareVault, 16615 Lark Ave # 200, Los Gatos, CA 95032, USA, e-mail: lduchon@sharevault.com

doc. Ing. Jiří DUŠEK, Ph.D., Katedra managementu veřejné správy, Vysoká škola evropských a regionálních studií, Žižkova tř. 1632/5b, 370 01, České Budějovice, Česká republika, e-mail: dusek@vsers.cz

PhDr. Martin HOREMUŽ, Ph.D., Katedra politológie, Filozofická fakulta, Univerzita Pavla Jozefa Šafárika v Košiciach, Moyzesova 9, 040 01 Košice, Slovenská republika, e-mail: martin.horemuz@upjs.sk

Mgr. Jarmila HUDÁKOVÁ, Ph.D., MBA, Ústav ekonomiky a manažmentu, Fakulta prírodných vied a informatiky, Univerzita Konštantína Filozofa v Nitre, Tr. A. Hlinku 1, 949 74 Nitra, Slovenská republika, e-mail: jhudakova@ukf.sk

RNDr. Ing. Jaroslav KOČVARA, MBA, Katedra krizového řízení, Fakulta bezpečnostního managementu, Policejní akademie České republiky v Praze, Lhotecká 559/7, 143 00 Praha 4, Česká republika, e-mail: kocvara@polac.cz

prof. PhDr. Ján KOPER, Ph.D., Katedra politológie, Fakulta politických vied a medzinárodných vzťahov, Univerzita Mateja Bela v Banskej Bystrici, Kuzmányho 1, 974 01 Banská Bystrica, Slovenská republika, e-mail: jan.koper@umb.sk

Ing. Marcela KORENKOVÁ, Ph.D., Ústav ekonomiky a manažmentu, Fakulta prírodných vied a informatiky, Univerzita Konštantína Filozofa v Nitre, Tr. A. Hlinku 1, 949 74 Nitra, Slovenská republika, e-mail: mkorenkova@ukf.sk

Ing. Marián KOVÁČIK, Ph.D., Ústav európskych politík a verejnej správy, Fakulta európskych štúdií a regionálneho rozvoja, Slovenská poľnohospodárska univerzita v Nitre, Tr. A. Hlinku 2, 949 76 Nitra, Slovenská republika, e-mail: marian.kovacik@uniag.sk

plk. v.v. Ing. Bc. Michal KUBÁT, Katedra právnických oborů a bezpečnostních studií, Vysoká škola evropských a regionálních studií, z. ú., Žižkova tř. 1632/5b, 370 01 České Budějovice, Česká republika, e-mail: kubat.michal@gmail.com

Iva KYPSONOVÁ, Katedra krizového řízení, Fakulta bezpečnostního managementu, Policejní akademie České republiky v Praze, Lhotecká 559/7, 143 00 Praha 4, Česká republika, e-mail: kypsonova@polac.cz

Ing. Michal LEVICKÝ, PhD., Ústav ekonomiky a manažmentu, Fakulta prírodných vied a informatiky, Univerzita Konštantína Filozofa v Nitre, Tr. A. Hlinku 1, 949 74 Nitra, Slovenská republika, e-mail: mlevicky@ukf.sk

prof. Ganna LIKHONOSOVA, DrSc., Department of Management and Business Administration, Faculty of Software and Business, National Aerospace University "Kharkiv Aviation Institute", Manka Street 17, 610 70 Kharkiv, Ukraine, e-mail: g.likhonosova@khai.edu

doc. Mariya MASLAK, DrSc., Department of Marketing, National Technical University "Kharkiv Polytechnic Institute", Kyrpychova str. 2, 610 02 Kharkiv, Ukraine, e-mail: mariya.maslak2016@gmail.com

prof. Olga MASLAK, DrSc., Economics Department, Faculty of Economics and Management, Kremenchuk Mykhailo Ostrohradskyi National University, Universitets'ka Street 20, 396 00 Kremenchuk, Ukraine, e-mail: oimaslak2017@gmail.com

Kostiantyn POCHTOVIUK, Economics Department, Faculty of Economics and Management, Kremenchuk Mykhailo Ostrohradskyi National University, Universitets'ka Street 20, 396 00 Kremenchuk, Ukraine, e-mail: economics2021@ukr.net

doc. Ing. Jozef SABOL, DSc., Katedra krizového řízení, Fakulta bezpečnostního managementu, Policejní akademie České republiky v Praze, Lhotecká 559/7, 143 00 Praha 4, Česká republika, e-mail: sabol@polac.cz

prof. Ing. Pavol SCHWARCZ, Ph.D., Ústav európskych politík a verejnej správy, Fakulta európskych štúdií a regionálneho rozvoja, Slovenská poľnohospodárska univerzita v Nitre, Tr. A. Hlinku 2, 949 76 Nitra, Slovenská republika, e-mail: pavol.schwarcz@uniag.sk

Michal STYK, M.A., Katedra verejnej ekonomiky a regionálneho rozvoja, Ekonomická fakulta, Univerzita Mateja Bela v Banskej Bystrici, Tajovského 10, 975 90 Banská Bystrica, Slovenská republika, e-mail: michal.styk@umb.sk

doc. Ing. Ivan TAKÁČ, Ph.D., Ústav európskych politík a verejnej správy, Fakulta európskych štúdií a regionálneho rozvoja, Slovenská poľnohospodárska univerzita v Nitre, Tr. A. Hlinku 2, 949 76 Nitra, Slovenská republika, e-mail: ivan.takac@uniag.sk

Hon. prof. doc. Ing. Inga URIADNIKOVA, CSc., Department of Water Supply and Drainage, Faculty Engineering Systems and Ecology, Kyiv National University of Construction and Architecture / Academy of Safety and Bases of Health, st. Milyutenko 17, fl. 67, 02156 Kyiv, Ukraine, e-mail: ingavictory@gmail.com

Ing. Maroš VALACH, Ph.D., Ústav európskych politík a verejnej správy, Fakulta európskych štúdií a regionálneho rozvoja, Slovenská poľnohospodárska univerzita v Nitre, Tr. A. Hlinku 2, 949 76 Nitra, Slovenská republika, e-mail: maros.valach@uniag.sk

doc. PhDr. Agneša VÍGHOVÁ, Ph.D., Katedra malého a stredného podnikania, Ústav ekonómie a manažmentu, Vysoká škola ekonómie a manažmentu v Bratislave, Furdekova 16, 851 04 Bratislava, Slovenská republika, e-mail: agnesa.vighova@vsemba.sk

Yaroslava YAKOVENKO, Ph.D., Economics Department, Faculty of Economics and Management, Kremenchuk Mykhailo Ostrohradskyi National University, Universitets'ka Street 20, 396 00 Kremenchuk, Ukraine, e-mail: yaroslavayakovenko@gmail.com

Hon. prof. Dr. Vasyl ZAPLATINSKYI, CSc., Department of Natural and Mathematical Education and Technologies, Institute of Postgraduate Education, Borys Grinchenko Kyiv Metropolitan University / Academy of Safety and Bases of Health, st. Milyutenko 17, fl. 67, 021 56 Kyiv, Ukraine, e-mail: vasyi.zaplatynskyi@gmail.com

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