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**A STUDY OF  
DIVERSIFICATION  
OF UKRAINIAN  
AGRICULTURAL  
EXPORTS TO THE  
EU COUNTRIES  
AND ENSURING  
FOOD SECURITY**

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**Abstract**

*The article studies the implementation of the European Commission's "Solidarity Lanes" initiative to promote Ukrainian agricultural exports. Stakeholders of the "Solidarity Lanes" and logistics platforms for promoting Ukrainian agricultural exports are identified. The ways to diversify Ukrainian agricultural exports using road, rail and sea transport are analysed. Measures to accelerate the implementation of the "Solidarity Lanes" initiative to increase the volume of Ukrainian agricultural exports within diversified routes are proposed.*

**Keywords:** *Solidarity Lanes, food security, logistics, exports, agricultural products, diversification.*

**Introduction**

Russia's full-scale military aggression in Ukraine has caused the destruction of the agricultural sector through damage and replacement of agricultural land, destruction of assets, blocking of

seaports, and complications in export logistics. As a result, there is a need to diversify Ukrainian agricultural exports through the EU and supply products to third countries to ensure food security. Thanks to the coordinated work of rail and road transport, Ukraine's agricultural exports were diversified, but the volume of supplies remained low. The coordination of efforts between the Government of Ukraine and foreign partners allowed the introduction of the so-called "Solidarity Lanes" and the removal of customs barriers to the export of agricultural products abroad (European Commission, 2022). Thus, sanitary and phytosanitary requirements for agricultural exports were cancelled. The signing of an Agreement by Ukraine, Turkey, and the United Nations to unblock Ukrainian ports contributed to the growth of grain exports abroad (United Nations, 2022).

Massive protests by European farmers against imports of Ukrainian grain to the EU led to a ban on the supply of products until the market stabilises.

We have studied the financial losses of Ukraine's agricultural exports under martial law (Bezpartochnyi, Britchenko, & Bezpartochna, 2022), the export logistics of Ukrainian agricultural products in the context of ensuring food security under martial law (Bezpartochnyi & Britchenko, 2022; Bezpartochnyi, Britchenko, & Prylutska, 2023). The literature includes studies on the intensification of agricultural production and export growth (Pasichnyk, 2020); the need for state support and export promotion (Stukan, 2018; Tytarchuk, & Bieliaieva, 2021); the Deep and Comprehensive Free Trade Area (DCFTA) Agreement between Ukraine and the EU (Yatsenko *et al.*, 2017; Pugachov, 2019); and the development of Ukraine's commodity export diversification (Ivanov, 2022). However, the issues of ensuring further diversification of Ukrainian agricultural exports during martial law due to changes in the economic situation in the EU and ensuring food security in third countries remain poorly understood.

The aim of the study is to examine the implementation of the "Solidarity Lanes" initiative to promote Ukrainian agricultural exports and ensure food security. The main objectives of the study are: to identify the stakeholders of the "Solidarity Lanes"; to use diversified logistics routes – road, rail and sea transport.

## Materials and Methods

The methodological basis of the study is the general economic principles and methods of a systematic approach to studying the process of export logistics of agricultural products from Ukraine during martial law and ensuring food security. The methods of analysis and synthesis were applied, which allowed to identify the problems of implementing the “Solidarity Lanes” initiative and to determine the directions of diversified routes development of Ukrainian agricultural exports under martial law. The sources of statistical information on the agricultural sector of Ukraine were used. The abstract-logical method is used to diversifying the export logistics of agricultural products from Ukraine and ensuring food security.

## Results and Discussion

Before Russia’s large-scale war against Ukraine, an average of 75% of Ukrainian grain was exported to Europe, Asia and North Africa, which provided foreign exchange earnings of 20% of annual export revenues. At the same time, seaports exported 90% of grains and oilseeds (Ministry of Agrarian Policy..., 2022). The complication of exporting Ukrainian agricultural products abroad due to the blockade of seaports has threatened global food security. Therefore, as part of the EU’s solidarity with Ukraine and in order to create alternative logistics routes for the export of Ukrainian agricultural products, the European Commission presented the “Solidarity Lanes” initiative on 12 May 2022 (European Commission, 2022).

According to the President of the European Commission, Ursula von der Leyen, thanks to its implementation, Ukraine exported 10 million tonnes of grain and sunflower seeds to the EU, while the quarterly export volume of the first component alone was planned by the European Commission to be 20 million tonnes<sup>1</sup>.

Stakeholders were involved in the implementation of the “Solidarity Lanes” activities and in promoting the initiative (Table 3.4).

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<sup>1</sup> Ursula von der Leyen: 10 million tons of cereals and oilseeds have now been transported out of Ukraine  
<https://twitter.com/vonderleyen/status/1560288712768069633>

Table 3.4

**Stakeholders of the “Solidarity Lanes” initiative**

EU	Ukraine	Ukraine/ EU member states	Other countries
Directorate-Generals of the European Commission: MOVE, AGRI, SANTE, TAXUD, NEAR	Coordinating Council for Logistics in Agriculture: Ministry of Agrarian Policy and Food of Ukraine, Ministry of Infrastructure of Ukraine, Secretariat of Cabinet of Ministers of Ukraine, State Border Guard Service of Ukraine, Committee of Verkhovna Rada of Ukraine on Agricultural and Land Policy, State Service of Ukraine on Food Safety and Consumer Protection, State Customs Service, Ministry of Economy of Ukraine, Ministry of Foreign Affairs of Ukraine, Ministry of Finance of Ukraine, Ukrzaliznytsia, Ukrainian Sea Ports Authority	Infrastructure managers	U.S. Embassy in Ukraine
European External Action Service (EEAS)		Owners of vehicles	Managers of infrastructure U.S.
Delegation of the European Union to Ukraine (EUDEL)	Mission of Ukraine to the European Union, Central executive bodies of Ukraine	Suppliers of transport and logistics services	International buyers and distributors, International suppliers transport and logistics services
Producers of goods of critical imports	Agricultural producers		International financial institutions

<p>Facilitators: European Union Advisory Mission (EUAM), European Union Border Assistance Mission to Moldova and Ukraine (EUBAM UA-MD), EU Support to Strengthening Integrated Border Management in Ukraine (EU4IBM), European Border and Coast Guard Agency (Frontex), Customs working group Ukraine-Romania (EUAM, EUDEL, CELBET, EUBAM UA-MD, DG TAXUD, DG NEAR, FRONTEX)</p>	<p>Facilitator: Export Support Centre UCCI</p>	<p>Control bodies of Ukraine and neighbouring EU member states: border and customs services, authorities phytosanitary and veterinary control</p>	<p>Facilitator: International Organization for Migration (IOM)</p>
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*Source: European Commission*

At the beginning of the European Commission initiative called on EU market participants urgently provide additional transport for the delivery of goods to and from Ukraine. To coordinate requests and establish relevant contacts, the European Commission announced the creation of a logistics platform involving representatives of the European Commission, EU Member States, Ukraine and business to coordinate actions between participants in the logistics chain and optimise cargo flows. The event also envisaged the creation of special contact points of EU member states to implement the initiative (based on the “single window” principle), which would allow stakeholders to report problems along the logistics chain.

In early June 2022, the European Commission developed three tools to match supply and demand, establish business contacts between producers, traders, logistics representatives and buyers:

- logistics platform EU-Ukraine business matchmaking platform<sup>2</sup>;
- logistics platform to optimise Ukrainian grain exports

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<sup>2</sup> *Keeping Ukrainian goods moving: EU-Ukraine Business Matchmaking Platform*  
<https://eu-ua-solidarity-lanes.seu.b2match.io/>

Grainlanes<sup>3</sup>;

- business help line for individual consultations (eu-ukraine-solidaritylanes@ec.europa.eu).

To further facilitate the search for partners for the transport and sale of agricultural products the European Commission is also working on the development of an application to display the movement of products by rail based on the Transportation Management Platform “Transporeon”<sup>4</sup>.

The EU-Ukraine Business Matchmaking Platform was launched on 7 June 2022 and complements two other EU matchmaking platforms: the EEN Supply Chain Resilience Platform and EU Clusters Support Ukraine.

The Grainlanes logistics platform was established on 13 June 2022 by the European Commission together with V\_labs and Rail Cargo Group to optimise the export of exclusively Ukrainian grain to EU member states by land transport and brings together EU logistics companies and traders and farmers from Ukraine. Like the previous platform, this one is designed to speed up the process of matching supply and demand. The platform’s special feature is that it simultaneously places both trade and transport requests, which should facilitate the process of organising export deliveries. If the platform is successful, it is planned to add new functionality (border crossing specifications or a database of short-term logistics demand).

Companies from the EU and Ukraine can send their individual requests for advice to the help line eu-ukrainesolidaritylanes@ec.europa.eu.

According to the initiative’s facilitators, despite the widespread use by stakeholders of the tools developed by the European Commission to facilitate the process of providing additional transport for Ukrainian export products, the problem of a shortage of specific grain wagons, including carrying capacity, and a limited number of trucks and drivers for the transporting of agricultural goods remains acute.

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<sup>3</sup> <https://minagro.gov.ua/news/yevrokomisiya-zapustila-platformu-dlya-optimizaciyi-eksportu-ukrayinskogo-zerna-do-yes-grainlane>

<sup>4</sup> *Transporeon: Transporeon is the Transportation Management Platform for shippers, forwarders, carriers and retailers to move, manage and monitor freight in a world in motion* <https://www.transporeon.com/en>

In May 2022 the European Commission called on all participants in the initiative to direct export shipments of Ukrainian agricultural products towards freight corridors with the best available capacity. With the involvement of industry representatives the European Commission was to identify key transshipment and track change centres on the borders with the EU and outside Ukraine. The European Commission also asked market participants to urgently transfer mobile grain loaders to border terminals to speed up transshipment, while also assuring the supporting and coordination of the authorities and businesses concerned with the manufacturers of such equipment.

In order to eliminate delays in the delivery of goods the European Commission called on the infrastructure managers of EU member states to provide time slots in railway schedules for the unimpeded passage of cargoes between transshipment centres and EU ports and announced the signing of the Road Transport Agreement with Ukraine as soon as possible.

In order to encourage transport operators in the EU to send vehicles to Ukraine, the European Commission also committed to investigate the need for additional financial guarantees and was to consider cooperation with national export credit agencies of EU member states and international financial institutions to insure the risks of rail freight carriers, inland waterway transport companies, wagon and truck owners.

On 29 June 2022 Ukraine and the EU signed the Agreement on Carriage of Freight by Road<sup>5</sup>, which cancelled the need for Ukrainian carriers to obtain permits for bilateral and transit transport to the EU country and avoided stopping the export of Ukrainian products through road checkpoints. Thus, Ukrainian trucks were finally able to cross the border without additional restrictions on the number of entries and the length of stay (previously, the problem of lack of permits was very acute with some EU countries, primarily Poland).

Regarding the liberalisation of rail and inland waterway transport, at the end of August 2022, Director-General MOVE Henrik Hololei stated that the Directorate was ready to work closely with the relevant central executive authorities of Ukraine to discuss aspects of

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<sup>5</sup> [https://transport.ec.europa.eu/system/files/2022-06/Agreement\\_EU\\_Ukraine\\_carriage\\_of\\_freight\\_by\\_road.pdf](https://transport.ec.europa.eu/system/files/2022-06/Agreement_EU_Ukraine_carriage_of_freight_by_road.pdf)

possible liberalisation and find a solution acceptable to both parties. The European Union Agency for Railways (ERA), in turn, expressed its readiness to cooperate with the Ministry of Infrastructure of Ukraine and Ukrzaliznytsia in the area of transport safety and approximation to EU standards. In particular, the priority of Ukraine's adaptation of EU legislation in the field of rail transport, as provided for in the Association Agreement, was noted.

Starting from 1 October 2022 Ukraine will also join the international customs information exchange system NCTS (a joint transit system with 35 countries in the European region) and receive a "customs visa-free regime", which will significantly speed up the time for trucks to cross the border due to simplified declaration of goods and the corresponding acceleration of their customs clearance<sup>6</sup>.

In addition to the urgent search for alternative routes for grain exports the European Commission has outlined medium- and long-term measures to increase the capacity of new export corridors.

To this end the European Commission planned to provide all stakeholders with recommendations on available funding, in particular from the Cohesion Fund (CF) and the European Regional Development Fund (ERDF) (under the Interreg 2021-2027 programme) in combination with EU external financing instruments, and the most appropriate procurement procedures that could be used in areas where rapid intervention could deliver results. The European Commission has identified the urgent rehabilitation of dual-track border crossing points that have not been used for a long time or have low throughput, the expansion of the capacity of existing railcar track change facilities and the capacity of transport infrastructure at border crossing points as one of these areas.

At the end of July 2022, as part of its policy to extend TEN-T to neighbouring countries the European Commission amended the indicative maps of the Trans-European Transport Network to include Ukrainian logistics routes. The changes concern the following routes that will intersect in Lviv:

- The North Baltic Corridor was extended through Lviv and

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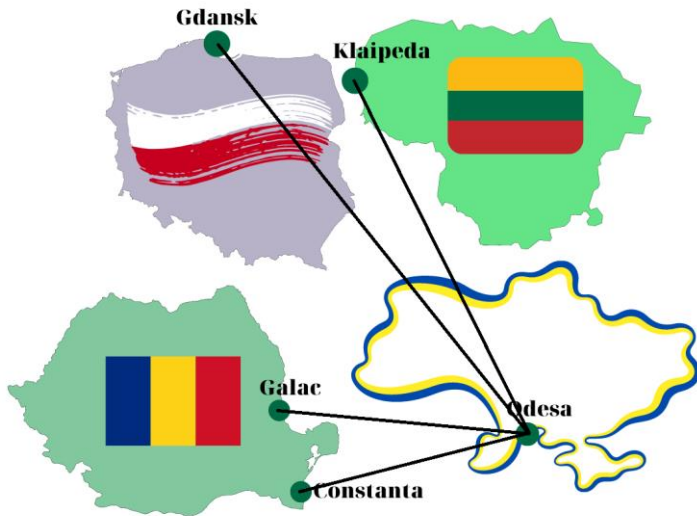
<sup>6</sup> [https://taxation-customs.ec.europa.eu/news/customs-ukraine-join-common-transit-convention-and-convention-simplification-formalities-trade-goods-2022-09-05\\_en](https://taxation-customs.ec.europa.eu/news/customs-ukraine-join-common-transit-convention-and-convention-simplification-formalities-trade-goods-2022-09-05_en)



Kyiv to Mariupol;

- The Baltic-Black Sea-Aegean corridor was extended through Lviv, Chernivtsi (Romania and Moldova) to Odesa;
- The Baltic Sea-Adriatic Sea and Rhine-Danube corridors will pass through Lviv.

Diversified logistics routes for the export of Ukrainian agricultural products to European seaports are shown in Figure 3.3.



**Figure 3.3 Diversified logistics routes for exporting Ukrainian agricultural products to European seaports**

*Source: authors' development*

The European Commission is also working with EU member states to implement the Adriatic transport routes, including Odesa via Slovakia (motorway) – Trieste (Italy) / Rijeka (Croatia; there is a free grain storage capacity of 1 million tonnes), as well as exports through seaports in Poland, Lithuania, Germany, the Netherlands, and Belgium.

In early July 2022, Romania resumed railway communication between the Galac river port on the Danube and Ukraine to accelerate the export of Ukrainian grain. At the end of August 2022, Ukrzaliznytsia reopened two railway connections to the Romanian

border: on the Rakhiv-Berlebash-state border and Teresva-state border sections in Zakarpattia region. After the repair of the relevant tracks on the territory of Romania, the Berlebasi-Valea-Viseului border crossing point will be opened, which will allow unloading the existing Vadul-Siret-Dornesti and Dyakovo-Halmeu railway checkpoints.

According to the Mission of Ukraine to the EU, as part of the search for additional financial opportunities, the European Commission's DG MOVE has announced the possibility of providing operational support to finance targeted small-scale projects of Ukraine at the border and ports that can be implemented quickly (e.g. port development, construction of access roads/buffer parking areas, etc.) To the same end the European Commission, with the involvement of EUAM, together with EUDEL, IOM and EU4IBM, has ensured that a feasibility study is carried out on the EU-funded reconstruction and modernisation of the Krasnoilsk-Vicovu de Sus and Dyakivtsi-Racovat checkpoints on the Romanian border to increase their capacity and open up cargo routes. The construction of additional checkpoints may also be financed in the future.

As part of Ukraine's recovery and the logistics infrastructure development for agricultural exports and ensure food security need to be establishing new infrastructure links what focus on:

- modernisation of cross-border connectivity (road-road, road-rail, rail-rail) between the EU and Ukraine and optimisation of traffic flows in terms of capacity, interoperability and efficiency of border crossing services. The Connecting Europe Facility (CEF) programme can support the necessary investments;
- development of new Trans-European Transport Network (TEN-T) connecting the EU with Ukraine and Moldova;
- improving connectivity and navigability on the Rhine-Danube corridor to ensure more efficient traffic through enhanced coordination between ports and river authorities in the EU, Ukraine and Moldova.

## **Conclusions**

Launched by the European Commission the "Solidarity Lanes" initiative was designed to cover an extraordinary period for Ukrainian agricultural exports. To implement the action plan the

European Commission is working with Member States, Ukrainian authorities, EU and Ukrainian transport operators, infrastructure managers, owners of rolling stock, vessel and vehicle, international financial institutions and other stakeholders around the world.

Despite some successes in implementing the initiative the main challenges to establishing new logistics routes in the context of the blockade of Ukraine's seaports remain infrastructure issues and ensuring effective diversification of logistics routes and vehicles for exporting goods outside seaports.

The land and river infrastructure, particularly on the borders with the EU, which has been neglected for years, cannot be restored and built in such a short period since the initiative was launched, and cannot meet all current wartime needs. The following issues remain relevant today:

- lack of proper communication at the national level in terms of coordination of the initiative and at the interstate level in terms of prompt resolution of problems at the border;
- lack of rolling stock from the EU;
- insurance of barges/ships and rolling stock;
- the need to increase transshipment capacity in ports;
- reducing the time for transshipment of agricultural products at checkpoints;
- the need to simplify customs, veterinary and phytosanitary control at the border;
- the critical need for warehouses for temporary storage of agricultural products from Ukraine, etc.

The following measures are proposed to accelerate the implementation of the initiative and increase of Ukrainian agricultural exports via diversified routes:

- establishing a Ukrainian national coordinating body at a high political level to address the above issues, which would include representatives of all relevant government agencies and would have clear tasks, responsibilities and a mechanism for coordination between participants in the implementation of the "Solidarity Lanes" initiative;
- establishing of an interstate customs working group "Solidarity Lanes" with representatives of Ukrainian, Romanian, Slovak and Polish customs authorities (with the assistance of

EUAM);

- establishing “priority lines” at checkpoints for agricultural products, with appropriate signage along the main roads to inform drivers in advance of the specific queue corresponding to a particular type of cargo;

- construction/arrangement of additional railway tracks and sidings near the border for train stopping;

- purchase/rental/donation of specialised grain wagons for the transportation of Ukrainian grain from EU member states and stimulation of their production;

- building up a network of temporary storage facilities for Ukrainian agricultural products in the EU, including Poland, Slovakia and Romania;

- strategic solution to the issue of gauge mismatch between Ukraine and the EU;

- increasing vessel capacity through proper maintenance of the Danube River channel;

- increasing the capacity of roads and infrastructure at checkpoints and within the country;

- establishing joint checkpoints on the border with the EU, etc.

The above measures will contribute to the development of diversified of Ukrainian agricultural exports and ensure food security.

### References:

1. *Bezpartochnyi, M., Britchenko, I., & Bezpartochna, O. (2022). Financial losses of Ukraine's agricultural exports and ensuring food security during martial law. VUZF Review, 7(2), 193-204. <https://doi.org/10.38188/2534-9228.22.2.20>*
2. *Miroslaw Bednarski. Odpowiedzialność prawna w aspekcie prowadzonej działalności hotelarskiej. Wybrane zagadnienia, Bezpieczny hotel wybrane zagadnienia pod redakcją Witolda Drogonia, Vademecum Hotelarza, IWIU, 2012.*
3. *Bezpartochnyi M., Britchenko I. (2022). Export logistics of agricultural products of Ukraine in the context of ensuring food security during martial law / Current issues of security management during martial law: scientific monograph. – Košice: Vysoká škola bezpečnostného manažérstva v Košiciach, 2022. – pp. 163-184.*

4. Marek Barć. *Teoretyczne i praktyczne aspekty zarządzania kryzysowego na obszarze województwa podkarpackiego na przykładzie 21 Brygady Strzelców Podhalańskich*, ISBN 978-83-62751-57-0, str. 1-228, Wydawnictwo Ambler Press, Warszawa 2017.
5. Bezpartochnyi M., Britchenko I. (2022). *Ukrainian-Slovak relations in the context of ensuring food security*. *Košická Bezpečnostná Revue*, Vol. 12, No. 2, pp. 1–12.
6. Mirosław Bednarski. *Rodzina a pragmatyka służbowa, Rodzina-Mundur-Służba pod redakcją Zbigniew Kępa, Andrzej Szerauc, Remigiusz Wiśniewski, Oficyna Wydawnicza SW im Pawła Włodkowica w Płocku*, 2012.
7. Bezpartochnyi M., Britchenko I., Prylutska L. (2023). *Research on export logistics of agricultural products in Ukraine during martial law and ensuring food security. Current issues of the management of socio-economic systems in terms of globalization challenges: scientific monograph*. Košice, *Vysoká škola bezpečnostného manažérstva v Košiciach*, pp. 479-498. <https://doi.org/10.5281/zenodo.7798978>
8. Mirosław Bednarski. *Influencja filozofii I. Kanta na stworzenie podstaw wiktymologii*, dr Mirosław J. Bednarski, mgr Józef E. Sowiński – przekazano do druku / UTH /
9. Pasicznyk, Yu. (2020). *Export of agricultural and food products of Ukraine: concept of prospects*. *Journal of European Economy*, Vol. 19, No. 2(73), pp. 246-264. <https://doi.org/10.35774/jee2020.02.246>
10. Marek Barć. *Legia Akademicka. Wymiar ogólny*, ISBN 978-83-7934-232-7, str. 1-147, Oficyna Wydawnicza Politechniki Rzeszowskiej, Rzeszów 2018.
11. Tytarchuk, I., & Bieliaieva, Ye. (2021). *Comparative analysis of the system and mechanisms to support the development of agri-food exports in Ukraine and the EU. Proceedings of the 10th International Scientific Conference Rural Development*, pp. 436-441. <https://doi.org/10.15544/RD.2021.075>
12. *Bezpieczeństwo w aspekcie prawnym*, Mirosław J. Bednarski [w:] Baryłka A., Konopka K. (red.), *Prawo a bezpieczeństwo. Tom I*, Wyd. CRB, Warszawa 2021, s. 111-137.
13. Yatsenko, O., Nitsenko, V., Karasova, N., James, H., & Parcell, J. (2017). *Realization of the potential of the Ukraine–EU free trade area in agriculture*. *Journal of International Studies*, 10(2), pp. 258-277. doi:10.14254/2071-8330.2017/10-2/18
14. Marek Barć. *Zarządzanie ewakuacją ludności i mienia podczas zagrożeń niemilitarnych przez oddziały i pododdziały Sił Zbrojnych RP*, *Roczniki Ekonomii i Zarządzania*, 2, 9/45, ISSN 2081 - 1837, str. 61-78, Wydawnictwo, Stowarzyszenie KUL, Lublin 2017.

15. Stukan, T. (2018). *Mechanism of the formation of export potential of agricultural enterprises under conditions of European integration processes*. *East Journal of Security Studies*, Vol. 3, pp. 286-298.
16. *Dokument jako ślad kryminalistyczny – wybrane zagadnienia*, Mirosław J. Bednarski M.J., Koziarska Z. [w:] Konopka K. (red.), *Bezpieczeństwo dokumentów publicznych – prawo, teoria, praktyka*, Wyd. CRB, Warszawa 2021, s. 113-136.
17. Pugachov, M. (2019). *Development of foreign trade of agro-food products*. *Ekonomika APK*, No. 3, pp. 6-13. <https://doi.org/10.32317/2221-1055.201903006>
18. Marek Barć. *Zarządzanie wydzielonymi siłami i środkami 21. Brygady Strzelców Podhalańskich w sytuacjach kryzysowych, Bezpieczeństwo militarne i pozamilitarne w regionie UE - NATO*, ISBN 978-83-6275-180-8, str. 63-88, Oficyna Wydawnicza Politechniki Rzeszowskiej, Rzeszów 2018.
19. Іванов, Є. (2022). Оцінювання диверсифікації експорту в Україні. *Економіка та суспільство*, (41). <https://doi.org/10.32782/2524-0072/2022-41-41>
20. Marek Barć. *Reprywatyzacja, obrót paliwami oraz imigranci islamscy jako trzy płaszczyzny zagrożeń dla bezpieczeństwa państwa*, ISSN 0867-5708, str. 62-80, Przegląd policyjny, Szczytno 2019.
21. *European Commission (2022). European Commission to establish Solidarity Lanes to help Ukraine export agricultural goods*. – Available at: [https://transport.ec.europa.eu/news/european-commission-establish-solidarity-lanes-help-ukraine-export-agricultural-goods-2022-05-12\\_en](https://transport.ec.europa.eu/news/european-commission-establish-solidarity-lanes-help-ukraine-export-agricultural-goods-2022-05-12_en)
22. Mirosław Bednarski. *Prawo dostępu do broni palnej a bezpieczeństwo publiczne*, Akademia im. Jakuba z Paradyża w Gorzowie Wielkopolskim 10 czerwca 2022r. Konferencja pt. III Ogólnopolska Konferencja Naukowa „Prawo karne, wyzwania i rozwój procesu wykrywczego”.
23. *United Nations (2022). UN welcomes new centre to put Ukraine grain exports deal into motion*. Available at: <https://news.un.org/en/story/2022/07/1123532>
24. Marek Barć. *Ochrona infrastruktury krytycznej, Zagrożenia bezpieczeństwa we współczesnym świecie*, ISBN 978-83-7934-406-2, str. 265-280, Oficyna Wydawnicza Politechniki Rzeszowskiej, Rzeszów 2020.
25. *European Commission (2022). Agreement between the European Union and Ukraine on the carriage of freight by road*. – Available at: [https://transport.ec.europa.eu/system/files/2022-06/Agreement\\_EU\\_Ukraine\\_carriage\\_of\\_freight\\_by\\_road.pdf](https://transport.ec.europa.eu/system/files/2022-06/Agreement_EU_Ukraine_carriage_of_freight_by_road.pdf)

26. Mirosław Bednarski. *Wykorzystanie nauki w aspekcie bezpieczeństwa i kontroli dokumentów*, Konferencja podsumowująca projekt "Dokumenty - Bezpieczeństwo i Kontrola, w tym kontrola taktyczna" 22 czerwca 2022 r.
27. *Statistical data. State Customs Service of Ukraine.* – Available at: <https://customs.gov.ua>
28. Marek Barć. *Bezpieczeństwo w czasie prowadzenia ewakuacji ludności i mienia podczas zagrożeń niemilitarnych przez oddziały i pododdziały SZ na przykładzie 21. BSP*, Zagrożenia bezpieczeństwa we współczesnym świecie, ISBN 978-83-7934-406-2, str. 139-154, Oficyna Wydawnicza Politechniki Rzeszowskiej, Rzeszów 2020.
29. *Statistical data. Ministry of Agrarian Policy and Food of Ukraine.* – Available at: <https://minagro.gov.ua>
30. *Dyskrypcja do problematyki prawnej pojęcia dokument tożsamości* Mirosław J. Bednarski [w:] Świerczewski Ł. (red.). *Dokumenty w systemie bezpieczeństwa – bezpieczeństwo i kontrola, w tym kontrola taktyczna*, Wydawnictwo Uczelni Techniczno-Handlowej im H. Chodkowskiej Warszawa 2021, s. 126-142.
31. Britchenko Igor. *Consulting Services in Agriculture / Nadiia Serskykh, Igor Britchenko // Modern Development Paths of Agricultural Production.* Springer International Publishing. 2019. pp. 217-223. [https://doi.org/10.1007/978-3-030-14918-5\\_23](https://doi.org/10.1007/978-3-030-14918-5_23)
32. Słaba-Wiącek, M. „Dynamika rozwoju specjalnych stref ekonomicznych w Polsce” – *Poszerzamy Horyzonty Tom XIV – publikacja sierpień 2019 str. 10-16.*
33. Mirosław Bednarski. *Podpis w znaczeniu prawnym*, Mirosław J. Bednarski [w:] Konopka K. (red.), *Bezpieczeństwo dokumentów publicznych – prawo, teoria, praktyka*, Wyd. CRB, Warszawa 2021, s. 287-320.
34. Britchenko I. *The establishment of the inflation target and the corridor of fluctuations of the target: analysis of world trends and practice in Ukraine / Shapran V., Britchenko I. // VUZF Review.* – VUZF, Sofia (Bulgaria). – No. 6(3). 2021. pp. 13-20. DOI: 10.38188/2534-9228.21.3.02
35. Słaba, M. „Wskaźniki płynności na przykładzie przedsiębiorstwa xyz” – *Człowiek – Gospodarka – Ekonomia. Ujęcie teoretyczno – praktyczne – publikacja WSE w Stalowej Woli 2019r. str. 81-91.*
36. Mirosław Bednarski. *Prawda w aspekcie procesu sądowego, Prawda dobro piękno Wymiar filozoficzno-prawny i socjopedagogiczny*, redakcja naukowa Anna Kieszkowska, Difin S.A., 2015.
37. Britchenko I. *Social entrepreneurship as an instrument of development of small and medium entrepreneurship in Ukraine/Lysiuk Oleksandra,*

- Britchenko Igor // VUZF review. – VUZF, Sofia (Bulgaria). – No. 6(1). 2021. pp. 38-48. DOI: 10.38188/2534-9228.21.6.04*
38. *Ślaba, M. „Wykorzystanie finansów publicznych w Gminie Koprzywnica” – Zeszyty Naukowe PWSZ w Płocku Nauki Ekonomiczne Tom XXX, Wydawnictwo Naukowe Mazowieckiej Uczelni Publicznej w Płocku 2019, str. 169-179.*
  39. *Mirosław Bednarski. Wybrane aspekty prawno-administracyjne obowiązujących uregulowań prawnych Unii Europejskiej i ich implementacja do prawa krajowego i resortowego (policyjnego) w zakresie przestrzegania zasady równego traktowania, Studia Prawnicze i Administracyjne nr 1(5), 2013, WSM.*
  40. *Britchenko I. The Influence of migration on the financial circulation in the economy of Ukraine / Lysiuk Oleksandra, Britchenko Igor // VUZF review. – VUZF, Sofia (Bulgaria). – No. 5(4). 2020. pp. 9-14. DOI: <https://doi.org/10.38188/2534-9228.20.4.02>*
  41. *Ślaba, M. „Analiza kondycji finansowej na przykładzie „Orzech” sp. z o.o w latach 2014 – 2016” – Interdyscyplinarne studenckie zeszyty naukowe wydziału ekonomicznego, Staropolska Szkoła Wyższa w Kielcach, 2019, str. 107-116.*
  42. *Marek Barć. Civil protection in the crisis situations, Науковий вісник Львівної академії. Серія Економіка, менеджмент та право, Кривінички 2020.*
  43. *Britchenko I. Economic Theory / I. Dmytriiev, I. Britchenko, Ya. Levchenko, O. Shershenyuk, M. Bezpartochnyi. Sofia : Professor Marin Drinov Publishing House of BAS, 2020. 218 p.*
  44. *Ślaba-Wiącek, M. „Opodatkowanie działalności gospodarczej w Polskim systemie prawnym” – Poszerzamy Horyzonty Tom XV cz. II – publikacja kwiecień 2020 str. 54-60.*
  45. *Mirosław Bednarski. Profilaktyka przestępczości zarys aspektów prawnych, kryminologicznych i kryminalistycznych, CSP Legionowo Kwartalnik Policyjny 3/2018.*
  46. *Britchenko I. Pandemic economic crisis: essence, reasons, comparative characteristics, opportunities / Britchenko I., Bezpartochnyi M. // New trends in the economic systems management in the context of modern global challenges: collective monograph / scientific edited by M. Bezpartochnyi // VUZF University of Finance, Business and Entrepreneurship. – Sofia: VUZF Publishing House “St. Grigorii Bogoslov”, 2020. pp. 8-19. ISBN 978-954-8590-85-3*
  47. *Ślaba, M. „Analiza wskaźnikowa wybranych przedsiębiorstw województwa podkarpackiego” – PUZ im. prof. S. Tarnowskiego w Tarnobrzegu – 2020r., str. 201-213.*



48. Marek Barć. *Zagrożenia militarne systemu obronnego państwa, Aktualni problemi rozwinutku osviti i nauki v umovax svitovix: tendencij i nacjonalnoji praktiki*, 2021.
49. Britchenko I. *Areas and Means of Formation of Transport Regional Complexes and Mechanisms for Managing their Competitiveness in Ukraine* / Igor Britchenko, Liliya Savchenko, Inna Naida, Oleksandr Tregubov // *Списание «Икономически изследвания (Economic Studies)»*. Институт за икономически изследвания при БАН, София (България). No. 3. Volume 32, Issue 3. 2020. pp. 61-82. ISSN 02053292. <https://www.iki.bas.bg/spisanie-ikonomicheski-izsledvaniia>
50. Ślaba-Wiącek, M., Sepiolo, J. „Rola pieniądza w gospodarce – jego wartość, obligacje, stopy procentowe.” – *Zeszyt 10 – „Gospodarka i Finanse. Współczesne problemy finansowe w wymiarze krajowym i międzynarodowym”*. – Kielce 2020r., str. 31-38.
51. Marek Barć. *Critical infrastructure protection*, Науковий вісник Львівної академії. Серія Економіка, менеджмент та право, Криворізький 2021. str. 207-212, ISSN 2707-8620
52. Britchenko I. *Potential of Sustainable Regional Development in View of Smart Specialisation* / Igor Britchenko, Tetiana Romanchenko, Oleksandr Hladkyi // *Списание «Икономически изследвания (Economic Studies)»*. – Институт за икономически изследвания при БАН, София (България). No. 6. Volume 28, Issue 6, 2019. pp. 88-110.
53. Ślaba, M., Wiącek, S. „Wybrane modele dyskryminacyjne jako ocena ostrzegająca przed upadłością przedsiębiorstwa” – rozdział w monografii „Nowe koncepcje w zarządzaniu, marketingu i ekonomii”, Wydawnictwo ArchaeGraph, Łódź 2022r., str. 63-77.
54. *Wprowadzenie do zagadnień problematyki przestępczości korupcyjnej* Mirosław J. Bednarski [w:] Maciejczyk R. (red.). *Przeciwdziałanie zagrożeniom korupcyjnym w systemie bezpieczeństwa wewnętrznego*, Wydawnictwo CSP w Legionowie, Legionowo 2022, s. 15-43.
55. Britchenko I. *Issues of shaping the students' professional and terminological competence in science area of expertise in the sustainable development era* / Olena Lavrentieva, Victoria Pererva, Oleksandr Krupskiy, Igor Britchenko, Sardar Shabanov // *E3S Web of Conferences*. – FDP Sciences, France. Volume 166, 1003. 22.04.2020. 9 pages. <https://doi.org/10.1051/e3sconf/202016610031>
56. Ślaba-Wiącek, M., Wiącek, S. „Współzależność funduszy na aktywizację bezrobotnych wykorzystywanych w aktywnych formach aktywizacji zawodowej i stopy bezrobocia” – *Ekonomia i przedsiębiorczość społeczna. W kierunku poszukiwania efektywnych, innowacyjnych sposobów rozwiązywania problemów społecznych i środowiskowych*. – 2021r., str. 373-382.

57. Mirosław Bednarski. *Policja a środki masowego przekazu wybrane aspekty prawne*, Wydawnictwo WSM w Warszawie, 2013.
58. Słaba-Wiącek, M. „Liczby pierwsze” *Alfa i omega tom II – publikacja marzec 2021 str. 255-259.*
59. Mirosław Bednarski. *Współpraca policji z organami samorządowymi w zakresie problematyki bezpieczeństwa. Próba ujęcia węzłowych problemów (współautor)*, *Bezpieczeństwo i Ochrona - Kwartalnik naukowy WSBiO nr 1-2*, 2008.
60. Słaba-Wiącek, M., Wiącek, S. „Wpływ regulacji politycznych, prawnych i ekonomicznych na podejmowanie decyzji konsumentów – szanse i zagrożenia” – rozdział w monografii „Współczesne przemiany na świecie w ujęciu ekonomicznym – *ArchaeGraph*, Łódź, 2022r., str. 113-129.
61. Marek Barć. *Rodzaje ochrony infrastruktury krytycznej*, *Rocznik bezpieczeństwa morskiego*, ISSN 1898-3189, str. 1-15, Gdynia 2021.
62. Leończyk, P., Słaba-Wiącek, M. „Analiza danych z wykorzystaniem narzędzi SAS” – rozdział w monografii „Zastosowanie wybranych metod i narzędzi ilościowych w naukach ekonomicznych, finansach i informatyce”, Tarnobrzeg 2021r., str. 177-190.
63. Mirosław Bednarski. *Wypalenie zawodowe policjantów – introdukcja Złota Księga Jubileuszowa Prof.zw.dr hab. dr honoris causa Brunona Hołysta*, *ELPIL- Jarosław Pilich*, 2015.
64. Słaba-Wiącek, M. „Optymalne funkcjonowanie przedsiębiorstwa w okresie niepewności rynkowej – pandemii COVID – 19 na przykładzie PGNiG” – rozdział w monografii „Zastosowanie wybranych metod i narzędzi ilościowych w naukach ekonomicznych, finansach i informatyce”, Tarnobrzeg 2021r., str. 214-223.
65. *Zmęczenie policjantów jak czynnik kryminogeny, podczas obowiązywania stanu epidemii wywołanego zakażeniami wirusem SARS-CoV-2*, Mirosław J. Bednarski, Wojciech Krajewski [w:] K. Konopka (red.), *Prawo a kryminalistyka*, Wydawnictwo CRB, Warszawa 2021.
66. Słaba-Wiącek, M. „Checking econometric models in times of market and consumer change”, *Journal of Scientific Papers VUZF REVIEW*, June 2022, str. 127-134.
67. Mirosław Bednarski. *Zjawisko korupcji w policji polskiej*, *Studia Prawnicze i Administracyjne nr 1(2)*, 2011, WSM.
68. Słaba-Wiącek, M. „Badanie sytuacji branży meblarskiej w czasie pandemii” – rozdział w monografii „Przedsiębiorczość i marketing współczesne problemy i zagadnienia” - *ArchaeGraph*, Łódź, 2022r., str. 23-36.

69. Marek Barć. *Praktyczne aspekty ćwiczeń epizodycznych z zarządzania w sytuacjach kryzysowych w samorządzie terytorialnym*, *Polityka i społeczeństwo*, ISSN 1732-9639, str. 5-15, Wydawnictwo URz, Rzeszów 2021.
70. Słaba-Wiącek, M., Zygmunt, B. „Planowanie strategiczne działalności gospodarczej w okresie niepewności i ryzyka spowodowane wystąpieniem COVID – 19 na przykładzie KGHM S.A I ATENDE S.A. – *ArchaeGraph*, Łódź, 2022r., str. 73-86.
71. Mirosław Bednarski. *Związek zawodowy policjantów – CSP Legionowo* *Kwartalnik Policyjny*, 3(50). 2019.
72. Słaba-Wiącek, M. „Metoda gradientu prostego jako jedna z metod gradientowych w analizie danych” *ArchaeGraph*, Łódź, 2022r., str. 61-75.
73. *Wzajemna zależność pomiędzy policją a bezpieczeństwem*, Mirosław J. Bednarski [w:] Baryłka A., Konopka K. (red.), *Prawo a bezpieczeństwo. Tom I*, Wyd. CRB, Warszawa 2021, s. 336-362.
74. Słaba-Wiącek, M. „Przykłady zadań – Mikroekonomia – Makroekonomia” – Wydawnictwo PUZ im. prof. S. Tarnowskiego w Tarnobrzegu, 2020r.
75. Mirosław Bednarski. *Pragmatyka służbowa policjantów – akty prawne*, IWIU, 2012.
76. Marek Barć. *Practical aspects of episodic exercises in crisis management in local government*, *Politics and society*, ISSN 1732-9639, pp. 5-15, URz Publishing House, Rzeszów 2021.
77. Ostapenko, T., Britchenko, I., Loščonczy, P. *Research of the intelligent resource security of the nanoeconomic development innovation paradigm*. In : *Baltic Journal of Economic Studies*. Riga, Latvia : Baltija Publishing, 2021. Volume 7, Number 5. pp 159-169. DOI: <https://doi.org/10.30525/2256-0742>
78. Marek Barć. *Planowanie i organizowanie ochrony infrastruktury krytycznej*. *Polityka i społeczeństwo*, ISSN 1732-9639, str. 5-21, Wydawnictwo URz, Rzeszów 2022.
79. Mirosław Bednarski. *Postępowanie dyscyplinarne w Policji*, Wydawnictwo WSM w Warszawie, 2010.
80. Britchenko Igor. *Reputation risks, value of losses and financial sustainability of commercial banks / Kunitsyna N., Britchenko I., Kunitsyn I. // Entrepreneurship and Sustainability Issues*. 5(4): 943-955. [https://doi.org/10.9770/jesi.2018.5.4\(17\)](https://doi.org/10.9770/jesi.2018.5.4(17)) ISSN 2345-0282.
81. Marek Barć. *Działania podejmowane przez właścicieli oraz posiadaczy samoistnych i zależnych obiektów, instalacji i urządzeń infrastruktury krytycznej w zakresie ich ochrony*, *Dylematy bezpieczeństwa państwa we współczesnym świecie*, ISBN 978-83-7934-564-9, str. 269-284,

- Oficyna Wydawnicza Politechniki Rzeszowskiej, Rzeszów 2022.
82. Mirosław Bednarski. *Kryzys zawodu policjanta aspekty kryminologiczne*, Wydawnictwo WSM w Warszawie, 2011.
  83. Britchenko Igor. *Banking liquidity as a leading approach to risk management / Stanislav Arzevitin, Igor Britchenko, Anatoly Kosov // Advances in Social Science, Education and Humanities Research. – Atlantis Press: Proceedings of the 3rd International Conference on Social, Economic and Academic Leadership (ICSEAL 2019). – Volume 318, May 2019. pp. 149-157. (<https://www.atlantispress.com/proceedings/icseal-19/125909030>) ISSN 2352-5398*
  84. Marek Barć. *Actions taken by owners and holders of independent and dependent facilities, installations and critical infrastructure devices in the scope of their protection, State security dilemmas in the modern world*, ISBN 978-83-7934-564-9, pp. 269-284, Publishing House of the Rzeszów University of Technology, Rzeszów 2022.
  85. Mirosław Bednarski. *Kompendium postępowania dyscyplinarnego dla policjantów*, IWIU, 2011.
  86. Britchenko I. *Blockchain Technology in the Fiscal Process of Ukraine / I. Britchenko, T. Cherniavska // Списание «Икономически изследвания (Economic Studies)». – Институт за икономически изследвания при БАН, София (България). Volume 28, Issue 5, 2019. pp. 134-148. ISSN 02053292.*
  87. Mirosław Bednarski. *Wpływ nauki kryminalistyki na funkcjonowanie Policji, Wyższa Szkoła Agrobiznesu w Łomży 28 maja 2022 r. Konferencja pt. “Prawno-kryminalistyczne aspekty bezpieczeństwa społeczności lokalnej”.*
  88. Britchenko Igor. *University innovative hubs as points of growth of industrial parks of Ukraine / Britchenko I., N. Kraus, K. Kraus // Financial and credit activity: problems of theory and practice, Volume 4, No. 31, 2019. pp. 448-456. ISS (print) 2306-4994, ISSN (on-line) 2310-8770 <http://fkd.org.ua/article/view/190996>*
  89. Mirosław Bednarski. *Prawo dostępu do broni palnej – Międzynarodowa Eurazjatycka Konferencja Studiów Edukacyjnych i Społecznych. Guarda, Portugalia sierpień 2022 e-ISBN 978-605-71963-0-9.*
  90. Ostapenko, T., Britchenko, I., Lošonczi, P., Matveiev, S. *Identification of regularities in the development of the baby economy as a component of the nanolevel of economic system. In: Eastern-European Journal of Enterprise Technologies, Vol 1/13 (115). 2022, pp. 92-102. DOI: <https://doi.org/10.15587/1729-4061.2022.252334>*