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# Institutional and legal framework of development of customs risk management

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**Abstract.** The main aim of this article is to analyse the institutional and legal framework for the development of customs risk management in Ukraine on the basis of international standards and to develop proposals for its improvement. Methodological tools such as description and comparison, historical formalization, analysis and synthesis, mathematical and statistical methods for the period 2013-2020, a systematic approach, etc. were used to conduct the study. The study examines the processes of state regulation of Ukraine's foreign economic activity by managing customs risks to achieve a balance between trade facilitation and regulatory control. The development of the main elements of institutional and legal formation of the customs risk management system is analysed and the prospects of its improvement are determined. In particular, ways for improvement the effectiveness of fiscal risk management through enhanced control measures to determine the goods code, its country of origin and customs value are proposed. In addition, the authors emphasize the need to give customs authorities the right to carry out operational and investigative activities for effective security risk management.

## 1 Introduction

Foreign trade is a powerful factor in the development of country's economy in the world. National state institutions play an important role in the regulation of foreign economic activity of the state. One of the main authorities in this process is the body that implements customs policy. In Ukraine such a body is the State Customs Service of Ukraine (hereinafter – SCS).

Traditionally, measures of state regulation of foreign economic activity are divided into tariff and non-tariff. The main measure of tariff regulation is the duty. The expression “customs duty” means a national tax, which is computed and paid in accordance with Customs Code, laws of Ukraine and international treaties, ratified by the Parliament of Ukraine. The national economy of Ukraine is very dependent on imports taxed by customs duty. Obviously, the movement of goods across the state's customs border has a number of

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fiscal risks and security risks. Thus, efficient management of customs risks is one of the most strategic tasks of the SCS.

The main basis for customs risk management researches is the international agreements, conventions and other legislations in the international trade and customs affairs, the international standards and methodological papers in this field and also case study of different countries to choose the best experience. The issue of implementation of customs international standards in national legislation and specific mechanisms for its implementation were studied in the works of domestic and foreign customs theorists and practitioners. Ivashova (2008; 2015) and Borysenko (2012) focused on foreign economic and customs policy and the mechanisms of state administration of foreign trade activity in Ukraine [6, 12, 13]. Some aspects of customs regulation were studied by Jansson (2008; 2009), Berezhniuk (2009), Czyżowicz (2015), Datsii et al (2021), Prymachenko et al (2018) [4, 10, 11, 15, 16, 26]. The papers of Kveliashvili (2010), Chentsov (2012), Mashiri & Sebele-Mpofu (2016) were devoted to the role of customs in regulating foreign trade and ensuring national security [8, 20, 21]. A study of the use of risk management by customs authorities in the international trading environment [35] was the first comprehensive research works in this field in the world. In Ukraine customs risk became the main category of the customs security concept formed by Pashko (2009) [25]. The papers [5, 17, 18, 24, 27, 32] of were devoted to problems of organization and improvement customs risk management in Ukraine, particular aspects of its implementation and mechanism of automation, analysis of foreign experience in this field. Despite the importance of these studies, they emphasized only on the separated parts of risk management system, leaving without consideration the institutional and legal framework for the development of customs risk management. Therefore, this resulted in the choice of theme of this paper.

## 2 Materials and methods

To achieve the object of the research, we used methods of analysis and synthesis, system analysis, mathematical and statistical methods and others. Theoretical and methodological basis of the study are scientific works of Ukrainian and foreign scientists. Processing and systematization of data of the State Statistics Service of Ukraine and State Treasury Service of Ukraine allow making comprehensive analysis of Ukraine's state budget's structure and trends of Ukraine's foreign trade in goods with EU countries. Structural-functional analysis determined the elements of the institutional and legal framework for the development of customs risk management. Using a system approach to risk management in customs context gave the possibility to determine the recommendations to improve managing the customs risks.

## 3 Results

The functional role of Customs includes the demands of the international community to the customs administrations in the twenty first century and the conventional mission of Customs: «to develop and implement an integrated set of policies and procedures that ensure increased safety and security, as well as effective trade facilitation and revenue collection» [39].

Customs administrations therefore play a vital role in the economic welfare of a country, so, dysfunctional customs administration can easily harm trade relations and curtail foreign investment, as customs revenue represents a substantial share of total tax collection [21].

The priority of the fiscal function for customs is also confirmed by the division of customs administrations in the world by organizational type in the annual reports of WCO

on ministry departments, revenue authorities, customs agencies and border protection services. In particular, the share of revenue authorities grows in recent years: 2014 - 26%; 2015 - 28.3%; 2016 - 28.3%; 2017 - 31.3%; 2018 - 31.7%. In the 2019-2020 reporting year, the situation changed due to a shift in the percentage of the type of department in the structure of ministries (from 37.2% in 2018 to 39.3% in 2019) [40] (Table 1). During this time, this authority was reorganized in Ukraine and the State Customs Service of Ukraine was restored as an independent body after the liquidation of the State Fiscal Service of Ukraine.

**Table 1.** The share of customs payments in the state budget by type of customs organization.

| Country         | Type of customs organization | % of customs payments in the state budget |
|-----------------|------------------------------|---|
| United Kingdom  | Revenue Authority            | 4.5                                       |
| <b>Georgia</b>  | <b>Revenue Authority</b>     | <b>45.2</b>                               |
| Hungary         | Revenue Authority            | 10.8                                      |
| Israel          | Revenue Authority            | 21.2                                      |
| <b>Poland</b>   | <b>Revenue Authority</b>     | <b>26.3</b>                               |
| Slovenia        | Revenue Authority            | 19.1                                      |
| Belgium         | Ministry Department          | 11.4                                      |
| <b>Turkey</b>   | <b>Ministry Department</b>   | <b>23.4</b>                               |
| <b>Bulgaria</b> | <b>Customs Service</b>       | <b>42.2</b>                               |
| China           | Customs Service              | 20.9                                      |
| Czech Republic  | Customs Service              | 16.3                                      |
| <b>France</b>   | <b>Customs Service</b>       | <b>28.4</b>                               |
| Korea           | Customs Service              | 18.5                                      |
| <b>Ukraine</b>  | <b>Customs Service</b>       | <b>37</b>                                 |
| Australia       | Border Protection Service    | 4.4                                       |
| USA             | Border Protection Service    | 2.2                                       |
| Canada          | Border Protection Service    | 12.5                                      |

As we can see, there are a number of countries together with Ukraine, where customs fills the budget by 25% or more, i.e. the fiscal function determines the main focus of the customs administration of the organizational type of revenue authority (though not in all countries), ministry department and independent customs service.

That is why, in the Customs policy indicators developed by WCO as criteria of Achieving Excellence in Customs [9] one of the main category is “Fair and Effective Revenue Collection” with subcategories: “Classification”, “Origin”, “Valuation”, “Cross-cutting Issues”. These subcategories are closely linked to the risk management subcategory of the “Society Protection”, which allows realizing the guidelines of the revised Kyoto Convention [36] for risk management implementation as the main philosophy of customs control.

In addition, the country's integration intentions have an impact on the priority of customs fiscal functions performance that is confirmed by the experience of the Baltic States after joining the EU Customs Union [28].

This is also relevant for Ukraine after the signing of the EU – Ukraine Association Agreement [34] and the establishment of a Free Trade Area, which offers Ukraine a framework for modernising its trade relations and for economic development by the opening of markets via the progressive removal of customs tariffs and quotas, and by an extensive harmonisation of laws, norms and regulations in various trade-related sectors, creating the conditions for aligning key sectors of the Ukrainian economy to EU standards

Features of modern Ukrainian economy are its dependence on foreign trade, import and customs duties. The share of customs duties in state budget revenues of Ukraine continues to grow (Table 2).

**Table 2.** Macroeconomic indicators of Ukraine.

| Indicators   | 2013      | 2014      | 2015     | 2016     | 2017      | 2018      | 2019      | 2020      |
|--|-----------|-----------|----------|----------|-----------|-----------|-----------|-----------|
| Import (mln. USD)                                      | 75834.61  | 54428.72  | 37516.44 | 39249.80 | 49607.17  | 57187.58  | 60800.17  | 54336.14  |
| Export (mln. USD)                                      | 62305.93  | 53901.69  | 38127.15 | 36361.71 | 43264.74  | 47334.99  | 50054.61  | 49191.82  |
| Pure export (mln. USD)                                 | -13528.69 | -527.03   | 610.71   | -2888.09 | -6342.44  | -9852.59  | -10745.57 | -5144.31  |
| Gross domestic product (mln. USD)                      | 183310.15 | 133503.87 | 91030.98 | 93355.87 | 112190.33 | 130901.90 | 153929.57 | 155581.87 |
| Revenue of state budget (mln. USD)                     | 42440.50  | 30040.76  | 24477.10 | 24119.41 | 29832.45  | 34121.26  | 21687.70  | 39915.64  |
| Customs duties (mln. USD)                              | 14867.14  | 11504.61  | 9310.82  | 9268.81  | 11456.06  | 13608.67  | 14443.75  | 13444.14  |
| Share of customs duties (% in revenue of state budget) | 35.03%    | 38.30%    | 38.04%   | 38.43%   | 38.40%    | 39.88%    | 66.60%    | 33.68%    |

Source: calculated by authors according to the State Statistics Service of Ukraine and State Treasury Service of Ukraine (2013-2020) [30, 31].

As Movchan (2018) [23] notes importance of finished products in exports to the EU increased from 32% in 2013 to 43% in 2017, while importance of raw materials exports reduced. Key finished products exported to the EU are sunflower oil and electric machinery. Besides product diversify of exports to the EU has increased noticeably since the Deep and Comprehensive Free Trade Area launch. Compared to 2013, in 2017 Ukraine exported 181 products codes more.

Trade between Ukraine and the EU countries has been evolving in a dynamic way, covering more and more areas of cooperation and gradually deepening economic integration. So, as Kovalenko (2015) [19] noted, despite the socio-economic and political instability of Ukraine, creating a Free Trade Area between Ukraine and the EU should give a new rise to the development of bilateral trade and economic relations between Ukraine and the EU.

Transfer of the amounts of customs payments to the state budget of Ukraine shall be made by the revenue and duties authorities of Ukraine which includes SCS, customs offices and customs stations. SCS defines the general strategy of customs risk management, which

has been implemented at the national level since 2005 and based on the world customs standards.

The most powerful techniques used by Customs agencies to deliver their mission are risk management and audits proclaimed the main methods of customs control in the International Convention on the Simplification and Harmonization of Customs Procedures (hereinafter – Kyoto Convention) [36]. These techniques allow Customs agencies to assist the vast majority of economic operators who wish to be compliant, and enables them to concentrate their resources on controlling the smaller number who represent the greatest risk to a country. As recognized Jeacocke and Kouwenhoven (2017) [14], data analytics – for example, automated selectivity rules – has become increasingly important in enabling these techniques.

According to chapter 6 «Customs control» of Kyoto Convention [36] risk is defined as the potential for non-compliance with Customs laws. So all customs administration must use risk management system in their customs formalities. However, Widdowson (2003) [35] noted that risks to the achievement of organizational goals not only include the potential for non-compliance with customs laws, but also the potential failure to facilitate trade, which is revealed in the process of customs service delivery to trading community.

This statement was confirmed in the SAFE Framework of Standards to Secure and Facilitate Global Trade [37] which provides a model for administrations and governments wishing to develop security measures to facilitate and secure global supply chains. The SAFE Framework bases on four core elements, two of which are directly related to the risk management system:

1. The harmonization of advance electronic cargo information on inbound, outbound and transit shipments;
2. The requirement that each country that joins SAFE commits to employing a consistent risk management approach to address security threats;
3. The requirement that on request of the customs administration in the receiving nation, the customs administration of the sending nation performs an outbound inspection of high-risk containers and cargo using non-intrusive detection equipment;
4. The benefits that Customs authorities will provide to businesses that meet minimal supply chain security standards and best practices, including enhanced trade facilitation for legitimate trade and AEO concept.

The SAFE Framework, based on this core principles, rests on three pillars ‘Customs to Customs’, ‘Customs to Business’, ‘Customs to other government and inter-government’, each of which involves a set of standards that are consolidated to guarantee ease of understanding and rapid international implementation.

The Risk Management Systems is a key element of the pillar 1 of the SAFE Framework that should include a mechanism for validating threat assessments and targeting decisions and implementing best practices. According to the SAFE Framework [38] the Customs administration should establish a risk-management system to identify potentially high-risk cargo and/or transport conveyances and automate that system.

Adherence to the principle of risk-oriented management by the borders much depends on effectiveness of intercommunication between customs administrations, with business communities and other state and intergovernmental agencies, namely realization of the three backbones of Framework security standards and trade facilitation.

In the European Union the using of customs risk management is established in the Union Customs Code and EU Customs Blueprints. Therefore much attention is paid to customs risk management in the Association Agreement between the European Union and its Member States, and Ukraine (2014) [3].

The implementation of the customs risk management system in Ukraine took four stages [27]: the initial (preparatory) stage (1999-2005), the stage of formation (2005-2009),

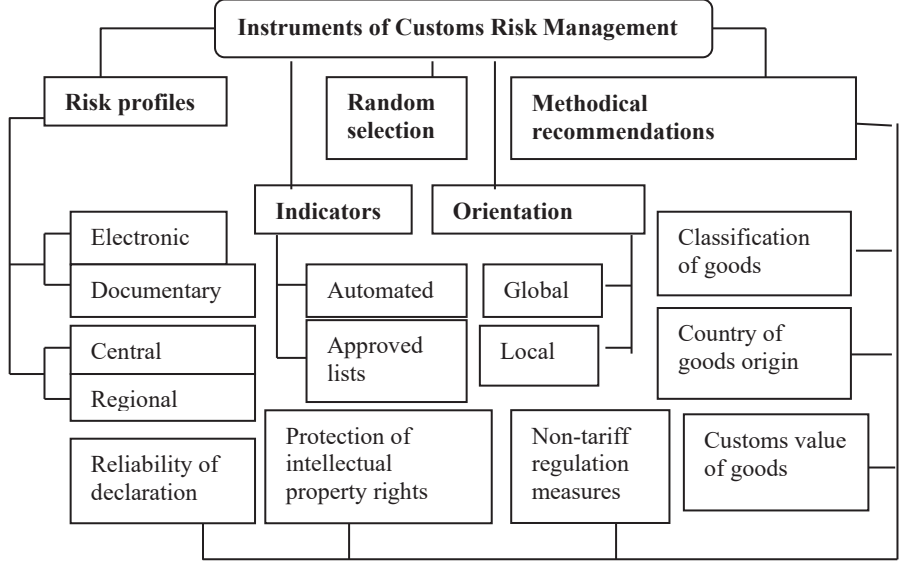
the stage of improvement (2009-2012) and the stage of integrated development (commenced with 2012). Each stage is characterized by certain achievements in the fields of legislative, organizational and information provision.

The Chapter 52 of Customs Code of Ukraine [33] fixed at the legislative level the risk management system in customs affairs of Ukraine. In order to comply with the provisions of the Customs Code, the Order of risk analysis and assessment, development and implementation of risk management measures for determination of forms and scope of customs control was adopted by Ministry of Finance of Ukraine [22]. This Order is developed for ensuring selectivity of customs control by application of risk management system with use of information technologies and defines the peculiarities of application the Automated Risk Management System (ARMS), which has been integrated into the Ukrainian customs database ‘Inspector’.

In addition, this Order differentiated the concepts of not fiscal risks (risks of safety) and fiscal risks. Fiscal risks are meant risks, the identification of which are aimed at preventing the minimization of the payment of taxes and fees, customs and other payments in the implementation of foreign economic operations. Non-fiscal (security) risks are the risks, the identification of which are aimed at ensuring the protection of national security, life and health of people, animals, plants, the environment, and the interests of consumers [1, 2].

To speed up customs formalities at the state border of Ukraine, when analyzing and assessing risks, preference is given to the approach whereby non-fiscal risks, as well as risks of non-delivery of goods to customs of destination or their replacement are mainly analyzed and assessed at the checkpoints across the customs border there. In the customs of destination during the customs control and clearance of goods, fiscal and non-fiscal risks are checked.

For this purpose, the Ukrainian customs administration applies such instruments of risk management as risk indicators and profiles, orientation, random selection and methodical recommendations (see figure 1).



**Fig. 1.** Instruments of customs risk management. Source: compiled by the authors.

Most of these instruments work automatically in ARMS from 2007. After the launch of the Single Window system in 2016, it was possible to integrate the information systems of different controlling authorities, allowing the creation of interagency risk profiles. ARMS allows creating risk profiles of arbitrary complexity using such innovative approaches as



fuzzy logic algorithms and taking into account the positive and negative history of prior customs clearance. That makes it very flexible instrument for customs bodies. ARMS provides assessment on average about 200 thousand customs declarations, 300 thousand displacements of commercial vehicles and 1.2 million passenger displacements in a month. Currently, there are over 100 algorithms for risk assessment (risk profiles) in three ARMS modules, more than 400 sub-algorithms within existing algorithms, and also uses over 80 thousand combinations risk indicators, as well as a large number of so-called 'orientation' built on the basis operational information.

The efficiency of customs risk management is measured by the amount of additional customs payments to the state budget on the results of customs formalities generated by ARMS. In 2017 it was over UAH 544 million [29]. These are the amounts of increase in customs payments by adjusting the customs value, country of origin of goods, classification of goods.

In turn Komarov [18] recognizes that ARMS is only one of the instruments for risk analysis and evaluation which helps to check relevant electronic documentation. At the same time, the importance of such automated systems should not be underestimated. Thus, he defines the risk management system as a set of instruments of automated, manual and combined customs controls, based on the principle of selectivity within the scope of customs control required to ensure compliance with customs law.

It should be noted that the customs risk management system cannot operate effectively without interconnection with other elements of the customs system. These are, first of all, customs post-audit, the institution of an authorized economic operator, remote video surveillance systems and other technical solutions, including the use of international information systems.

The implementing the National Customs Enforcement Network (hereinafter – nCEN) of WCO and the European transit system, the New Computerised Transit System (hereinafter – NCTS) is the way to develop Ukrainian ARMS and to enhance the effectiveness of national customs risk management. By using the nCEN software the SCS will efficiently collect, analyze and disseminate law enforcement intelligence at the national level, as well as to improve risk profiling at the strategic, tactical and operational levels. It is possibility to facilitate a more active exchange of information between customs authorities at the regional and international levels, enhance cooperation between all sectors of the border.

The nCEN consists of three independent databases. The principal database of national seizures and offences comprises data required for analysis, as well as means of conveyance, routes, and the possibility to view photos depicting exceptional concealment methods. Two supplementary databases contain information on suspect persons, methods of conveyance and business entities of interest to Customs, thereby facilitating a structured investigation process [41].

The another perspective system for ARMS is the European Customs Information System NCTS. Since 2009, in the territory of the European Community all transit operations under the TIR Convention was necessarily carried out using this system which will process the declarations and control the transit movement.

This procedure is available to members of the Convention on a common transit procedure (CCTP). Today it is used in 35 European countries. To join the CCTP, Ukraine must introduce the NCTS. The SCSU already uses the NCTS and in 2022 may receive an invitation to join the CCTP. The NCTS provides the opportunity to exchange customs data between CCTP member countries. It allows customs administrations to control goods at all stages of movement across the customs borders of European countries. Thus, conditions and additional opportunities are created for risk analysis, combating smuggling and strengthening control over the payment of customs duties to the State budget. In addition,



customs procedures are simplified for traders, which stimulates the development of foreign trade.

Thus, the model of the institutional and legal framework for the development of customs risk management consists of the relevant elements shown in Figure 2.



**Fig. 2.** Model of the institutional and legal framework for the development of customs risk management. Source: compiled by the authors.

At each stage of the tariff regulation of foreign trade activity of Ukraine, there are fiscal risks that may lead to non-payment of customs duties in full to the state budget. Therefore, the management of fiscal risks is crucial for the customs risk management. Calculation of customs payments is carried out at the customs clearance of goods at customs. Customs payments consist of import duty and export duty, value-added tax on imported goods into the territory of Ukraine, excise tax on imported goods (products) into the territory of Ukraine.

Customs of SCS provide functioning of the tariff regulation mechanism during customs control and clearance of goods. In particular, the customs of SCS realize control of the correctness of the goods classification, the correctness of determining the country of origin and the correctness of determining the customs value of goods. Therefore, these factors are the main for essence of fiscal risks.

To improve the national system customs risk management, it is proposed to collect, accumulate, analyze and update information from official sources at all stages of tariff regulation, namely:

- 1) control of the correct classification of goods: creation of a database of commodity coding, which is unified and accessible to the general public on the SCS website, which would make it impossible the customs clearance of the same goods in different customs offices of Ukraine under different codes, and accordingly, at different rates of duty;
- 2) control of the correctness of the determining of the country of origin of goods: exchange of information with the competent foreign authorities of the countries of origin (export) of the goods on issued certificates of origin of goods (from the countries which together with Ukraine are form free trade areas and from Ukraine or countries of the World Trade Organization or the countries which Ukraine entered into bilateral or regional agreements on most favourable treatment);
- 3) control of the correct determination of the customs value of goods: exchange of information with the countries of production about the reliable value of the products

exported from them; partnership interaction with the industry associations of importers and use of the price information received from them; the use of official periodicals on price information of stock commodities.

In turn, for effective security risk management, we see the need for the customs authorities to put into practice the right to operational and investigative activity, which is currently limited by legal conflicts, and the restoration of specialized risk management units in regional customs, which were reorganized in 2020.

The Regulation of the State Customs Service of Ukraine [7] defines the tasks for the organization and conduct of operational and investigative activities and control over its implementation operational units of the State Customs Service and customs authorities that fight smuggling. However, today this function cannot be implemented in practice, as other legislative acts of Ukraine, which regulate operational and investigative activity, require appropriate changes. The implementation of search and counterintelligence measures with the use of operational and technical means will significantly increase the efficiency of customs activity to detect and stop the smuggling of drugs and weapons.

Besides, European experience shows a positive effect from investigative functions in customs authorities. Actual results of the work of the EU customs administrations confirm the importance of the customs having the authority to conduct criminal investigations. Attempts are being made now to provide them to customs even in those countries that have not yet used such tools.

## 4 Conclusions

Given that customs risks are of paramount importance to Ukraine, their management should be carried out at all stages of the functioning of the state regulation mechanism in the customs clearance of goods. To minimize the customs risks it is necessary to implement of international agreements and conventions norms at these stages, construction of a national risk management system taking into account such risks during control the determining of the commodity code, country of origin, customs value, correctness of the amount of customs payments and their transfer to the state budget for state economic development and to increase of the society safety due realizing operational and investigative activity by customs authorities.

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