# СВІТОВЕ ГОСПОДАРСТВО І МІЖНАРОДНІ ЕКОНОМІЧНІ ВІДНОСИНИ

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# PRIMARY FACTORS SHAPING UKRAINE'S CUSTOMS AND TARIFF POLICIES AMIDST SHADOW ECONOMY

# ОСНОВНІ ЧИННИКИ ФОРМУВАННЯ МИТНО-ТАРИФНОЇ ПОЛІТИКИ УКРАЇНИ В УМОВАХ ТІНІЗАЦІЇ ЕКОНОМІКИ

This study examines Ukraine's shadow economy, specifically its customs challenges and tariff regulation. In the context of globalization, the study explores methodological enhancements proposed by scholars for measuring the shadow economy and its influencing factors, emphasizing export-import taxation and financial tax mechanisms. The study employs the mirror statistics method to analyze export-import operations and investigates the sectoral structure of taxable imports. Key product categories contributing significantly to shadow economic activity are identified. Customs policies, notably customs undervaluation, and their impact on tax base reduction are discussed. The article addresses the absence of digital indicators, explores methodological improvements, and focuses on export-import taxation. By analyzing sectoral structures and customs policies, the study seeks to enhance our understanding of the shadow economy's dynamics and its relationship with customs and tariff regulation.

**Key words:** customs and tariff regulation, customs policy, import-export operations, mirror statistics, excise tax, shadow economy.

Дослідження спрямоване на висвітлення проблем тіньової економіки в Україні з акцентом на митних питаннях і тарифному регулюванні. Підкреслюється, що тіньова економіка розвивається паралельно зі стрімким зростанням електронної комерції та цифрових транзакцій. При цьому традиційні методології оцінки тіньової економіки здебільшого не враховують ці цифрові виміри. Дана стаття має на меті усунути цю методологічну прогалину в контексті митно-тарифного регулювання в Україні. Спираючись на сучасні наукові розвідки, автор відзначає відсутність цифрових індикаторів тіньової економіки у традиційних оцінках та вказує на перешкоди, які це створює для розуміння впливу тіньової економіки на тарифне регулювання, особливо в українському контексті. Для повнішого розуміння динаміки тіньової економіки в Україні, особливо у світлі зовнішніх факторів, що діють в епоху глобалізації, досліджуються методологічні вдосконалення, запропоновані науковцями для вимірювання тіньової економіки та факторів, що впливають на неї. Основна увага приділяється оподаткуванню експортно-імпортних операцій та фінансовим податковим важелям, які займають ключові позиції в дослідженнях тіньової економіки. Для аналізу експортно-імпортних операцій використовується метод дзеркальної статистики, який широко застосовується у світовій практиці. Акцентується, що метод полегшує порівняння показників на основі напрямків торговельних потоків товарів, пропонуючи важливе розуміння операцій тіньової економіки. У статті наголошується важливість поглибленого вивчення факторів, пов'язаних із митною сферою, що впливають на зростання та функціонування тіньової економіки. Автор аналізує галузеву структуру оподатковуваного імпорту, виділяючи групи товарів, які відіграють значну роль у тіньовій економічній діяльності. Зокрема, обговорюється вплив митної політики, особливо заниження митної вартості, та його наслідки для зменшення бази оподаткування. Підкреслюється необхідність розуміння унікальної динаміки тіньової економіки та ії взаємодії з митно-тарифним оподаткуванням.

**Ключові слова:** митно-тарифне регулювання, митна політика, імпортно-експортні операції, дзеркальна статистика, акцизний податок, тіньова економіка.

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Problem statement. The shadow economy in Ukraine presents a complex and multifaceted challenge that demands a nuanced approach, especially concerning customs issues and tariff regulations. In today's digital age, the shadow economy has evolved significantly, driven by the rapid rise of e-commerce and digital transactions. Traditional methodologies for assessing the shadow economy often overlook these digital aspects, leaving a crucial gap in our understanding. This research underscores the need to address this methodological gap within the context of customs and tariff regulations in Ukraine.

Analysis of recent research and publications. We draw inspiration from the work of Gaspareniene and Remeikiene [1], who emphasized the absence of digital shadow economy indicators in traditional estimations. The omission of such determinants in customs-related assessments poses challenges in understanding the true extent and scope of the shadow economy's impact on tariff regulations, especially in the Ukrainian context. Our study also takes cues from the methodological enhancements proposed by Ibanez et al. [2] and Putnins & Sauka [3] for measuring the shadow economy and its impacting factors. These enhancements provide valuable reference points for our study's methodology and findings.

Additionally, Nguyen and Luong's [4] investigation of corruption, the shadow economy, and economic growth in Asian economies offers a comparative perspective, highlighting the multifaceted impact of shadow economy-related issues on economic progress. Furthermore, we consider the influence of globalization and its intricate relationship with the shadow economy, as explored by Eren [5]. This global perspective resonates with the dynamics that influence Ukraine's shadow economy, making examining the external factors at play essential.

Abel Polese et al. [6] conducted a comprehensive theoretical and analytical study. Their research encompasses theoretical approaches to the structure of the shadow economy, an analysis of the sectoral and regional composition of Ukraine's shadow economy, and an exploration of the factors influencing its growth.

Schneider and Buehn's work [7] sheds light on estimating the shadow economy's size using the discrepancy method applied to tax compliance data. Their findings caution against relying solely on official indicators affected by the shadow economy's growth, potentially leading to policy misdirection due to inaccurate assessments. Moreover, Schneider and Enste [8] emphasize that a burgeoning shadow economy can distort economic policy based on erroneous "official" indicators such as unemployment, labor force, income, and consumption. The reliance on these indicators,

which may be inaccurate or influenced by the shadow economy, could pose challenges for policymakers in making informed decisions.

However, it is evident from the bibliographic analysis that the existing studies have provided limited insights into the methods used to determine the extent of the shadow economy and the impact of customs and tariff taxation on Ukraine's economy. This gap in the literature underscores the need for further investigation and analysis. The conducted research demonstrates the inherent limitations in assessing the scale of the shadow economy, emphasizing the need for critical analysis of existing methods to identify their shortcomings, propose solutions, and develop new universal approaches to evaluate the extent of the "shadow" in Ukraine's economy [9].

The existing literature provides valuable insights into the various methodologies employed in assessing the determinants and dimensions of the shadow economy. By building upon this foundation, the present study aims to contribute further by examining the specific methods used for assessing the shadow economy in the Ukrainian context, ultimately informing the development of strategies to effectively address this issue and foster sustainable economic growth.

The purpose of the article. Our research aims to illuminate the unique dynamics and characteristics of Ukraine's shadow economy, with a specific focus on how customs-related factors impact its growth and operation. The primary objective of this paper is to identify methods for detecting and overcoming the shadow economy by analyzing the effects of customs and tariff regulations. By addressing this research gap, the study aims to contribute to a more comprehensive understanding of the shadow economy's dynamics in Ukraine and provide valuable insights into strategies for mitigating its impact on the economy.

Presentation of the main material. The taxation of export-import operations and financial tax levers hold a significant position in shadow economy research. When analysing export and import operations, the method of mirror statistics, a widely adopted approach in global practice, is employed. This method allows for the comparison of indicators based on the directions of trade flows of goods.

Following the UN recommendations, the State Statistical Service of Ukraine introduced a methodology for comparing data from the main partner countries in foreign trade using the method of mirror statistics. This method, classified as a direct method, was approved by the Decree of the State Statistics Service of Ukraine No. 419 dated December 29, 2000, titled "On Approval of the Methodology for Comparing Data of the Main Partner Countries in Foreign Trade in Goods". Updates to the methodology were subsequently incorporated as

per the Decree of the State Statistics Service of Ukraine No. 588 dated December 7, 2006 [10]. The method of mirror statistics involves reconciling the imports of goods from a particular country with the exports of the partner country.

Using data from the State Statistics Service, the sectoral structure of taxable imports will be determined to identify the product groups that contribute the largest share. Figure 1 illustrates the sectoral structure of taxable imports by industry for the years 2020–2021.

According to Figure 1, machinery, equipment, and transport constitute the largest share, accounting for approximately 31-33% of the import revenue structure. Given this significant proportion, it is recommended to employ the mirror statistics method to calculate monetary and physical data for the Ukrainian Classification of Goods for Foreign Economic Activity code 8703, which pertains to "Automobiles and other motor vehicles primarily intended for the carriage of people". This product group is subject to import duty, excise tax, and VAT. Notably, there has been a notable shift in the imports of fuels and lubricants, increasing from 16% to 22%, driven by the post-pandemic recovery and subsequent surge in demand. These specific product groups are associated with high rates of customs and tariff taxation avoidance.

To further investigate this, a sample of Ukrainian imports of passenger cars and exports from the top five partner countries was selected and analyzed using the mirror statistics method in both monetary and physical terms. The findings are presented in Tables 1 and 2, based on TradeMap data [11].

Comparison of the indicators in Table 1 reveals that there are significant differences in the directions of trade flows in Ukrainian imports with the Top 5 exporting countries in terms of monetary value, particularly in 2022 This trend is caused by the introduction of a preferential import duty regime for vehicles in April-June 2022 at a rate of 0%.

A comparison of monetary and quantitative indicators allows us to identify the cause of the discrepancies. Significant discrepancies are due to the underestimation of the customs value of cars in 2022 by almost 3.6 times in Poland, 3 times in Japan, 2 times in Germany, and 15% in the United States. This discrepancy occurred because the reduction of import duty to 0% did not exempt the vehicles from a 20% value-added tax (VAT), in addition to differences in exchange rates.

Thus, the main violation, when it comes to customs policy, is the understatement of the customs value of goods, which aims to reduce the tax base.

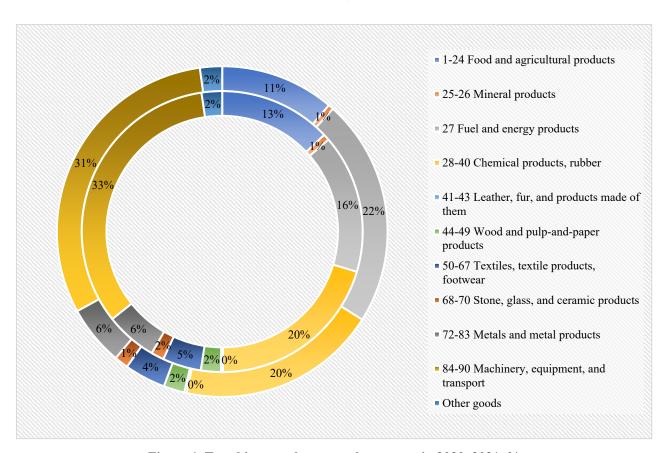


Figure 1. Taxed imports by sectoral structure in 2020–2021, %.

Source: compiled by the author according to the State Statistics Service of Ukraine [14]

Table 1

Analysis of Statistics on Imports and Exports of Commodity Heading 8703 "Automobiles and Other Motor Vehicles Primarily Intended for the Carriage of Persons" (%)

Trade directions	2018	2019	2020	2021	2022
Imports Ukraine-Germany	50.90	44.41	45.74	42.17	45.90
Export Germany-Ukraine	50.21	30.90	30.88	27.34	23.39
Import-export difference	0.69	13.51	14.86	14.83	22.51
Imports Ukraine-USA	36.21	34.20	34.90	31.81	28.88
Export USA-Ukraine	32.62	30.24	28.61	26.16	9.81
Import-export difference	3.59	3.96	6.29	5.65	19.07
Imports Ukraine-Japan	44.13	33.69	33.63	31.24	31.75
Export Japan-Ukraine	32.95	25.54	19.84	18.35	16.32
Import-export difference	11.18	8.15	13.79	12.89	15.43
Import Ukraine-China	3.77	2.22	2.23	3.75	5.54
Export China-Ukraine	3.32	2.15	2.24	3.75	2.95
Import-export difference	0.45	0.07	-0.01	0.00	2.59
Imports Ukraine-Poland	18.85	15.58	12.54	10.04	8.79
Export Poland-Ukraine	14.95	11.56	15.19	15.70	29.47
Import-export difference	3.90	4.02	-2.65	-5.66	-20.68

Source: compiled by the author based on TradeMap data [11]

Table 2
Analysis of Statistics on Imports and Exports of Commodity Heading 8703 "Automobiles and Other Motor Vehicles Primarily Intended for the Carriage of Persons" (in tons)

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Trade directions	2018 (%)	2019 (%)	2020 (%)	2021 (%)	2022 (%)		
Imports Ukraine-Germany	83.56	66.74	66.00	71.00	65.00		
Export Germany-Ukraine	38.06	34.54	32.85	36.00	22.04		
Import-export difference	45.50	32.20	33.15	35.00	42.96		
Imports Ukraine-USA	51.00	49.91	64.89	54.52	50.32		
Export USA-Ukraine	39.24	39.76	40.38	43.25	17.97		
Import-export difference	11.76	10.15	24.51	11.27	32.35		
Imports Ukraine-Japan	38.53	37.40	36.46	36.72	36.42		
Export Japan-Ukraine	13.60	14.81	13.43	14.25	7.94		
Import-export difference	24.93	22.59	23.03	22.47	28.48		
Import Ukraine-China	6.01	6.10	6.54	6.46	6.50		
Export China-Ukraine	13.68	5.56	6.54	6.95	4.87		
Import-export difference	-7.67	0.54	0.00	-0.49	1.63		
Imports Ukraine-Poland	26.00	29.96	25.75	17.06	15.67		
Export Poland-Ukraine	44.74	47.47	48.14	40.09	54.59		
Import-export difference	-18.74	-17.51	-22.39	-23.03	-38.92		

Source: compiled by the author based on TradeMap data [11]

To estimate the impact of customs and tariff taxation on the shadow economy using structural equation models, specifically multiple regression, we will utilize the data from the State Budget of Ukraine for the period of 2016–2022. Table 3 presents the relevant data.

According to the State Budget for 2017, excise tax receipts on goods imported into the customs territory of Ukraine raised by UAH 42 billion, representing a 19.9% growth compared to 2016. This increase can be attributed to higher tax rates, the appreciation of the UAH exchange rate against the euro, and an upsurge in imports of certain excisable goods, particularly petroleum products, which saw a 1.3% increase. Import

duties also experienced significant growth, reaching UAH 23.9 billion, a 19.5% rise compared to 2016. This growth can be attributed to a 26.4% increase in goods imports in 2017 and an average exchange rate of the UAH against the US dollar, which appreciated by 4.1% [12].

VAT and excise tax on imported goods have a reducing effect on the shadow economy. Based on these modeling results, it is recommended to focus on reducing the rates of excise tax and VAT, rather than export and import duties, in order to mitigate the shadow economy in customs and tariff taxation. For instance, the temporary introduction of excise tax rates of 7% on main types

Table 3

GDP and State Budget Revenues of Ukraine, UAH billion

Years	2016	2017	2018	2019	2020	2021	2022
Nominal GDP	2385,4	2983,9	3562,9	3977,2	4222	5450,8	4926,8
Revenues	612,1	787,5	920,8	998,3	1065,4	1107,1	1787,4
Excise tax on excisable goods imported into the customs territory	35	42,00	47,7	53,5	57,8	79,6	41,7
Budgetary VAT refunds	-94,9	-120,1	-131,7	-151,9	-143,1	-159,6	-84,6
VAT on goods imported into the customs territory	181,5	250,5	295,4	289,8	274,1	380,7	253,1
Import duty	20,00	23,90	26,60	29,90	30,20	36,90	23,3
Export duty	0,37	0,64	0,52	0,23	0,26	1,32	2,9
USD/UAH exchange rate	25,6	26,6	27,2	25,8	27	27,3	32,3

Source: compiled by the author according to the data of Ministry of Finance of Ukraine

of fuel in 2022, as stated in the Law of Ukraine [13], played a positive role in meeting immediate consumer fuel needs and consequently reduced the volume of fuel imports in the shadow economy.

Conclusions. This study has provided evidence supporting the effectiveness of reducing the shadow economy in foreign trade through the reduction of excise tax and VAT rates. It stresses the need for international business managers and customs authorities to focus on understanding key international, regional, and national strategic factors in combating the shadow economy. Recognizing the diverse methods employed in illegal trade, such as goods substitution, misdeclaration of quantities, fictitious exports, misclassification of goods, and non-declaration or misdeclaration of goods, is crucial.

The findings of this study offer valuable insights that extend to the practical realm of international business management. Specifically, the study emphasizes the significance of process modeling and mirror statistics analysis in guiding informed decision-making concerning potential changes in customs and tariff taxation rates. These approaches not only facilitate sound decisionmaking at the state level but also hold relevance within specific industries. By leveraging these analytical tools, international business managers can formulate targeted strategies to effectively address the challenges posed by the shadow economy in the context of foreign trade. This comprehensive understanding of the dynamics underlying the shadow economy empowers managers to navigate complexities, foster transparency, and promote sustainable economic growth.

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