

# ILLICIT FINANCIAL FLOWS IN EXPORT OPERATIONS WITH AGRICULTURAL PRODUCTS

**Serhii KVASHA**

National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine

**Liubov PANKRATOVA**

National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine

**Viktor KOVAL**

Odessa Institute of Trade and Economics of Kyiv National University of Trade and Economics, Odessa,  
Ukraine

email: [victor-koval@ukr.net](mailto:victor-koval@ukr.net)

**Rima TAMOŠIŪNIENĖ**

Vilnius Gediminas Technical University, Financial Engineering Department, Lithuania

email: [rima.tamosiuniene@vgtu.lt](mailto:rima.tamosiuniene@vgtu.lt)

DOI: 10.13165/IE-19-13-2-10

**Abstract.** *The purpose of this paper is deal with possible ways of illegal profit shifting abroad, in particular through export trade of agricultural products. In order to test the hypothesis on asymmetry between indicators of exports/imports between Ukraine and its trading partners, there was carried out a comparative analysis by means of the mirror statistics method. The comparison of indicators of products exports/imports by the method of mirror statistics confirmed the hypothesis regarding the asymmetry of these indicators in international trade. There have been analyzed the world experience in combating tax evasion and profit shifting abroad as well as the steps taken by Ukraine in this area, in particular the introduction of transfer pricing as a barrier to the hidden capital outflow from the country. The authors' main contributions are discovered asymmetry of mirror data such as price, trade value and weight of Ukrainian grain. As a result, the mirror prices of imports of the partner country are significantly higher than the export prices of Ukrainian grain ( $I_{Ap} - 1,20-1,67$ ), whereas for the USA, France, Germany revealed a lack of significant difference between mirror prices for some largest trading partners ( $I_{Ap} - 1,02-1,15$ ). This is a confirmation of shifting profits from Ukraine in order to place them in more reliable jurisdictions and evidence base for the introduction of more stringent measures such as transfer pricing.*

**Keywords:** *prices, transfer pricing, export, import, illicit financial flows, capital.*

## Introduction

Despite the declaration of the need to reform the public life, reforms in Ukraine are moving at a slow pace. One of the major obstacles to restoring the economy and overcoming the systemic economic crisis in Ukraine is the illegal shifting of capital abroad in various ways by various participants, including both legal entities and individuals. Consequently, the state budget is not filled, the external economic debt grows, and, in general, the financial system of the country suffers.

There exist a number of reasons provoking the flight of financial resources from individual countries: first of all, it is an unbalanced internal economic policy that appears in the exchange rate volatility, inflationary processes in the country, and a heavy tax burden on economic actors. Equally important factors are the lack of confidence in the political elites, in the control and inspection bodies, the functioning of opaque schemes in the interaction of business with state authorities, the desire to hide illegally obtained profits. In our country, to all these reasons, an unstable political situation is added due to the military conflict in the East of Ukraine. Thus, a vicious circle arises: business shifts capital beyond the borders of the problem country and thus does not give a chance to restore its economy because of the same lack of cheap working capital.

International organizations advocate the transparency of financial practices and develop various mechanisms to combat the illegal transfer of profits from taxation to other countries. One of these methods is the use of transfer pricing in conducting export/import operations. In Ukraine, the control over transfer pricing was started not so long ago – in 2013, that is, only five years ago. The results of its introduction require a comprehensive analysis. The aim of this article is also to identify normative and legal progress in solving the above mentioned problem and/or to identify “bottlenecks” that inhibit its solution.

## Literature review

The problem of illicit financial flows, at one time or another was also characteristic of other developing countries such as Argentina, Mexico, Uruguay, and Venezuela. The issue of capital outflow was researched by Cuddington (1986), Kar and Freitas (2011), Carbonnier and Zweynert de Cadena (2015), Chowla and Falcao (2016), Cobham and Janský (2017) and others. Particular attention should be paid to Global Financial Integrity (GFI) reports, which are occasionally published on the company’s website.

There is no clear definition of the term illicit financial flows in literature and international normative documents. There are various definitions of illicit financial flows, but essentially they are generated by methods, practices and crimes aiming to transfer financial capital out of a country in contravention of national or international laws`

(OECD, 2014, p. 16). `Even though money might be legitimately earned, it can become illicit once transferred abroad, for instance if it is in violation of exchange control regulations or corporate tax laws` (Carbonnier and Zweynert de Cadena, 2015).

In literary sources, there are different terms – capital flight, capital outflow, hidden outflow, outflow of financial resources, etc. Individual scholars (Serebrianskyi and Vdovychenko, 2012) emphasize the fact that the term capital flight implies the withdrawal of capital from a country that has a somewhat panic character and is caused by pessimistic assessments of residents regarding prospects for economic development, investment opportunities, the ability to protect their savings, etc. According to them, the term capital outflow does not have such a negative connotation that is why in their research they appeal specifically to the term capital flight. If we talk about Ukraine, then, by all indications, it refers to those countries where the capital flight is carried out in the sense that is laid by the researchers.

The problem of the illicit financial flows is inherent not only for Ukraine, but also for other countries. In particular, in this way such companies as Apple, Amazon, Starbucks and others tried to avoid taxation. The OECD (2018) estimates the annual loss of corporate tax revenues to the world's budgets by "offshorization" at \$100-240 billion, or 4-10%.

However, for the budgets of rich countries (G-7 or G-20) the volume of capital flight does not have such a devastating impact as it has on the budgets of developing countries and trying to overcome systemic economic crises. Global Financial Integrity published its regular report, which estimated an illegal outflow of financial resources in 2014 of 4.2-6.6% of the total trade of developing countries. Out of them, 87% accounts for trade manipulation and misinformation, particularly export under-invoicing, and import over-invoicing (Salomon and Spanjers, J., 2017).

In Ukraine, there are few economic studies covering this area, due to the lack of common methodological approaches to assessing the volume of shifted capital, the complexity of obtaining relevant statistical data for analysis. The monograph by Kvasha (2000) can be considered as the basic publication, where the author already in 2000 presented several basic postulates of tax avoidance by economic agents in export/import operations with agricultural products.

Domestic and foreign researchers (Labunska *et al.* 2017), Koval *et al.*, 2018); noted that in the innovation economy, the efficiency evaluation based on multiple criteria is a more complicated option, but on the other hand, this evaluation gives more insight into the real state.

Each of the methodological approaches and the available statistical data have their drawbacks and cannot with a high degree of certainty characterize the capital outflow from the countries being already in the new conditions of development of foreign economic activities. However, taking into consideration the current economic and

political crisis in Ukraine, it can be assumed that there are hidden financial flows, in particular through abuses in the field of export of products.

Globalization makes it increasingly easy for corporations to shift profits to low-tax countries. Moreover, the extent of profit shifting has intensified (Zucman, 2014). The main method of combating tax evasion and eliminating profit shifting abroad is the introduction of transfer pricing by the countries. This problem was paid attention by both foreign scientists and domestic ones. In particular, Rugman and Eden (2017) in their book “Multinationals and Transfer Pricing” reviewed the theory of transfer pricing and its application in the economy of separate industries in Canada, the USA, and Brazil.

Rajnoha *et al.* (2014) claim that transfer pricing appears to be an appropriate solution to this global economic problem. Cristea and Nguyen (2016), on the example of Danish transnational corporations, show that the use of transfer pricing principles helps reduce export volumes in low tax jurisdictions. Other researchers (Liu *et al.* 2017) pay more attention to the fact that policy-makers should be mindful of potential revenue loss not only to tax havens but also to other trading partners that have low statutory corporate income tax rates. The implications of the introduction of transfer pricing rules are analyzed by De Mooij and Liu (2018) and confirm the need for an integrated approach to this problem as well as participation of all countries of the world community.

International organizations such as the Organization for Economic Cooperation and Development (OECD) and the Financial Action Task Force (FATF), the World Bank, and the European Commission take actions to overcome the problem of eroding the tax base and shifting profits abroad.

By OECD/G20 initiatives there has been developed an action plan on combating erosion of the tax base and shifting profits from taxation, also referred to as BEPS (Base erosion and profit shifting). The initiative contains 15 actions implemented by the governments using internal and external tools to overcome the problem of avoiding tax payments by capital flight abroad. Today, 110 countries have joined the BEPS Minimum Standards and committed to comply with 4 out of 15 actions.

In May 2016, the Council Directive 2016/881 was adopted, according to which the exchange of information in the field of taxation is mandatory from 2018 (EU Publication, 2016a). In 2018, the Council Directive 2016/1164 was adopted, which lays down the rules against tax evasion practices that directly affect the functioning of the internal market (EU Publication, 2016b). This Directive also contains aggressive tax planning indicators and commitments, with regard to their restrictions by States Parties from 1<sup>st</sup> January 2019.

Ukraine also takes some steps in the fight against the hidden capital outflow abroad, as this phenomenon damage to the state budget of the country is enormous. The Law of Ukraine No. 408-VII of 4 July 2013 amends Article 39 of the Tax Code of Ukraine and introduces control over transfer pricing (VRU, 2013), the rules of which are constantly being improved, modified, and therefore need to be tracked and analyzed.

### Methodology

In the literature, there are several evaluation methods used by researchers to assess illicit financial flows, namely 'mirror statistics', 'hot money' and the residual method. Each of these methods has its drawbacks, because it does not take into account certain aspects of this issue. In order to test the hypothesis on asymmetry between indicators of exports/imports between Ukraine and its trading partners, there was carried out a comparative analysis by means of the mirror statistics method (Hamanaka, 2011).

The asymmetry index of trade value ( $AI_v$ ) was calculated as the ratio of the value of imports of the importing country B to the value of exports of the exporting country A.

$$AI_v = \frac{V_e}{V_i}, \quad (1)$$

$AI_v$  – the asymmetry index of trade value;

$V_e$  – the value of exports reported by country A to country B (on the terms of delivery FOB);

$V_i$  – the value of imports reported by country B from country A (on the terms of delivery CIF).

However, it should be taken into account that when comparing, different supply conditions are used, in accordance with the International Trade Rules "Incoterms". In particular, exports are considered on the terms of delivery FOB (Free On Board, that is, free on board in the port of shipment), and the imports – on the terms of delivery CIF (Insurance and Freight, i.e. including the goods value, as well as insurance and freight of the ship that delivers products to the port of destination).

Similarly, we calculated the asymmetry index of net weight ( $AI_w$ ):

$$AI_w = \frac{W_e}{W_i}, \quad (2)$$

$AI_w$  – the asymmetry index of net weight;

$W_e$  – the net weight of exports reported by country A to country B;

$W_i$  – the net weight of imports reported by country B from country A;

In our opinion, the asymmetry index of prices ( $AI_p$ ) is the most accurate indicator of differences between the mirror data. It is calculated:

$$AI_p = \frac{P_e}{P_i}, \quad (3)$$

$AI_p$  – the asymmetry index of prices;

$P_e$  – the price of exports reported by country A to country B (on the terms of delivery FOB);

$P_i$  – the net weight of imports reported by country B from country A (on the terms of delivery CIF).

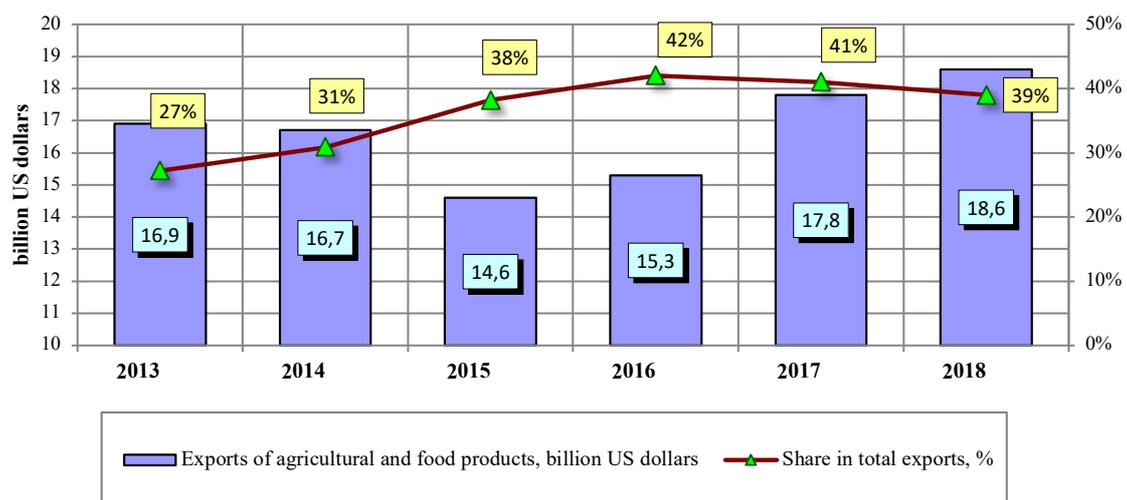
Earlier in the trading statistics of the International Monetary Fund (IMF), in analytical studies of the consulting company GFK, a correction index of 10% was used. However, according to the new IMF methodology for assessing bilateral trade statistics, the correction index of 6% is used (Marini *et al.* 2017). The new correction index is based on recent OECD observations (1995 – 2014), which showed that the average cost of transport and insurance costs are now estimated at 6% of total trade. It means that the value of exports is equal to the value of imports from the partner divided by a correction index of 1.06, and the value of imports is equal to the value of exports from the partner multiplied by a correction index of 1.06.

This index is used by the IMF for non-reporting countries. It can also be used as a criterion for understanding what difference between mirror data of value and prices can be economically justified.

### Research Findings and Discussion

#### *Are there illicit financial flows from Ukraine when exporting the main types of agricultural products?*

Agricultural exports today show a positive dynamics in comparison with other sectors of the economy. In physical terms, export volumes are increasing, but due to lower prices for agricultural products in 2015-2016, there has been a slight decrease in the value indicators of exports of agricultural and food products. At the same time, the share of agricultural exports in the overall structure of national exports has increased significantly: from 27% in 2013 to 39-42% in 2016-2018 (Fig. 1).



Source: Authors, by using SSSU (2019)

**Figure 1.** Export of agricultural and food products from Ukraine, 2013-2018, billion US dollars.

Already traditionally, in the structure of agricultural exports of Ukraine, the largest share is taken by crop products – 51.9% (including grain crops – 36.6%), fats and vegetable oils – 25.9% (primarily sunflower oil), as well as ready food products – 15.9%.

Due to the increasing pace of grain production and its competitiveness on the world market in 2018/2019 marketing year Ukraine ranked 4th among corn exporters and 5th among wheat exporters. The leading TOP-10 exporters of Ukrainian grain sold 68% of total wheat exports and 72% of total corn exports in 2016/2017 marketing year that is the largest share of Ukraine’s grain export potential. Most of these structures are transnational corporations (Lois Dreyfus, Cargill, Bunge Ltd, Archer Daniels Midland Company (ADM) and others.

Undoubtedly, the expansion of Ukraine’s presence on the world market is a positive phenomenon for the country’s socio-political image. A positive effect is also seen for business that generates additional profits, even for agricultural producers who are not engaged in exports, but have stable sales of manufactured products due to the expansion of demand. But let us ask ourselves if export operations are equally efficient for the country’s budget?

We have conducted an analytical comparison of the trade value for Ukrainian wheat and corn of top major partner countries (Tables I,II). As previously noted, it is these kinds of products that have seen the largest volumes of exports in the last ten years. The asymmetry index ( $AI_v$ ,  $AI_w$ ) was calculated according to the formulas (1, 2).

**Table 1. The asymmetry indexes of trade value and net weight for mirror data of Ukrainian wheat, 2015-2017**

Year	Trade value, million US dollars			Net weight, million ton		
	Exports from Ukraine	Imports to partner country	$AI_v$	Exports from Ukraine	Imports to partner country	$AI_w$
Egypt						
2015	310,7	439,7	1,42	1803,1	no data	...
2016	366,0	370,7	1,01	2407,0	1137,5	0,47
2017	438,3	519,2	1,18	2659,3	2125,7	0,80
Average	371,7	443,2	1,19	2289,8	1087,7	0,48
Thailand						
2015	260	310	1,19	1695	1446	0,85
2016	300,0	445,2	1,48	1985,0	2238	1,13
2017	121,4	no data	....	803,5	no data	...

Average	227,1	251,7	1,11	1494,5	1228,0	0,82
Indonesia						
2015	157,7	144,1	0,91	973	664,1	0,68
2016	330,2	493	1,49	2119	2469,4	1,17
2017	327,8	410	1,25	2055	1986	0,97
Average	271,9	349,0	1,28	1715,7	1706,5	0,99

Source: Calculated by the authors based on Comtrade, U.N (2019)

**Table 2. The asymmetry indexes of trade value and net weight for mirror data of Ukrainian corn, 2015-2017.**

Year	Trade value, million US dollars			Net weight, million ton		
	Exports from Ukraine	Imports to partner country	AI <sub>v</sub>	Exports from Ukraine	Imports to partner country	AI <sub>w</sub>
China						
2015	542,6	876,8	1,62	3139,5	3850,7	1,23
2016	422,0	508	1,20	2680,2	2660,3	0,99
2017	323,3	369,5	1,14	2013,1	1821,8	0,90
Average	429,3	584,8	1,36	2610,9	2777,6	1,06
Egypt						
2015	445,9	618	1,39	2890,3	2217,5	0,77
2016	388,8	438,1	1,13	2575,0	1879	0,73
2017	394,4	592,8	1,50	2555,2	2875,9	1,13
Average	409,7	549,6	1,34	2673,5	2324,1	0,87
The Netherlands						
2015	277,9	360,9	1,30	1739	1899,4	1,09
2016	190,3	224,4	1,18	1238,3	1225,3	0,99
2017	435,6	500,9	1,15	2787,1	2550,7	0,92
Average	301,3	362,1	1,20	1921,5	1891,8	0,98
Spain						
2015	430	524,8	1,22	2821,9	2862,8	1,01
2016	322,1	425,5	1,32	2124,0	2368,6	1,12
2017	336,5	402,5	1,20	2187,4	2146,2	0,98
Average	362,9	450,9	1,24	2377,8	2459,2	1,03

Source: Calculated by the authors based on Comtrade, U.N (2019)

It is very difficult to estimate every possible reason for such asymmetries. The asymmetry between value data may occur for a number of reasons, including:

- 1) time lags, that is, when the dispatch of goods from the exporting country was registered in one year, and arrived to the importing country next year;
- 2) application of different trading systems by counterparty countries and, therefore, differences in the classification of goods are possible (most countries use the general trading system, but some countries use a special trading system);
- 3) registration of exports/imports at the intermediate points of goods movement, while it is necessary to clearly establish: for imports – the country of origin of the goods, for exports – the country of destination (i.e. the final country where the goods are to be delivered). However, if, at the time of export, the final destination country is unknown, then the export accounting is carried out in the trading country.
- 4) possible discrepancies due to changes in the exchange rate, as counterparty countries can use both national currency and freely convertible currency for export/import transactions, for example, the US dollar.

Studies show that almost all import value indicators in the importing country exceed Ukraine's export performance and more than an economically justified level of transportation and insurance costs of 6-10%. Such discrepancies may indicate, firstly, the volume of the hidden capital outflow by lowering export performance, or secondly, an increase in imports, which is unlikely.

Study of the asymmetry index of net weight has showed already other interesting regularities. If trade values of the partner country's imports exceed the values of Ukrainian exports ( $K_a = 1.11-1.36$ ), then net weight of the partner country's imports, in the majority of cases, are lower than net weight of Ukrainian exports ( $K_a = 0.48-1.13$ ) (Tables I, II).

The divergence between the mirror indicators of value and net weight in the foreign trade of Ukrainian corn and wheat is reflected in prices, namely, the difference in mirror prices is even greater. The asymmetry index of prices ( $AI_p$ ) was calculated according to the formula (3). For wheat, according to 3-year average, the difference in mirror prices was from 29% to 67%, for corn – from 20% to 54% (Table III).

**Table 3. Comparison of mirror prices for Ukrainian wheat and corn, 3-year average (2015-2017)**

	Export prices from Ukraine, US dollars per ton	Import prices to partner country, US dollars per ton	$AI_p$
Wheat			
Egypt	162,0	271,6	1,67
Thailand	152,0	205,0	1,35
Indonesia	158,5	204,9	1,29

Corn			
China	164,4	210,5	1,28
Egypt	153,2	236,5	1,54
Netherlands	156,8	191,4	1,22
Ukraine – Spain	152,6	183,4	1,20

Source: Calculated by the authors based on Comtrade, U.N (2019)

Many countries in the world have similar problems of the difference in mirror prices. At the same time, calculations and comparison of wheat and corn skews for the world's largest trading partners revealed a lack of significant difference between mirror prices. In 2015-2017, among such trading partners as the USA – Mexico, the difference in mirror prices for corn was only 2%; the USA – Japan for wheat – 9%, for corn – 15%; the France – Algeria – 9% for wheat; The France – Spain – 10% for corn; the Germany – Netherland – 12% for wheat (Table IV).

**Table 4. Comparison of mirror prices for wheat and corn of different countries, 3-year average (2015-2017)**

	Export prices from country exporter, US dollars per ton	Import prices to partner country, US dollars per ton	AI <sub>p</sub>
Wheat			
France-Algeria	197,3	214,4	1,09
USA-Japan	224,0	244,5	1,09
Germany-Netherland	189,2	211,1	1,12
Corn			
France-Spain	222,8	245,5	1,10
USA-Mexico	188,2	192,0	1,02
USA-Japan	182,6	209,9	1,15

Source: Calculated by the authors based on Comtrade, U.N (2019)

The analysis shows that there are distortions, disinformation in physical volumes and the export/import products value in the area of international trade of Ukrainian grain. Ukrainian grain traders, who are often affiliated with major multinational corporations, are interested in selling grain from Ukraine at low prices to related parties. The main volumes of grain from Ukraine are traditionally realized during the period of mass harvesting, because the price in this period is the lowest, and the agricultural producers' capacity for storage is not enough (Pankratova, 2017).

According to experts of the fiscal services and experts on transfer pricing, today in Ukraine more than 60% of foreign economic transactions are carried out between related parties. The State Fiscal Service of Ukraine in the

period of 2015/2017 conducted about 50 inspections of controlled operations, 43% of them – in the field of agricultural exports, which testifies to the rather active international structuring of business processes by large domestic agricultural formations. For middle and small businesses, such steps are not feasible.

Typically, factors that encourage fraud in export/import operations are: the devaluation of the national currency, restrictions on the export of foreign currency, burdensome fiscal policy that is incapable of competing with low tax jurisdictions, the desire to place one's own savings in more reliable financial institutions, the desire to hide illegally obtained incomes. If earlier Ukraine's economy was more closed, then today's processes of globalization enable powerful business formations to achieve the above goals through the international structuring of business processes.

International structuring of business processes allows establishing liability centers where it is beneficial. It is natural that agricultural production is located in Ukraine, which is more profitable here because of the low cost of labor, favorable natural conditions and, at the same time, the low requirements of environmental legislation, etc. The profit centre is placed out of Ukraine in order to avoid paying taxes in Ukraine, placing financial savings in hard currency in more reliable financial institutions in developed countries or offshore.

There is no classical offshore in the list of TOP-importers of Ukrainian grain. However, heightened attention to offshore has led to the emergence of new schemes for profit shifting abroad, also with the use of opportunities of the digital economy. Certain volumes of Ukrainian grain are sold to Iran, Lebanon, Libya, Morocco, and the United Arab Emirates, which today are classified as offshore jurisdictions.

#### *4.2. Transfer pricing and other steps to prevent the illicit financial flows*

Countries need to steadfastly take certain steps aimed at reducing the amount of hidden capital outflows, preventing the tax evasion and profit shifting abroad. For Ukraine we see five of such steps.

1. First of all, it is necessary to introduce effective control over transfer pricing. We distinguish this assignment as a priority, because even the prosperous, economically developed countries encounter the problem of profit shifting to low tax jurisdictions. Therefore, introducing effective control over transfer pricing is a modern vector of development of a civilized community, which Ukraine should become a part of.

According to current legislation, in Ukraine there is introduced the arm's length principle, which presupposes that the volume of taxable profits in controlled transactions should not differ from taxable profits in transactions with unrelated parties. Controlled transactions are transactions with related parties – non-residents. In case the arm's length principle in the controlled transactions is not adhered to, the taxpayer is charged with additional tax payments.

2. The next step should be the implementation of 4 out of the 15 actions of the BEPS Minimum Standards, to which Ukraine joined on 1 January, 2017. These steps include:

- more efficient counteracting harmful tax practices;

- preventing abuses in the application of tax conventions;
- improving the mechanism of tax dispute settlement;
- introducing transfer pricing reporting by countries that provides the automatic exchange of tax information on taxpayers of transnational groups.

The automatic exchange of transfer pricing reports between the countries that have signed the Multilateral Competent Authority Agreement on the Exchange of Country-by-Country Reports and the EU countries in accordance with the Council Directive (EU) 2016/881 started in 2018. Ukraine has not signed yet any intergovernmental agreements on information exchange on the transfer pricing with any of the countries, therefore, it is necessary to step up the work in this very important direction.

3. Ukraine must have financial and tax legislation that will stabilize the country's economic development, investment attractiveness and reliability of investment in its economy. Reductions in the flight of financial resources are possible when the business is not afraid of keeping savings in financial institutions of Ukraine and investing them in expanding activities within the country, when legislative changes and a stable exchange rate are projected.

It is necessary to accomplish the liberalization of currency regulation step by step: to mitigate the requirements for obligatory sale of a certain share of currency earnings and for keeping savings in hryvnas, which is one of the most volatile currencies in the world; to simplify the procedure for obtaining special licenses for foreign exchange transactions; to cancel the deadline for settlements in the currency. However, all these measures can give the desired result only if the BEPS actions are implemented and the mechanism of effective control over transfer pricing is applied.

4. Improving quality and modernizing the work of customs. It is necessary to provide the customs with automated systems to reduce the influence of the human factor, to reduce errors in the definition of codes according to the Ukrainian Classification of Goods for Foreign Economic Activity, to significantly reduce the time for passing customs procedures. The infrastructure of customs terminals, checkpoints and customs offices of discharge needs to be updated.

It is important to clearly define the powers of customs officials, since according to the OECD Guidelines, both services, fiscal and customs, have the right to use the information provided by multinational companies for control. However, for this purpose, it is necessary to carry out the training of customs officers who should better orient themselves in the methods of pricing on the arm's length principle, in sources of information to find appropriate ranges of comparative prices, and others.

5. Information publicity for establishing the appropriate image of companies. A rather powerful element of influence should be a negative public response to companies that shift profits beyond Ukraine, and vice versa, public coverage of the positive image of companies, which honestly pay taxes and work for the benefit of the

state. If there is a choice between companies that adhere to different principles of work, consumer loyalty will be on the side of those companies that are law-abiding taxpayers and are not related to any dubious schemes.

### Conclusions

Summing up, the major volumes of illegal outflows of financial resources from the countries account for manipulation and misinformation in trade. Our calculations, based on the statistics of Ukrainian grain trade, testify to the presence of asymmetry of mirror data such as price, trade value and net weight of products. Moreover, these indicators have a multi-directional vector: if the values for grain exports are underestimated, then quantitative indicators (net weight), on the contrary, are higher than the mirror data of the partner country. As a result, the mirror prices of imports of the partner country are significantly higher than the export prices of Ukrainian grain ( $IA_p - 1,20-1,67$ ), whereas for the USA, France, Germany revealed a lack of significant difference between mirror prices for some largest trading partners ( $IA_p - 1,02-1,15$ ). This is a confirmation of shifting profits from Ukraine in order to place them in more reliable jurisdictions. Most Ukrainian grain exporters are transnational corporations that are capable of international business structuring and placing a profit centre where it is more profitable.

The problem of shifting capital from the countries can only be solved if the efforts of all countries of the world community are united, since most of the issues that need to be addressed lie outside the boundaries of a single country. That is why states agree on common rules for the purpose of preventing shifting profits from taxation abroad. Countries, including Ukraine, needs to take a number of steps to support this extremely important initiative. The first and foremost task is to set up an effective transfer pricing control in accordance with the OECD Guidelines and to steadfastly follow the BEPS Action Plan, in particular to speed up the implementation of Country-by-Country Reports.

At the same time, stabilization of economic development and investment attractiveness of Ukraine as well as deregulation of the foreign exchange market should be ensured. Only acting in both of these directions (on the one hand, increasing the control over transfer pricing, on the other, ensuring the investment attractiveness of Ukraine) it is possible to achieve reducing the outflow of financial resources abroad.

Our further research will focus on analyzing the implications of the introduction of transfer pricing rules in Ukraine and countries that have succeeded in solving the problem of outflow of financial resources abroad.

### Reference

1. Carbonnier, G., Zweynert de Cadena, A. (2015). Commodity Trading and Illicit Financial Flows. International Development Policy. *Revue internationale de politique de développement*. Available at: <http://journals.openedition.org/poldev/2054>
2. Chowla, P., Falcao, T. (2016). Illicit Financial Flows: concepts and scope. Interagency Task Force.

3. Cobham, A., Janský, P. (2017). Illicit financial flows: An overview: *Intergovernmental Group of Experts on Financing for Development*. Available at: [http://unctad.org/meetings/en/SessionalDocuments/tdb\\_efd1\\_bp\\_CJ\\_en.pdf](http://unctad.org/meetings/en/SessionalDocuments/tdb_efd1_bp_CJ_en.pdf)
4. Comtrade, U. N. (2019). UN Comtrade database. *UN Comtrade Online*. Available at: <https://comtrade.un.org>
5. Cristea, A. D., Nguyen, D. X. (2016). Transfer pricing by multinational firms: New evidence from foreign firm ownerships. *American Economic Journal: Economic Policy*, 8(3), pp. 170-202. DOI: 10.1257/pol.20130407.
6. Cuddington, J. T. (1986). Capital flight: Estimates, issues, and explanations. *Princeton Studies in International Finance*, (58), ISBN 0-88165-230-X.
7. De Mooij, R. A., Liu, M. L. (2018). At A Cost: the Real Effects of Transfer Pricing Regulations. International Monetary Fund. ISBN/ISSN: 9781484347539/1018-5941
8. EU publications (2016a). Council Directive (EU) 2016/881 of 25 May 2016 amending Directive 2011/16/EU as regards mandatory automatic exchange of information in the field of taxation. Available at: <https://publications.europa.eu/en/publication-detail/-/publication/859a15db-2957-11e6-b616-01aa75ed71a1/language-en>
9. EU publications (2016b). Council Directive (EU) 2016/1164 of 12 July 2016 laying down rules against tax avoidance practices that directly affect the functioning of the internal market. Available at: <https://publications.europa.eu>
10. Hamanaka, S. (2011). *Utilizing the multiple mirror technique to assess the quality of Cambodian trade statistics* (No. 88), ADB Working Paper Series on Regional Economic Integration.
11. Kar, D., Freitas, S. (2011). Illicit financial flows from developing countries over the decade ending 2009 (Vol. 100), Washington, DC: Global Financial Integrity.
12. Koval, V., Duginets, G., Plekhanova, O., Antonov, A., & Petrova, M. (2019). On the supranational and national level of global value chain management. *Entrepreneurship and Sustainability Issues*, 6(4), 1922-1937.
13. Kvasha, S.M. (2000), Foreign Economic Activity of Ukrainian Agribusiness: Status, Strategy and Development Tactics. Kyiv: ZAT 'Nichlava', (252), (Ukr),
14. Labunska Sv., Petrova M., Prokopishyna O. (2017), Asset and cost management for innovation activity. *Economic Annals – XXI*. Volume 165, ISSUE 5-6, pp. 13-18.
15. Liu, L., Schmidt-Eisenlohr, T., and Guo, D. (2017), International transfer pricing and tax avoidance: Evidence from linked trade-tax statistics in the UK. Working Paper 1715, Oxford University Centre for Business Taxation.
16. Marini, M., Dippelsman, R. J., Stanger, M. (2018), New Estimates for Direction of Trade Statistics. International Monetary Fund.
17. OECD (2010). Transfer pricing methods: OECD. Available at: <http://www.oecd.org/ctp/transfer-pricing/45765701.pdf>
18. OECD (2014). Illicit Financial Flows from Developing Countries: Measuring OECD Responses. OECD. Available at: [https://www.oecd.org/corruption/Illicit\\_Financial\\_Flows\\_from\\_Developing\\_Countries.pdf](https://www.oecd.org/corruption/Illicit_Financial_Flows_from_Developing_Countries.pdf)
19. OECD (2015). Explanatory Statement, OECD/G20 Base Erosion and Profit Shifting Project: OECD. Available at: <http://www.oecd.org/tax/beps-explanatory-statement-2015.pdf>
20. OECD (2018). Inclusive Framework on BEPS A global answer to a global issue: OECD. Available at: <http://www.oecd.org/tax/flyer-inclusive-framework-on-beps.pdf>
21. Pankratova, L.L. (2017). Forming factors of wheat price trends in the world exchanges and Ukrainian spot market. *Ukr. socium*, 2017, № 3 (62),. 177-186. (Ukr), ISSN 1681-116X.
22. Rajnoha, R. Slivková, D. and Dobrovič, J. (2014). Globalization and transfer pricing in multinational corporations in Slovakia and OECD countries – Analytical study and decision-making model on the choice of optimal transfer-pricing method, *Ekonomický časopis/Journal of Economics* 62(6), pp. 609–630.

23. Rugman, A., Eden, L. (2017). *Multinationals and transfer pricing*. Routledge. ISBN-10: 1138242810, ISBN-13: 978-1138242814
24. Salomon, M., Spanjers, J. (2017). *Illicit financial flows to and from developing countries: 2005-2014*. Washington, DC: Global Financial Integrity. Available at: <http://www.gfintegrity.org/report/illicit-financial-flows-to-and-from-developing-countries-2005-2014/>
25. Serebrianskyi D., Vdovychenko A. (2012). Capital 'flight' and shadow international trade in Ukraine: communication, macroeconomic effects. *Bulletin of the National Bank of Ukraine*, 11 (201), 26-33. (Ukr),
26. SSSU (2019). *Foreign Trade of Ukraine. Statistical Yearbook*. Kiev, The State Statistics Service of Ukraine. Available at: <http://www.ukrstat.gov.ua>
27. Zucman, G. (2014). Taxing across borders: Tracking personal wealth and corporate profits, *The Journal of Economic Perspectives*, 2014, 28 (4), 121–148. DOI=10.1257/jep.28.4.121.