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TRANSFER PRICING RISKS ASSESSMENT WITHIN APPLICATION OF FACTOR ANALYSIS

Abstract

Implementation and adaptation of the risk assessment system defined by the OECD into national legislation will provide guidance for both the tax authorities and taxpayers. It will reduce the resource costs in the process transfer pricing risk identification and analysis as well as increase the effectiveness of transfer pricing inspections. The article presents the fundamentals of transfer pricing risk analysis and assessment, based on international practice. A technique for evaluation of the indicators significantly impacting the assessment of transfer pricing risks (profitability, operation structure) has been defined. To improve the process of arranging transfer pricing risk analysis, a proposed matrix of transfer pricing risk indicators can be used. For application consistency purposes, the main typical indicators of transfer pricing risks have been systematized into a matrix, in which the accounting and financial reporting indicators are given accordantly with each factor.

Keywords: Transfer Pricing; transfer pricing risks, factor analysis, risk indicator, profitability indicators.

OCENA RYZYKA CEN TRANSFEROWYCH Z ZASTOSOWANIEM ANALIZY CZYNNIKOWEJ

Streszczenie

Wdrożenie i adaptacja systemu oceny ryzyka określonego przez OECD do przepisów krajowych będzie stanowić źródło wytycznych zarówno dla organów podatkowych, jak i podatników. Pozwoli to na zmniejszenie kosztów zasobowych w procesie identyfikacji i analizy ryzyka cen transferowych, jak również zwiększy efektywność kontroli cen transferowych. W artykule przedstawiono podstawy analizy i oceny ryzyka cen transferowych, oparte na praktyce międzynarodowej. Zdefiniowano technikę oceny wskaźników istotnie wpływających na ocenę ryzyka cen transferowych (rentowność, struktura działalności). W celu usprawnienia procesu porządkowania analizy ryzyka cen transferowych można wykorzystać zaproponowaną macierz wskaźników ryzyka cen transferowych. Dla zachowania spójności aplikacji główne typowe wskaźniki ryzyka cen transferowych zostały usystematyzowane w macierzy, w której wskaźniki rachunkowości i sprawozdawczości finansowej są podane zgodnie z każdym czynnikiem.

Słowa kluczowe: Ceny transferowe; ryzyko cen transferowych, analiza czynnikowa, wskaźnik ryzyka, wskaźniki rentowności.

Introduction

The main purpose in the transfer pricing risk analysis process is the identification and risk factors testing in compliance with determined risk criteria. Ukrainian legislation set up the monitoring risk order in controlled transactions[1]. This procedure specifies the general principles of the analysis procedure applied by tax authorities in the process of transfer pricing audit. However, such procedures do not provide detailed recommendations which risk factors should be analyzed and do not specify quantitative criteria that would indicate the risks existence. In addition, the order intended for tax authorities applying, but cannot be used by taxpayers in the process of internal transfer pricing risk audit.

The methodological basis for the research, presented in this article, was analysis of regulatory documents, experimental information as well as practical studies. The comparison and sampling methods were used during the research. Systematization and information modeling methods is the source for conclusion and generalizations formation together with the tabular methods for results visual presentation of the conducted research.

The Report of the General Forum by European Commission on Transfer Risk Management[2] mainly discloses the general approach to the assessment of transfer pricing risks. Also, the above-mentioned document contains general methods for handling with transfer pricing risks. We consider the global experience of the leading countries which apply transfer pricing risk assessment on the state level.

Table 1 shows the current practice of the world countries on transfer pricing risk assessment, namely the approaches used by the countries and, also the local regulatory documents.

[1] Ministry of finance of Ukraine, *Conducting monitoring of controlled operations order,* 2021, retrieved from: http://zakon2.rada.gov.ua/laws/show/z1055-15 [accessed: 28.08.2022].

[2] *EU Joint Transfer Pricing Forum. Report on Transfer Pricing Risk Management,* Brussels 2013, retrieved from: https://www.drtp.ca/wp-content/uploads/2015/02/Report_Transfer_Pricing_Risk_Management.pdf [accessed: 22.08.2022].

Table 1. The world's leading countries approaches to transfer pricing risk assessment.

Country	Risk assessment approaches	Regulations
Australia	A rating system is used, which provides for the assignment of a certain risk indicator (rating) depending on the taxpayer's financial and non-financial criteria (profitability of controlled transactions, the share of transactions with offshore companies, tax burden, etc.). There are four ratings being used for risk assessment: white (no risk), green (low risk), yellow (medium) and red (high risk). When assigning a medium or high-risk grade, the tax authorities may decide to start tax audit[3].	Practical Compliance Guideline 2019/1 - Transfer pricing issues related to inbound distribution arrangements (2019)
United States	As part of the preliminary transfer pricing risk assessment, tax authorities conduct a factor analysis, scrutinizing financial and non-financial indicators. Financial ones include the actual effective tax rate (tax burden) and financial ratios compared to market averages for a similar industry. Among the non-financial there are participation in corporate disputes, business restructuring, transaction with law-tax jurisdiction counterparties, history of co-operation with tax authorities and regulators (availability of disputes, tax rulings, APA, MAP, etc.), tax adjustments made and other information. In the presence of significant factors that indicate potential tax risks, as well as in the case of significant materiality of such risks, tax authorities may proceed to a tax audit based on the results of a preliminary risk assessment[4].	Compliance Assurance Program; Transfer pricing examination process (2020)

[3] Australian Taxation Office, *Practical Compliance Guideline,* 2019, retrieved from: https://www.ato.gov.au/law/view/document?DocID=COG/PCG20191/NAT/ATO/00001[accessed: 01.09.2022].

[4] *Compliance Assurance Program; Transfer pricing examination process,* The Internal Revenue Service, 2020, retrieved from: https://www.irs.gov/irm/part4/irm_04-051-008 [accessed: 22.08.2022].

Country	Risk assessment approaches	Regulations
United Kingdom	Transfer pricing risk assessment takes place in the format of a preliminary internal audit, which is conducted by specialists of the tax service. The assessment is based on the analysis of risk factors, some of which have quantitative, and the other - qualitative characteristics. Internal Recommendations for risk assessment have the following structure: – Assessment of the necessary resources for conducting a risk audit (hereinafter - an audit); – Analysis of the amount of potential risk (tax at risk); – List of recommended risk factors for analysis (quantitative and qualitative); – Analysis procedure. Further, the Recommendations provide a more detailed description of the procedures within each of the main risk factors: – Effective tax rate; – Transfer pricing rules in the country of the taxpayer's counterparties; – Financial result of the taxpayer in the context of the overall result of the group; – Systemic losses; – Significant intra-group payments (services); – Substantial royalties; – Structuring an ownership of intangible assets; – Participation in business reorganization processes; – Others. In addition, the Recommendations provide guidance on possible sources of information and action algorithms in case of uncertainty[5].	HMRC's guidance. Transfer pricing, Internal manual INTM482000 (2022)

[5] HMRC's guidance, *Transfer pricing, Internal manual INTM482000,* 2022, retrieved from: https://www.gov.uk/hmrc-internal-manuals/international-manual/intm482000 [accessed: 28.08.2022].

Country	Risk assessment approaches	Regulations
Nether-lands	The Horizontal Monitoring approach is applied (for all types of taxes, including for transfer pricing), which consists in the fact that tax authorities do not analyze risks in advance, but rely on the taxpayer, who in good faith prepares all forms of tax reporting and initiates the discussion of all specific business situations with the tax authorities immediately at the time of their occurrence or at the stage of planning of transactions. A tax inspector is assigned to each large or medium-sized taxpayer, who spends a significant part of the time at the entity and has access to all its accounting and financial data. Horizontal monitoring includes seven main steps: – Cyclical analysis of the "risk profile" of the taxpayer; – Meeting with the taxpayer in case of profile change; – Scanning of general compliance (have the taxpayer fulfilled all required obligations prescribed by law); – Discussion and resolution of situations with potential tax risk; – Voluntary reconciliation of the amount of tax liability for a risky transactions; – Discussion and developing of changes in the taxpayer planning and reporting process to prevent similar situations in the future; – Change in the "risk profile" analysis procedure based on monitoring results[6].	Horizontal monitoring guide (2016) Tax control framework (2011)

[6] *Guide. Horizontal monitoring. Tax service providers,* Tax and Customs Administration, 2016, retrieved from: https://www.moore-drv.nl/wp-content/uploads/2020/11/guide-horizon-monitoring.pdf [accessed: 22.08.2022]; *Establishing* a *tax control framework: the utility and necessity of it,* The Dutch Tax Administration, 2011, retrieved from: https://www.compact.nl/en/articles/establishing-a-tax-control-framework-the-utility-and-necessity-of-it/ [accessed: 22.08.2022].

Country	Risk assessment approaches	Regulations
Canada	The framework for the risk assessment is the Tax Control Framework (TCF) through the Tax risk Management (TRM) procedure. Factor analysis is used to assess risks. All taxpayers are divided into risk groups: high, medium and low. The main risk factors are: – History of tax audit of previous years; – Effective tax rate; – Type of activity; – Aggressiveness of tax planning approaches; – Complexity of transactions; – Level of voluntary cooperation with tax authorities; – The level of the corporate management system; – The level of installation of internal controls process. Analysis of information is divided into phases: automatic analysis (using Robotics (RPA) and data analytics); analysis of reports and information from open sources available to the tax inspector; analysis of information provided by the taxpayer upon request[7].	Information Circular IC 00-1R6; (2017)

Source: own generalization.

In addition, the OECD document is the basis for the majority world countries legislation regarding the assessment of transfer pricing risks, which defines the main factors that indicate the potential risks existence[8].

Most of the risk factors have a numerical value and are based on the economic analysis of the taxpayers' financial statements.

[7] Canada Revenue Agency, *Information Circular IC 00-1R6,* 2017, retrieved from: https://www.canada.ca/en/revenue-agency/services/forms-publications/publications/ic00-1/ic00-1r6-voluntary-disclosures-program.html [accessed: 01.09.2022].

[8] *Public Consultation: Draft handbook on transfer pricing risks assessment,* OCED, 2013, retrieved from: https://www.oecd.org/ctp/transfer-pricing/Draft-Handbook-TP-Risk-Assessment-ENG.pdf [accessed: 28.08.2022].

Among the main signs of risks defined by the OECD are the following:

- Risk arising from recurring transactions,
- Risk arising from large or complex one-time transactions,
- Risk arising from taxpayer behavior in governance, tax strategies or ability to deliver compliance.

Next, we will focus on financial assessments and consider the features of the analysis for risk factors and indicators. The international practice is widely used risks factor analysis for transfer pricing risk assessment. Let's consider in more detail the indicators that are used to analyze the presence of possible risk factors:

<u>Profitability</u>

Comparison with indicators of previous periods (historical) involves comparison of profitability indicators in the analyzed period with corresponding indicators of the taxpayer in past periods. A significant decrease in indicators may indicate changes in pricing model.

First, profitability is compared with similar indicators of profitability in the industry or with potentially comparable companies. One of the key indicators of the high transfer pricing risk for a company will be financial results that are significantly different from those that are average in the market for this industry, or from those that are specific to certain comparable companies to this company. Such deviations in profits from industry average may indicate that prices or commercial terms in analyzed transactions potentially do not correspond with “arm’s length” principle, which means that the following cases should be the subject of a more detailed analysis of transfer pricing risks during the preparatory work for the tax audit. Obviously, there may be other reasons not related to transfer pricing if the financial results of the company differ from the industry average. Therefore, low profitability compared to market average can only be an indicator of high risk but cannot be a confirmation of the presence of tax risk.

Comparison of profitability with industry indicators is carried out by calculating the relevant financial ratios.

Risk assessment based on the profitability analysis of the taxpayer's activity is carried out by comparing the actual financial indicators of the taxpayer with historical, industry or market indicators, which is also called the benchmarking process.

As a rule, the following are used as indicators of profitability:

- Gross margin and cost mark up,
- Operating margin and full cost mark up,
- Return on assets or capital.

Profitability indicators of potentially comparable companies can be found in various commercial databases (Amadeus, Orbis etc.). Also, tax authorities have access to historical data from previous audits, which can also be useful for assessing the presence of tax risk and used for internal purposes. In addition, when the taxpayer submits the transfer pricing report to the tax authority, it may include an analysis of potentially comparable companies, as well as the financial data of such companies, and therefore may be a starting point for analyzing the risks of the taxpayer and comparing the taxpayer with industry indicators or indicators of comparable companies.

Comparison with market or industry indicators

In this case, to determine the potential presence of transfer pricing risk, the actual profitability indicators of the taxpayer in the controlled transactions are compared with the corresponding average indicators of the companies in the industry in which the taxpayer operates. In the course of the analysis, statistical approaches are often used, within the framework of which the median or quartile indicators of a sample of comparable companies in the relevant industry are analyzed.

If the actual profitability indicator deviates significantly from the average market indicators, this indicates potential transfer pricing risk and a more detailed analysis of the situation is required.

Comparison with other group's members indicators

The profitability of the taxpayer can also be compared with the indicators of other companies of the group for the corresponding period. So, for example, if the operating margin of the Ukrainian distributor of the international group of the company is significantly lower than the similar indicator of the distributor of the same group, for example, in Hungary (where the rate of corporate profit is lower) or lower than the average profitability of all distributors of the group in other countries, this fact may indicate the presence of transfer pricing and requires a more detailed analysis.

Comparison with previous period indicators

Such an analysis involves comparing the profitability indicators of the taxpayer in the audited period with the corresponding indicators of the taxpayer in the previous reporting periods. A significant decrease in indicators may indicate, among other things, changes in pricing approached or other factors of transfer pricing risks

Systematic loss making or low profit activity

The fact that the taxpayer's profitability deviates from the market average is not an absolute indicator of the presence of transfer pricing risk. The reason for this may be economic factors or certain business decisions of the taxpayer (launching of a new product etc). However, regular losses (negative profitability) or minimal profits may indicate systematic tax avoidance. In many countries, systemic multiple year losses are the main reason to initiate transfer pricing audit.

Opposite dynamic to market trends

The main evidence that taxpayer's financial are within the market range is their significant and positive correlation with economic (inflation, GDP etc.) and market indicators (growth rates, profitability etc.). However, a negative or absent correlation may indicate the "artificiality" of financial indicators and the presence of transfer pricing risks.

An indicator that the company's transactions have a risk to be non-compliant with "arm's length" principle is information on the distribution of profits between the countries in which the group of companies operates, namely, when a significant part of the profits is distributed to low-tax jurisdictions that have limited business functions.

It should be noted that taxpayer's indicators comparison with industry indicators or with the corresponding profitability indicators of another company does not mean that such a company is comparable to market companies. Usually, commercial databases don't have precisely segmented information in the context of each specific company, but rather operate with the general financial indicators of the company, that is, general indicators for the entire company's business. Because the necessary information cannot be obtained from open sources, advance transfer pricing risk assessment cannot be performed. Thus, for analysis taxpayer and tax authorities can use the following interpretation of the market benchmarking results (table 2).

Table 2. Interpretation of market benchmarking results (example).

Indicator	Value
Profitability of the taxpayer	2%
Mid-market profitability	2.5%
Group average profitability	3%
Average taxpayer profitability for the previous 5 years	2.5%
Quantity of unprofitable years from the last 5 years	2
Correlation with market dynamics over the previous 5 years	-65%
Risk factor	existing

Source: own calculation for demo example.

The risk indicator is assigned the value "existing" when the taxpayer's actual rate deviates by more than 10% in three from five factors.

The structure of the transactions

Another risk factor is significant deviations in the structure of business transactions from the market structure. In this case, it means situations when most of the income or expenses, assets or liabilities are formed in the results of controlled transactions. Such a fact may indicate the deliberate structuring of intragroup transactions in such a way as to obtain certain benefits in taxation. Relevant risk indicators are presented in the form of financial ratios, the economic analysis of which can be an instrument of identifying risky transactions.

Transactions with low-tax jurisdictions counterparties (factor F1)

If a significant part of the income and/or expenses are formed in transactions with counterparties that are registered in low-tax jurisdictions or have favorable tax regimes, this probably indicates the presence of transfer pricing risks. When analyzing such indicators, critical values of the share of such incomes and/or expenses from the total volume of incomes and expenses are established. If the actual value of the coefficient exceeds the critical one, this is a direct indication of the risk of deviation of the terms of transactions from market conditions.

Intra-group services (Factor F2)

Intra-group services such as marketing, IT, management, HR, and others are typical for most international groups of companies. As part of such services, the parent or management company usually outsources its global management costs to the group's subsidiaries in different countries. The main issue from the transfer pricing perspective centers is the economic feasibility of purchasing such services by the subsidiaries. Often, international companies use such services as profits allocations mechanism from local markets. An indicator of the transfer pricing risk can be a significant amount (percentage) of the purchase of such services compared to the total amount of the taxpayer's operating expenses.

Royalties and license fees (Factor F3)

In the form of royalties, Ukrainian taxpayers are often paid to related parties for using of trademarks, patents, and know-how. The significant rates for such payments and their significant share in the taxpayer's expenses are a direct indication of the existence of aggressive tax structuring process. In addition, the presence of significant local marketing costs for the promotion and development of such intangible assets is indicator that the royalty recipient probably does not meet the DEMPE concept and cannot claim for substantial reward for its functions[9].

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[9] *The DEMPE functional analysis, Royalty range, 2018,* retrieved from: https://www.royaltyrange.com/home/blog/the-dempe-functional-analysis [accessed: 22.08.2022].

Significant transactions with intangibles (Factor F4)

Often transfers of intangible assets (IA) are carried out in the process of tax restructuring, which aims to optimize the tax burden of the group. The analysis of financial ratios provides a basic understanding of whether there have been significant transactions involving the acquisition/sale of IA and what tax effect they had or will have on tax return of the local taxpayer.

Significant intra-group debt (Factor F5)

Intragroup loans are one of the most common tax structuring tools. International groups of companies often use debt instruments instead of equity injections to distribute profits within the group through interest payments. The analysis of balance sheet ratios of debt, assets and interest expenses is the simplest instrument for factor analysis of transfer pricing risks.

Business restructuring transactions (Factor F6)

Often, the main goal of business restructuring is obtaining long-term benefits in taxation. As a result of such transactions, the structure of the payer's assets and liabilities changes significantly. For example, the decision to transfer all tangible assets to the management (holding) company with subsequent payments of lease payments for using of such assets on behalf management company will lead to significant changes in assets structure of the balance sheet of local taxpayer. Such analysis makes it possible to identify possible restructuring transactions and analyze the possible transfer pricing risks.

Centralization of operational functions (Factor F7)

Often, groups of companies centralize certain functions, such as procurement, management, logistics, etc., to improve operational efficiency. The downside of such processes is a negative tax effect for local companies when such functions are allocated just "contractually", while local companies are forced to pay a significant fee for their use. The economic analysis of the activity allows to compare the effect of such centralization with payments for using centralized functions.

Economic analysis indicators (financial ratios) act as indicators of the existing risk within the framework of the above-mentioned risk factors. The operation principle is the following: if the indicator value exceeds the set critical value, the risk is evident, and this operation requires a detailed analysis. The indicators matrix can be presented as follows (table 3):

Table 3. Indicators matrix.

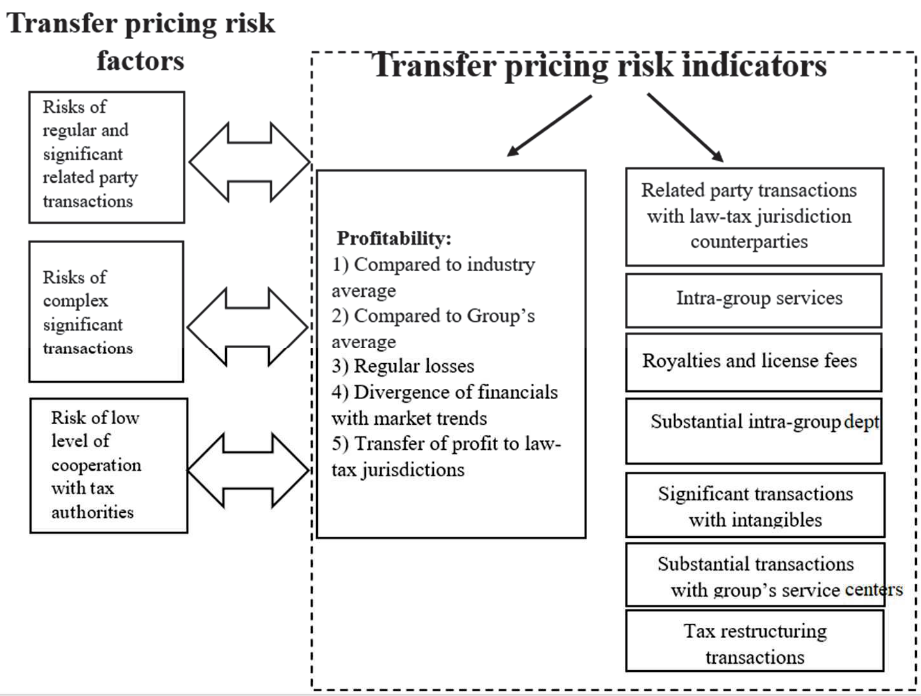
Indicator/Factor	F1	F2	F3	F4	F5	F6	F7
Controlled transactions / Income (Costs)	>30%	-	>10%	-	-	-	-
Controlled transactions / Operating costs	-	>15%	>15%	-	-	-	-
Controlled transactions / Marketing expenses	-	-	>100 %	-	-	-	-
(Intangible assets (n) – Intangible assets (n-1)) / (Assets (n) + Assets (n-1))/ 2	-	-	-	>10%	-	-	-
(Debt (n) + Debt (n-1)) / (Capital (n) + Capital (n-1))	-	-	-	-	>1,5	-	-
Assets (K) (n) / Assets (K) (n-1) – 1	-	-	-	-	-	>50%	-
(Income (n) / Income (n-1)) / (OC (n) / OC (n-1)) – 1	-	-	-	-	-	-	>10%

Source: own calculation based on advisory opinions and tax experts experience.

Where: K – asset article number;
n – year number.
OC – operating costs.

Summarizing the above, it can be stated that it is appropriate to classify risk indicators into two groups: by the result of operations and by the structure of operations. Fig. 1 illustrates the classification of transfer pricing risk indicators.

Fig. 1. Classification of transfer pricing risk indicators.



Source: Own study.

Conclusions

The taxpayer analysis of financial reporting is practical mechanism for identifying transfer pricing risks both for tax authorities and for taxpayers during internal audit procedures. As an organizational model for the indicators "profitability" analysis it is proposed to use a tabular interpretation, that is, market benchmarking process.

The analysis conceptual basis is testing process of possible risk factors about working risk hypotheses, which have a mathematical expression in the form of indicators risk (financial ratios).

Such hypotheses are formulated in form of assumptions that if a certain ratio is greater than a critical value. For example, capital debt exceeds by 1.5 times, then such a debt was probably formed in non-market conditions and would not have been issued by an independent financial institution and, accordingly, interest on such debt can significantly understate profits.

It is presented a matrix with corresponding numerical values for the quantitative assessment of risks and indicators comparison with limit values. The proposed matrix formation mechanism allows to operate with a large array of diverse information and to extract the required data.

The analysis results are not a direct indication of the risk existence, but it could provide information about what operations of which taxpayer have primary importance in terms of necessity to analyze them for the transfer pricing risk.

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