

TRANSFER PRICING MODEL BASED ON MULTIPLE-FACTOR TRANSFER PRICING MODEL USING THE TRANSACTIONAL NET MARGIN METHOD

Abstract

Decision-making process on the optimization of transfer pricing has two dimensions that need to be considered: optimization dimension in terms of available capacity, tax laws of countries, available market and other indicators of the individual company, and dimension of transfer pricing regulation at the international level in accordance with the OECD Guidelines. Current multiple-factor transfer pricing model examines only the first dimension of transfer pricing between related parties. Transfer price method, expressed in a form of transfer pricing model using the transactional net margin method, is built in a multiple-factor transfer pricing model in order to meet the conditions of transfer prices at arm's length principle. In this way a new transfer pricing model is formed; a model that optimizes the operations of multinational companies and is in line with the OECD Guidelines on transfer prices.

Keywords: *transfer pricing model, OECD Guidelines, business optimization*

1. INTRODUCTION

The role of international companies in world trade has increased dramatically in the last twenty years. This increase causes an increase in the complexity of issues of allocation of profit deriving from international transactions, as well as the issue of profit taxation, given the fact that the rules of individual countries for taxation of international companies can not be considered separately, but rather in a broader international context. OECD member countries have selected the individual approach to companies as the most appropriate way to achieve fair results and minimize the risk of double taxation. Applying that principle, each group member is the subject of profit taxation that arises in this company, under the principle of taxation based on residency and on source. To ensure the proper functioning of the single company approach, OECD member countries have adopted a principle of independence, according to which the influence of special conditions of the profit should be eliminated (Zgombić et al., 2005).

International regulations on transfer pricing issues are:

- OECD treaty model on avoidance of double taxation
- OECD Transfer Pricing Guidelines for Multinational Companies and Tax Administrations.

Companies need to document and analyze transfer pricing not only for reasons to defend the historical accounting transactions, but also to optimize current and future operations. The above includes the evaluation of current transfer pricing, as well as assessing the possibilities of current organizational and tax structures (PricewaterhouseCoopers, 2009).

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2. TRANSFER PRICING GOALS AND METHODS

Formation of transfer pricing is done in order to realize certain goals. Transfer pricing policy objectives are maximizing consolidated profit, minimizing tax liabilities, increasing the market share and reducing the impact of economic constraints.

The effect of transfer pricing within the group at the international level has the following features (Perčević, 2009):

- Companies within the group operate in different tax systems,
- Benefits and shortcomings of the tax systems of individual countries could be taken advantage of,
- Profit spill-over into companies that operate in a more favourable tax environment,
- Maximization of the consolidated profit,
- Minimization of the tax liability at the group level.

It is necessary to find the appropriate benchmark. Prices between related parties should be as close as possible to identified benchmark. Identification required for benchmarking is done using the database. Tax administrations and international companies are using AMADEUS database, exclusively owned by the company Bureau van Dijk, for benchmarking and comparable analysis. AMADEUS database contains financial and operating information on more than 18 million European public and private companies. The data include standardized annual financial statements of companies and consolidated financial statements, financial ratios, activities and ownership of companies in Europe. In addition, the database contains descriptive information, market research, news and indicators of the country. Database can be searched by hundreds of relevant criteria (Bureau van Dijk, 2011).

In the years 2005-2008 most of companies has achieved business growth, while the years 2009 and 2010 were recessionary. In preparing the analysis and comparison of setting the transfer prices, it is desirable to perform adjustment of financial data for the impact of the recession, or calculate the difference between the operating margins in the period of growth and operating margins achieved in the recessionary period (Scholz, 2009).

Performed analysis of comparability in the documentation of transfer pricing can show the existence of space to increase or decrease transfer prices in order to achieve maximum profit at group level. Transfer pricing can be optimized in order to maximize profit on the consolidation level, especially in times of global economic crisis. Well-prepared transfer pricing documentation with included benchmarking market analysis represents the basis for decision-making process in transfer pricing optimizing.

OECD Guidelines on transfer pricing represent an international standard for regulating transfer pricing at the international level. Republic of Croatia has implemented the OECD Guidelines in its tax legislation, which resulted in an explicit definition of five different methods that can be used in determining and assessing whether business transactions between related parties are agreed at market prices (Croatian corporate income tax law, 2005). These methods are discussed below in the form of transfer pricing models.

2.1. TRANSFER PRICING MODEL BASED ON THE COMPARABLE UNCONTROLLED PRICE METHOD

One of the most important principles of the OECD guidelines for transfer pricing is the fact that the related parties profit should reflect the functions, risks and economic business conditions. It is necessary to find a transfer pricing method that appropriately reflects these three conditions, and, once achieved, the transfer pricing system should be stable over a longer period. The economic recession represents exceptional conditions in terms of unstable economic business conditions, which may have implications on the international allocation of functions and risks in a multinational company (Scholz, 2009).

Price of goods or services between related parties is compared with the price of similar goods or services applied between two unrelated parties. Sometimes it is necessary to make adjustments in accordance with the functional analysis. Internal comparable prices can reduce the cost of preparing the study (Scholz, 2009).

Transfer price can be expressed as a function of determinants as follows:

$$T_c = f(X_{1,t}, X_{2,t}, X_{3,t}, R) \quad (1)$$

Where:

T_c = transfer price

X_1 = determinant of functional analysis

X_2 = determinant of asset analysis

X_3 = determinant of risk analysis

t = time period

R = recession influence

The influence of recession can be expressed as the difference between operating margins achieved in the period of growth and in the recessionary period (Deloitte Savjetodavne Usluge, 2011).

Proper determination of transactions, functions and risks is essential for the proper selection of method for determining transfer prices. In determining the transaction it is important to determine what happens in a particular transaction, create cash flow for transactions between related parties and analyze functions, risks and assets that related party has / bears in a certain transaction. The starting point for determining the comparability of transactions is the functional analysis. The purpose of functional analysis is to determine the role of each party in the transaction. Functional analysis is based on an assessment of (Deloitte, 2009):

- functions (activities) carried out by each company in the transaction,
- tangible and intangible assets used in carrying out activities, and
- business risks arising from transactions.

Functions that need to be compared and identified are business functions such as procurement, production, sales, marketing, research and development, finance and accounting and other business functions. The company that performs low-risk functions should expect a

lower level of profitability in comparison to the company that performs high-risk function, and vice versa.

Table 1: The role of functional analysis in the correct transfer pricing determination: Analysis of functions (X_1)

Function	Transaction number 1. (manufacturer – related party distributor)		Transaction number 3. (manufacturer – unrelated party customer)	
	Manufacturer	Distributor	Manufacturer	Customer
Raw materials	YES	NO	YES	NO
Production equipment	YES	NO	YES	NO
Production knowledge	YES	NO	YES	NO
Raw material warehouse	YES	NO	YES	NO
Transport	NO	YES	YES	NO
Finished products warehouse	NO	YES	YES	NO
Selling personnel	NO	YES	YES	NO
Marketing and distribution	NO	YES	YES	NO
Advertising and promotion	NO	YES	YES	NO
Branding	NO	YES	YES	NO

Source: Deloitte: Transferne cijene – primjena u praksi, Presentation, Zagreb, 16.10.2009.

The analysis of function enables determination of the fact which function is performed by which company in the transaction.

Table 2: The role of functional analysis in the correct transfer pricing determination: Analysis of assets (X_2)

Assets	Transaction number 1. (manufacturer – related party distributor)		Transaction number 3. (manufacturer – unrelated party customer)	
	Manufacturer	Distributor	Manufacturer	Customer
Production process organization	YES	NO	YES	NO
Production	YES	NO	YES	NO
Quality control	YES	NO	YES	NO
Occupational health and safety	YES	NO	YES	NO
Warehouse	YES	NO	YES	NO
Transport	NO	YES	YES	NO
Marketing and advertising	NO	YES	YES	NO
Services	NO	YES	YES	NO

Source: Deloitte: Transferne cijene – primjena u praksi, Presentation, Zagreb, 16.10.2009.

The analysis of assets enables determination of the fact what assets are used by which company in the transaction.

Table 3: The role of functional analysis in the correct transfer pricing determination: Analysis of risks (X₃)

Risk	Transaction number 1. (manufacturer – related party distributor)		Transaction number 3. (manufacturer – unrelated party customer)	
	Manufacturer	Distributor	Manufacturer	Customer
Quality risk	YES	NO	YES	NO
Risk of deviation from business plans	YES	NO	YES	NO
Risk of stock	YES	NO	YES	NO
Transport risk	NO	YES	YES	NO
Market risk	NO	YES	YES	NO
Receivables collection risk	NO	YES	YES	NO

Source: Deloitte: Transferne cijene – primjena u praksi, Presentation, Zagreb, 16.10.2009.

The analysis of risk enables determination of the fact what risk is beared by which company in the transaction. The more functions that determine the profit in production and distribution chain the company performs, the more assets the company uses and the more risks it bears, the higher level of profitability can the company expect. Functional analysis is a prerequisite and basis for selection of appropriate transfer pricing method.

2.2. TRANSFER PRICING MODEL BASED ON THE RESALE PRICE METHOD

Resale price method tests the market character of the transaction by comparing the resale margin to the margin realized in comparable uncontrolled transactions - analysis of margins comparability is performed. This method is applicable in cases where goods are bought from related party and resold to unrelated party (eg, distributors). It is usually applied in situations where the seller does not add significant value to goods by changing them partially or use valuable intangible assets in order to improve those goods. Requirements for comparability according to the resale price method are less stringent and more dependent upon functions and risks undertaken, rather than upon the similarity of goods traded (Zgombić et al., 2005).

The technique of calculating comparable prices using the resale price method is appropriate for situations in which goods are procured from related parties, and sold to third parties (Guzić, 2009).

$$T_c = P_{c_t} - M_{t,m} - R \quad (2)$$

Where:

P_c = selling price of goods to unrelated parties procured from related parties

M = gross trading margin under current market conditions

t = time period

m = market conditions

R = recession influence

Pc determinants are:

- net sales
- quantity sold
- production costs
- customs, excise
- costs of goods sold

Relevant is the period closer to procurement of goods or services (the longer is the period, the less convincing are the results of this method due to numerous factors that can influence the transaction, such as financing, exchange rate fluctuations and changes in market expectations).

2.3. TRANSFER PRICING MODEL BASED ON THE COST PLUS METHOD

Cost plus method is based on the costs incurred by supplying goods or services, which are increased for a certain margin in order to obtain profit (Žic, 2010). It tests the market principle in terms of “margin” added to the costs incurred in the comparable uncontrolled transactions. Comparability depends primarily upon the similarity of functions performed and risks taken, and not upon the similarity of respected material goods or services (Zgombić et al., 2005).

$$T_c = P - T - \text{EBIT} - R \quad (3)$$

Where:

T_c = transfer price of product on the certain market

P = wholesale price

P determinants:

- net sales
- quantity sold
- production costs
- customs, excise
- costs of goods sold.

T = expenses

T determinants:

- sales, marketing and transportation expenses
- management and administration expenses

EBIT = earnings before interest and tax

R = recession influence

2.4. TRANSFER PRICING MODEL BASED ON THE PROFIT SPLIT METHOD

Profit split method compares the distribution of profit in the related parties transactions with the profit split that would be achieved by unrelated parties – participants in one or more transactions. The contribution of each related party to the transaction based on functional

analysis is assessed. It is used in situations where it is difficult to identify each transaction (Zgombić et al., 2005). Profit split method is applicable in transactions so closely interacted that they can not be separated and analyzed individually and compared with each other. The process of determining transfer pricing takes place in three steps:

- identification of profit made in controlled transactions of related parties,
- profit split of related parties according to the functions performed, risks taken and assets invested,
- in certain circumstances, when companies can not split the total profit based on the operations performed because it can not be determined which function's credit the profit would be, the remaining profit is to be divided arbitrarily. Such circumstances occur primarily in highly innovative products and other intangible assets (OECD Guidelines 1997. point 3.5.) (Kuhar, 2005).

The contribution of each related party to the joint profit must be based on functional analysis completed and available external data on profit split between unrelated parties with comparable features (functions). For part of the profit not directly attributable to a certain company a residual analysis must be carried out, taking into account residual circumstances that could be basis for splitting the profit in unrelated parties. In the U.S. transfer pricing regulations it is to be distinguished:

- split of comparable income, and
- split of residual income.

$$T_c = f(Y_{1,t}, Y_{2,t}, R) \quad (4)$$

Where:

Y_1 = comparable profit

Y_2 = residual profit

t = time period

R = recession influence

2.5. TRANSFER PRICING MODEL BASED ON THE NET INCOME IN RELATION TO A CERTAIN BASIS METHOD (TRANSACTIONAL NET MARGIN METHOD)

By applying this method, the net income in relation to a certain basis (total cost, net sales, assets or equity) that company earned in a business relation to one or more related parties, is compared with a net net income in relation to a certain basis that would be earned in a non-controlled transaction. This method is similar to the cost plus method or resale price method. It is used in situations where it is difficult to identify each transaction (Zgombić et al., 2005). A prerequisite for using this method is the starting point that the company earned in a comparable uncontrolled transaction the same net income as in the controlled transaction. The method consists in the computation formula of net income in relation to a certain basis, such as the total cost, net sales, assets or equity, which is realized in transactions with related parties.

It is believed that it is better to include operative income in the comparison, which reduces the impact of different functions. In applying the net income method it should be taken into consideration the influence of other elements on the net income, such as individual strategies, competitive position, performance management, the difference in the cost of capital (interest, foreign exchange gains), stage of project development (beginning, maturity or descent) and etc (Guzić, 2009).

$$T_c = f \left(\frac{D}{Z}, R \right) \quad (5)$$

Where:

D = Operating profit = EBIT

D Determinants:

- net sales
- costs of goods sold
- administration costs
- distribution costs
- other operational charges.

Z = basis chosen for comparison

Z determinants:

- total cost
- net sales
- assets
- capital

R = recession influence

These five transfer pricing models can be used in determining and assessing whether transactions between related parties are agreed at market prices, but they can not enable decision making process in multinational operations in terms of optimizing operation on the consolidation level. A model that was developed precisely in order to achieve optimal results of the Group is described below.

3. MULTIPLE-FACTOR TRANSFER PRICING MODEL

Authors of the multiple-factor transfer pricing model (Shi et al., 1998) created linear multiple-factor model that would make easier decision-making process to the multinational companies' management in terms of optimizing the operations of the Group in whole. Model is based on the technique called multiple-transfer linear programming (MC²). This model, using the MC² technique, maximizes the overall company's profit on the consolidation level, maximizes the market share goal and the utilized production capacity of the company, respecting at the same time given limits of the utilized capacity, budget defined and initial stock. Basic assumptions of

the model are:

$$\max \sum_{i=1}^k \sum_{j=1}^t p_{ij} x_{ij} \tag{6}$$

$$\max \sum_{i=1}^k \sum_{j=1}^t m_{ij} x_{ij} \tag{7}$$

$$\max \sum_{i=1}^k \sum_{j=1}^t s_{ij} x_{ij} \tag{8}$$

$$\max \sum_{i=1}^k \sum_{j=1}^t c_{ij} x_{ij} \tag{9}$$

$$\sum_{i=1}^k \sum_{j=1}^t b_{ij} x_{ij} \leq (b_{ij}^1, \dots, b_{ij}^h) \tag{10}$$

$$\sum_{j=1}^t x_{ij} \leq (d_i^1, \dots, d_i^h) \tag{11}$$

$$x_{ij} \leq (d_{ij}^1, \dots, d_{ij}^h) \tag{12}$$

$$-x_{ij} + x_{i+1,j} \leq (e_{ij}^1, \dots, e_{ij}^h) \tag{13}$$

$$x_{ij} \geq 0, i=1, \dots, k, j=1, \dots, t \tag{14}$$

Where:

x_{ij} = units of the product made in a certain company's division,

j = product,

i = division / related party in a defined country,

p_{ij} = unit overall profit generated from the j th product made by the i th division,

m_{ij} = market share value for the j th product made by the i th division / related party,

s_{ij} = related party profit generated from the j th product made by the i th division / related party,

c_{ij} = unit utilized production capacity of the i th division / related party to produce the j th product,

b_{ij} = budget allocation rate for producing the j th product by the i th division / related party,

b_{ij}^s = budget availability level believed by the sth manager for producing the jth product by the ith division / related party; $s= 1, \dots, h$,

d_{ij}^s = production capacity level believed by the sth manager for the ith division / related party to produce the jth product; $s= 1, \dots, h$,

e_{ij}^s = initial inventory level believed by the sth manager for the ith division / related party to hold the jth product; $s= 1, \dots, h$.

Multiple-factor transfer pricing model does not determine whether transactions are contracted at market prices. This model does not have built-in any of the principles deriving from the five allowed transfer pricing methods that are used for determining whether transactions between related parties are performed according to the market principles.

4. TRANSFER PRICING MODEL BASED ON THE MULTIPLE-FACTOR TRANSFER PRICING MODEL USING THE TRANSACTIONAL NET MARGIN METHOD THROUGH THE AMADEUS DATA BASE

Model based on multiple-factors transfer pricing model is proposed below. The model facilitates decision-making process to managers of multinational corporations by respecting the assumption of the consolidated profit maximization, tax-optimization of business relationships among related parties, with establishment of conducting transactions between related parties at market prices. The model combines the setting of multiple-factor transfer pricing model and transactional net margin method. Two variables used in the model are operating margin and add-on costs. Further to the above model, the following basic settings are taken-over, and new settings are added, as follows:

$$\max \sum_{i=1}^k \sum_{j=1}^t p_{ij} x_{ij} \quad (15)$$

$$\max \sum_{i=1}^k \sum_{j=1}^t m_{ij} x_{ij} \quad (16)$$

$$\max \sum_{i=1}^k \sum_{j=1}^t s_{ij} x_{ij} \quad (17)$$

$$\max \sum_{i=1}^k \sum_{j=1}^t c_{ij} x_{ij} \quad (18)$$

$$x_{ij} \geq 0, i=1, \dots, k, j=1, \dots, t \quad (19)$$



$$T_c = f (X_{1(t,r)} X_{2(t,r)} X_{3(t,r)}) \quad (20)$$

$$T_c = f \left(\frac{D}{Z}, R \right); Z = M, DT \quad (21)$$

$$M = \frac{D}{P}; \quad DT = \frac{D}{T} \quad (22)$$

Where:

T_c = transfer price defined as a function of operating profit and selected variable Z

Z = selected variable = operating margin and add-on costs

D = operating profit of the related party = EBIT

M = operating margin

P = net sales

DT = add-on costs

T = operating costs

$$\text{Operating margin} = \frac{\text{Operating profit}}{\text{Net sales}} \times 100\% = \frac{D}{P} \times 100\% \quad (23)$$

$$\text{Add-on costs} = \frac{\text{Operating profit}}{\text{Operating costs}} \times 100\% = \frac{D}{T} \times 100\% \quad (24)$$

By using publicly available database AMADEUS it is possible to calculate average operating margin and add-on costs indicators for companies. These indicators are expressed as percentages and are based on financial information for the past three to five years (the average is calculated). Larger number of years is desirable because of elimination of the recession impact and other extremely positive and negative economic trends. AMADEUS database enables selecting the sample of comparable unrelated parties. Comparable companies are selected based on industry, analysis of functions and territoriality. The OECD Guidelines state that unrelated parties engaged in comparable transactions under comparable circumstances will not necessarily determine the same price for the transaction compared, leading to generally accepted principle that there is a range of market prices to be determined (Deloitte Savjetodavne Usluge, 2011).

5. PRACTICAL APPLICATION OF TRANSFER PRICING MODEL

The proposed model will be clarified on the specific example below. Using the AMADEUS database and based upon the functional analysis performed, five comparable companies with

data available for the last five years, including years of growth and recession years, are selected. It is necessary to calculate the difference between operating margins in the period of growth and operating margins in the recession period, to correct operating margin in the recession period and calculate average operating margin. It is also necessary to calculate the difference between add-on cost in the period of growth and add-on cost in the recession period, to correct add-on cost in the recession period and calculate average add-on cost.

Financial indicators of these companies, whose transactions are non-controlled, are calculated as follows:

Table 4: Average operating margin for five comparable companies for the five-year period corrected for the recession influence

	Average operating margin
Minimum	0,49%
First quartile	2,35%
Median	5%
Third quartile	8,44%
Maximum	15,9%

Source: AMADEUS data base; publisher Bureau van Dijk

Usual operating margin of comparable companies ranges between results of the first and third quartile, after rejection of marginal values (minimal and maximal results), meaning between 2,35% and 8,44%.

Table 5: Average add-on costs for five comparable companies for the five-year period corrected for the recession influence

	Average add-on costs
Minimum	0,23%
First quartile	1,77%
Median	4,68%
Third quartile	5,93%
Maximum	11%

Source: AMADEUS data base; publisher Bureau van Dijk

Usual add-on costs of comparable companies ranges between results of the first and third quartile, again after rejection of marginal values, between 1,77% and 5,23%.

Results obtained can be interpreted as model limitations.

Table 6: Model limitations

	<i>1. quartile</i>	3. quartile
Average operating margin of comparable companies	2,35%	8,44%
Average add-on cost of comparable companies	1,77%	5,93%

Source: Author calculation

Calculated values obtained using the AMADEUS database represent basic model limitations. Basic model assumptions are shown below.



Table 7: Basic model assumptions

	Related party 1		Related party 2	
	Product x_1	Product x_2	Product x_1	Product x_2
Unit profit	8	6	70	50
Transfer price	358	223	-	-
Market price			390	240
Unit costs	350	217	320	190
Optimal yearly capacity	600.000	450.000	700.000	500.000
Tax rate		20%		8%

Source: Author calculation

The objectives of the model are as follows:

1. maximize the overall company's profit,
2. maximize the market share goal of products on their markets,
3. optimize the yearly utilized production capacity of the company.

In order to clearly demonstrate the maximization of the overall company's profit, model assumes that the companies produce only the respected products x_1 and x_2 .

It is evident that Related party 1 transfers profit to the Related party 2 and with that action maximizes the profit on the consolidation level, considering the fact that market price of the Related party 2 is greater than transfer price of the Related party 1, and tax rate is significantly lower than in Related party 2.

Using the model, it is necessary to examine whether the applied transfer prices of products in the transaction from Related party 1 to Related party 2 are in the allowed range, considering the performance measured through defined indicators and comparison to indicators in comparable companies in unrelated transactions. Basic model assumptions are as follows

$$\max 8x_{11} + 6x_{12} + 70x_{21} + 50x_{22} \tag{25}$$

$$\max 358x_{11} + 223x_{12} + 390x_{21} + 240x_{22} \tag{26}$$

$$2,35\% \leq \frac{8x_{11} + 6x_{12}}{358x_{11} + 223x_{12}} \leq 8,44\% \tag{27}$$

$$2,35\% \leq \frac{70x_{21} + 50x_{22}}{390x_{21} + 240x_{22}} \leq 8,44\% \tag{28}$$

$$1,77\% \leq \frac{8x_{11} + 6x_{12}}{358x_{11} + 223x_{12}} \leq 5,93\% \tag{29}$$

$$350x_{11} + 217x_{12}$$

$$70x_{21} + 50x_{22}$$

$$1,77\% \leq \frac{\quad}{320x_{21} + 190x_{22}} \leq 5,93\% \quad (30)$$

$$x_{i,j} \geq 0, i = 1,2; j = 1,2$$

Results obtained by using the model and the information from the AMADEUS database are as follows:

	Related party 1
Net sales	
Operating costs	315.150.000,00
EBIT	307.650.000,00
Operating margin	7.500.000,00
Add-on costs	2,38%
	2,44%

Operating margin of the Related party 1 amounts to 2,38% and is in the allowed range obtained through AMADEUS database. Operating add-on costs amounts to 2,44% and is in the allowed range, as well. Considering these results, it can be concluded that the arranged transfer prices can be applied in transactions toward related party and in that way optimize business operations of the Group on the consolidation level (overall company's profit). Moreover, usage of the proposed model and linear programming enables calculation of the range of movements in market prices (minimum and maximum values) with the given constraints, and thus further, by adapting transfer prices, optimize operations.

CONCLUSION

In order to optimize operations on a consolidated basis, companies analyze the complex issues of transfer pricing from two aspects: optimization of operating parameters and the compliance of transfer prices with OECD guidelines.

Transfer pricing establishment is in direct correlation with maximization of consolidated profit. Model that uses linear programming technique achieves maximization of consolidated profit, market share and utilization of available production capacity, with some budgetary constraints, is a multiple-factor transfer pricing model. The model, however, does not examine whether transactions among related parties are agreed at market prices, according to the OECD transfer pricing guidelines.

Republic of Croatia implemented in its legislation the OECD guidelines on transfer pricing in a way that it gave the definition of five different methods that can be used in determining whether the transactions between related parties are agreed at market prices. These methods are: comparable uncontrolled price, resale price, cost plus, profit split and net income in relation to a selected basis (transactional net margin method). These methods are expressed in mathematical relations. Prerequisite and basis for the use of the adequate transfer pricing



method is functional analysis of the relevant transaction.

Transfer pricing model using the net income in relation to the chosen basis (transactional net margin method) can be incorporated into a model of multiple factors, in order to create new model that can not only optimize operations, but also examine and ensure that transfer prices are defined at market prices and in line with OECD transfer pricing guidelines. Identification of transfer pricing alignment with market prices is performed using AMADEUS database that contains financial and operating information on more than 18 million European companies.

Using a new transfer pricing model based on multiple-factor transfer pricing model using the transactional net margin method and linear programming technique, backed up with AMADEUS database, it is possible to calculate a range of market prices and choose the best variant in the direction of achieving the final goal of maximizing the total profit of the company.

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MODEL TRANSFERNIH CIJENA TEMELJEN NA MODELU VIŠESTRUKIH ČIMBENIKA UZ PRIMJENU METODE NETO DOBITI U ODNOSU NA NEKU OSNOVU

Sažetak

Donošenje odluke o optimizaciji transfernih cijena ima dvije dimenzije koje je potrebno sagledati: dimenziju optimizacije u smislu raspoloživih kapaciteta, poreznih propisa zemalja, raspoloživog tržišta i ostalih individualnih pokazatelja pojedinog društva, te dimenziju reguliranja transfernih cijena na međunarodnoj razini sukladno Smjernicama OECD-a. Postojeći model višestrukih čimbenika transfernih cijena ispituje prvu dimenziju optimizacije transfernih cijena između povezanih osoba, bez uvažavanja druge dimenzije. Metoda transfernih cijena izražena u obliku modela formiranja transferne cijene korištenjem metode neto dobitka u odnosu na određenu osnovu, ugrađena je u model višestrukih čimbenika transfernih cijena u cilju zadovoljavanja uvjeta formiranja transfernih cijena po principu produžene ruke. Na taj je način dobiven novi model transfernih cijena koji optimizira poslovanje multinacionalne kompanije i sukladan je Smjernicama OECD-a o transfernim cijenama.

Ključne riječi: model transfernih cijena, OECD Smjernice, optimizacija poslovanja