# PRINCIPLES OF TRANSFER PRICE FORMATION IN THE MULTICOMPONENT ENTERPRISES

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### Abstract

Transfer pricing is one of the characteristics and benefits of a decentralized company. Business companies usually opt for decentralization in order to abandon the principle of centralized management, enhance responsibility of the responsibility centres that usually perform the function of profit centres, as well as their interest in better corporate performance results. Several transfer pricing methods are discussed in scientific literature and applied to practice, such as market-based transfer price, cost-based transfer price, and negotiated transfer price methods. The paper presents the study that analyses the transfer pricing methods, identifies their benefits and weak aspects, and presents principles to be followed by the managers of responsibility centres and company when choosing the appropriate transfer pricing method, the possibility for division to gain profit and receive compensation from the central management must be considered.

**Keywords:** Transfer Price, Decentralization, Cost-based Transfer Price, Market-based Transfer Price, Negotiated Transfer Price

### Introduction

Centralized corporate process management has recently been characterised by increasing loss in efficiency and growth in complexity despite the growing business volumes and need to respond promptly to changes. Many companies have been opting for decentralization of business process management and transferring responsibility to subsidiaries, branches, or autonomous responsibility centres. In a decentralized business organization, decision-making authority is not delegated to a few top managers. With an internal responsibility system in place, responsibility for different business areas is allocated to different employees. In this case,

decision making is allocated to managers at the respective level in charge of the specific area of responsibility.

Transfer pricing is both a requirement and a benefit of decentralization. Ever since the year 1957, when J. Herschleifer (1956) used the notion of transfer pricing in the research article for the first time, global interest in this methodology for promotion of corporate responsibility, control, and financial stability has been growing. Majority of business companies implementing decentralization face the necessity of developing a transfer pricing system to fix the prices on intermediate products traded between the responsibility centres within the company. Transfer pricing is feasible within the company that has implemented the system of responsibility responsibility.

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Transfer pricing is applicable to transactions within a company, i.e. is subject to either no or very little influence by the external competition. Transfer pricing is an internal proxy for intra-company allocation and use of resources and profit generation. Nonetheless, transfer pricing is not only a system of efficient internal resource allocation, but also an auxiliary tool that helps coordinate actions in the responsibility centres. With the system of transfer pricing in place, it is easier for corporate management to manage and measure efficiency and profitability of the responsibility centres, while the responsibility centres are encouraged to only make the decisions which are aimed at increasing the corporate profit. After transfer pricing has been implemented in a company, an internal control system is developed and applied to all stages of corporate operations: starting with consistent motivation for the middle managers in charge of responsibility centres to make decisions that are beneficial to the company, and ending with proper and fair assessment of the company's performance.

Although methods of transfer pricing are often analysed in research works (Adams and Drtina, 2010; Gavious, 1999; Jordan, 1990; Kanodia, 1979; Turney, 1977), no specific and applicable methodology for development and application of the transfer pricing system satisfying a number of different corporate aims has been put forward. Matsu (2013), Hieman and Reichelstein (2012), Pfeifer et al. (2011), Veres (2011), Schuster and Clarke (2010), Gox (2000; 2010), Dikolli and Vaysman (2006), Antic and Jablanovic (2000), Baldenius et al. (1999) have described the methods of transfer pricing, their benefits and disadvantages. These research works suggest that further studies are required to analyse the rationale behind the choice of the most appropriate transfer pricing system, and performance assessment of the system. This has implied the need for deeper ana

conventional cost-, market-based, or negotiated transfer pricing methods, and dedicated suggestions on formation of the corporate transfer pricing system to meet the financial and managerial requirements are put forward.

Theoretical background of the study is comprised of the study on previous research works related to the transfer pricing methods, analysis of their benefits and disadvantages, comparison as well as logical and graphic summarization, and generation of conclusions and suggestions. Theoretical review of the scientific literature has been performed under the methods of analysis, synthesis, and logical comparison. Inductive and deductive approaches have been used to assess the transfer pricing methods and their applicability. The results are presented under the monographic method.

Transfer pricing within the context of company decentralization

Business companies always operate in a constantly changing business environment, which means that a company must decide on the most appropriate management system, which is usually based on either centralization or decentralization of management and responsibility for performance. Decision-making is delegated to top managers at a centralized company, while lower-tier managers are only in charge of implementation of the decisions. The number of decentralized companies has been growing lately. In a decentralized company, the management system is characterized by delegation of the decision-making authority and related responsibility, implementation and results of the decisions from the top managers to lower-tier managers tier managers.

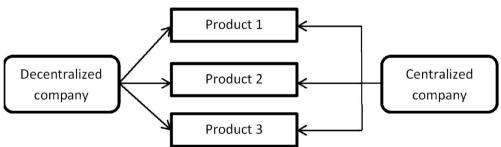


Fig. 1. Production management in a centralized and decentralized company

Decentralization in company simulates market conditions between responsibility centres that operate autonomously, although at different levels of autonomy (Shuster and Clarke, 2010). Decentralization prompts the company to develop the transfer pricing system for an intermediate product that is transferred between the responsibility centres within the company for the purpose of maximizing the profit earned by the centres despite the absence of external competition (Shor and Chen, 2009; Ronen and Makimuse 1070) Mchinney, 1970).

Sahay (2003), Gox (2000), Turney (1977) have suggested that transfer price is a price applied by responsibility centres to the provided services or intermediate products transferred from one responsibility centre to another. Application of transfer price is not only related to payment for productive resources within the company (Adams and Drtina, 2008; Dopuch and Drake, 1964), but also encourages the responsibility centres to achieve the level of production which provides the maximum profit to the company (Chitiz and Birman, 2012; Shor and Chen, 2009). According to Adams and Drtina (2008) application of transfer price in a company could be referred to as a mechanism that helps allocate profit between the responsibility centres.

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Analysis of the research literature (Chitiz and Birman, 2012; Hieman and Reichelstein, 2012; Matsu, 2010; Schuster and Clarke, 2010; Shor and Chen, 2009 Steven, 2008; Adams and Drtina, 2008; Jordan, 1990; Turney, 1977; Abdal-Khalik and Lust, 1974) has allowed defining the corporate goals that are sought by transfer pricing. The goals are as follows: adoption of the most appropriate economic decisions on the planned investment, production costs and introduction of technologies; fair resource allocation between the responsibility centres, assessment of their performance results. between the responsibility centres, assessment of their performance results, and maximization of income; personnel motivation; promotion of production of an intermediate product and internal sales; homogenization of the goals of top management of the company and responsibility centres. Shilinglaw's (1957) approach, considered classical, suggests that performance of responsibility centres should be assessed not only by the profit generated, but also by contribution of the centres to implementation of the main corporate goal (goals). Therefore, implementation of transfer pricing leads to goal (goals). Therefore, implementation of transfer pricing leads to decentralization of the corporate operations by allocating them to the profit (responsibility) centres (Indjejikian and Matejka, 2012; Shuster and Clarke, 2010; Shor and Chen, 2010; Zhao, 2000; Jordan, 1990; Hufnagel and Brinberg, 1989; Kanodia, 1979; Ronen and Machinney, 1970; Dopuch and Drake, 1964). Such decentralization is beneficial to the company, as profit (responsibility) centres are established during its implementation. Middle managers in charge of profit centres are responsible for revenue, costs, profit, and are sutherized to adopt decisions related to profit movimisation. Poing in and are authorized to adopt decisions related to profit maximization. Being in charge of planning and control of the profit centre performance, the managers demonstrate more efficient coordination of the production process and the determining factors. Profit-seeking approach encourages middle managers in charge of responsibility centres follow the latest information on market changes, fluctuation of prices on raw materials and products, as well as information on critical situations on the local markets. Finally, profit centres update top managers on the mentioned information about the market, which is also beneficial to the top management.

Transfer price may also help first-line managers assess performance of the profit (responsibility) centres, expressed in individual contribution to the corporate profit, more accurately. Transfer pricing system is intended to encourage middle managers who are in charge of responsibility centres to act for their own benefit, which, in this case, translates into pursuit of corporate goals. Such a system, therefore, should be an impetus for the middle managers in charge of profit (responsibility) centres to improve their performance without compromising the autonomy.

Profit (responsibility) centres become less beneficial to a company, where middle managers are only focused on operations of their respective responsibility centre. In such case, the middle managers do not communicate with each other, pursue the policies of their respective centres without any consideration of other responsibility centre(s), conceal information, and artificially raise costs and transfer price (Shor and Chen, 2009; Kanodia, 1979; Ronen and Mchinney, 1970). Such relations may lead to failure of corporate profit maximization efforts, i.e. failure of the main goal of decentralization, which is achievement of common corporate goals through implementation of individual goals of the responsibility centres.

## Analysis of transfer pricing methods

Analysis of transfer pricing methods

Transfer price is expression of the value of intra-company transaction between profit (responsibility) centres. Scientific literature review (Hieman and Reichelstein, 2012; Veres, 2011; Schuster and Clarke, 2010; Dikolli and Vaysman, 2006; Li, 2005; Mackevicius, 2005; Lengsfeld and Schiller, 2004; Antic and Jablanovic, 2000; Baldenius et al. 1999; Gavious, 1999; Sharav, 1974; Shillinglaw, 1957) has provided a variety of different method of transfer price formation. Transfer price may be based on the market price, costs incurred by the responsibility centres, or negotiated between the responsibility centres. As a result, three approaches to transfer price formation have been distinguished: market-based, cost-based, and negotiated transfer price methods (Fig. 2.). According to Gavious (1999), a company may incur loss where an inappropriate method of transfer price formation has been chosen. It is, therefore, necessary to consider the benefits and weak aspects of each method to choose the most adequate transfer pricing approach satisfying the corporate goal, which essentially is the increase of corporate profit or its value, i.e. the cause of transfer price formation.

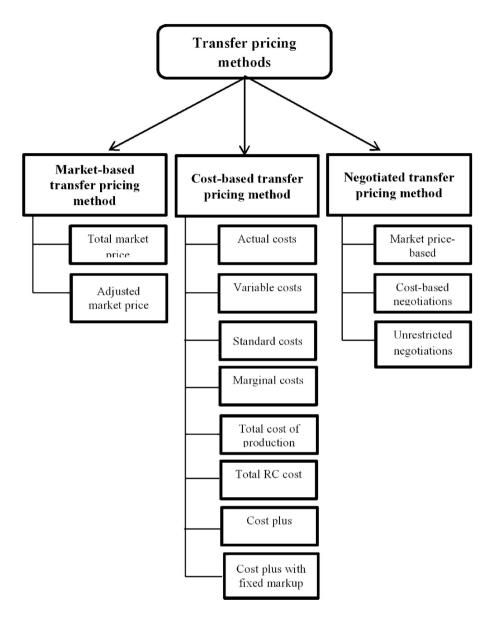


Fig. 2. Transfer pricing methods

As mentioned above, transfer price is formed and used by a decentralized company, the organization of which is divided into profit (responsibility) centres (Fig. 3). Responsibility centres may produce and sell their products as well as engage in other activity independently of each other. Transfer price is formed after the responsibility centres have been allocated with responsibility for production and/or sale stages. Responsibility centre 1 (RC 1) produces an intermediate product, RC 1 purchases raw materials on the external market. The cost of raw materials purchased is included into the

transfer price. Responsibility centre 2 (RC 2) purchases the intermediate product from RC 1 to produce the end-product for sale on the external market only. RC2 is entitled to purchase the intermediate product on the external market, if the transfer price on the intermediate product offered by AC 1 is not satisfactory, or if production of the intermediate product is not beneficial to the company.

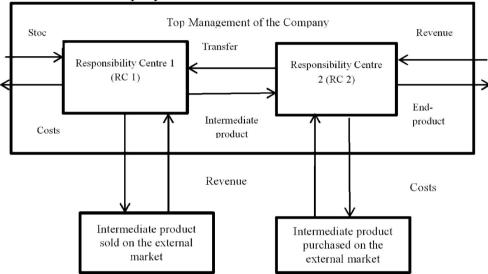


Fig. 3. Sequence of supply – production – sale processes in a decentralized company

Where the market-based transfer price approach has been chosen, market information is the key factor. A profit (responsibility) centre makes an assumption that the profit would be achieved at the known market price (Veres, 2011). This approach to market price formation is only feasible when market information is available, and the intermediate product is competitive on the external market. According to Schuster and Clarke (2010), the main advantage of the market-based transfer pricing method lies in the fact that the established transfer price reflects current market conditions and changes along with the changes of market conditions. Transfer price established under the market-based transfer pricing method is objective and unbiased (Schuster and Clarke, 2010; Antic and Jablanovic, 2000). On the other hand, application of this method requires high level of responsiveness and flexibility from the middle managers in charge of the respective responsibility centers both in collection of the market information and its use for transfer price formation.

Transfer price calculated under the market-based transfer price approach may spark conflicts between the responsibility centres, in particular, between the centre supplying and the centre purchasing the intermediate product. These responsibility centres perform the functions

within the company that are equivalent to that of a seller and supplier on the external market. The conflicts emerge when market price is lower or higher than the cost of production by the RC (Antic, Jablanovic, 2000). With all the necessary external information available, the transfer price is established by the responsibility centre which transfers the product within the company as follows:

$$TP = p$$
where: TP – transfer price;
$$p - \text{external market price.}$$
(1)

This method of market price formation refers to the market price only and follows the rule of thumb stating that a transfer price must not exceed the external market price. Therefore, (1) the equation should be adjusted as follows:

$$TP \le p$$
 (2)

Transfer price may be lower than the market price (2), when responsibility centres apply intra-company discounts. The discounts may be applied in cases of difference between the quality and supply of the product produced by the responsibility centre and the product available on the market, instability of the product market, and unstable prices. Baldenius and Reichelstein (2005) have offered the following calculation method for the transfer price including the discount: TP = (1-y) p

$$TP = (1-y) p$$
where y - discount. (3)

However, transfer price established under this method does not fall within the requirements to market-based transfer pricing approach for the following reasons: 1) discounts are applicable to other transfer pricing methods as well, 2) discount intrinsically implies the need for negotiation, which is the key behind the negotiated transfer price method. As emphasized by Hiemann and Reichelstein (2012), market price is applied to transfer pricing, when the product has the market price, while another transfer pricing method is chosen for cases, where the product has no market price.

In general, market-based transfer price could be claimed to be

objective and unbiased, as it reflects current market conditions and changes related to fluctuations on the market. Market price is not applicable to transfer pricing, if the market is non-competitive or subject to an artificially-created bubble. A responsibility centre may harm the company, if it adopts decisions optimal (favourable) for it in such a situation. Market price that is lower than the cost of the intermediate product produced is not beneficial to Responsibility Centre 1 (Fig. 3). Another method is applicable in such a situation. Responsibility Centre 1 receives benefit, if the market price is higher than the costs incurred in production of the intermediate product, and RC 1 is able to generate more revenue. On the other hand, higher market

price is not beneficial to Responsibility Centre 2. Nonetheless, discounts may apply for promotion of the intra-company trade.

For negotiated transfer price method, transfer price is formed as a result of negotiations between middle managers in charge of the responsibility centres. During the negotiations, the managers may refer to the market price or expenses of the responsibility centre (Fig. 2). Negotiations between responsibility centres may take place without any restrictions. The goal of negotiations is a transfer price that is acceptable to the both parties. Market-based transfer price formation method may be applied in a decentralized company with self-sustained, independent responsibility centres that enjoy high level of autonomy (Shuster and Clarke, 2010; Li and Fereira, 2008). The negotiated transfer price approach is the most suitable, where no active market exists for the product, or where the product price temporarily rests on the bottom, or the product is of special, exclusive nature. In order to avoid conflict situations between middle managers in charge of responsibility centres and encourage them to reach an agreement sooner, the negotiation procedure must be verified by the top management of the company who also establish limitations and trade-offs for certain circumstances, as well as the approach towards discounts in formation of the transfer price (Dikolli and Vaysman, 2006; Gavios, 1999; Vaysman, 1998). In discussion over the negotiation procedures, the influence of transfer price on profit of the responsibility centre is discussed, employee motivation system is developed, and criteria to be followed during negotiations are established. Negotiation procedure should be part of the motivation system for middle managers in charge of the responsibility centres, as it is expected to promote efficient performance by the employees.

It has been suggested in the scientific literature (Dikolli and Vaysman, 2006; Antic and Jablanovic, 2000; Ghosh, 2000; Vaysman, 1998; Borkowski, 1990) that the maj

external sources of supply.

Other weak aspects also are typical of the negotiated transfer price method, namely, lack of the responsibility centre managers' skills in negotiations; loss of potmential favourable sale of the product on the market in case negotiations drag on, which causes harm to the company and increases costs incurred by the responsibility centres; middle managers in

charge of the responsibility centres cheating by presenting distorted information or concealing it, which means that the company receives only partial possible benefit from the intra-company trade. Negative aspect of this method also lies behind assessment of the middle managers' negotiation skills rather than their control over costs in the responsibility centres.

If the negotiation process does not cause any conflicts, this method is beneficial to the company. The process of negotiations involves sharing of the information on business conditions on the local markets and cash flows. This information is used for improvement of efficiency of the responsibility centres.

Negotiated transfer price method is beneficial to a company, where middle managers in charge of the responsibility centres are able to negotiate on the transfer price without any restrictions, or where market price has been subject to artificially-created bubble (Dikolli and Vaysman, 2006, Antic and Jablanovic, 2000; Baldenus *et al.*, 1999; Vaysman 1998). During negotiations, middle managers in charge of the responsibility centres may agree on the transfer price that is lower than the market price. Transfer price formed by company managers must promote intra-company trade. In this case, responsibility centres may be provided with discounts or certain guarantees under the condition, however, that decisions made by the RC managers contribute to achievement of common goals related to the corporate profit. Lower transfer price may not only lead to growth of sales volumes on the intra-company market, but also improvement of the company's competitive advantage on the external market (Yao, 2013). Wheeler and Typpo (2013) have suggested that, in case of the negotiated transfer price method, transfer price formation is subject to the following parameters: max transfer price = market price; min transfer price = costs incurred by the responsibility centre. With reference to these parameters, transfer price is formed under the following principle during negotiations:

$$TP_{min}. \le TP \le TP_{max} \tag{4}$$

where: TP – transfer price;

TP<sub>min</sub>. – minimum transfer price;

TP<sub>max</sub>- maximum transfer price.
With reference to characteristics of the minimum and maximum transfer prices, the prices may be expressed as follows:

$$TP_{max} = p$$

$$TP_{min} = (1+g) VC$$
(5)
(6)

$$TP_{\min} = (1+g) VC \tag{6}$$

where: p – external market price;

VC – variable cost of production;

g – opportunity cost established by the enterprise.

Negotiated transfer price method is beneficial, where offers on transfer price and responses are provided promptly. Nonetheless, the method is not applicable where it causes conflict situations and disputes between the responsibility centres. Time is wasted on dispute solving, costs incurred by the responsibility centres increase and reduce the corporate profit.

Cost-based transfer price, as claimed by Antic and Jablonovic (2000), is the simplest transfer pricing method, as the transfer price is calculated on the basis of production costs required for production of the respective product. Main benefits of this method: simplicity; coverage of all costs of production and other business functions; may be applied, where no market price is available; time-saving; eliminates friction between managers of the responsibility centres; provides time to remove the emerging problems or challenges (Dikolli and Vaysman, 2006; Antic and Jablanovic, 2000; Sharav, 1974). According to Matsui (2013), 46 % of enterprises opt for the method of cost-based transfer price.

Nonetheless, deeper analysis of the method has revealed its complexity. Cost-based method underlying requires considerable information base and its analysis. During establishment of transfer price under the cost-based method, market conditions, as well as price policy, behaviour of market participants, price sensitivity, competitors must be considered. Employees should also be aware of the structure of product market, where they sell their products, and habits of their clients.

The following costs may be used as the basis for establishment of transfer price under the cost-based method (Fig. 2): standard (Schuster and Clarke, 2010; Lengsfeld and Schiller, 2004; Antic and Jablanovic, 2000; Baldenius et al., 1999), actual (Pfeiffer *et al.*, 2011; Schuster and Clarke, 2010; Lengsfeld and Schiller, 2004; Sharav, 1974), variable (Sahay, 2003; Antic and Jablanovic, 2000), marginal (Gavious, 1999; Sharav, 1974), or total costs (Veres, 2011; Li, 2005, Antic and Jablanovic, 2000). Where transfer price is calculated based on costs only, the following equation (Sahay, 2003) applies: (Sahay, 2003) applies:

$$TP = q \cdot k \tag{7}$$

where: TP – transfer price; q – quantity of the intermediate product;

k – costs per product unit.

Under *cost plus* method (Schuster and Clarke, 2010; Mackevicius, 2005; Hung Chan and Lo, 2004; Gavious, 1999; Sharav, 1974), transfer price is calculated by adding markup to the product cost. Markup provides the contractual profit to the responsibility centre and may be applied irrespective of the type of costs used as the basis for the transfer price.

Two options of markup calculation used in the cost plus method are available: multiplicative markup, additive markup, or combination of the both.

In the multiplicative markup method, transfer price is calculated under the following equation (Sahay, 2003):

$$TP = (1+m)\cdot qk \tag{8}$$

where: m - fixed percentage added to variable costs.

Where multiplicative markup method is applied, the company faces challenges related to choice of multiplicative markup m, as large markup may lead to sales slowdown. This may be avoided by using additive markup, when transfer price is calculated under the following equation (Sahay, 2003):

$$TP = q \cdot (k+a) \tag{9}$$

where: a – cash markup per product unit.

Sahay (2003) has offered combining equations (8) and (9), and calculating the transfer price by the cost-based transfer pricing method under the following equation:

$$TP = q \cdot \mu (k) \tag{10}$$

where:  $\mu \ge 1$ 

Transfer price calculated under equation (10) covers all production costs incurred by RC 1 that produces the intermediate product. The revenue generated by the responsibility centre may be used for investment within the centre. Under equation (10), responsibility centres are not interested in artificial raising of their costs, which may help avoid the key weakness of all transfer price formation methods – distortion of cost-related information.

With the cost-based method in place, managers of a decentralized company must carefully choose an equation of the cost-based method to calculate the transfer price, as incorrect transfer price leads to reduction of production volumes and corporate revenue.

In general, the cost-based method may be claimed as a convenient and time-saving approach; however, the company may incur losses, if faulty information is used. Transfer price calculated using faulty data from statements submitted by the responsibility centres distorts information, and middle managers in charge of the responsibility centres adopt inadequate production- and sale-related decisions that lead to slowdown of successful production and operations of the responsibility centers without any regard to the needs of the enterprise. Transfer price established under the cost-based method may be the same as the prevailing market price. If the market price is lower than the estimated transfer price, the responsibility centre may plan new investment to cut the costs incurred by it.

Choice of method for formation of the most appropriate transfer price
Analysis of transfer pricing conditions and its methods has suggested that method chosen when forming a transfer price should be aimed at enhancing the company's resilience and sustainability on the external market and help assess efficiency, profitability of the responsibility centre that supplies the intermediate product.

The following equation (Penno, 1990) may be used to assess the efficiency, profitability of RC 1 (Fig. 3):

$$\pi_1(v) = R_1(v) + TP * q(v) - C_1(v)$$
 (11)

 $\pi_1(v) = R_1(v) + TP * q(v) - C_1(v)$  where:  $\pi_1(v)$  – efficiency, profitability of RC 1;

 $R_1(v)$  - revenue earned by the responsibility centre, if the intermediate product is sold on the external market;

TP – transfer price;

q (v) -quantity of the intermediate product sold on the intracompany market;

 $C_1(v)$  – costs incurred by RC 1.

Profitability, efficiency of RC2 are calculated under equation (Penno, 1990):

$$\pi_2(v) = R_2(v) - TP * q(v) - C_2(v)$$
 (12)

where:  $\pi_2(v)$  – efficiency, profitability of RC 2;

 $R_{2}(v)$  – revenue from the end-product on external market;

 $C_2(v)$  – costs incurred by RC 2.

Equations (11) and (12) may be used to determine, which responsibility centre has more influence on the total corporate profit. Responsibility centres must be motivated through certain compensation schemes based on their results: revenue from sale of goods on the external and intra-company market, costs saved, size of investment. Compensations to responsibility centres may be calculated under the following equations (Penno, 1990):

$$Z_1(v) = R_1(v) + TP * q(v) - C_1(v)$$
 (13)

$$Z_2(v) = R_2(v) - TP * q(v) - C_2(v)$$
 (14)

where:  $Z_1(v)$  – compensation to RC 1;

 $Z_2(v)$  – compensation to RC 2.

In order to motivate employees at the responsibility centre, the centre manager may distribute the compensation among employees or use it for new investment for reduction of costs of the responsibility centre.

In general, it may be suggested that the choice of methods for transfer price formation is related to motivation and coordination of actions of first-line managers at the autonomous responsibility centre. If the transfer price is not beneficial to a responsibility centre, the responsibility centre may reject it, choose other method, purchase or sell the intermediate product on the external market.

### Conclusion

In order to form a transfer pricing system in a company, the company must be decentralized. A decentralized company comprised of profit (responsibility) centres aims at the increase of company profitability, as well as improvement of implementation of common corporate goals through pursuit of goals of the responsibility centres. In implementation of transfer pricing, the aim is to provide better motivation to the managers in charge of responsibility centres in adoption of efficient decisions. It is, therefore, important to choose the method that is beneficial to all responsibility centres

that participate in the transaction(s) and the company.

Market price is applied to transfer pricing, if a product has the market price; while in case no market price is available for the product, other transfer pricing methods apply. Transfer price may be market-based, based on costs incurred by the responsibility centres (cost-based), or established by agreement between the responsibility centres (negotiation-based transfer pricing method).

Market-based transfer price is formed with reference to the market price only, as this approach follows the rule of thumb stating that transfer price shall not exceed the external market price. Discount approach offered by the researchers for formation of transfer price is not characteristic of the transfer pricing based on market price only, which means that applicability of other methods should be analysed prior to search for rationale behind application of discounts.

application of discounts.

Negotiated transfer price is formed as a result of negotiations between managers in charge of the responsibility centres. Transfer price is formed during negotiations with reference to the market price or product, or costs incurred by the responsibility centre. Thus, negotiated transfer price method is, to a certain extent, a combination of the two other methods. Therefore, if transfer price is formed under this method, behaviour of the external market participants, production capacity of the responsibility centre and its utilization, skills of the managers of responsibility centres in coordination of interests of all stakeholders (responsibility centres and company), traditions of corporate communication should be considered.

Cost-based transfer pricing method is the most common. This method offers the widest possibilities for formation of transfer price, as it allows choosing the costs as the basis of the transfer price. The costs may be standard, actual, variable, marginal, or total costs. Moreover, this method usually involves application of the mentioned system of discounts. Thus, the estimated transfer price is the representation of the total cost per product unit incurred by the responsibility centre transferring the intermediate products, reduced by the available discount.

In general, the analysis of transfer price formation methods has

In general, the analysis of transfer price formation methods has suggested that, irrespective of the type, a transfer pricing method must always ensure that the transfer price does not exceed the potential market price ( $TP \le p$ ). During estimation of the transfer price, the possibility for

division to gain profit and receive compensation from the central management must be considered. Estimated intra-company profitability indicators of the responsibility centres will help assess the most beneficial method of transfer pricing both for the responsibility centres and the entire company. Compensation to the responsibility centre may be used in an employee motivation scheme or for new investment.

### References:

Abdel-khalik, A.R., Lusk, E.J. (1974, January). Transfer Pricing—A Synthesis. The accounting review, 8-23.
Adams, L., Drtina, R. (2008). Transfer pricing for aligning divisional and

corporate decisions. Business Horizons, 51. 411-417. doi:10.1016/j.bushor.2008.03.008

Adams, L., Drtina, R. (2010). Multinational Transfer Pricing: Management Accounting Theory versus Practice. *Management accounting quarterly*, 11 (3), 22-29

Antic, L., Jablanovic, V. (2000). Criteria for evaluating transfer pricing methods. Facta Universitatis Series: Economics and Organization, 1 (8), 61 -70.

Baldenius, T., Reichelstein, S., Sahay, S.S. (1999). Negotiated versus Cost-Based Transfer Pricing. *Review of Accounting Studies*, 4, 67-91. Borkowski, S.C. (1990). Environmental and Organizational Factors Affecting Transfer Pricing: A Survey. Journal of Management Accounting Research, 2, 78-99.

Chitic, O.; Birman, A. (2012). Value, prices and the evolution to modern transfer pricing. *Hyperion International Journal of Econophysics & New Economy*, 2, 363-375.

Dikolli, S.S., Vaysman, I. 2006. Information technology, organizational design, and transfer pricing. *Journal of Accounting and Economics*, 4, 203–236. doi:10.1016/j.jacceco.2005.06.001.

Dopuch, N., Drake, D.F. (1968). Accounting Implications of a Mathematical Programming Approach To the Transfer Price Problem. *Journal of Accounting Research*, 64 (2), 10-24.

Gavious, A. (1999). Transfer Pricing under Capacity Constraints. *Journal of accounting auditing and finance*, 14, 57-72.

Ghosh, D. (2000). Complementary arrangements of organizational factors.

Ghosh, D. (2000). Complementary arrangements of organizational factors and outcomes of negotiated transfer price. *Accounting, Organizations and* Society, 25, 661-682.

Gox, R.F. (2000). Strategic transfer pricing, absorption costing, and observability. Management Accounting Research, 11, 327-348. doi: 10.1006/mare.2000.0134.

Gox, R.F. (2010). Discussion of "decentralized capacity management and internal pricing". Rev Account Stud, 15, p. 479-502. doi: 10.1007/s11142-010-9121-8.

Hiemann, M., Reichelstein, S. (2012). Transfer Pricing in Multinational Corporations: AnIntegrated Management - and Tax Perspective. Fundamentals of International Transfer Pricing in Law and Economics MPI Studies in Tax Law and Public Finance, 1, 3–18. doi: 10.1007/978-3-642-25980-7 1

Hufnagel, E.M., Birnberg, J.G. (1989, December). Perceived Chargeback System Fairness in Decentralized Organizations: An Examination of the Issues. MIS Quarterly, 415-429.

Hung Chan, K., W.Y.Lo, A. (2004). The influence of management perception of environmental variables on the choice of international transferpricing methods. The International Journal of Accounting, 39, 93-110. doi:10.1016/j.intacc.2003.12.004

Indjejikian, R.J., Matejka, M. (2012). Accounting Decentralization and Performance Evaluation of Business Unit Managers. The accounting review, 87 (1), 261-290. doi:10.2308/accr-10168

Jordan, J.S. (1990). Accounting-based divisional performance measurement: Incentives for profit maximization. *Contemporary Accounting Research*, 6 (2), 903-921.

Kanodia, C. 1979. Risk Sharing and Transfer Price Systems under Uncertainty. *Journal of Accounting Research*, 17(1), 74-98. Lengsfeld, S., Schiller, U. (2004). Transfer Pricing Based on Actual versus

Standard Costs. Social Science Research Network, 1-36.

Li, J. (2005). International transfer pricing practices in New Zealand. *University of Auckland business review*, Autumn, 59-65.

Li, D., Ferreira, M.P. (2008). Internal and external factors on firms' transfer pricing decisions: insights from organization studies. Social Science Research Network, 23-39.

Mackevicius, J. (2005). Valdymo apskaitos informacijos tikslinis naudojimas. *Informacijos mokslai*, 32, 34-47.

Matsui, K. 2013. Entry deterrence through credible commitment to transfer pricing at direct cost. *Management Accounting Research*, 24, 261-275.

Penno, M. (1990). Discussion of "Intrafirm resource allocation: The economics of transfer pricing and cost allocation in accounting". *Contemporary Accounting Research*, 7(1), 100-014.

Pfeifer, T., Schiller, U., Wagner, J. (2011). Cost-based transfer pricing.

Review of Accounting Studies, 16, 219-246.

Ronen, J., Mckinny, G. (1970, Spring). Transfer Pricing for Divisional Autonomy. *Jornal of accounting research*, 90-112.

Sahay, S.A. (2003). Transfer Pricing Based on Actual Cost. Journal of management accounting research, 15, 177–192.

Schuster, P., Clarke, P. (2010). Transfer Prices: Functions, Types, and Behavioral Implications. *Management accounting quarterly*, 11(2), 22-32. Sharav, I. (1974, April). Transfer pricing - diversity of goals and practices.

The Journal of Accountancy, 56-62.

Shillinglaw, G. 1957. Guides to Internal Profit Measurement. Harvard business review, 35, 82-94.

Shor, M.; Chen, H. 2009. Decentralization, Transfer Pricing, and Tacit Collusion. Contemporary Accounting Research, 26 (2), 581-604. doi:10.1506/car.26.2.10

Turney, P.B.B. (1977, March). Transfer Pricing Management Information Systems. MIS Quarterly, 27-35.

Vaysman, I. (1998). A model of negotiated transfer pricing. Journal of Accounting and Economics, 25, 349-384.

Veres, T. (2011). Accounting aspects of pricing and transfer pricing. Annals of the University of Petrosani, Economics, 11(2), 289-296.

Wheeler, S., Typpo, E. (2013). Teaching basic transfer pricing inductively using a student price negotiation case. ASBBS eJournal, 9(1), 97-105.

Yao, J.T. (2013). The arm's length principle, transfer pricing, and location choices. Journal of Economics and Business, 65, 1-13.

Zhao, L. (2000). Decentralization and Transfer Pricing Under Oligopoly. Southern Economic Journal, 67 (2), 414-426.