Transfer Pricing Policy and Performance Measurement Used in Poland by Domestic and Multinational Companies

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Abstract

The article presents basic problems relating to the transfer-pricing policy of companies operating in Poland, where increasing attention is being paid to minimising taxation liability. Transfer-pricing policy constitutes a multi-factorial problem of an interdisciplinary character comprised of such disciplines as finance, tax law, accounting, management, marketing, international business, investment, and others. The main emphasis of this article is on the management and accounting implications of transfer prices. These problems involve transfer pricing in decentralised and related companies—both domestic and multinational. In Poland, the application of the law to transfer pricing arrangements between domestic entities is of particular interest as it is usually only multi-national transactions that are regulated in most other countries. The study enumerates the criteria and conditions of the application of transfer prices, and the basic formulae for shaping them. This is the first time that research of this type has been conducted in Poland.

Keywords

Transfer-Pricing
Transfer-Pricing Policy
Responsibility Accounting
Performance Measurement

Introduction

Transfer pricing is the pricing procedure whereby there is a mutual transfer of products and services within the framework of one economic entity, or between interrelated entities. The prices according to which the value of transfer products (or services) is established are consequently known as *transfer prices*. The issue of transfer pricing has been recognised in economics for more than a hundred years, and has been the subject of many theoretical dissertations and practical applications. It remains one of the most complex problems in the contemporary world economy.

The accession of Poland to the Organization for Economic Cooperation and Development (OECD) has resulted in the introduction in Polish law of regulations concerning the transfer prices between related entities. Polish transfer pricing rules are therefore based on OECD guidelines which were approved by the OECD Council and recommended to apply in cases of transactions between related parties (OECD, 1995). These are specifically:

- Article 11 of the law on corporate tax, which defines related entities (Act Reg. No 95 of 30.11.1999, pos. 1101); and
- the Regulation of the Finance Minister of 10 October 1997, concerning the methods and procedure for the determination of taxpayers' income according to the price assessment of transactions carried out by taxpayers (Act Reg. No 128 of 22.10.1997r, pos. 883).

According to Article 11.3 of this latter regulation, if, as a result of capital relations, ' ... there are terms and conditions set or imposed other than those previously established by independent entities, and as a result of this fact the entity will not have any income or have an income lower than expected were the relations are not present—the income of a given entity and the tax due will be assessed without taking into account the terms and conditions resulting from the relations'.

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Thus, according to the tax law, related entities should establish their prices in mutual settlements, as if they were independent entities—that is, according to market prices. The rule, although simple in theory, is difficult in practice. This is because there is a lack of unbiased criteria for assessing the market price, thus making the rule almost impossible to implement.

In Poland, unlike in many other countries, transfer-pricing rules apply not only to multinational companies but also to domestic enterprises. During the 1990s, more than 70% of transfer-pricing cases involved domestic transactions. However, during the last three years the practice has changed, revealing an increasing number of tax inspections relating to international transactions (O'Shaughnessy and Banach, 2002).

Transfer pricing is a complex issue of an interdisciplinary nature, being connected with a range of fields including marketing, international business, finance, tax law, accountancy, management strategies, and investment, among others. It is beyond the scope of the present study to discuss transfer-pricing policy in relation to all these fields. This paper thus focuses on transfer prices in the context of management accounting.

The issue of transfer prices in accounting is closely related to the decentralisation of companies—the creation of the responsibility centres and *responsibility accounting*. *Responsibility accounting* is a retrospective and prospective economic information system used to plan, identify, measure, analyse, and assess the activities of those responsible for individual responsibility centres. It is vital for both managers and accountants, because managers' actions often depend on how they are assessed, and this, in turn, depends upon the information provided by accounting services. Accounting thus plays a key role in motivating and assessing managers in their economic decision-making. Responsibility centres are organised according to the degree of empowerment and financial responsibility accorded to managers within an organisation—that is, the degree of decentralisation. The following types of responsibility centres can be distinguished (Barfield, Rainborn and Dalton, 1991):

- centres responsible for cost (cost centres);
- centres responsible for income (income centres);
- centres responsible for profit (profit centres); and
- centres responsible for investment (investment centres).

The character of a given responsibility centre influences the methods employed for establishing a transfer price and for assessing the activities required of the managers administering the centres. Thus, in practice, we are dealing with transfer costing when semi-products are transferred from one cost centre to other responsibility centres (cost or profit centres), and with transfer pricing when the transfer of semi-products occurs from profit centres to other responsibility centres. But whereas transfer pricing can occur to other mutually related, interdependent economic entities, transfer to the cost centres can take place only within the framework of one economic entity. The two latter situations are within the scope of interest of tax offices.

Transfer prices are particularly significant when the subsidiary entity is based in the territory of a foreign country. The differentiation of tax systems in various countries has caused the transfer of income to other countries in order to gain economic benefits, including tax benefits.

Criteria, Terms, and Conditions of Use of Transfer Pricing

In practice, transfer prices can be used when:

- semi-product is transferred to the next stage of the production process, or is sold in the market;
- the company has plants located in various cities or regions, and these plants constitute autonomous organisational units;
- there exist departments assisting production in the company, whose

products or services can be sold outside (for instance, workshops, canteens);
- the related (interdependent) companies are based in the same country, but in different cities; and
- plants of multinational companies are situated in the territories of various countries.

The following important aspects should be taken into account when establishing transfer prices (Benke and Edwards, 1980; Adelberg, 1986; Ronen and McKinney, 1970):

- transfer prices should lead to goal congruence among individual responsibility centres and the company as a whole;
- transfer prices should motivate appropriate decision making;
- transfer prices should not limit the autonomy of individual units;
- transfer prices should be used to assess the activities of managers administering individual responsibility centres; and
- it must be recognised that there is no single best transfer price for all situations.

Goal congruence exists when a given activity is best from the perspective of both a separate unit and of the company as a whole. If, for instance, a transfer price is established on the level of the full cost of production, it will not motivate the supplier managers, even if its use is beneficial from the point of view of the whole company.

The autonomy of separate organisational units should also include freedom to establish prices. If the company management imposes a transfer price on a sales department, it will limit that department's autonomy and limit its motivation. Many of the benefits of decentralisation can be lost in this way, and the traditional methods used for evaluating activities, such as Return on Investment (ROI) and Residual Income (RI), can be rendered useless—because they no longer reflect the actual situation. In such circumstances a given manager can lose both the will and the power to produce effective autonomous action. Thus, the optimum transfer price is one that balances overall goal congruence with effective autonomy of separate units, ensuring at the same time maximum profit for the company (Moscove and Wright, 1990; Horngren and Sundem, 1990).

Long-term economic practice in developed countries has worked out many methods of establishing transfer prices. A properly established transfer price is the result of economic and legal factors in the making of specific decisions. Moreover, there might be one transfer price for reporting and a different one for the internal evaluation of the efficiency of individual responsibility centres. There can be one transfer price in the case of centres located at home, and a different one in the case of those based abroad. Thus, there can exist various transfer prices for various goals. This does not mean, however, that a transfer price can be established at any level. They must all meet the following conditions (Barfield, et al., 1991):

- the maximum transfer price should not be higher than the lowest market price at which a purchaser can acquire products or services on the external market; and
- the minimum transfer price should not be lower than the total marginal cost of the selling unit production plus opportunity cost.

Each transfer price set within the limits is generally considered appropriate from an economic point of view, but it does not have to be the optimum price. Having established the range of the transfer prices, a specific method of establishing price level should be used. The managers of individual organisational units should know and understand the methods used to establish the prices and should be able to assess how the prices will influence the operation and performance of their own units. The more complicated is the method of setting the transfer price, the worse will be the managers' opinions of it. In addition, considering the costs, a sophisticated system of establishing prices will require more time and effort at the introductory stage and transaction settlement than will a simple one.

Definitions of Transfer Prices

According to the Międzynarodowy Słownik Podatkowy (PWN, 1997) transfer prices can be defined as 'the prices of goods, services, intangible goods and fees used among related companies, different from the prices negotiated in the free market set in the comparable conditions by the non-related companies'. The prices are the result of internal decisions within the companies, rather than a result of the configuration of market forces. Transfer prices can be classified according to various classification criteria. According to the particular criterion chosen as a basis for pricing, the following transfer prices can be distinguished:

- *Prices based on the market prices:* These can be the prices that a unit achieves upon the external sale of its products, or can be market prices used by other companies.
- *Prices based on costs:* These can be actual, planned, or normative costs of production at the level of variable, full costs; or can be prices such as 'cost plus margin', 'cost plus opportunity cost', 'marginal cost'.
- *Negotiated prices*: These are established on the basis of negotiations among individual, independent units.
- *Dual prices*: These are set on different levels for the supplier and the purchaser.

This classification can be different if the basic criterion is the character of the responsibility centre for which the transfer price is set. The prices would then be divided into two groups: those used for profit centres and those used for cost centres. Generally, the basis for establishing transfer prices used in profit centres are market prices, or, in certain cases, costs, negotiated prices, or dual prices. In cost centres, however, the basis for establishing transfer prices is costs (variable or full; standard or actual) (Sojak, 2001).

The choice of the formula for establishing a price depends on the following factors (Abdallah, 1989):

- the influence it has on the achievement of goal congruence by the individual managers and on the maximisation of the profits of the whole company;
- the way it influences the performance measurement of the individual profit centres;
- whether it is a proper criterion of individual managers' decision-making; and
- whether it increases the autonomy of individual managers.

World Practices in the Field of Transfer-Pricing Policy

Every few years economists carry out research on transfer prices and the methods of establishing them in domestic and multinational companies. Most frequently, this is complex research done on transfer-pricing policy as it is applied in the companies under study. This research covers both multinationals and companies situated in one country only, and covers the methods of transfer pricing from the perspective of both the company and tax offices (Tang, 1979, 1992, 1993; Tang, Walter and Raymond, 1979; Benke and Edwards, 1980; Eccles, 1985; Cravens and Shearon, 1996; Jacob, 1996; Shih, 1996; Borkowski, 1997a, 1997b, 1997c; Ernst and Young, 1997, 2001). The structure of transfer-pricing methods revealed by this various research differs—depending on the time when the research was done, the size of the companies, the line of business, the taxation system, the level of affluence of the country, and the degree of companies' decentralisation. A summary of the above-mentioned research is considered below.

Transfer prices in the United States and Japan

In 1977, Tang compared American companies with Japanese companies (Tang, 1979; Tang, Walter and Raymond, 1979), and in 1990 he concentrated on American companies (Tang, 1993). In both the 1977 and 1990 studies Tang used the same research questionnaire. The first study covered 232 American companies with activities only in the United States, and 118 American companies that had dealings with companies located in other countries. In the case of Japanese companies, there were

respectively, 119 and 63 companies in such categories.

According to Tang's research, among domestic companies, the Japanese more frequently priced transfers according to market prices than Americans (31.5% and 34.5%; see Table One). In the case of pricing based on costs, the results were quite the reverse (50.4% and 46.2%). The most popular methods of transfer-pricing in the United States were: the *market price* (21.6%), pricing related to *costs plus profit margin* (19.0%), and the *negotiated price* (18.1%) based on standard total production costs. Among the first four methods we have one market price, two cost-related prices and a negotiated price (the base of negotiation for which constitute market prices and production costs). The methods most frequently used by the Japanese were *total cost plus profit margin* (20.2%), *negotiated price* (19.3%), *market price* (17.7%), and *market price less sales expenses* (16.6%). Among these, the most popular were those that were market based (two methods).

Table One: Domestic Transfer Pricing Methods in USA and Japan in 1977

Pricing Methods	USA	Japan
1. Market-oriented methods	**31.50**	**34.50**
- market price	21.60	17.70
- market price less selling expenses	8.20	16.00
- other	1.70	0.80
2. Cost-oriented methods:	**50.40**	**46.20**
- actual variable cost of production	0.00	0.00
- actual full production cost	9.00	9.20
- standard variable cost of production	3.00	0.80
- standard full production cost	16.80	15.10
- actual variable cost of production plus lump-sum subsidy	0.90	0.90
- full production cost (actual or standard) plus allowance for profit	19.00	20.20
- other	1.70	0.00
3. Negotiated	**18.10**	**19.30**
4. Total (1+2+3)	**100.00**	**100.00**

Source: Tang (1979: 61)

Multinationals (American and Japanese) have fewer transfer prices based on costs than do domestic companies. More attention is paid to basing transfer prices on the basis of market prices. Among cost methods, the majority is based on total production cost plus profit margin—32.2% in the USA and 33.3% in Japan. A correlation was also noted between the size of the company and the applied transfer-pricing methods. The bigger the Japanese company, the more frequently it applied transfer prices based on market prices. Such a correlation was not noticed in the case of American companies.

Table Two: International Transfer Pricing Methods in USA and Japan in 1977

Pricing Methods	USA	Japan
1. Market-oriented methods	**39.80**	**36.50**
- market price	20.40	22.20
- market price less selling expenses	14.40	14.30
- other	5.00	0.00
2. Cost-oriented methods:	**46.60**	**41.30**
- actual variable cost of production	0.00	1.60
- actual full production cost	5.10	0.00
- standard variable cost of production	0.80	0.00
- standard full production cost	5.10	4.80
- actual variable cost of production plus lump-sum subsidy	1.70	1.60
- full production cost (actual or standard) plus allowance for profit	32.20	33.30
- other	1.70	0.00
3. Negotiated	**13.60**	**22.20**
4. Total (1+2+3)	**100.00**	**100.00**

Source: Tang (1979: 65)

The second set of research done by Tang (in 1990) covered 143 American companies. In the case of domestic transfers, the cost methods of transfer pricing were more numerous than the market methods. In the case of international transfers, the market prices were more common (see Table Three).

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Table Three: Transfer pricing methods in USA in 1990

Pricing Methods	For Domestic Transfers	For International Transfers
1. Market-oriented methods	**37.20**	**45.90**
- market price	25.10	26.10
- market price less selling expenses	7.60	12.10
- other	4.50	7.70
2. Cost-oriented methods:	**46.20**	**41.40**
- actual variable cost of production	3.60	1.20
- actual full production cost	9.00	3.80
- standard variable cost of production	0.00	0.00
- standard full production cost	15.20	7.00
- actual variable cost of production plus lump-sum subsidy	0.90	1.30
- full production cost (actual or standard) plus allowance for profit	16.60	26.80
- other	0.90	1.30
3. Negotiated	16.60	12.70
4. Total (1+2+3)	**100.00**	**100.00**

Source: Tang (1993: 71).

Among the factors considered in shaping transfer-pricing policy in companies, both sets of research pointed to profit maximisation as being the most important. In the case of other factors, a clear difference was noted between American and Japanese companies, and between the two studies. Of the twenty surveyed factors, the ranking of the selected factors is presented in Table Four.

Table Four: Environmental Variables of Transfer Pricing Policy

Variables	Japan	USA	USA
	1977	1977	1990
Overall profit to the company	1	1	1
Minimise tax rates	13	4	2
Restriction on repartition of profits or dividends	4	2	3
The competitive position of subsidiaries in foreign countries	2	3	4
Rate of custom duties	9	6	5
Performance evaluation of foreign subsidiaries	5	5	10
Rates of inflation	7	13	18

Source: Tang (1979: 80–1); Tang (1993: 86).

Transfer Prices in other Countries

Table Five presents information on the methods of establishing domestic transfer prices in the late 1980s and early 1990s in some selected countries. It can be seen that, with the exception of Great Britain (29%) and France (69.7%), almost half of transfer prices (in companies that were located in a given country) were established at the level of production costs.

Whether these costs are variable costs or manufacturing costs (which are usually comprised of variable costs and part of departmental costs), depends on the applied developmental strategy and the managerial accounting system. The least numerous in number are the companies that establish their costs at the level of variable costs (2% in Japan, 15.1% in France). However, it should be noted that not all of the companies possessed a managerial accounting system developed in a manner that allowed provision of information at the level of variable costs and overheads. In contrast to financial accounting, managerial accounting was not obligatory.

Table Five: Transfer Pricing Methods in Other Countries

Pricing Methods	USA	Canada	Japan	India	Great Britain	Germany	France	Australia
1. Market prices	30.0%	34.0%	34.0%	47.0%	41.0%	45.8%	9.1%	53.8%
2. Cost-oriented methods	50.0%	46.0%	46.0%	53.0%	29.0%	41.7%	69.7%	51.8%
a) variable cost	4.0%	6.0%	2.0%	6.0%	6.0%	8.4%	15.1%	5.8%
b) full cost	45.0%	37.0%	44.0%	47.0%	19.0%	12.5%	36.4%	21.1%
c) other	1.0%	3.0%	0.0%	0.0%	4.0%	20.8%	18.2%	24.9%
3. Negotiated	18.0%	11.0%	19.0%	0.0%	24.0%	0.0%	12.1%	10.6%
4. Other	2.0%	11.0%	1.0%	0.0%	6.0%	12.5%	9.1%	0.0%
5. Total	**100.0%**	**102.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**116.2%**

Sources: Horngren and Foster (1991: 866); Emmanuel and Mehafdi (1994: 49).
Note: Totals can exceed 100% because multiple selections are allowed.

Tables Six and Seven present the results of research carried out by the International Working Group of Experts on International Standards of Accounting and Reporting (ISAR) in the second half of the 1990s (Kabalski, 1998). This research was carried out among 261 American, Canadian, German, Japanese, and British

multinationals. A considerable majority of these transfer prices were based on market prices. They ranged from 33% in Germany to 64% in Canada. The authors of the carried research claimed that the real percentages were even higher, because the most frequent basis for negotiated prices was constituted by market prices.

Table Six: Transfer Pricing Methods in the Second Half of the 1990s

Pricing Methods	USA	Canada	Japan	Great Britain	Germany
1. Market price	36.0%	64.0%	41.0%	36.0%	33.0%
2. Cost-oriented prices	35.0%	25.0%	18.0%	21.0%	17.0%
3. Negotiated	15.0%	4.0%	38.0%	36.0%	39.0%
4. Other	14.0%	7.0%	3.0%	7.0%	11.0%
5. Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Kabalski (1998: 157).

It follows from Table Seven that preferences in the establishment of transfer prices differ from those actually applied. There is a trend to increase the participation of market prices and methods based on profit distribution, especially comparable profit margin (CPM) and comparable uncontrolled price (CUP). This is easily noticeable in the case of the United States where the difference in the prices based on costs would fall by as much as 20%.

Table Seven: Preferences in Transfer Pricing Methods in the Second Half of the 1990s

Pricing Methods	USA	Canada	Japan	Great Britain	Germany
1. CUP/CUT	30.0%	50.0%	21.0%	15.0%	24.0%
2. CPM	22.0%	7.0%	21.0%	14.0%	22.0%
3. Cost plus	15.0%	24.0%	23.0%	14.0%	12.0%
4. Resale price	20.0%	15.0%	24.0%	29.0%	30.0%
5. Profit distribution	12.0%	4.0%	8.0%	14.0%	12.0%
6. Other	1.0%		3.0%	14.0%	0.0%
7. Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Kabalski (1998: 157).

Generally, differences between the actually applied methods and the preferences in the application result from legal constraints in constructing transfer prices in the parent company's home country and host country.

Performance Measurement in Decentralised and Multinational Companies

Performance measurement and evaluation of a company (responsibility centre) involves periodic analysis of economic results with the purpose of assessing the planned objectives. This system constitutes part of the overall financial control system, and requires, for assessment purposes, suitable information taken from the company's accounts. However, this is not a simple process, and is dependent on various factors. One of these is the basis taken for assessment. In practice, there does not exist any best basis for assessment of individual affiliates and the company as the whole. For instance, a subsidiary that is a production unit (costs centre) is best assessed on the base of the production size, cost reduction, quality, and other similar measures (Radebaugh and Gray, 2001). However, these measures are less useful for an affiliate that deals with distribution only. For this type of subsidiary such measures as

market share or the number of newly acquired customers are more valuable. Similarly, profitability measures are most appropriate for the evaluation of managers who run profit centres.

Another vital factor to be considered (especially by multinationals) is the selection of a monetary unit for assessment of performance. For instance, for a French multinational, it might be useful to assess an international affiliate in the currency of the affiliate's host country. However, in other situations, it might be more appropriate to make the assessment in French francs. Ultimately, such decisions usually depend on the current exchange rate. A Mexican affiliate might have its profit positively evaluated in pesos, but might lose much if the financial statements were to be converted into French francs at an unfavourable exchange rate. The rate might sometimes be favourable for subsidiaries, and unfavourable at other times (Radebaugh and Gray, 2001).

For these reasons a comparative analysis of multinationals is complicated and is often closely linked to the type of economic activity involved (type of responsibility centre), the host country, the inflation rate, and the taxation and customs systems pertaining. Multinationals apply various measures to assess the activity of subsidiaries located in the home country and in host countries. Generally, one can distinguish financial and non-financial measures. Among the financial measures most commonly employed are those that are used for the evaluation of companies that do not have any capital relations. Many scientific undertakings have attempted to describe the method of evaluation of multinationals in different countries. However, based on the outcome of such research, one cannot draw general conclusions that can be applied either in the whole economy or in a specific area of activity. Some results are presented in this work. Table Eight shows the results of the research carried out by Morsicato (1980) among 70 American multinational companies operating in the chemical industry. The author surveyed the frequency of the use of specific measures in the assessment of subsidiaries, calculated both in the local currency and after conversion to US dollars. From the research it is apparent that the most frequently evaluated measures in terms of US dollars were profit, ROI, and deviations from planned profit. In the case of assessment performed in the local currency, the most commonly employed measures were deviations from the planned profit, and deviations from the planned sales and profit. It is apparent that the greatest importance was attached to measures based on deviations from planned economic value.

Table Eight: Financial Measures Used as Indicators of International Performance Evaluation

Financial Measures	After Translation in US Dollars	In Local Currency
	1980	1980
Return on investment (ROI)	80.00%	52.90%
Return on equity (ROE)	48.60%	31.40%
Residual income	21.40%	18.60%
Profit	81.40%	70.00%
Cash flow from subsidiary to USA	65.70%	37.70%
Budget compared to actual ROI	45.70%	38.60%
Budget compared to actual profit	78.60%	72.90%
Budget compared to actual sales	72.90%	72.90%
Ratios	34.30%	30.00%
Others	12.90%	11.40%

Source: Morsicato (1980)

Abdallah and Keller (1985) did some research among 64 multinationals comparing the measures applied in the evaluation of foreign subsidiaries and their managers. The four most frequently applied measures are presented in Table Nine.

Table Nine: Financial Measures Used as Indicators for Evaluating Foreign Subsidiaries and Foreign Subsidiary Managers

Financial Measures	Foreign Subsidiaries	Foreign Subsidiary Managers
	1984	***1984***
Return on investment (ROI)	74.00%	67.00%
Profit	78.00%	66.00%
Budget compared to actual ROI	66.00%	64.00%
Budget compared to actual profit	86.00%	87.00%
Other measures	36.00%	36.00%

Source: Abdallah and Keller (1985: 27)

Other research carried out in the United States shows that the same three measures—(i) profit, (ii) profit compared with planned profit, and (iii) return on investment (ROI)—have been used for a long period of time, and occupy the first three positions in any ranking of importance, albeit in a different order. These positions are presented in Table Ten. It is worth noting that:

- in 1980, the research was carried out in 70 multinationals (Morsicato, 1980);
- in 1984, in 64 companies (Abdallah 1984);
- in 1990, in 109 companies (Hosseini and Rezaee, 1984); and
- in 1991, in 111 companies (Daungploy and Gray, 1991).

Table Ten: Financial Measures Used as Indicators of Subsidiary Performance Evaluation

Financial Measures	Rankings			
	1980	***1984***	***1990***	***1991***
Profit	1	2	1	1
Budget compared with actual profit	3	1	2	2
Return on investment (ROI)	2	3	3	2

Source: Mueller, Geron and Meek (1997: 165)

Similar research was carried out in Great Britain, and a similar ranking of the importance of the measures of multinationals' economic performance was apparent (Demirag, 1988). It is to be noted that, in Great Britain, net profit is ranked relatively late in the fifth position of importance—a position to be contrasted with that in the United States. For the British, apart from ROI (which occupied second position), the most important indicators were deviations from expected results (budget compared with actual profit in first position and budget compared with actual ROI in the third position). Table Eleven presents the outcome of the research carried out among 105 companies.

Table Eleven: Financial Measures Used as Indicators of Subsidiary Performance Evaluation in Great Britain

Financial Measures	Rankings
	1988
Budget compared to actual profit	1
Return on investment (ROI)	2
Budget compared to actual ROI	3
Cash flow from subsidiary to Great Britain	4
Profit	5

Source: Demirag (1988: 257-275)

In another study, a comparison was made of similar measures in American and Japanese companies (Bailes and Assada, 1991). The results in Table Twelve are the managers' answers to the request: 'Provide the three most essential measures taken into consideration while preparing the budget'. The research was carried out on a sample of 80 American and 256 Japanese companies. Table Thirteen presents the importance of the measures applied in the evaluation of the activity of those managing isolated units (responsibility centres), including USA and Japan (Shields et al., 1991).

The two researches imply that, in Japan, the most important measure is the income from sales. In the United States, as the research showed, the most important were ROI and controlled profit.

Objectives and Methodology of Research

The main objective of the present research was the collection of basic information on the factors shaping transfer-pricing policy in companies operating in Poland. The intention was to gather the information about, among other things: (i) the methods of establishing transfer prices; (ii) the reasons for their choice; and (iii) the influence of decentralised units on the choice of performance measurements. This issue is closely related to the pursuit of profit maximisation in decentralised and related companies, as well as to the optimisation of corporate tax payments. Being a relatively new matter in Polish tax administration, the issue is gradually assuming much greater importance.

Table Twelve: Percentage of Time Ranking of Top Three Budget Goals for Divisional Managers

Financial Measures	Japan	USA
	1990	***1990***
Sales volume	86.30%	27.90%
Net profit after corporate overhead	44.70%	27.90%
Controllable profit	28.20%	51.80%
Profit margin on sales	30.70%	30.50%
Sales growth	19.40%	22.30%
Return on investment	3.10%	68.40%
Production cost	40.70%	12.40%

Source: Bailes and Assada (1995: 137)

Table Thirteen: Important Performance Criteria Used for Evaluating Divisional Managers

Financial measures	Japan	USA
	1990	***1990***
Sales volume	69.00%	19.00%
Sales growth	28.00%	28.00%
Market share	12.00%	19.00%
Asset turnover	7.00%	13.00%
Return on sales	30.00%	26.00%
Return on investment	7.00%	75.00%
Controllable profit	28.00%	49.00%
Residual income	20.00%	13.00%
Profit less corporate costs	44.00%	38.00%
Manufacturing costs	28.00%	13.00%
Others	8.00%	17.00%

Source: Shields et al., (1991: 1-2)

The research was carried out in the form of surveys in the fourth quarter of 1999 and the first quarter of 2000, and involved a random sample of domestic and multinational companies. The surveys were sent to the directors of the companies and distributed among the managers attending postgraduate studies. A total of 440 surveys was prepared for domestic companies and a total of 80 for multinational ones. Only 41 companies replied, which represents a 7.9% return of the overall number of distributed surveys. The returned surveys were from 25 domestic companies (5.7%) and from 16 multinational companies (20%). The returned surveys were filled in by top management—presidents, managing directors, and chief accountants. The reasons for such a low rate of return included:

- an unwillingness to disclose information about the company (although the author assured the companies that the data was to be used for statistical purposes only);
- filling in the survey being time-consuming;
- management, especially in the domestic companies, not knowing the subject; and
- transfer prices not being implemented in some companies.

The surveys prepared for the two researched groups were essentially the same**.** There were only minor differences connected with the characteristics of particular companies—for example, multinational companies were asked about their reasons for locating their base in Poland. The first part of the survey was informative, and was mainly concerned with the character of the company in question, its legal form, its size, its place in the organisational structure of the corporation, and so on. Some of the questions were assessment questions. Respondents were asked, for instance, to assess the usefulness of the given financial indices for the measurement of the responsibility centre's performance. The significance of a given index was to be evaluated on a scale from 1 to 5, where 1 indicated 'not at all important' and 5 indicated 'extremely important'.

Characteristics of the Examined Sample

Among the domestic companies, 16 were involved in manufacturing, 17 in trade, and 13 in services. In the case of the multinational companies, 7 dealt with production, 9 with trade, and 8 with services. Many companies combined the various lines of business.

Table Fourteen: Characteristics of Companies According to Line of Business

No.	Type of Business	Domestic		Multinational		Total	
		Number	%	Number	%	Number	%
1.	Production	16	64.0%	7	43.8%	23	56.1%
2.	Trade	17	68.0%	9	56.3%	26	63.4%
3.	Service	13	52.0%	8	50.0%	21	51.2%
4.	**Total Number of Companies**	**25**		**16**		**41**	

Among the multinational companies, the countries of origin were: USA (5 companies); Holland (4 companies); Denmark (2 companies); and Germany, Japan, Norway, and France (all one company each).

More than 90% of the multinational companies had been operating in Poland for more than 4 years (see Table Fifteen).

Table Fifteen: Period of Multinational Companies Operation in Poland

No.	Years	Number	%
1.	0–2	0	0.0%
2.	3–4	1	6.3%
3.	5–6	4	25.0%
4.	7–8	7	43.8%
5.	> 8	4	25.0%
6.	**Total**	**16**	**100.0%**

Among the domestic companies 16 (64%) were independent and had a decentralised structure, 7 (28%) were subsidiaries, and 2 (8%) were parent companies.
Among the multinational companies, subsidiaries prevailed—fifteen (93.75%) were subsidiaries, and nine of these (56.3%) were the only subsidiaries of their companies located in Poland. One of the companies already had eight subsidiaries in Poland, another had four subsidiaries, another had three subsidiaries, and two companies had two subsidiaries.

Table Sixteen: Types of the Companies According to Legal Form of Ownership

No.	Legal form	Domestic	
		Number	%
1.	**State-owned**	0	0.0%
2.	Public limited company	11	44.0%
3.	Private limited company	10	40.0%
4.	Partnership	4	16.0%
5.	**Total**	**25**	**100.0%**

There were no state-owned companies among the domestic companies. The majority of them were private and public limited-liability companies. This is a characteristic form for companies with a complex organisational structure. Among the partnerships, small service and production entities prevailed.

Size and Financial Performance of the Companies Examined

Table Seventeen shows the employment figures for the examined companies at the end of 1998. As can be seen, there were small and large companies in both groups of companies**.**

Table Seventeen: Employment in the Examined Companies at the End of 1998

No.	Employment	Domestic		Multinational		Total	
		Number	%	Number	%	Number	%
1.	0–20	5	20.0%	1	6.3%	6	14.6%
2.	21–50	4	16.0%	4	25.0%	8	19.5%
3.	51–100	2	8.0%	3	18.8%	5	12.2%
4.	101–200	5	20.0%	2	12.5%	7	17.1%
5.	201–500	5	20.0%	4	25.0%	9	22.0%
6.	501–1000	2	8.0%	0	0.0%	2	4.9%
7.	> 1000	2	8.0%	2	12.5%	4	9.8%
8.	**Total**	**25**	**100.0%**	**16**	**100.0%**	**41**	**100.0%**

The average employment in the domestic companies was 335, and in the multinational companies it was 298. The largest company employed more than 2000, and the smallest 5 employees.

The classification of the companies according to their profitability is shown in Table Eighteen. What deserves attention is the number of companies showing a loss (20% of the domestic companies and 14.6% of the multinational companies). The largest loss among the domestic companies amounted to 7.774 thousand Polish Zlotych (PLN) and, in the case of the multinational ones, 7.400 thousand PLN. At the same time, the highest profit in a domestic company amounted to 846.900 thousand PLN and in a multinational company to 76.700 thousand PLN.

Table Eighteen: Net Profit in the Companies Examined in 1998

No.	Net profit (in thousands of PLN)	Domestic		Multinational		Total	
		Number	%	Number	%	Number	%
1.	Loss	4	16.0%	3	18.8%	7	17.1%
2.	0–100	6	24.0%	1	6.3%	7	17.1%
3.	101–1000	5	20.0%	4	25.0%	9	22.0%
4.	1001–10000	5	20.0%	4	25.0%	9	22.0%
5.	10001–100000	2	8.0%	4	25.0%	6	14.6%
6.	> 100000	3	12.0%	0	0.0%	3	7.3%
7.	**Total**	**25**	**100.0%**	**16**	**100.0%**	**41**	**100.0%**

The average net profit in the domestic companies was 57.697 PLN and 7.935 PLN in the multinational companies, but at the same time as many as 18 domestic and 4 multinational companies admitted to be working below full production capacity. With regard to the level of assets owned by the companies examined, within the

domestic companies there was an even distribution of assets. However, among the multinational companies, half of them possessed assets in excess of 50 m PLN as shown in Table Nineteen.

Table Nineteen: Value of the Assets in the Examined Companies at the End of 1998

No.	Assets (in million PLN)	Domestic		Multinational		Total	
		Number	%	Number	%	Number	%
1.	0–2	6	24.0%	2	12.5%	8	19.5%
2.	2–5	3	12.0%	0	0.0%	3	7.3%
3.	5–10	4	16.0%	1	6.3%	5	12.2%
4.	10–20	3	12.0%	5	31.3%	8	19.5%
5.	20–50	3	12.0%	1	6.3%	4	9.8%
6.	50–100	3	12.0%	3	18.8%	6	14.6%
7.	100–500	1	4.0%	2	12.5%	3	7.3%
8.	> 500	2	8.0%	2	12.5%	4	9.8%
9.	**Total**	**25**	**100.0%**	**16**	**75.0%**	**41**	**100.0%**

Source: author's own work

The largest of the companies examined was a domestic company and the value of its assets exceeded 5 billion PLN.

Responsibility Centres

All the responsibility centres described in the literature (i.e., cost, income, profit, and investment centres) existed in the companies examined (see Table Twenty). The reason that the number of the responsibility centres exceeds the number of the companies examined is that within the framework of one company there can exist various types of centres (for example, a centre being simultaneously a cost centre and a profit centre). In the case of the domestic companies, profit and investment centres were the most numerous. This was connected with a significant degree of autonomy in decision-making on prices and long-term investments. In the case of the multinational companies, all centres were profit centres, which meant that their managers were responsible for both income and cost. The fundamental long-term decisions about investment in fixed assets were made in the parent companies located in the country of origin outside Poland. This is confirmed by the fact that few companies were treated as investment centres.

Table Twenty: Characteristics of the Examined Companies According to Responsibility Centre Type

No.	Responsibility Centres	Domestic		Multinational		Total	
		Number	%	Number	%	Number	%
1.	Cost	15	60.0%	3	18.8%	18	43.9%
2.	Income	6	24.0%	7	43.8%	13	31.7%
3.	Profit	10	40.0%	16	100.0%	26	63.4%
4.	Investment	18	72.0%	3	18.8%	21	51.2%
5.	**Total Number of Companies**	**25**		**16**		**41**	

Table Twenty One: The Criteria of Company Organisation

No.	Organisational Criterion	Multinational	
		Number	%
1.	Functional	3	18.8%
2.	Product	6	37.5%
3.	Geographic	7	43.8%
4.	**Total**	**16**	**100.0%**

Multinational companies were organised according to three criteria—functional, product, and geographic. The last two prevailed over the first. Companies connected with the transfer of ready products constituted the largest group among the companies examined. The second-largest group consisted of companies that transferred services (see Table Twenty Two).

Table Twenty Two: Types of Transfers

No.	Transfers	Domestic		Multinational		Total	
		Number	%	Number	%	Number	%
1.	Products	14	56.0%	13	81.3%	27	65.9%
2.	Semi-products	11	44.0%	3	18.8%	14	34.1%
3.	Services	15	60.0%	8	50.0%	23	56.1%
4.	Intangible assets	2	8.0%	3	18.8%	5	12.2%
5.	**Total**	**25**		**16**		**41**	

Table Twenty Three shows that 12 of the multinational companies (75% of the total number of companies examined) were simultaneously selling and purchasing companies. This means that the transfer of income can go in both directions (*from* abroad and *to* abroad). In other words, these companies were simultaneously importers and exporters.

The structure of the economic relations in the domestic companies was similar.

Table Twenty Three: Types of Economic Relations in the Companies Examined

No.	Economic Event	Domestic		Multinational		Total	
		Number	%	Number	%	Number	%
1.	Purchasing company	3	12.0%	3	18.8%	6	14.6%
2.	Selling company	3	12.0%	1	6.3%	4	9.8%
3.	Both	16	64.0%	12	75.0%	28	68.3%
4.	**Total**	**25**		**16**		**41**	

In case of seven domestic companies (that is, 28%), transfer relations existed only within their own frameworks—that is, semi-products were made for internal use only, and no semi-products were sold to other companies. In all other cases, transfers with other companies occurred.

With regard to the multinational companies, in four of the companies transfers were made within one company only.

In all other cases, there existed relations with other companies located both in Poland and abroad (see Table Twenty Four).

Table Twenty Four: Economic Relations Among the Companies

No.	Economic Event	Domestic		Multinational	
		Number	%	Number	%
1.	Only within company	7	28.0%		
	a) in Poland			1	6.3%
	b) outside Poland			3	18.8%
2.	With other companies	18	72.0%		
	a) in Poland			10	62.5%
	b) outside Poland			11	68.8%
3.	**Total Number of Companies**	**25**	**100.0%**	**16**	

The distribution of income earned within the related companies and as a result of sales transactions with other entities is illustrated in Table Twenty Five. As shown in the table, more than half of the companies examined (in both groups) derived 67–100% of their income from sales within related companies. Thus, these companies have either tackled the issue of transfer prices already, or have a large potential in the field.

Table Twenty Five: The Structure of Income

No.	Structure of Income		Domestic		Multinational		Total	
	Within Company	With Other companies	Number	%	Number	%	Number	%
1.	0–33%	67–100%	8	32.0%	3	18.8%	11	26.8%
2.	34–66%	34–66%	4	16.0%	5	31.3%	9	22.0%
3.	67–100%	0–33%	13	52.0%	8	50.0%	21	51.2%
4.	**Total Number of Responses**		**25**		**16**		**41**	

Transfer-Pricing Policy

In ten multinational companies, transfer-pricing policy was determined centrally, and in five companies pricing rights were delegated to subsidiaries. One of the firms examined did not reply to this question. The question about the number of people handling (directly or indirectly) the issue of transfer pricing in multinational companies was answered by 11 companies. In three of them, only one person dealt with the issue, in another three companies two persons were responsible, in two companies four persons were involved, and in one firm 12 persons had responsibility. In the majority of cases the responsible persons were financial directors, presidents, and accountants.

In the domestic companies, transfer-pricing policy was centralised in 15 companies, and decentralised in seven companies. Three companies did not give an answer to this question. Pricing policy in parent companies was under the authority of the boards (presidents, financial directors, and sales directors). In subsidiaries, the situation was comparable.

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Table Twenty Six: Character of Transfer Pricing Policy Creation

No.	Transfer Pricing Policy	Domestic		Multinational		Total	
		Number	%	Number	%	Number	%
1.	Centralised	15	68.2%	10	66.7%	25	67.6%
2.	Decentralised	7	31.8%	5	33.3%	12	32.4%
3.	**Total Number of Responses**	**22**	**100.0%**	**15**	**100.0%**	**37**	**100.0%**

The answers to the question about the price formulae for transfer pricing are given in Table Twenty Seven. Generally, the most common methods used for price settlement were those based on full cost of production, those based on variable cost of production, and those based on negotiated prices. Among the domestic companies, the transfer prices were commonly based on the cost of production. In most cases, this was real cost (72% of the companies) and the full cost of production plus profit margin (40% of the companies). A standard cost was used in only three companies. Almost half of the companies used prices as negotiated by the managers of the decentralised entities.

Table Twenty Seven: Transfer-Pricing Methods

No.	Pricing Methods	Domestic		Multinational		Total	
		Number	%	Number	%	Number	%
1.	*Full cost of production*						
	a) standard	3	12.0%	3	18.8%	6	14.6%
	b) actual	18	72.0%	3	18.8%	21	51.2%
	c) plus profit margin	10	40.0%	4	25.0%	14	34.1%
2.	*Variable cost of production*						
	a) standard	1	4.0%	1	6.3%	2	4.9%
	b) actual	7	28.0%	3	18.8%	10	24.4%
	c) plus profit margin	4	16.0%	1	6.3%	5	12.2%
	d) plus opportunity cost	0	0.0%	-	0.0%		0.0%
3.	*Marginal cost*	1	4.0%	0	0.0%	1	2.4%
4.	*Market price*	3	12.0%	5	31.3%	8	19.5%
5.	*Dual price*	1	4.0%	3	18.8%	4	9.8%
6.	*Negotiated price*	12	48.0%	7	43.8%	19	46.3%
7.	*Other formulae*	1	4.0%	0	0.0%	1	2.4%
8.	**Total Number of Companies**	**25**		**16**		**41**	

In the multinational companies, negotiated prices (43.8%), market prices (31.3%), and full cost plus profit margin (25.0%) were the dominant methods. The multinational companies opted for the market price and dual price methods more frequently than did the domestic ones.

Such a configuration of methods of establishing transfer prices was influenced by the character of the responsibility centres. In the researched sample of domestic companies a domination of prices based on costs could be discerned, since 60% of the researched sample had their cost centres. In the group of multinational companies market prices dominated

because all of the researched companies constituted profit centres (see Table Twenty).
There was a clear lack of theoretical formulae (such as costs plus opportunity cost, or formulae based on marginal costs). Only one company used such a system, so these have little significance in the overall scheme of things.

Table Twenty Seven shows that most companies employed more than one method for transfer pricing. This was connected with the various products or services rendered by different companies. Domestic and multinational companies differed in the number of methods used (see Table Twenty Eight). The majority of the domestic companies employed two methods of pricing. In more than half of the multinational companies only one method of pricing was used. The reason for this might be that those companies have a centralised transfer-pricing policy.

Table Twenty Eight: The Number of Transfer Pricing Methods Employed in a Single Company

No.	Number of Employed Methods	Domestic		Multinational		Total	
		Number	%	Number	%	Number	%
1.	One	7	28.0%	9	56.3%	16	39.0%
2.	Two	10	40.0%	2	12.5%	12	29.3%
3.	Three	4	16.0%	4	25.0%	8	19.5%
4.	Four	1	4.0%	0	0.0%	1	2.4%
5.	Five	2	8.0%	0	0.0%	2	4.9%
6.	More then five	1	4.0%	1	6.3%	2	4.9%
7.	**Total number of companies**	**25**	**100.0%**	**16**	**100.0%**	**41**	**100.0%**

Table Twenty Nine: Assessment of the Impact of Transfer Prices on Basic Transfer-Pricing Objectives

No.	Influence of Transfer Prices on:		Domestic		Multinational		Total	
			Number	%	Number	%	Number	%
1.	Attainment of goal congruence by managers of related companies	Yes	12	48.0%	11	68.8%	23	56.1%
		No	6	24.0%	0	0.0%	6	14.6%
2.	Profit maximisation of the whole company	Yes	20	80.0%	12	75.0%	32	78.0%
		No	5	20.0%	1	6.3%	6	14.6%
3.	Profit maximisation of individual centres	Yes	10	40.0%	4	25.0%	14	34.1%
		No	11	44.0%	7	43.8%	18	43.9%
4.	Increase of individual managers' autonomy	Yes	16	64.0%	3	18.8%	19	46.3%
		No	7	28.0%	9	56.3%	16	39.0%
5.	**Total Number of Companies**		**25**		**16**		**41**	

The next issue in focus was the assessment of the effectiveness of the transfer-pricing methods in attaining the basic transfer-pricing objectives—such as goals congruence of the managers in the individual responsibility centres or an
In case of the first two goals (that is, the attainment of goal congruence in decentralised companies and maximisation of the company's profits), the answers obtained from managers were comparable for both groups. In both cases it was strongly confirmed that a chosen pricing method had influence on the set goals. With regard to the third factor, (the maximisation of profit in individual centres), the responses varied. Finally, in the case of the fourth factor (the increase of managers' autonomy), the answers differed significantly. More than 60% of the domestic companies confirmed the influence of the formula on the factor, whereas 56.3% of the multinational companies denied it.

The responses show that in choosing a transfer-price formula, the benefits for the whole company were more likely to be taken into consideration than the benefits for an individual responsibility centre. This, in turn, diminished the autonomy of the responsibility centres—something that managers of the multinational companies realised to a greater extent than managers of the domestic companies.

Table Thirty shows the evaluation of the transfer-pricing policy creation criteria in the companies examined. The significance of a given criterion was to be established on a five-point Likert scale as follows: 1 (not at all important), 2 (not too important), 3 (moderately important), 4 (very important), and 5 (extremely important). The average importance score for a particular criterion was computed by summing the integer values assigned to the question and then

increase in their autonomy. The respondents were asked to say whether the methods employed had any impact on the attainment of the objectives listed in the survey. The results are listed in Table Twenty Nine.

dividing the total by the number of individual firms that responded to that question.

Altogether, 11 criteria were examined. Three of them—namely minimisation of customs duties, reduction of inflationary risk, and reduction in the volatility of the exchange rates—were included in the questionnaire only for the multinational companies. The weighted average shows that the most important factor for the domestic companies was the maximisation of the whole company profit (4.2), followed by managerial motivation (3.6), and the attainment of the goal congruence among the managers of the related responsibility centres (3.5). The cost of obtaining information for transfer pricing was highly valued, which is also proved by the fact that cost formulae prevailed over market formulae (see Table Twenty Seven). These cost formulae are comparatively easier to employ, because of the necessity of adjusting the financial accounting system to the manufactured products pricing needs.

In the case of the multinational companies the most important criteria for transfer-pricing policy were minimisation of the tax burden (4.3), followed by maximisation of whole company profit (3.9), and minimisation of customs duties (3.9). The other important criteria were the motivational function of the transfer price and the maximisation of profit in the subsidiary (3.6). With these data in mind, it is useful to look at the multinational companies' reasons for location in Poland (see Table Thirty One).

Table Thirty: Evaluation of the Criteria for Transfer-Pricing Policy Creation

No.	Criterion	Domestic		Multinational	
		Number of Responses	Evaluation	Number of Responses	Evaluation
1.	Minimisation of tax burden	23	3.0	16	4.3
2.	Managerial motivation	22	3.6	14	3.7
3.	Maximisation of profit in whole company	25	4.2	16	3.9
4.	Maximisation of profit in subsidiary	21	3.0	16	3.6
5.	Managers' autonomy	20	3.1	15	3.0
6.	Easy understanding of price formulae	21	3.2	13	2.9
7.	Cost of obtaining information	22	3.1	14	3.0
8.	Goal congruence	22	3.5	11	3.4
9.	Minimisation of the custom duties			14	3.9
10.	Reduction in inflationary risk			14	3.0
11.	Reduction in risk of exchange rate volatility			13	3.2

Table Thirty One: Multinational Companies' Reasons for Location in Poland

No.	Reason	Weight
1.	Improvement in competitiveness for both domestic and foreign market	2.6
2.	Entering new markets	4.1
3.	Securing domestic raw material resources	1.9
4.	Low interest rates	2.4
5.	Manufacturing products at low cost	3.2
6.	Favourably treated by Polish government	2.9

One of the most important reasons for location in Poland, according to respondents, was the opportunity to enter new markets (average 4.1 on the five-point scale). Thanks to existing and growing demand, the Polish market provides plenty of scope for development. Poland is also a good export base for central and eastern European markets, especially the Russian market. The second most important factor was manufacturing at low cost, and the third was the selling of ready products in the best markets (3.2). The least important factor was securing domestic raw material resources.

Control of Transfer Prices by Tax Offices

Only two of the examined domestic companies had transfer prices controlled by fiscal offices. In one company the cost plus profit margin pricing method was questioned. In the second company the market price pricing method was examined, and in this case, the decision of the office was favourable to the company.

With regard to the multinational companies, control by tax offices was carried out in four companies. A total of 11 transactions was examined, and only one was questioned.

Such a small number of investigations in the researched companies clearly shows that the Polish tax administration is not prepared to control companies satisfactorily in the field of establishing methods for transfer prices.

Performance Measurement of Operation of Responsibility Centres

Among the survey questions there were two questions concerning the methods used for measuring performance of the operation of responsibility centres in the companies.

Table Thirty Two shows responses to the question about the economic indices used for the measurement and evaluation of the efficiency of the activities in the examined companies, and in the individual responsibility centres

Table Thirty Two: Financial Indices Used for Performance Assessment and Measurement

No.	Financial Index	Domestic		Multinational	
		Number of Responses	%	Number of Responses	%
1.	Net profit	21	84.0%	5	31.3%
2.	Gross profit	16	64.0%	4	25.0%
3.	ROI, ROE	6	24.0%	8	50.0%
4.	ROA	4	16.0%	6	37.5%
5.	RI	1	4.0%	1	6.3%
6.	Profitability of sales	20	80.0%	6	37.5%
7.	Cost reduction	19	76.0%	6	37.5%
8.	Increase in sales	22	88.0%	8	50.0%
9.	Gross margin	11	44.0%	4	25.0%
10.	Share in market	8	32.0%	9	56.3%
11.	**Total number of companies**	**25**		**16**	

In the domestic companies, the most frequently employed indices were sales income dynamics (88% of the companies examined), cost reduction (76% of the companies), and absolute measures [such as net profit (84% of the companies), profitability of sales (80% of cases), and gross profit (64%)]. The least popular were capital profitability indices, such as ROA, ROI, ROE and RI. In the case of the multinational companies, comparatively more companies employed relative profitability indices (ROA, ROE, ROI). These indices have been known in capitalist economies since the 1920s. In the multinational companies, gross and net profit were less popular than in the Polish companies. The multinationals also paid much attention to the percentage share of their production in the market (56.3%). In the case of the domestic companies only 32% of the examined companies use this index.

The next question was concerned with the usefulness of the named indices. Table Thirty Three covers the evaluation of their usefulness in the examined companies. The importance of a given index was to be established between 1 (not at all important) and 5 (extremely important). The weighted average shows that the frequency of use of the applied indices coincided with their importance for the evaluation of individual units.

Table Thirty Three: Usefulness of Applied Financial Indices for the Efficiency Evaluation and Measurement

No.	Financial index	Evaluation	
		Domestic	Multinational
1.	Net profit	4.0	3.8
2.	Gross profit	3.8	3.9
3.	ROI, ROE	3.3	4.6
4.	ROA	2.8	4.3
5.	RI	2.9	3.6
6.	Profitability of sales	4.4	4.4
7.	Cost reduction	4.1	4.5
8.	Increase in sales	4.2	4.3
9.	Gross margin	4.1	4.3
10.	Share in market	3.2	4.1

The most important index in the domestic companies was the sales profitability index (which obtained 4.4 on the five-point scale), followed by dynamics of sales (4.2), and cost reduction and gross margin (both 4.1). For the multinationals, the most significant indices were capital return (4.6) and cost reduction (4.5).

Similarly, as in the previous question, in the case of the multinationals, the share of the market was highly ranked as an index (4.1)—indeed, higher than gross profit and net profit.

The biggest difference in usefulness of the indices between the domestic and multinational companies existed in the following indexes: ROA (1.5 point difference), ROE and ROI (1.3 point difference), share in the market (0.9 point difference) and RI (0.7 point difference). The reason for this might be a lack of confidence in the indices among the domestic companies, due to the incomplete and unreliable nature of available information that is vital for calculations.

Conclusions

The main conclusions that can be drawn from this study will now be discussed.
It was clearly established that more attention is being paid to the problems of transfer pricing in Poland, and that the methodology for establishing transfer prices is based on the OECD solutions.

It was found that legal solutions concerning transfer prices in Poland are applied both in multinational companies and domestic companies. However, the Polish tax administration is not sufficiently prepared to control companies in the field of transfer prices, and their methods of establishment.

The research has not shown any general differences in transfer-pricing policy as it is applied in domestic and multinational companies operating in Poland and other countries. This implies that the same pricing formulae are applied. In the researched companies, both domestic and multinational, a centralised transfer-pricing policy can be discerned. Managers from the boards of companies (parent companies) are responsible for this. In domestic companies cost formulae dominate in establishing transfer prices. This is due to two reasons. First, in the sample of the researched domestic companies, cost centres dominated. Secondly, these formulae are less costly, since it is relatively easy to obtain data for them from a cost-accounting recording system. In the group of multinationals market prices dominated, since all the surveyed companies were profit centres. The research did not detect

use of the following price formulae—*lost opportunity cost* and prices equal to *marginal cost*. This might mean that companies do not establish an optimal transfer price.

The research study also showed that when a transfer-price formula is being selected, benefits for the whole company are taken into consideration. Benefits are not restricted to individual responsibility centres. It was clear that this limits the autonomy of activity of responsibility centres. Managers in multinationals are more aware of this fact than those managing domestic companies.

Domestic companies and multinationals operating in Poland measure efficiency using the same sorts of financial measures as companies do in other countries. However, the frequency and meaning of these measures are different. In Polish domestic companies, more often than in multinationals, measures are applied that do not consider income tax obligations (thus basing their performance measures on pre-tax results). The most frequently applied measure among multinational companies is participation in the market. That shows the expansive character of these companies. The research proved the existence of a relation between the frequency and meaning of applied measures in the evaluation of responsibility centres of domestic and multinational companies. 15. Generally, the frequency of the use of measures agrees with their meaning for the evaluation of isolated responsibility centres. This means that a proper choice has been made.

Much further research could follow from these broad findings. There is a need to continue this research on a larger research sample—which would confirm (or deny) the dependence of price formulae on the size of a company, line of business, property form, and other factors. Such research should also prove (or deny) the dependence of performance measures on price formulae of products (semi-products) made in affiliates (companies, departments, and other responsibility centres).

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