

# THE SPECIFICATION OF DOCUMENTATION FOR ANTI-DUMPING INVESTIGATION IN METALLURGY USING ABC COSTING METHOD

Received – Prispjelo: 2013-10-24  
Accepted – Prihvaćeno: 2014-02-15  
Preliminary Note – Prethodno priopćenje

In today's globalized market economy, business companies are active both in domestic and in foreign markets, thus increasing the importance of observing the international rules providing guidelines for mutual trade among countries within the global trading system. Metallurgical materials and products are among the products in case of which anti-dumping duty is often imposed. As far as the decisions on possible dumping and its amount are concerned, the market with metallurgical products and the methodology used for calculating the dumping range have certain specific features, as stated in the article.

*Keywords:* metallurgical production, dumping, anti-dumping proceedings

## INTRODUCTION

Dumping can be generally defined as an unfair commercial practice during which a manufacturer sells similar products in a foreign market at a price lower than the normal value in the domestic market. Metallurgical materials and products are among the products which often have anti-dumping duty imposed on them. In terms of the decision on possible dumping and its amount, the market with metallurgical products is characterized by certain specific features.

Groups of producers that initiated anti-dumping actions and the subsequent anti-dumping investigations in metallurgical production in the past used to take advantage of the limited capabilities of the prosecuted manufacturers to draw cost calculations for domestic sales in similar breakdown corresponding to the structure of domestic price lists.

The calculations of total prime costs were usually available for aggregated product groups of similar quality, shape, size, heat treatment etc. [1]. According to a definition, dumping sale occurs when a product is exported at a lower price (export price) than its usual (normal) value. Under normal market conditions, this value is the price of the same product sold to domestic customers; however this sale must not be realized with a loss.

When the share of dumping sales and calculations of the margin of dumping are being investigated, the anti-dumping investigations compares the prices of concrete sales, determined according to the price list used for the given quality, size, version, including the additional

charges for heat treatment, testing, piling, packaging, etc., with the total prime costs calculated as an average of the aggregated group. As we stated in the article Anti-dumping proceedings in metallurgical brand, this methodology could be used to prove dumping even in situations where it did not exist [2].

## EXPERIMENTAL PART AND DISCUSSION

### Calculations of the margin of dumping

Traditional methods of cost calculations (e.g. mark-up pricing or calculation of variable costs) do not provide accurate information on the costs associated with the company activities and performances or information for pricing any more. The complexity of the relations between costs and performance and the range of causes of costs are already so significant in some companies that they make it necessary to look for more precise and more sophisticated costing system that would allow dealing with the real basis of the relations between costs and performances.

The application of ABC method (Activity Based Costing) provides interesting possibilities to refine the planned and final calculations and, in particular, the processing of these calculations in the detailed structure of calculation units, getting closer to the structure of offer price lists in metallurgical production. In comparison with the above-mentioned historical approach to costing of pipe production, the ABC method enables, for instance, assigning prime costs to a concrete contract, specified by size, quality and detailed requirements of customers, to all activities (performances) associated with its realization, both during the order acceptance and confirmation stage and during the produc-

K. Janovská, A. Samolejová, Z. Stefanovová Faculty of Metallurgy and Materials Engineering, Faculty of Economics, VŠB – Technical University of Ostrava, Ostrava, Czech Republic

tion stage and, consequently, the actual costs after completion of the realization. The activities in these calculations mean activities such as heating, punching, rolling, treatments operations, annealing, etc.

The ABC method used for allocation of costs to objects takes advantage of the measurements of actual physical performances of the individual performed activities. The calculation therefore monitors the activities that are performed in the company, and the corresponding costs are allocated to them. The mediated relationship between cost and performance no longer consists of a general cost-allocation base and an overhead surcharge, but it consists of the actual activities the company performs with the aim of producing performances. This method includes the monitoring of costs and their flow along the performed processes and activities, and these factors correspond to the method of their allocation [3]. In addition, the ABC costing provides more accurate information on the costs of performances and it applies more transparent allocation principles and in many different areas it exceeds the conventional costing method and it makes it possible to analyze various areas of business activities in terms of their value and natural characteristics.

Until recently, a vast majority of Czech metallurgical companies possessed calculations of total prime

costs only for the aggregated groups of products, which are of similar quality, shape, size, heat treatment, etc. For this reason, the prices of specific products during the procedure focused on proving dumping were compared with the average cost of the whole group and the normal value was calculated only from profitable domestic sales determined this way. That is why dumping can be proved even in those business cases where it actually did not exist. The utilization of the ABC method in the event of proving dumping helped to find better arguments in the calculations of the dumping range, because the objective prime costs would have been assigned much more precisely to the individual monitored sales and that would have made it possible to compare the export price of a concrete order with the normal order value that would have been determined at the level of total prime costs of realization of a concrete order.

Table 1 provides a comparison of the calculation of dumping value from average costs and dumping values determined according to ABC methodology. The "Domestic price - cost according to ABC (EUR/t)" entry is the difference between domestic price (EUR/t) and total prime costs (EUR/t) determined according to the ABC method. The normal value is equal to domestic price (EUR/t). The difference between the export prices and the normal values (EUR/t) is positive in all cases, which

Table 1 **Model of calculation of anti-dumping duty - a comparison of calculation of normal value from average costs and costs according to the ABC method**

| product   | A      | B      | C      | D      | E      | F     | G     | H      | I      | K     | total    |
|---|--------|--------|--------|--------|--------|-------|-------|--------|--------|-------|----------|
| total amount thousand of t  | 1      | 3      | 2      | 5      | 1      | 8     | 6     | 2      | 5      | 7     | 40,0     |
| divided into: domestic thousand of t                              | 0,8    | 1,5    | 1,6    | 3      | 0,2    | 5     | 4,5   | 0,5    | 3,5    | 6     | 26,6     |
| divided into: export thousand of t                                | 0,2    | 1,5    | 0,4    | 2      | 800    | 0,8   | 1,5   | 1,5    | 1,5    | 1     | 13,4     |
| total prime costs according to the ABC method EUR/t               | 400    | 420    | 440    | 400    | 480    | 640   | 720   | 520    | 480    | 600   | 5 100    |
| domestic price EUR/t  | 420    | 440    | 450    | 420    | 500    | 660   | 740   | 540    | 500    | 620   | 5 290    |
| export price EUR/t  | 440    | 460    | 480    | 440    | 540    | 680   | 760   | 560    | 520    | 640   | 5 520    |
| total prime costs EUR   | 420    | 1 260  | 880    | 2 000  | 500    | 5 120 | 4 320 | 1 040  | 2 400  | 4 200 | 22 140   |
| domestic sales EUR  | 354    | 660    | 109    | 1 260  | 122    | 3 300 | 3 330 | 270    | 1 750  | 3 720 | 14 874,2 |
| export sales EUR  | 88     | 690    | 192    | 880    | 416    | 2 010 | 1 140 | 840    | 780    | 640   | 7 676,0  |
| Recalculation of dumping value from average costs                 |        |        |        |        |        |       |       |        |        |       |          |
| domestic price – average cost EUR/t                               | -136,0 | -112,5 | -92,5  | -132,0 | -52,5  | 107,5 | 187,5 | -12,5  | -52,5  | 67,5  |          |
| volume of profitable sales thousand of t                          |        |        |        |        |        |       |       |        |        |       | 10 350   |
| % of profitable sales from the value                              |        |        |        |        |        |       |       |        |        |       | 66,9     |
| % of profitable sales from the amount                             |        |        |        |        |        |       |       |        |        |       | 58,3     |
| normal value EUR/t  |        |        |        |        |        |       |       |        |        |       | 668,0    |
| export price – normal value EUR/t                                 | -227,7 | -207,7 | -187,7 | -227,7 | -147,7 | 12,3  | 92,3  | -107,7 | -147,2 | -27,7 |          |
| dumping value EUR/t   | -45,6  | -311,6 | -82,6  | -455,4 | -118,2 |       |       | -161,6 | -221,6 | -27,7 | -1 424   |
| % of dumping  |        |        |        |        |        |       |       |        |        |       | 18,4     |
| Recalculation of dumping value from costs according to ABC method |        |        |        |        |        |       |       |        |        |       |          |
| domestic price – costs according to ABC method EUR/t              | 200    | 200    | 200    | 200    | 200    | 200   | 200   | 200    | 200    | 200   |          |
| volume of profitable sales EUR                                    |        |        |        |        |        |       |       |        |        |       | 15 440   |
| % of profitable sales from the value                              |        |        |        |        |        |       |       |        |        |       | 100      |
| % of profitable sales from the amount                             |        |        |        |        |        |       |       |        |        |       | 100      |
| normal value EUR/t  | 420    | 440    | 460    | 420    | 500    | 660   | 740   | 540    | 500    | 620   |          |
| export price – normal value EUR/t                                 | 200    | 200    | 200    | 200    | 200    | 200   | 200   | 200    | 200    | 200   |          |
| dumping value EUR   |        |        |        |        |        |       |       |        |        |       | 0        |
| % of dumping  |        |        |        |        |        |       |       |        |        |       | 0        |

means that there was no dumping, because the manufacturer sells similar products (metallurgical products A-K) in a foreign market at a price that is higher than the normal value in the domestic market.

As shown in Table 1, the costing methods of normal value have an absolutely crucial impact on the decision, whether the manufacturer sells similar products in a foreign market at a price that is lower than the normal value in the domestic market, i.e., whether the manufacturer has committed dumping and it is therefore necessary to take anti-dumping measures in the form of penalization import duties - anti-dumping duty, which levels the difference between the export price and the normal value of the product in domestic market.

## CONCLUSION

Calculations prepared using the ABC method allow you to receive an overview of the objective and current level of total prime costs of the realization of a concrete order, which, compared to the contracted price, provides valuable information about its profitability. Unlike the previously used benchmarking costing of order based on the absorption calculations of average costs per roughly aggregated product groups, the managers currently have much more reliable information for dealing with customers as early as during the tender procedure. In this case, a company controlling obtains the information about the profitability of the individual business cases throughout the entire contracting, production and realization process.

A necessary condition of the application of the ABC costing system is, of course, large-scale data processing

by computers within the frame of complex company information system. The credibility of the results is also conditioned by the quality and timeliness of THN, appropriate definitions of the individual activities, the overhead cost scheduling method, etc...

## Acknowledgement

The work was supported by the specific university research of Ministry of Education, Youth and Sports of the Czech Republic No. SP2013/19.

## REFERENCES

- [1] M. Mikušová. The Creation of the Performance Measurement System - House Model. In: Management and Service Science Book Series: International Proceedings of Economics Development and Research. Bangkok: Iedrc, 8 (2011), 48-52.
- [2] K. Janovská, S. Vilamová, J. Gajda, A. Samolejová, M. Stoch, Anti-dumping proceedings in metallurgical brand, *Metalurgija* 53 (2014) 1, 142-144.
- [3] A. Mikološík, Process Level Factors and Process Optimization. In *Aktuálne výzvy teórie a praxe pre obchod, marketing, služby, cestovný ruch a medzinárodné podnikanie*. Bratislava: Vydavateľstvo Ekonóm, 2010. pp. 443-447.
- [4] B. Popesko, Procesní řízení nákladů s využitím metody Activity Based Costing. [citováno 19.7.2012]. Dostupné z <http://www.businessinfo.cz/cs/clanky/procesni-izeni-nakladu-s-vyuzitim-metody>

**Note:** The responsible translator for English language is P. Jaroš, Ostrava, Czech Republic