This is a working draft of a Chapter of the Practical Manual ol Ma

International Cooperation in Tax Matters or its Subcommittee on Transfer Pricing - Practical Issues. Comments in writing are sought and should be sent to the Secretariat to the UN Tax Committee at <u>taxffdoffice@un.org</u> by 23 November 2010 at the latest.

While several members of the Subcommittee have contributed to this draft and appropriate attribution will be made in a later version, the Secretariat particularly notes the contribution of Monique van Herksen.

### **Chapter 5 - Transfer Pricing Methods (Transactional Profit Methods)**

### 1. Introduction

This chapter discusses transactional profit methods, which analyse the profits arising from particular controlled transactions, in order to determine whether a transfer price is arm's length.

Although it is rare that enterprises use transactional profit methods to actually determine their prices, the profit resulting from a controlled transaction might be quite a good signal to establish whether a special condition affected this transaction and reduces it to a transaction that is not at arm's length. It should be acknowledged that where the complexities of real life business put practical difficulties in the way of the application of the traditional transaction methods addressed in the previous chapter, transactional profit methods may prove to be a good solution.

In p to find comparables in applying the transactional net margin method.

This chapter provides an overview of the transactional net margin method and the profit split method.

### 2 Transactional Net Margin Method

### 2.1 Definition and Choice of Tested Party

The transactional net margin method ('TNMM') is a profit-based method that can be used to apply the arm's length principle. The TNMM can be applied on either the related party manufacturer or the related party distributor as the tested party for transfer pricing purposes.

The TNMM 'examines the net profit margin<sup>1</sup> relative to an appropriate base (e.g., costs, sales, assets) that a taxpayer realizes from a controlled transaction (or transactions that are appropriate to be aggregated). The profit margin indicators are discussed in paragraph 2.3 below.

The TNMM compares the net profit margin (relative to an appropriate base) that the tested party earns in the controlled transactions to the same net profit margins earned by the tested party in comparable uncontrolled transactions or alternatively, by independent comparable companies. As such, the TNMM is *a more indirect method* than the cost plus / resale price method that compares gross margins. It is also a much more indirect method than the CUP method that compares prices, because it uses net profit margins to determine (arm's length) prices. One should bear in mind that many factors may affect net profit margins, but may have nothing to do with transfer pricing.

The TNMM is used to analyze transfer pricing issues involving tangible property, intangible property or services. When the TNMM is applied on controlled transactions involving tangible property, the tested party in the analysis can either be the related party manufacturer or the related party distributor. The choice of the tested party depends on the availability of comparable data. This usually implies that the TNMM is applied to the least complex of the related parties involved in the controlled transaction, because generally more comparable data will then be in existence and fewer adjustments will be required to account for differences in functions and risks between the controlled and uncontrolled transactions. In addition, the tested party should not own valuable intangible property. This, by the way, is also the reason why it is recommended to select the least complex entity for the application of the cost plus method or resale price method.

The application of the TNMM is consistent with the application of the cost plus method or the resale price method, but the TNMM concerns a comparison of net profit margins. Figure 1 and the rest of this section will further explain this.

#### Figure 1: Transactional Net Margin Method



<sup>&</sup>lt;sup>1</sup> For example, return on total costs, return on assets, and operating profit to net sales ratio.

Associated Enterprise 1, a car manufacturer in country 1, sells cars to Associated Enterprise 2 which resells the cars to the In

Assuming a resale price of  $\leq 10,000$  and a gross profit margin of 25 %, the transfer price amounts to  $\leq 7,500$ :

Table 1: Mechanism	of Resale	Price	Method
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	<u>Initially</u>	Benchmarking analysis
Resale price <u>Cost of goods sold</u> Gross profit	€10,000 <u>€ ?</u> € ?	<ul> <li>€10,000</li> <li><u>€ 7,500</u></li> <li>€ 2,500 (25 % of resale price)</li> </ul>

The determination of an arm's length transfer price based on the TNMM is more or less similar. The main difference with a gross marg

Assuming cost of goods sold of  $\notin$ 5,000 and a gross profit mark-up of 50 %, the transfer price amounts to  $\notin$ 7,500:

### **Table 3: Mechanism of Cost Plus Method**

Initially Benchmarking analysis

Furthermore, the term "operating profit" indicates better that only profits resulting from operating activities are relevant for transfer pricing purposes.

A profit level indicator ("PLI") is a measure of a company's profitability that is used to compare comparables with the tested party A profit level indicator may express profitability in relation to (i) sales, (ii) costs or expenses, or (iii) assets.

	Profit Level Indicators (PLIs)		
(1)	return on assets (ROA)	operating profit divided by the operating assets (normally, only tangible assets)	
(2)	return on capital employed (ROCE)	operating profit divided by capital employed which usually computes as the total assets minus cash and investments	
(3)	operating margin (OM)	operating profit divided by sales	
(4)	gross margin (GM)	gross profit divided by sales	
(5)	Berry Ratio	gross profit divided by operating expenses	
(6)	return on total cost (ROTC)	operating profit divided by total costs	
(7)	return on cost of goods sold	gross profit divided by cost of goods sold	

**Table 5: Overview of various profit level indicators:** 

Although all the above PLIs are possible, the three PLIs of (i) operating margin, (ii) Berry Ratio and (iii) return on capital employed (ROCE) are most used in practice.

The two PLIs of the ROA and ROCE divide operating profit by a balance sheet figure. The figure is based on tangible assets actively employed in the business. Such tangible assets consist of all assets, minus intangible assets such as goodwill, minus investments (e.g., in subsidiaries), minus cash and cash equivalents beyond the amount needed for working capital.

This type of PLI may be most reliable if the tangible operating assets have a high

Conceptually, the Berry Ratio represents a return on a company's value added functions on the assumption that the company's value added functions are captured in its operating expenses.

In general, gross margin has not been favoured as a PLI because the categorization of expenses as operating expenses or cost of goods sold may be subject to manipulation.

The choice of PLI depends on the facts and circumstances of a particular case. Thus, it may be useful to consider multiple PLIs. If the results tend to converge, that may provide additional asse a[(provi)-6.3-5.8(mr(d)6thss)d

However, functional comparison will be more often used in practice. Let us assume that a related party distributor is the tested party in the example presented in Table 6. The TNMM is applied and the profit level indicator is the operating profit margin. A benchmarking analysis was performed, which identified four comparable independent distributors considering the comparability standard of the TNMM. The arm's length range of operating profit margin earned by these comparable distributors falls between 2

Specific factors affecting net margins include, but are not limited to: threat of new entrants in the industry; competitive position; management efficiency; individual strategies; threat of substitute products; varying cost structures (e.g., the age of plant and equipment); differences in the cost of capital (e.g., self financing versus borrowing); and the degree of business experience (e.g., start-up phase or mature business).

If there are material differences between the tested party and the independent enterprises that affect the net margins, appropriate adjustments should be made to account for such differences.

### 2.5 Other Guidance for Application

The TNMM should not be applied on the aggregate activities of a complex enterprise engaged in various and different transactions. It should analyse only the profits of the associated enterprise that are attributable to particular controlled transactions. The TNMM should thus not be applied on a company-wide basis if the company is involved in a number of different controlled transactions which are not properly evaluated on an aggregate basis. The TNMM should be applied on transactions of independent enterprises, which are comparable to the controlled transactions being examined. Furthermore, profits attributable to the relevant transactions of independent enterprises should not be affected by controlled transactions.

Figure 2 below presents an example to illustrate that the TNMM should be applied only to particular transactions and not to a company as a whole. Related Party Distributor purchases products from both Related Party Manufacturer and Unrelated Manufacturer and resells these products to customers. The tax authorities in the country of Related Party Distributor applies the TNMM to determine whether the transfer prices of Related Party Distributor is arm's length. A benchmarking study performed by the tax authorities show that comparable distributor earn an operating profit margin between 2 % to 6 %. The tax authories apply the TNMM to the P&L of Related Party Distributor is 1 % based on aggregate transactions and therefore does not fall within the arm's length range, the tax authorities determine that the trParted o

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### Figure 2: Specific Transactions versus Company as a Whole



	Controlled	Uncontrolled	Aggregate
	Transactions	Transactions	Transactions
Sales	€100,000	€100,000	€200,000
Cost of Goods Sold	€ 80,000	€ 90,000	€170,000
Gross Profits	€ 20,000	€ 10,000	€ 30,000
Operating Expenses	€ 15,000	€ 13,000	€ 28,000

**Operating Profit** 

Measurement consistency is important. Net margins should be calculated uniformly between the tested party and the independent enterprises.

An analysis considering multiple year data is better able to take into account the effects on profits of product life cycles and short-term economic conditions. However, as discussed [elsewhere in this Manual] different countries take different views about when multiple year data should be analysed, and indeed whether that is allowed under a country's domestic law.

Use of an arm's length range should also be considered, to reduce the effects of differences between the controlled and uncontrolled entities. However, the use of a range may not sufficiently take into account circumstances where the profits of a taxpayer is affected by a factor unique to that taxpayer.

#### 2.6 Strengths and Weaknesses

The strengths of the TNMM include:

net margins are less affected by transactional differences (than price) and functional differences (than gross margins). Product and functional comparability are thus less critical in applying the TNMM;

less complex functional analysis needed, as TNMM is applied on one of the related parties involved;

it is applicable to both sides of the controlled transaction (i.e. either the related party manufacturer or distributor); and

the results resemble the results of a modified resale price / cost plus method of analysis.

The weaknesses of the TNMM include:

net margins are affected by factors that do not have an effect, or have a less significant effect on, price or gross margins due to the potential of variation of operating expenses. These factors affect net profits and hence the results of the TNMM, but may have nothing to do with the company's transfer pricing. It is

information on the uncontrolled transactions on a gross profit level, justifies the use of the TNMM.

The TNMM is typically applied on the least complex related party, which is usually the one performing routine manufacturing, distribution or other functions.

Three situations involving data limitations on uncontrolled transactions where it may be appropriate to use the TNMM are the following:

where the data on gross margins are less reliable due to accounting differences (i.e. differences in the treatment of certain costs as cost of goods sold or operating expenses) between the tested party and the comparable companies for which no adjustments can be made as it is impossible to identify the specific costs for which adjustments are needed. In such a case, it may be more appropriate to analyse net margins, a more consistent measured profit level indicator than gross margins in case of accounting differences.

Consider the example in Table 7 below, where the related party distributor earns a gross profit margin of 20%, while the comparable distributor earns a gross profit margin of 30%. Based on the resale price method, one could conclude that the transfer price of the related party distributor is not arm's length. However, this may be incorrect if due to accounting inconsistency the related party differ with the comparable distributor in allocating costs between cost of goods sold and operating expenses.

For example, it may be the case that the related party distributor treats warranty costs as cost of goods sold, while the comparable distributor treats such costs as operating expenses. If the warranty costs of the comparable distributor can be identified precisely, then appropriate adjustments on the gross profit level can be made. In practice, however, such detailed information about independent enterprises cannot be obtained from publicly available information. It may then be more appropriate to perform a net margin method of analysis where such accounting inconsistency has been removed. The result of applying the TNMM is that the net profit margin of the related party distributor of 10 % is similar to that of the comparable distributor. The transfer price is therefore considered to be arm's length based on the TNMM;

	Related Party Distributor	Comparable	
Distributor			
Selling price	100	100	
Cost of goods sold	<u>80</u>	<u>70</u>	
Gross Profit	20	30	
Operating expenses	<u>10</u>	<u>20</u>	
Operating profit	10	10	

#### Table 7: Accounting Differences: Resale Price Method versus TNMM

where the available comparables differ significantly with respect to products and functions in order to reliably apply the cost plus or resale price method, it may be more appropriate to apply the TNMM, because net margins are less affected by such

The contribution analysis and the comparable profit split method are difficult to apply in practice and therefore not often used, because reliable external market data necessary to split the combined profits between the associated enterprises are often not available.

### 3.2.3 Residual analysis

Under the residual analysis, the combined profits from the controlled transactions are allocated between the associated enterprises based on a two-step approach: *step 1*: allocation of sufficient profit to e

The residual profit split method is more used in practice than the contribution approach. Two benefits of the residual approach include the following. Firstly, the residual approach breaks up complicated transfer pricing problems in two useful steps. It therefore takes into account complex cases in which good comparables cannot be found to evaluate completely the functions of all the parties involved. The first step determines a basic return for routine functions, while the second step allocates the residual profit attributable to intangible properties between the parties involved. Secondly, le

discussion draft released in 1998, presents cases in which the profit split method can be applied to such trading, for example.

The (residual) profit split method is typically used in complex cases where both sides to the controlled transaction own valuable intangible properties (e.g., patents, trademarks, and tradenames). If only one of the associated enterprises own valuable intangible property, the other associated enterprise would have been the tested party in the analysis using the cost plus, resale price or transactional net margin methods. However, if both sides own valuable intangible properties for which it is impossible to find comparables, then the profit split method might be the most reliable method.

In this respect, the OECD Guidelines present a practical example<sup>4</sup> whereby company A designs and manufacturers an electronic component, and transfers the components to a related company B which uses the components to manufacturers an electronics product. Both company A and company B use innovative technological design to manufacture the components and electronics product, respectively. Company C, a related company, distributeseteed esi7.2(34 esi7. -1.1p-7.3(no9(t6(ucts.(d )5.8ss5(d)6.u7(e)2mte)-9.9n(t6(g TD-.004989c-.000