

Chapter 6

Transfer Pricing Methods

6.1. Introduction to Transfer Pricing Methods

6.1.1. This part of the Chapter describes several transfer pricing methods that can be used to determine an arm's length price and describes how to apply these methods in practice. Transfer pricing methods or methodologies are used to calculate or test the arm's length nature of prices or profits. Transfer pricing methods are ways of establishing arm's length prices or profits from transactions between associated enterprises. The transaction between related enterprises for which an arm's length price is to be established is referred to as the controlled transaction. The application of transfer pricing methods helps assure that transactions conform to the arm's length standard. It is important to note that although the term "profit margin" is used, companies may also have legitimate reasons to report losses at arm's length. Furthermore, transfer pricing methods are not determinative in and of themselves. If an associated enterprise reports an arm's length amount of income, without the explicit use of one of the recognized transfer pricing methods, this does not mean that its pricing should automatically be regarded as not arm's length and there may be no reason to impose adjustments.

6.1.2. Selection of methods (how, why and use of methods)

6.1.2.1. Method selection - need for functional analysis. The selection of a transfer pricing method serves to find the most appropriate method for a particular case. Considerations involved in selecting a method can include the respective strengths and weaknesses of each method; the nature of the controlled transaction; the availability of reliable information (in particular on uncontrolled comparables) needed to apply the selected method; and the degree of comparability between the controlled and uncontrolled transactions. The starting point in selecting a method is an understanding of the controlled transaction (inbound or outbound), in particular based on **the functional analysis** which is necessary regardless of which transfer pricing method is selected. The functional analysis is a major part of selecting the transfer pricing method as it helps:

- to identify and understand the intra-group transactions;
- to identify the characteristics that would make a particular transaction or function suitable for use as a comparable;
- to determine any necessary adjustments to the comparables;
- to check the relative reliability of the method selected; and
- over time, to determine if modification of the method is appropriate because the transaction, function, allocation of risks or allocation of assets have been modified.

The major components of a functional analysis are analyses of the functions, assets and risks, The functional analysis is described and discussed in detail in Chapter 5, at Para 5.3.2.2. Appendix I provides examples of a functional analysis for a manufacturing business and a distribution business.. A summary is provided here for context in the case of selection of appropriate methods.

6.1.2.2. The functions performed: the functional analysis describes the activities performed such as design, purchasing, inbound logistics, manufacturing, research and development (R&D), assembling, inventory

management, outbound logistics, marketing and sales activities, after-sale services, supporting activities, services, advertising, financing and management, etc. The functional analysis must specify which party performs each activity and in case both parties are involved in performing an activity it should provide for the relevant differences; for example both have inventories but Company A holds inventories for a period of up to 2 years whereas company B only holds inventories for a period of 1 month. The activities that add most value must be identified and should be discussed in more detail.

6.1.2.3. The risks undertaken: The functional analysis should identify risk undertaken. Examples are: financial risk (currency, interest rate, funding risks etc...), credit and collection risk (trading credit risk, commercial credit risk), operational risk (systems failure risk), commodity price risk, inventory risk and carrying costs, R&D risk, environmental and other regulatory risks, market risk (country political risk, reliability of customers, fluctuation in demand and prices) and product risk (product liability risk, warranty risk and costs and contract enforceability). A risk-bearing party would expect to have higher earnings than a non-risk bearing party, and will incur the expenses and perhaps related loss if and when risk materializes.

6.1.2.4. The assets used or contributed: the functional analysis must identify and distinguish between tangible and intangible assets. Tangible assets such as property, plant and equipment have to be financed and an investment in such capital assets would usually be expected to earn a long term return based on the use and risk level of the investment. Intangible assets are very important as substantial competitive advantage is often achieved by the use of intangible assets. Some intangibles have legal protection (e.g. patents, trademarks, trade names) but other intangibles with less legal protection may be equally important and valuable (e.g. know-how, trade secrets, marketing intangibles,¹ etc).

6.1.2.5. Interplay of above factors: Today, in a multinational group, operations tend to be more integrated across jurisdictional boundaries and the functions, risks and assets are often shared between entities in different jurisdictions. This makes functional analyses both more difficult and more necessary. The functional analysis can help identify which functions, risks and assets are attributable to the various related parties. For example, the functional analysis may reveal that one company performs one particular function but the cost thereof is borne by the other party to the transaction. The functional analysis could highlight that situation and consider the legal allocation of risk and the economic substance of the transaction. There could be another example where one company performs one particular function and bears the cost thereof but the benefit is also accrued to the other party to the transaction. The functional analysis could emphasize that situation and consider which party bears the risk in legal terms and which party bears the risk according to the economic substance of the transaction. The functional analysis typically includes a discussion of the industry in which the tested party operates, the contractual terms of the transaction at issue, the economic circumstances of the parties and the business strategies they employ. The functional analysis helps to identify the operations that benefit a related party and so require an arm's length return.

6.1.2.6. Selecting a method after the functional analysis:

6.1.2.6.1. Once the functional analysis is performed the application of a transfer pricing method, with the associated evaluation of comparable transactions may be considered. Transfer pricing methods typically use information on comparables, and the lack of such comparables can make a particular method – even one that might seem initially preferred – inapplicable, and a different method more reliable. These

¹ See glossary for a definition of this term; the term is used extensively in the OECD Transfer Pricing Guidelines at paragraph 2.138, 2.32, 6.1, 6.3, 6.4, 6.5, 6.6, 6.8, 6.12, 6.24, 6.36 -6.39,9.77, 9.90, 9.127

comparable transactions are also referred to as uncontrolled transactions because the parties involved in the transactions are independent of each other. Although uncontrolled transactions or independent unrelated companies are usually used as comparables for transfer pricing purposes, in practice it is sometimes not possible to identify reliable comparable data in the same markets. In such cases practical solutions should be sought in good faith by taxpayers and the tax administration. Comparability issues are discussed in detail at Chapter 5.

6.1.2.6.2. Solutions may include the following:

- Searching for comparables in other industries where such comparable companies have similar functions, assets and risks.
- Searching for comparables in other geographical regions that share certain key similarities with the country in which a company conducts its business.
- Using industry analyses (publicly-available or conducted internally by the company) to identify profit levels that can reasonably be expected for various routine functions (e.g. production, services, distribution).

The suggestions above are not intended to be exhaustive, neither is any preference implied by the ordering of the alternatives. Rather, the approaches above are presented as examples of what might be done and are included for information purposes only. It may also be that due to difficulty in obtaining access to (publicly available) data, in certain instances methods other than the ones presented above may need to be used.

6.1.2.7. Intangibles: Among the factors to be considered to select the most appropriate method to the circumstances of the case it is important to determine which party has developed or acquired the intangibles and in what capacity,² which party has the legal ownership and which receives the benefit of the intangibles. The party that developed the intangibles should be able to obtain benefits from those intangibles for example through:

- a sale or licensing of the intangibles to another party who exploits it; or
- through exploiting the intangible itself, for example by way of an increase in the price of products or services that make use of such intangibles.

6.1.3. Choice of available methods

6.1.3.1. There are two general categories of methods. Traditional Transaction Methods, consist of the Comparable Uncontrolled Price, Cost Plus and Resale Price Methods. The Transactional Profit Methods consist of the Transactional Net Margin Method and the Profit Split Method. A number of jurisdictions also apply “other methods” which are considered to provide arm’s length results; however such methods should be consistent with the arm’s length principle.

6.1.3.2. No preference for particular methods is being advocated in this Manual. The most suitable method should be chosen taking into consideration the facts and circumstances. The taxpayer should for example

² The Subcommittee discussed the possibility of preparing more detailed guidance on intangibles in a separate Chapter of this Manual, but was unable to complete the work in the time available. This item will be added to the programme of work and completed in the next edition of the Manual.

take into account the type of transaction, the functional analysis, comparability factors, availability of comparable transactions and the possibility of making adjustments to the data to improve comparability. See further Chapter 5.

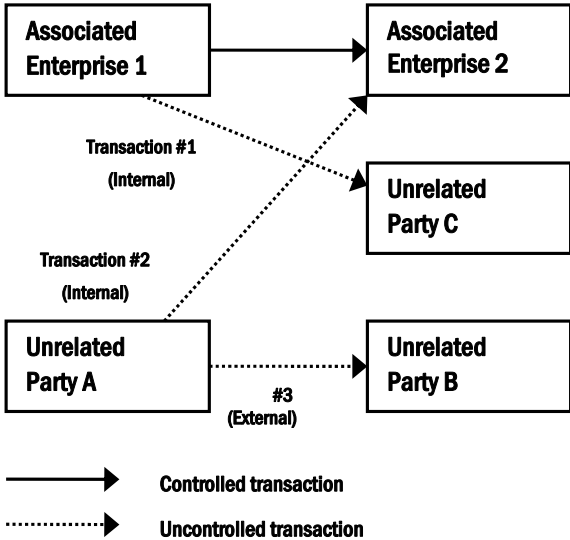
6.1.3.3. Once a method is chosen and applied taxpayers are generally expected to apply the method in a consistent fashion. Assuming that an appropriate transfer pricing method is being applied, a change in method is typically required only if there are any changes in the facts, functionalities or availability of data.

6.2. Traditional Transaction Methods

6.2.1. Comparable Uncontrolled Price

6.2.1.1. The Comparable Uncontrolled Price (“CUP”) method compares the price charged for property or services transferred in a controlled transaction to the price charged for property or services transferred in a comparable uncontrolled transaction in comparable circumstances. The CUP method may also sometimes be used to determine the arm’s length royalty for the use of an intangible asset. CUPs may be based on either “internal” comparable transactions or on “external” comparable transactions. Figure 1 below explains this distinction.

Figure 1: Comparable Uncontrolled Price Method



6.2.1.2. The controlled transaction in this figure involves the transfer of bicycles between Associated Enterprise 1, a bicycle manufacturer in country 1, and Associated Enterprise 2, a bicycle importer in country 2, which purchases, imports and resells the bicycles to unrelated bicycle dealers in country 2. Associated Enterprise 1 is the parent company of Associated Enterprise 2.

6.2.1.3. In applying the CUP method to determine whether the price charged for bicycles transferred in this controlled transaction is arm's length, the following information is assumed to be available for consideration:

- The price charged for bicycles transferred in a comparable uncontrolled transaction between Associated Enterprise 1 and Unrelated Party (i.e. transaction #1);
- The price charged for bicycles transferred in a comparable uncontrolled transaction between Associated Enterprise 2 and an unrelated party (i.e. transaction #2); and
- The price paid for bicycles transferred in a comparable uncontrolled transaction between Unrelated Party A and Unrelated Party B (i.e. transaction #3).

6.2.1.4. Comparable uncontrolled transactions, such as transaction #1 or #2, which involve a transaction between the tested party and an uncontrolled party, are referred to as internal comparables. Comparable uncontrolled transactions such as transaction #3, which involves a transaction between two parties neither of which is an associated enterprise, are called external comparables. The application of the CUP method involves a detailed transactional comparison whereby the controlled and uncontrolled transactions are compared based on the five comparability factors mentioned in Chapter 5.

6.2.2. Comparability in application of the CUP method.

6.2.2.1. When applying the CUP method, an uncontrolled transaction is considered comparable to a controlled transaction if:

- There are no differences in the transactions being compared that would materially affect the price; or
- Reasonably accurate adjustments can be performed to account for material differences between the controlled and the uncontrolled transaction.

6.2.2.2. In performing the comparability analysis the controlled transactions and uncontrolled transactions should be compared based on the comparability factors mentioned earlier and stated in detail in Chapter 5. In determining the degree of comparability between the controlled transactions and uncontrolled transaction #1 in Figure 1, for example, the following factors should be taken into account: (i) characteristics of property being transferred or services provided, (ii) contractual terms, (iii) economic circumstances and (iv) business strategies. For the functional analysis it is necessary to analyze the functions performed, the risks assumed and the assets used.

6.2.2.3. Product comparability should be closely examined in applying the CUP method. A price may be materially influenced by differences between the goods or services transferred in the controlled and uncontrolled transactions. The CUP method is appropriate especially in cases where an independent enterprise buys or sells products that are identical or very similar to those sold in the controlled transaction or in situations where services are rendered that are identical or very similar to those rendered in the controlled transaction.

6.2.2.4. Although product comparability is important in applying the CUP method, the other comparability factors should not be disregarded. Contractual terms and economic conditions are also important comparability factors. Where there are differences between controlled and uncontrolled transactions, adjustments should be made to enhance reliability.

6.2.2.5. Reasonably accurate adjustments may be possible for differences in:

- The type and quality of the products (e.g. unbranded Kenyan as compared with unbranded Brazilian coffee beans);
- Delivery terms. E.g. Associated Enterprise 1 in Figure 1 sells similar bicycles to Associated Enterprise 2 and an Unrelated Party. All relevant information on the controlled and uncontrolled transactions is available to Associated Enterprise 1, and hence it is probable that all material differences between the transactions can be recognized.³ The uncontrolled price can be adjusted for the difference in delivery terms to eliminate the effect of this difference on the price;
- Volume of sales and related discounts. E.g. Associated Enterprise 1 sells 5000 bicycles to Associated Enterprise 2 for US\$90 per bicycle, while it sells 1000 similar bicycles to an unrelated party. The effect of the differences in volume on price should be analyzed, and if the effect is material adjustments should be made based, perhaps, on volume discounts in similar markets⁴;
- Product characteristics. E.g. the uncontrolled transactions to an Unrelated Party in Figure 3 involve bicycles on which modifications have been made. However, the bicycles sold in the controlled transactions do not include these modifications. If the product modifications have a material effect on price, then the uncontrolled price should be adjusted to take into account this difference in price);
- Contractual terms. E.g. Associated Enterprise 1 sells the bicycles to Associated Enterprise 2 offering a 90 day credit term but the contract terms dictate that all sales to Unrelated Party are Cash On Delivery;
- Risk incurred. E.g. Associated Enterprise 1 is exposed to inventory risk related to sales by Associated Enterprise 2 and the risk that customers of Associated Enterprise 2 will default on their bicycle purchase loans; whereas in the transaction between Associated Enterprise 1 and Unrelated Party, the Unrelated Party is exposed to the inventory risk and the risk of its customers' default. This difference in risk allocation must be analyzed and its effect on price quantified before Associated Party 2's prices and Unrelated Party's prices can be considered comparable;
- Effects of geographical differences. E.g. Associated Enterprise 1 sells bicycles to Associated Enterprise 2 located in South Africa, while an Unrelated Party to which it also sells the same bicycles is located in Egypt. The only material difference that could be identified between the controlled and uncontrolled transactions concerns the locale. To perform adjustments to account for this difference one might have to consider, for example, differences in inflation rates between South Africa and Egypt, the competitiveness of the bicycle market in the two countries and differences in government regulations if relevant);

³ It is assumed that the circumstances relating to the controlled and uncontrolled transactions are similar. The only material difference that could be identified between the transactions is that the price relating to the controlled transaction is a delivered price (i.e. including transportation and insurance), while the uncontrolled transaction # 1 is made ex works, with the buyer taking responsibility from the named place of delivery, which is Associated Enterprise 1's factory. It is possible to perform reasonably accurate adjustments for this difference.

⁴ All figures and numeric examples are for practical purposes only. They do not reflect actual cases or actual arm's length figures or margins

6.2.2.6. Reasonably accurate adjustment may *not* be possible for:

- Unique and valuable trademarks (e.g. assuming Associated Enterprise 1 in Figure 1 is engaged in high value branded goods, e.g. watches instead of bicycles, and attaches its valuable trademark to the goods transferred in the controlled transaction, while uncontrolled transaction #1 concerns the transfer of goods that are not branded . The effect of the trademark on the price of a watch may be material. However it will be difficult, if not impossible, to adjust for effect of the trademark on price since the trademark is an intangible asset that is unique. If reasonably accurate adjustments cannot be made to account for a material product difference the CUP method may not be the appropriate method for the transaction); and
- Fundamental differences in the products (e.g. if the products being sold are significantly different from the products sold in the proposed comparable transaction it may not be possible to adjust for the product differences).

6.2.2.7. Notwithstanding the difficulties often associated with adjustments to address the sources of non-comparability described above, the need to make adjustments should not automatically prevent the use of the CUP method. It is often possible to perform reasonably accurate adjustments. If reasonable adjustments cannot be performed the reliability of the CUP method is decreased. In these circumstances another transfer pricing method may be more appropriate.

6.2.3. Strengths and Weaknesses of the CUP:

6.2.3.1. The strengths of the CUP method include that it:

- is a two-sided analysis as the price used reflects the agreed price between two unrelated parties to the transaction;
- avoids the issue of which of the related parties involved in the controlled transaction should be treated as the tested party for transfer pricing purposes;⁵
- involves a direct transactional comparison of a similar transaction between unrelated parties. That is, it is a more direct measure of the arm's length price than the other methods, all of which indirectly determine arm's length prices through evaluation of arm's length profits. As it is a more direct measure, the CUP method is less susceptible to differences in non transfer pricing factors (such as differences in the accounting treatment of costs between controlled and uncontrolled parties);
- It may be more readily used in instances such as, for example, transactions involving commodity products.

6.2.3.2. The weakness of the CUP method lies in the difficulty of finding comparable uncontrolled transactions in the light of the comparability standards that must be observed, particularly with respect to the comparability of products, intellectual property or services.

6.2.4. When to use the CUP Method

⁵ This issue arises if the other two traditional transaction methods are applied. The other traditional methods determine a transfer price from the perspective of the tested party in the analysis. For example, if the resale price method is used, the related party sales company is the tested party in the transfer pricing analysis. If the cost plus method is used, the related party manufacturer will be the tested party. The resulting transfer prices based on these two methods may very well differ from each other. The choice of the tested party is also significant in the transactional net margin method as further discussed below.

6.2.4.1. In cases where comparable uncontrolled transactions can be found the CUP method is typically a very reliable method to use in determining whether the terms of commercial and financial transactions between associated enterprises are arm's length. This implies that an examiner should always consider the feasibility of applying the CUP method. That is, an examiner should probably always consider whether it is possible to locate acceptable internal comparables and external comparables. Consequently, a question that should be asked in any analysis is whether one of the associated enterprises involved is engaged in transactions with independent enterprises.

6.2.4.2. In the example represented in Figure 1 above, this would involve two distinct questions: (i) whether Associated Enterprise 1 sells comparable bicycles to an Unrelated Party and (ii) whether Associated Enterprise 2 purchases comparable bicycles from one or more unrelated bicycle manufacturers. If the answer to either one of these questions is in the affirmative then the next step in the analysis is to determine the degree of comparability between the controlled and uncontrolled transactions based on the comparability factors.

6.2.4.3. External comparables may be difficult to find in practice unless the transactions involve a fairly common and homogeneous product or service. However, the advantages of the CUP method are great enough to warrant a significant effort to apply the method.

6.2.4.4. Experience indicates that the CUP method will be most useful in the following situations:

- one of the associated enterprises involved in the transaction is engaged in comparable uncontrolled transactions with an independent enterprise (i.e. an internal comparable is available). In such a case all relevant information on the uncontrolled transactions is available and it is therefore probable that all material differences between controlled and uncontrolled transactions will be identified; and
- the transactions involve commodity type products, but the differences between the products are minor.

6.2.5 Case Examples of use of the CUP Method:

6.2.5.1. Example 1: Comparable sales of same product

MCO, a manufacturer, sells the same product to both controlled and uncontrolled distributors. The circumstances surrounding the controlled and uncontrolled transactions are substantially the same, except that the controlled sales price is a delivered price and the uncontrolled sales are made f.o.b. MCO's factory (so the buyer takes responsibility for delivery costs of the goods for the remainder of their transit). Differences in the contractual terms of transportation and insurance generally have a definite and reasonably ascertainable effect on price, and adjustments are made to the results of the uncontrolled transaction to account for such differences. No other material difference has been identified between the controlled and uncontrolled transactions. As MCO is engaged in both controlled and uncontrolled transactions, it is likely that all material differences between the two transactions have been identified. In addition, the comparable uncontrolled price method is applied to an uncontrolled comparable with no product differences, and there are only minor contractual differences that have a definite and reasonably ascertainable effect on price. The results of this application of the comparable uncontrolled price method will therefore provide the most direct and reliable measure of an arm's length result.

6.2.5.2. Example 2: Effect of Trademark

The facts are the same as in Example 1 except that MCO affixes its valuable trademark to the property sold in the controlled transactions but does not affix its trademark to the property sold in the uncontrolled transactions. Under the facts of this case the effect on price of the trademark is material and cannot be reliably estimated. As there are material product differences for which reliable adjustments cannot be made the comparable uncontrolled price method is unlikely to provide a reliable measure of the arm's length result.

6.2.5.3 Example 3: Minor product differences

The facts are the same as in Example 1 except that MCO, which manufactures business machines, makes minor modifications to the physical properties of the machines to satisfy specific requirements of a customer in controlled sales. MCO does not however make these modifications in uncontrolled sales. Only if the minor physical differences in the product have a material effect on prices should adjustments be made to the results of the uncontrolled transactions to account for these differences. These adjusted results may then be used as a measure of the arm's length result.

6.2.5.4. Example 4: Effect of geographic differences

FM, a specialty radio manufacturer, sells its radios to a controlled distributor, AM, within the western region of Country A. FM sells its radios to uncontrolled distributors to serve other regions in Country A. The product sold in the controlled and uncontrolled transactions is the same and all other circumstances surrounding the controlled and uncontrolled transactions are substantially the same other than the geographic differences. If the geographic differences are unlikely to have a material effect on price, or they have definite and reasonably ascertainable effects for which adjustments are made, then the adjusted results of the uncontrolled sales may be used under the comparable uncontrolled price method to establish an arm's length price. If the effects of the geographic differences would be material but cannot be reliably ascertained, then the reliability of the results will be diminished. However, the comparable uncontrolled price method may still provide the most reliable measure of an arm's length result.

6.2.6. Resale Price Method

6.2.6.1. The resale price method is one of the traditional transaction methods that can be used to determine whether a transaction reflects the arm's length principle. The resale price method focuses on the related sales company which performs marketing and selling functions as the tested party in the transfer pricing analysis. This is depicted in Figure 2 below.⁶

⁶ All figures used in this and subsequent examples, such as gross margins and net margins, are for illustrative purposes only. They do not reflect actual cases or actual arm's length figure or margins, but are used for ease of calculation

Figure 2: Resale Price Method



Given price	=	US\$ 100
<u>Resale price margin (25%)</u>	=	US\$ 25
Arm's Length Price	=	US\$ 75

6.2.6.2. Application of the Resale Price Method. The resale price method analyzes the price of a product that a related sales company (i.e. Associated Enterprise 2 in Figure 2) charges to an unrelated customer (i.e. the resale price) to determine an arm's length gross margin, which the sales company retains to cover its sales, general and administrative (SG&A) expenses, and still make an appropriate profit. The appropriate profit level is based on the functions it performs and the risks it incurs. The remainder of the product's price is regarded as the arm's length price for the intercompany transactions between the sales company (i.e. Associated Enterprise 2) and a related company (i.e. Associated Enterprise 1). As the method is based on arm's length gross profits rather than directly determining arm's length prices (as with the CUP method) the resale price method requires less direct transactional (product) comparability than the CUP method.

6.2.6.3. Consequently, under the resale price method the starting point of the analysis for using the method is the sales company. Under this method the transfer price for the sale of products between the sales company (i.e. Associated Enterprise 2) and a related company (i.e. Associated Enterprise 1) can be described in the following formula:

TP = RSP x (1-GPM), where:

- TP = the Transfer Price of a product sold between a sales company and a related company;
- RSP = the Resale Price at which a product is sold by a sales company to unrelated customers; and
- GPM = the Gross Profit Margin that a specific sales company should earn, defined as the ratio of gross profit to net sales. Gross profit is defined as Net Sales minus Cost of Goods Sold.

6.2.6.3. Example: It is assumed that the resale price in Figure 2 is \$100. This means that Associated Enterprise 2 resells the bicycle to Independent Enterprise for \$100. If we assume that an arm's length gross profit margin that Associated Enterprise 2 should earn is 25%, Associated Enterprise 2 should cover its SG&A expenses and make an appropriate profit with this 25% gross margin. The resulting transfer price between Associated Enterprise 1 and Associated Enterprise 2 (i.e. the cost of goods sold of Associated Enterprise 2) is \$75 (i.e. \$100 x (1-0.25)).

6.2.6.4. Other approaches are possible. For example, if the associated enterprise acts as a sales agent that does not take title to the goods, it is possible to use the commission earned by the sales agent represented as a percentage of the uncontrolled sales price of the goods concerned as the comparable gross profit

margin. The resale price margin for a reseller should always be determined by taking into account the functions performed, assets used and risks assumed by the reseller.

6.2.7. Arm's Length Gross Profit Margin:

6.2.7.1. The financial ratio analyzed under the resale price method is the gross profit margin. Gross profit is defined as net sales minus cost of goods sold. It is easiest to determine where the reseller does not add substantially to the value of the product. The net sales of a sales company are the sales revenue obtained by selling products to unrelated customers, while the cost of goods sold equals the cost of purchasing the goods sold plus certain additional non-operating costs. Thus, if we are determining the gross margin for products purchased from a related company the cost of goods sold will include the transfer price paid to the related manufacturer.

6.2.7.2. Accounting consistency is extremely important in applying the resale price method. Gross profit margins will not be comparable if accounting principles and/or practices differ between the controlled transaction and the uncontrolled transaction. For example, the comparable distributors may differ from the related sales company in reporting certain costs (e.g. discounts, transportation costs, insurance and costs of performing the warranty function) as operating expenses or as cost of goods sold. Differences in inventory valuation methods will also affect the gross margins. It is thus important that the analysis does not compare "apples with oranges" but rather, "apples with apples". Therefore, appropriate adjustments should be applied to the data used in computing the gross margin to make sure that 'similar' gross margins are compared.

6.2.8. Transactional comparison versus functional comparison:

6.2.8.1. The arm's length price or margin can result from looking at comparable functionality (distributors of broadly similar types of product) or from making a transactional comparison by looking at each transaction the tested party engages in involving comparable products (i.e. sales of different types of bicycles).

6.2.8.2. The arm's length (range of) gross profit margin(s) to be earned by the sales company in the controlled transaction can therefore be determined in the following two ways:

- By transactional comparison: For example, one could determine the gross profit margin that Associated Enterprise 2 earns when reselling bicycles purchased from an independent manufacturer in comparable uncontrolled transaction. This uncontrolled transaction may initially have been rejected as an internal comparable for purposes of applying the CUP method because, for example, the transaction involves a different type of bicycle. If the sale of recreational bicycles is at issue, but the unrelated transactions involve rickshaws, taxibikes this may involve broadly similar products with comparable accounting measures of Costs of Goods Sold (COGS) making gross margin comparisons sufficiently reliable; and
- By functional comparison: the gross profit margins earned by independent companies in comparable uncontrolled transactions performing functions and incurring risks comparable to the functions performed and risks incurred by Associated Enterprise 2. Functional comparison thus involves a search for comparable distribution companies rather than comparable transactions. This could, for example, include comparable distributors of wheelbarrows and carts.

6.2.8.3. In practice transactional comparisons are more likely to achieve broad product and accounting consistency than functional comparisons. This means that it is sometimes not necessary to conduct a resale price analysis for each individual product line distributed by a sales company under this method. Instead, the resale price method is used in those situations to determine the gross margin a sales company should earn over its full range of (aggregated) products.

6.2.9 Comparability in applying the resale price method,

6.2.9.1. An uncontrolled transaction is considered comparable to a controlled transaction if:

- there are no differences between the transactions being compared that materially affect the gross margin (for example, contractual terms, freight terms, etc.); or
- reasonably accurate adjustments can be performed to eliminate the effect of such differences.

6.2.9.2. As noted above, the resale price method is more typically applied on a functional than on a transactional basis so functional comparability is typically more important than product comparability. Product differences will probably be less critical for the resale price method applied on a functional basis than for the CUP method, because it is less probable that product differences will have a material effect on profit margins than on price. One would expect a similar level of compensation for performing similar functions across different activities.

6.2.9.3. While product differences may be more acceptable in applying the resale price method as compared to the CUP Method, the property transferred should still be broadly similar in the controlled and uncontrolled transactions. Broad differences are likely to reflect differences in functions performed, and therefore gross margins earned, at arm's length.

6.2.9.4. Example: The compensation for a distribution company should be the same whether it sells washing machines or dryers, because the functions performed (including risks assumed and assets used) are similar for the two activities.⁷ The price of a washing machine will, of course, differ from the price of a dryer, as the two products are not substitutes for each other. Although product comparability is less important under the resale price method, greater product similarity is likely to provide more reliable transfer pricing results. It is not always necessary to conduct a resale price analysis for each individual product line distributed by the sales company. Instead, the resale price method can be applied more broadly, for example based on the gross margin a sales company should earn over its full range of broadly similar products.

6.2.9.5. As the gross profit margin remunerates a sales company for performing marketing and selling functions, the resale price method especially depends on comparability regarding functions performed, risks assumed and assets used. The resale price method thus focuses on functional comparability. A similar level of compensation is expected for performing similar functions across different activities. If there are material differences that affect the gross margins earned in the controlled and the uncontrolled transactions, adjustments should be made to account for such differences. In general comparability adjustments should be performed on the gross profit margins of the uncontrolled transactions. The operating expenses in connection with the functions performed and risks incurred should be taken into

⁷ It should be noted, however, that distributors engaged in sale of markedly different products cannot be compared

account in this respect as differences in functions performed are frequently reflected in different operating expenses.

6.2.9.6. The following issues should be considered in determining whether the functions performed by an uncontrolled entity are comparable to the functions performed by a controlled entity for purposes of applying the resale price method:

- In contrast to the CUP method, the reliability of the resale price method can be influenced by factors that have less effect on the price of a product than on the costs of performing functions. Such differences could affect gross margins even if they do not affect the arm's length prices of products (e.g. the composition of COGS). These factors could include cost structures (e.g. accounting practices), business experience (e.g. start-up phase or mature business) or management efficiency;
- A resale price margin requires particular attention where the reseller adds substantially to the value of the product, for example by assisting considerably in the creation or maintenance of intangible property related to the product (e.g. trademarks or trade names) or where goods are further processed into a more complicated product by the reseller before resale);
- The amount of the resale price margin will be affected by the level of activities performed by the reseller. For example, the distribution services provided by a reseller acting as a sales agent will be less extensive than those provided by a reseller acting as a buy-sell distributor. The buy-sell distributor will obviously obtain a higher compensation than the sales agent;
- If the reseller performs a significant commercial activity in relation to the resale activity itself, or if it employs valuable and unique assets in its activities (e.g. valuable marketing intangibles of the reseller), it may earn a higher gross profit margin;
- The comparability analysis should try to take into account whether the reseller has the exclusive right to resell the goods, because exclusive rights may affect the resale price margin;
- The analysis should consider differences in accounting practices that apply to the reseller and to comparable companies in order to make appropriate adjustments to enhance comparability;
- The reliability of the analysis will be affected by differences in the value of the products distributed, for example, as a result of a valuable trademark.

6.2.9.7. It should be recognized that returns to similar functions may not be the same in different markets. Generally, reliability is enhanced when the reseller and the comparable companies are operating in the same market

6. 2.10 Strengths and Weaknesses of the resale price method

6.2.10.1. The strengths of the resale price method include:

- The method is based on the resale price, a market price, and thus represents a demand driven method; in situations where there is a weak relationship between the costs incurred and the sales price of a product or services (e.g. when demand is inelastic), the resale price may be more reliable;
- The method can be used without forcing distributors to inappropriately make profits. The distributor earns an arm's length gross profit margin, however, but could have operating losses due, for example, to high selling expenses caused by business strategies such as a market penetration strategy;. By comparison, the application of the transactional net margin method, which analyses a financial ratio based on operating profits, will generally result in an arm's length range of positive operating profits. The tested party in the analysis would then probably also earn a positive operating profit within the

range. However, the resale price method does not necessarily result in positive operating profits to be earned by the tested party.

6.2.10.2. The weaknesses of the resale price method include:

- It may be difficult to find comparable data on gross margins due to accounting inconsistencies; and
- The method involves a one-sided analysis, as its focus is on the related sales company as the tested party in the transfer pricing analysis. It is possible that the arm's length gross profit margin and hence transfer price, which is based on a benchmarking analysis, can lead to an extreme result for the related supplier of the sales company (e.g. the supplier might experience a loss even though its supplier is profitable).

6.2.11. When to use the Resale Price Method

6.2.11.1. In a typical intercompany transaction involving a fully-fledged manufacturer owning valuable patents or other intangible properties and affiliated sales companies which purchase and resell the products to unrelated customers, the resale price method is an appropriate method to use if:

- the CUP method is not applicable;
- the sales companies do not own valuable intangible properties; and
- reliable comparisons can be made on COGS.

6.2.11.2. It is useful to consider the example of Figure 2. It is assumed here that Associated Enterprise 1 owns valuable patents to manufacture the bicycles and a valuable trade name. Associated Enterprise 2 purchases the bicycles from Associated Enterprise 1 and resells the bicycles to unrelated dealers in the local country. In such a case, the resale price method will be selected to determine an arm's length transfer price between Associated Enterprise 1 and Associated Enterprise 2 if the CUP method cannot be applied. The cost plus method (discussed below) will not be selected in this case, because:

- The fully-fledged manufacturer (i.e. Associated Enterprise 1) owns valuable intangibles, performs R&D activities and generally has operations that are more complex than those of the sales company (i.e. Associated Enterprise 2);
- The results obtained from applying the cost plus method will not be as reliable as the results obtained from applying the resale price method that uses the sales company as the tested party; and
- It will be very difficult, if not impossible, to identify manufacturers comparable to Associated Enterprise 1 (i.e., that own comparable intangible properties) when applying the cost plus method.

6.2.11.3. The resale price method will establish the transfer price by reference to the resale or gross margins (gross profit/net sales) earned by third party resellers (assuming that internal comparison is not possible) and compare them to the gross margin earned by Associated Enterprise 2 on the bicycles purchased from related parties.

6.2.11.4. The resale price method may also be applied in a commissionaire / commission agent structure involving a principal and related commissionaires / commission agents. In this case, the resale price method will establish an arm's length commission to be earned by the commissionaires / commission agents.

6.2.12. Case Examples of the Resale Price Method

6.2.12.1 Example 1

A controlled taxpayer sells property to another member of its controlled group that resells the property in uncontrolled sales. It is for all practical purposes assumed that there are no changes in the beginning and ending inventory for the year under review. Information regarding an uncontrolled comparable is sufficiently complete to conclude that it is likely that all material differences between the controlled and uncontrolled transactions have been identified and adjusted for. If the applicable resale price of the property involved in the controlled sale is \$100 and the appropriate gross profit margin is 20%, then an arm's length result of the controlled sale is a price of \$80 (\$100 minus (20%×\$100)).

6.2.12.2 Example 2

(i) SCO, a Country B corporation, is the distributor for FP, its foreign parent. There are no changes in the beginning and ending inventory for the year under review. SCO's total reported cost of goods sold is \$800, consisting of \$600 for property purchased from FP and \$200 for other costs of goods sold incurred to unrelated parties. SCO's applicable resale price and reported gross profit are as follows:

Applicable resale price.....	\$1000
Cost of goods sold:	
Cost of purchases from FP.....	600
Costs incurred to unrelated parties.....	200
Reported gross profit.....	200

(ii) The local taxing authority determines that the appropriate gross profit margin is 25%. Therefore, SCO's appropriate gross profit is 250 (i.e. 25% of the applicable resale price of \$1000). As SCO is incurring costs of sales to unrelated parties, an arm's length price for property purchased from FP must be determined under a two-step process. First, the appropriate gross profit (\$250) is subtracted from the applicable resale price (\$1000). The resulting amount (\$750) is then reduced by the costs of sales incurred to unrelated parties (\$200). Therefore, an arm's length price for SCO's cost of sales of FP's product in this case equals \$550 (i.e., \$750 minus \$200) and not \$600.

6.2.12.3 Example 3

FM, a foreign manufacturer, sells Product to UCO, its subsidiary in Country U, which in turn sells Product to its domestic affiliate BCO. BCO sells Product to unrelated buyers. In this case, the applicable resale price is the price at which BCO sells Product in uncontrolled transactions. The determination of the appropriate gross profit margin for the sale from UCO to BCO will take into account the functions performed by UCO and BCO, as well as other relevant factors.

6.2.12.4. Example 4

TCO, a Country T corporation, is the exclusive distributor of products for its foreign parent. To determine whether the gross profit margin of 25% earned by TCO is an arm's length result, the local taxing authority considers applying the resale price method. There are several uncontrolled distributors that perform similar functions under similar circumstances in uncontrolled transactions. However, the uncontrolled distributors

treat certain costs such as discounts and insurance as cost of goods sold, while TCO treats such costs as operating expenses. In such cases, accounting reclassifications must be made to ensure consistent treatment of such material items. Inability to make such accounting reclassifications will decrease the reliability of the results of the uncontrolled transactions.

6.2.12.5 Example 5

(i) WCO, a Country W corporation, manufactures Product Z, an unbranded product, and sells it to RCO, its wholly owned foreign subsidiary. RCO acts as a distributor of Product Z in Country R, and sells it to uncontrolled parties in that country. Uncontrolled distributors A, B, C, D, and E distribute competing products of approximately similar value in Country R. All such products are unbranded.

(ii) Relatively complete data is available regarding the functions performed and risks borne by the uncontrolled distributors and the contractual terms under which they operate in the uncontrolled transactions. In addition, data is available to ensure accounting consistency between all of the uncontrolled distributors and RCO. As the available data is sufficiently complete and accurate to conclude that it is likely that all material differences between the controlled and uncontrolled transactions have been identified; such differences have a definite and reasonably ascertainable effect; and reliable adjustments are made to account for such differences, the results of each of the uncontrolled distributors may be used to establish an arm's length range.

6.2.12.6. Example 6

The facts are the same as in Example 5, except that sufficient data is not available to determine whether any of the uncontrolled distributors provide warranties or to determine the payment terms of the contracts. As differences in these contractual terms could materially affect price or profits, the inability to determine whether these differences exist between the controlled and uncontrolled transactions diminishes the reliability of the results of the uncontrolled comparables. However, the reliability of the results may be enhanced by the application of a statistical method when establishing an arm's length range.

6.2.12.7. Example 7

(i) The facts are the same as in Example 5, except that Product Z is branded with a valuable trademark that is owned by WCO. A, B, and C distribute unbranded competing products, while D and E distribute products branded with other trademarks. D and E do not own any rights in the trademarks under which their products are sold. The value of the products that A, B, and C sell are not similar to the value of the products sold by S. The value of products sold by D and E, however, is similar to that of Product X.

(ii) Although close product similarity is not as important for a reliable application of the resale price method as for the comparable uncontrolled price method, significant differences in the value of the products involved in the controlled and uncontrolled transactions may affect the reliability of the results. In addition, because in this case it is difficult to determine the effect the trademark will have on price or profits, reliable adjustments for the differences cannot be made. Because D and E have a higher level of comparability than A, B, and C with respect to S, only D and E may be included in determining the arm's length gross margin.

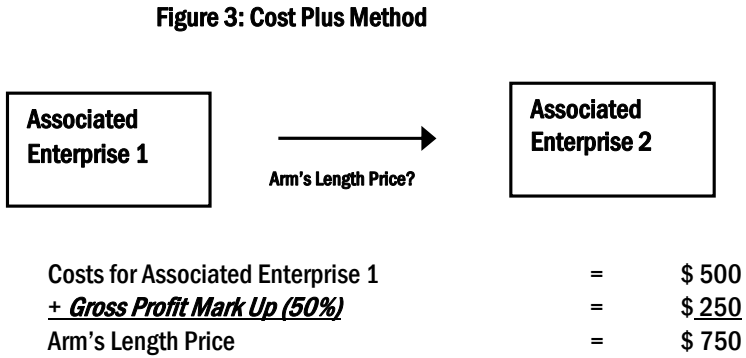
6.2.13 Cost Plus Method

6.2.13.1. In a controlled transaction involving tangible property the cost plus method focuses on the related manufacturing company as the tested party in the transfer pricing analysis. The cost plus method may also be used in the case of services rendered.

6.2.13.2. The cost plus method begins with the costs incurred by the supplier of property (or services) in a controlled transaction for property transferred or services provided to a related purchaser. An appropriate cost plus mark-up is then added to this cost, to make an appropriate gross profit in light of the functions performed, risks assumed, assets used and market conditions.

6.2.13.3. The cost plus method is used to analyze transfer pricing issues involving tangible property or services. It is typically most usefully applied to manufacturing or assembling activities and relatively simple service providers. The cost plus method focuses on the related party manufacturer or service provider as the tested party in the transfer pricing analysis. The method evaluates the arm’s-length nature of an intercompany charge by reference to the gross profit mark-up on costs incurred by suppliers of property (or services) for tangible property transferred (or services provided). It compares the gross profit mark-up earned by the tested party for manufacturing the product or for providing the service to the gross profit mark-ups earned by comparable companies.

Figure 3: Cost Plus Method⁸



Like the resale price method, the cost plus method is a gross margin method; that is, it attempts to derive an arm’s length amount of gross profit, in this case through an arm’s length mark-up on COGS.

6.2.13.4. Figure 3 explains this further. Associated Enterprise 1, an electrical goods manufacturer in country 1, manufactures (under contract for) Associated Enterprise 2. Associated Enterprise 2 instructs Associated Enterprise 1 on the quantity and quality of the goods to be produced. Associated Enterprise 1 will be guaranteed sales to Associated Enterprise 2 and will face little risk. As Associated Enterprise 1 is less

⁸ All figures and numeric examples are for practical purposes only. They do not reflect actual cases or actual arm’s length figures or margins

complex in terms of functions and risks than Associated Enterprise 2, the analysis under the CUP method would focus on Associated Enterprise 1 as the tested party. Since Associated Enterprise 1 is a simple manufacturer, the cost plus method may be the best method of analysis in this case. The cost plus method analyses whether the gross profit mark-up earned by Associated Enterprise 1 is arm's length by reference to the gross profit margins earned by companies manufacturing comparable goods for (or providing comparable services to) unrelated parties. The cost plus method thus does not directly test whether the transfer price is arm's length by comparing prices. As such, it is a less direct (transactional) method compared to the CUP method.

6.2.14 Mechanism of the Cost Plus Method:

6.2.14.1. Under the cost plus method (when applied to sales of tangible property) an arm's-length price equals the controlled party's cost of producing the tangible property plus an appropriate gross profit mark-up, defined as the ratio of gross profit to cost of goods sold (excluding operating expenses) for a comparable uncontrolled transaction.

6.2.14.2. The formula for the transfer price in intercompany transactions of products is as follows: $TP = COGS \times (1 + \text{cost plus mark-up})$, where:

- TP = the Transfer Price of a product sold between a manufacturing company and a related company;
- COGS = the cost of goods sold to the manufacturing company;
- Cost plus mark-up = gross profit mark-up defined as the ratio of gross profit to cost of goods sold. Gross profit is defined as sales minus cost of goods sold.

6.2.14.3. Example: It is assumed that the COGS in Figure 3 is \$500. If it is assumed also that an arm's length gross profit mark-up that Associated Enterprise 1 should earn is 50%, the resulting transfer price between Associated Enterprise 1 and Associated Enterprise 2 is \$750 (i.e. $\$500 \times (1 + 0.50)$).

6.2.15 Arm's Length Gross Profit Mark-up for Cost Plus Method

6.2.15.1. The financial ratio considered under the cost plus method is the gross profit mark-up, which is defined as the gross profit to cost of goods sold ratio of a manufacturing company. As discussed above, gross profit equals net sales minus cost of goods sold. For a manufacturing company, cost of goods sold equals the cost of producing the goods sold. It includes direct labour costs, direct material costs and factory overheads associated with production.

6.2.15.2. As with the resale price method, accounting consistency is extremely important in applying the Cost Plus Method. Application of different accounting principles to the controlled and the uncontrolled transaction may result in inconsistent calculation of the gross profit. Appropriate adjustments of accounting principles may be necessary to ensure that gross profit mark-ups are calculated uniformly for the tested party and the comparable companies. For example, the comparable manufacturers may differ from the related party manufacturer in reporting certain costs (e.g. costs of R&D) as operating expenses or as cost of goods sold. Differences in inventory valuation methods will also affect the computation of the gross profit mark-up.

6.2.15.3. The costs and expenses of a company normally fall into the following three groups: (1) direct cost of producing a product or service (e.g. cost of raw materials); (2) indirect costs of production (e.g. costs of a

repair department that services equipment used to manufacture different products); and (3) operating expenses (e.g. SG&A expenses). The gross profit margin used in the cost plus method is a profit margin that is calculated by subtracting only the direct and indirect costs of production from the sales price. In contrast, a net margin analysis would also consider operating expenses. Due to differences in accounting conventions among countries, the boundaries between the three groups of costs and expenses are not the same in each and every case. Suitable adjustments may need to be made. In a situation in which it is necessary to consider certain operating expenses to obtain consistency and comparability, a net margin method will typically be more reliable than the cost plus method, as discussed below.

6.2.15.4. Example: It is assumed that Associated Enterprise 1, a bicycle manufacturer that manufactures bicycles under contract for Associated Enterprise 2, earns a gross profit mark-up of 15 percent on its cost of goods sold and classifies certain expenses (like warranty expenses) as operating expenses that are not part of cost of goods sold. Four comparable independent manufacturers are identified which earn gross profit mark-ups between 10 to 15 percent. However, these comparable companies account for those particular (warranty) expenses as cost of goods sold. The unadjusted gross profit mark-ups of these comparables are thus not calculated on the same basis as the gross profit mark-up of Associated Enterprise 1. Unless reliable adjustments may be made to the calculation of the gross profit mark-ups of the uncontrolled transactions or, in the alternative, of Associated Enterprise 1, for purposes of consistency, a net margin method may be more reliable.

6.2.16 Transactional comparison versus functional comparison

6.2.16.1. The arm's length price or margin can result from looking at comparable functionality (manufacturers of broadly similar types of product) or from making a transactional comparison by looking at each transaction the tested party engages in involving comparable products (e.g. manufacturing of different types of bicycle).

6.2.16.2. The arm's length (range of) gross profit mark-ups can be established in the following two ways:

- transactional comparison: the gross profit mark-up earned by the related party manufacturer when selling goods to an independent enterprise in a comparable uncontrolled transaction, which previously has been rejected as an internal comparable for purposes of applying the CUP method because for example, it involves different models of bicycle. If for example the controlled transaction involves the manufacturing of recreational bicycles, but the unrelated transactions involve rickshaws, taxibikes, etc. , these may involve broadly similar products, with comparable accounting measures of COGs making gross margin comparisons sufficiently reliable; and
- functional comparison: the gross profit mark-ups earned by independent companies performing functions and incurring risks comparable to the functions performed and risks incurred by the related party manufacturer. Functional comparison involves a search for comparable manufacturing companies.

6.2.16.3. In practice, transactional comparisons are more likely to achieve the broad product and accounting consistency required for the cost plus method than functional comparisons. In a transactional comparison much more information about the controlled and uncontrolled transactions is available (e.g. contractual terms). In a functional comparison that is based on information provided in publicly available databases and in the annual reports of comparable companies and the tested party, much less specific information is available with respect to the functions performed and risks incurred by the companies.

Consequently, it would be more likely in these circumstances that a net margin method would be used (see below).

6.2.16.4. Based on benchmarking and financial analyses an arm's length range of gross profit mark-ups earned by comparable independent manufacturers will be determined. If the gross profit mark-up earned by the related party manufacturer falls within this range, then its transfer price will be considered arm's length.

6.2.17. Comparability

6.2.1.17.1 An uncontrolled transaction is considered comparable to a controlled transaction in applying the cost plus method if:

- there are no differences between the transactions being compared that materially affect the gross profit mark-up; or
- reasonably accurate adjustments can be performed to adjust for the effect of such differences.

6.2.1.17.2. As with the resale price method, and for the same reasons, close similarity of products in the controlled and uncontrolled transactions is less important under the cost plus method than under the CUP method, while functional comparability (including comparability of risks assumed and assets used) is more important. However, because significant differences in products may necessarily result in significant differences in functions the controlled and uncontrolled transactions should ideally involve the manufacturing of products within the same product family.

6.2.1.17.3. As the gross profit mark-up remunerates a manufacturing company for performing a manufacturing function the cost plus method necessarily requires functional comparability. If there are material differences in functions performed that affect the gross profit mark-ups achieved on the controlled and the uncontrolled transactions, adjustments should be made to account for such differences. In general comparability adjustments should be made on the gross profit mark-ups of the uncontrolled transactions. Sometimes the operating expenses in connection with the functions performed and risks incurred will be taken into account as differences in functions performed may be reflected in the operating expenses.

6.2.18. Determination of Costs

6.2.18.1. Application of the cost plus method entails a number of potential difficulties associated with the determination of the costs (in addition to those associated with inconsistent accounting treatment):

- The link between costs incurred and the market price can be very weak so that gross profit margins can vary greatly each year;
- It is important to apply a comparable mark-up to a comparable cost basis;
- Differences between the tested party and comparables should be identified. In this respect, it is crucial to consider differences in the level and types of expenses in connection with the functions performed and risks assumed between the controlled and uncontrolled transactions. If differences merely represent the differing efficiency of the parties being compared, no adjustment to the gross profit mark-up should be made. If, however, additional functions are being performed by the tested party,

then it may be necessary to determine an appropriate additional return to such function and permit a separate return for these additional functions. Similarly, if the comparables perform functions not performed by the tested party, then the return for such functions should be subtracted from the gross profit margin applied to the Controlled Transactions of the tested party;

- Careful consideration should be given to what costs should be excluded from the cost basis. An example of costs that should be excluded are particular costs that are passed-through (that is, costs explicitly not subject to a mark-up) in both the tested party and comparable transactions.
- As with the resale price method, accounting consistency is extremely important. Gross profit mark-ups should be calculated uniformly by the associated enterprise and the independent enterprises.
- • Historical costs should in principle be ascribed to individual units of production. If costs differ over a period, average costs over the period may be used.
- • One can use either budgeted cost or actual cost in applying the cost plus method. On the one hand using actual costs will better reflect the risks faced by the contract manufacturer.⁹ On the other hand, third parties will usually use budgeted costs in selling products to the market. That is, they will not charge the customer an additional amount at the end of the year if actual costs are higher than budgeted costs.
- As the costs considered in using the cost plus method are only those of the manufacturer of the goods or the service provider, a problem may arise with respect to the allocation of some costs between the manufacturer or service provider and the purchaser of goods or services.

6.2.19 Strengths and Weaknesses:

6.2.19.1. The strength of the cost plus method is that the method is based on internal costs, the information on which is usually readily available to the multinational enterprise.

6.2.19.2. The weaknesses of the cost plus method include the following:

- there may be a weak link between the level of costs and the market price;
- the data on mark-up gross margins may not be comparable due to accounting inconsistencies and other factors;
- accounting consistency is required between the controlled and uncontrolled transactions;
- the analysis focuses only on the related party manufacturer; and
- since the method is based on actual costs, there may be no incentive for the controlled manufacturer to control costs.

6.2.20 When to Use the Cost Plus Method

6.2.20.1. The cost plus method is typically applied in cases involving the intercompany sale of tangible property where the related party manufacturer performs limited manufacturing functions or in the case of the intra group provision of services. The method usually assumes the incurrence of low risks, because the level of the costs will then better reflect the value being added and hence the market price.

⁹ Note that if the contract is based on actual costs, the contractual terms may include incentives or penalties depending on the performance of the contract manufacturer.

6.2.20.2. The cost plus method is also generally used in transactions involving a contract manufacturer, a toll manufacturer or a low risk assembler which does not own product intangibles and incurs little risks. The related customer involved in the controlled transaction will generally be much more complex than the contract manufacturer in terms of functions performed (e.g. conducting marketing and selling functions, coordination of production and sales, giving instructions to the contract manufacturer about the quantity and quality of production, and purchasing raw materials in some cases), risks incurred (e.g. market risk, credit risk and inventory risk) and assets owned (product intangibles). The contract manufacturer is thus the less complex and as such should be the tested party in the transfer pricing analysis.

6.2.20.3. The cost plus method is usually not a suitable method to use in transactions involving a fully-fledged manufacturer which owns valuable product intangibles as it will be very difficult to locate independent manufacturers owning comparable product intangibles. That is, it will be hard to establish a profit mark-up that is required to remunerate the fully-fledged manufacturer for owning the product intangibles. In a typical transaction structure involving a fully-fledged manufacturer and related sales companies (e.g. commissionaires), the sales companies will normally be the least complex entities involved in the controlled transactions and will therefore be the tested party in the analysis. The resale price method is typically more easily applied in such cases.

6.2.21 Case Examples of Cost Plus Method:

6.2.21.1. Example 1

(i) LCO, a domestic manufacturer of computer components, sells its products to FS, its foreign distributor. UT1, UT2, and UT3 are domestic computer component manufacturers that sell to uncontrolled foreign purchasers;

(ii) Relatively complete data is available regarding the functions performed and risks borne by UT1, UT2, and UT3, and the contractual terms in the uncontrolled transactions. In addition, data is available to ensure accounting consistency between all the uncontrolled manufacturers and LCO. As the available data is sufficiently complete to conclude that it is likely that all material differences between the controlled and uncontrolled transactions have been identified, the effect of the differences is definite and reasonably ascertainable, and reliable adjustments are made to account for the differences an arm's length range can be established.

6.2.21.2. Example 2

The facts are the same as in Example 1 except that LCO accounts for supervisory, general, and administrative costs as operating expenses, which are not allocated to its sales to FS. The gross profit mark-ups of UT1, UT2, and UT3, however, reflect supervisory, general, and administrative expenses because they are accounted for as costs of goods sold. Accordingly, the gross profit mark-ups of UT1, UT2, and UT3 must be adjusted to provide accounting consistency. If data is not sufficient to determine whether such accounting differences exist between the controlled and uncontrolled transactions the reliability of the results will decrease.

6.2.21.3. Example 3

The facts are the same as in Example 1 above, except that under its contract with FS, LCO uses materials consigned by FS. UT1, UT2, and UT3, on the other hand, purchase their own materials, and their gross profit mark-ups are determined by including the costs of the materials. The fact that LCO does not carry an inventory risk by purchasing its own materials while the uncontrolled producers carry inventory is a significant difference that may require an adjustment if the difference has a material effect on the gross profit mark-ups of the uncontrolled producers. Inability to reasonably ascertain the effect of the difference on the gross profit mark-ups will affect the reliability of the results of UT1, UT2, and UT3.

6.2.21.4. Example 4

(i) FS, a foreign corporation, produces apparel for PCO, its parent corporation. FS purchases its materials from unrelated suppliers and produces the apparel according to designs provided by PCO. The local taxing authority identifies 10 uncontrolled foreign apparel producers that operate in the same geographic market and are similar in many respects to FS;

(ii) Relatively complete data is available regarding the functions performed and risks borne by the uncontrolled producers. In addition, data is sufficiently detailed to permit adjustments for differences in accounting practices. However, sufficient data is not available to determine whether it is likely that all material differences in contractual terms have been identified. For example, it is not possible to determine which parties in the uncontrolled transactions bear currency risks. As the differences in these contractual terms could materially affect price or profits, the inability to determine whether differences exist between the controlled and uncontrolled transactions will diminish the reliability of these results. Therefore, the reliability of the results of the uncontrolled transactions must be enhanced.

6.3. Transactional Profit Methods

6.3.1. Introduction

6.3.1.1. This part of the chapter discusses transactional profit methods, which analyze the profits arising from particular controlled transactions in order to determine whether a transfer price is arm's length. Transactional Profit Methods can be divided into two categories; the Transactional Net Margin Method (TNMM) and the Transactional Profit Split Method (PS).

6.3.1.2. These methods differ from traditional methods in that the analysis is not necessarily based on particular comparable uncontrolled transactions involving identical or perhaps even broadly comparable products. Often, and depending on the facts and circumstances, the analysis is based on the net return (the earnings determined before interest and tax and extraordinary items, i.e. EBIT) realized by various companies engaged in a particular line of business (that is, a series of transactions that are appropriate to be aggregated). Among other situations, these methods may be applied when one or more of the associated enterprises contributes valuable intangible assets (such as technology intangibles) in performing transactions with other associated enterprises and the appropriate return for the use of those intangible assets must be determined.

6.3.1.3. It is rare that enterprises use transactional profit methods to actually determine their prices. However the profit resulting from a controlled transaction might be quite a good signal to establish whether the transaction was affected by conditions that differ from those that would have been made by

independent enterprises in otherwise comparable circumstances. Where complexities make the application of the traditional transaction methods addressed in the previous chapter unreliable, transactional profit methods may prove to be a good solution.

6.3.1.4. Transactional profit methods and particularly the transactional net margin method are also commonly used by taxpayers for practical reasons. The transactional net margin method often provides a useful check on the accuracy/ reasonableness of the traditional transaction methods or is used to supplement these methods. It is also easier to find comparables in applying the transactional net margin method.

6.3.2. Transactional Net Margin Method

6.3.2.1. The TNMM examines the net profit margin 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 4.6 below. The TNMM looks at the profits of one of the related parties involved in a transaction, as do the cost plus and resale price methods. The party examined is referred to as the tested party.

6.3.2.2. The TNMM compares the net profit margin¹⁰ (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 it uses net margins to determine arm's length prices the TNMM is a less direct method than the cost plus / resale price method that compares gross margins. It is also an even more indirect method than the CUP method that directly compares prices. Many factors may affect net profit margins but may have nothing to do with transfer pricing.

6.3.2.3. The TNMM is used to analyze transfer pricing issues involving tangible property, intangible property or services. It may be applied when one of the associated enterprises employs intangible assets, the appropriate return to which cannot be determined directly. In such a case the arm's length compensation of the associated enterprise(s) not employing the intangible asset is determined by determining the margin realized by enterprises engaged in a similar function with unrelated parties. The remaining return is consequently left to the associated enterprise controlling the intangible asset. The return to the intangible asset is, in practice, a "residual category" being the return left over after other functions have been appropriately compensated at arm's length. This implies that the TNMM is applied to the least complex of the related parties involved in the controlled transaction. This approach has the added benefit that generally more comparable data are available and fewer adjustments are required to account for differences in functions and risks between the controlled and uncontrolled transactions. In addition, the tested party typically does not own valuable intangible property.

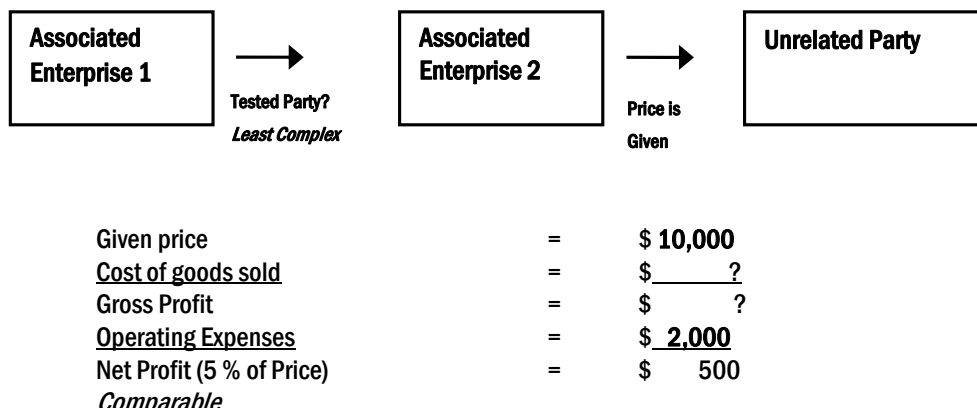
6.3.3. Definition and Choice of Tested Party

6.3.3.1. The application of the TNMM is similar to the application of the cost plus method or the resale price method, but the TNMM requires less product comparability than these methods and involves

¹⁰ For example, return on total costs, return on assets, and operating profit to net sales ratio

comparison of net rather than gross profit margins. Figure 4 below and the rest of this section will further illustrate this distinction.¹¹

Figure 4: Transactional Net Margin Method



Associated Enterprise 1, a bicycle manufacturer in country 1, sells bicycles to Associated Enterprise 2 which resells the bicycles to the independent enterprise, a bicycle dealer in country 2. Assume that Associated Enterprise 1 is the more complex party, controlling a variety of technology and operating intangibles. The CUP method would compare the price charged in the controlled transaction between Associated Enterprise 1 and Associated Enterprise 2 with the price charged in comparable uncontrolled transactions. If the CUP method cannot be applied, the next methods to consider are the cost plus and the resale price methods.

6.3.3.2. The cost plus method is likely to be relatively unreliable in this case because it would treat the more complex entity, Associated Enterprise 1, as the tested party. Given that Associated Enterprise 1 owns valuable intangible property, the resale price could be considered. Under the resale price method, the sales company, the least complex of the two entities involved in the controlled transaction, will be the tested party. The analysis would entail a search for distributors who sell broadly similar products, who perform functions and incur risks comparable to those of Associated Enterprise 2, and for whom appropriate data relating to gross profits can be obtained.

6.3.3.3. Sometimes it may be more reliable to choose the TNMM and compare net profits. If, for example, there is different reporting of the cost of goods sold and operating expenses for the tested party and the comparable distributors, so that the gross profit margins reported are not comparable and reliable adjustments cannot be made, the resale price method may be relatively unreliable. However this type of accounting inconsistency will not affect the reliability of the TNMM as this method examines net profit margins instead of gross profit margins. Also, as further discussed below, the fact that the TNMM requires less product comparability than the traditional transaction methods and as such has a greater tolerance to product differences and cost accounting differences compared to traditional transaction methods can be a significant practical benefit of using TNMM.

¹¹ All figures and numeric examples are for practical purposes only. They do not reflect actual cases or actual arm's length figures or margins

6.3.3.4. The application of the TNMM would entail an analysis of the least complex party – in this case the distributor. Consequently analysis would entail a search for comparable distributors taking into account the comparability standard of this method. An application of the TNMM focusing on the related party manufacturer as the tested party could be, for example, the situation in which Associated Enterprise 1 is a contract manufacturer. In such a case, the contract manufacturer will typically be the least complex entity as MNEs often separate the ownership of valuable technology intangibles from the manufacturing function. The cost plus method would normally be considered if the CUP method cannot be applied. However, due to the accounting inconsistency mentioned above, it may be appropriate to apply the TNMM using a financial ratio based on net profit margin that is appropriate for a manufacturer (e.g. return on total costs).

6.3.4. Mechanism of TNMM

6.3.4.1. The next question is how to determine the transfer price based on the application of the TNMM? The mechanism of the TNMM is similar to the mechanisms of the resale price and cost plus methods as can be seen in the following examples.

6.3.4.2. Related party distributor: In applying the resale price method to establish an arm’s length transfer price the market price of products resold by the related party distributor to unrelated customers (i.e. sales price) is known, while the arm’s length gross profit margin is determined based on a benchmarking analysis. The transfer price or cost of goods sold of the related party distributor is the unknown variable. Assuming a resale price of \$10,000 and a gross profit margin of 25%, the transfer price amounts to \$7,500.¹²

Table 1: Mechanism of Resale Price Method

	<u>Initially</u>	<u>Benchmarking analysis</u>	
Resale price	\$ 10,000	\$ 10,000	
<u>Cost of goods sold</u>	<u>\$?</u>	<u>\$ 7,500</u>	
Gross profit	\$?	\$ 2,500	(25 % of resale price)

6.3.4.3. The determination of an arm’s length transfer price based on the TNMM is more or less similar. The main difference from a gross margin analysis is that operating expenses are considered in calculating the transfer price. In applying the TNMM to the tested party distributor the resale price and the operating expenses of the related party distributor are known, while the arm’s length net profit margin (i.e. net profit to sales ratio)¹³ is found on the basis of a benchmarking analysis. The cost of goods sold and the gross profit are the unknown variables. Assuming a resale price of \$10,000, operating expenses of \$2,000 and an arm’s length net profit margin of 5%, using the TNMM the transfer price of \$7,500 is determined by working backwards using the available information. That is, a transfer price of \$7,500 is required to ensure that the distributor earns a net profit margin of 5%.¹⁴

¹² All figures and numeric examples are for practical purposes only. They do not reflect actual cases or actual arm’s length figures or margins

¹³ Net profit equals operating profit before interest and taxes.

¹⁴ All figures and numeric examples are for practical purposes only. They do not reflect actual cases or actual arm’s length figures or margins

Table 2: Mechanism of TNMM applied on Related Party Distributor

	Initially	Benchmarking analysis
Resale price	\$ 10,000	\$ 10,000
Cost of goods sold	\$?	\$ 7,500
Gross profit	\$?	\$ 2,500
Operating expenses	\$ 2,000	\$ 2,000
Operating profit	\$?	\$ 500 (5 % of resale price)

6.3.4.4. Related party manufacturer: In applying the cost plus method to establish an arm's length transfer price the cost of goods sold of the related party manufacturer is known. The arm's length gross profit mark-up is based on a benchmarking analysis. The transfer price or sales revenue of the related party manufacturer is the unknown variable. Assuming cost of goods sold of \$5,000 and a gross profit mark-up of 50%, the transfer price amounts to \$7,500:¹⁵

Table 3: Mechanism of Cost Plus Method

	Initially	Benchmarking analysis
Sales price	\$?	\$ 7,500
Cost of goods sold	\$ 5,000	\$ 5,000
Gross profit	\$?	\$ 2,500 (50 % of cost of goods sold)

6.3.4.5. In applying the TNMM to the tested party manufacturer instead of the cost plus method, the cost of goods sold and the operating expenses of the related party manufacturer are known. A benchmarking analysis will determine the arm's length net profit of the related party manufacturer using a profit level indicator such as the ratio of net profit to total cost. The sales price and the gross profit are the unknown variables. Assuming cost of goods sold of \$5,000, operating expenses of \$1,000 and an arm's length net profit to total cost ratio of 25%, the transfer price amounts to \$7,500. Table 4 illustrates that working backwards using the available information leads to the determination that the sales price (i.e. transfer price in this case) is \$7,500.¹⁶

Table 4: Mechanism of TNMM applied on Related Party Manufacturer

	Initially	Benchmarking analysis
Resale price	\$?	\$ 7,500

¹⁵ All figures and numeric examples are for practical purposes only. They do not reflect actual cases or actual arm's length figures or margins

¹⁶ All figures and numeric examples are for practical purposes only. They do not reflect actual cases or actual arm's length figures or margins

cost of goods sold	\$ 5,000	\$ 5,000
Gross profit	\$?	\$ 2,500
Operating expenses	\$ 1,000	\$ 1,000
Operating profit	\$?	\$ 1,500 (25 % of total cost)

6.3.5. Examples¹⁷

6.3.5.1. Example 1: Transfer of tangible property resulting in no adjustment

(i) FP is a publicly traded Country A corporation with a Country B subsidiary named BCO that is under audit for its 2009 taxable year. FP manufactures a consumer product for worldwide distribution. BCO imports the assembled product and distributes it within Country B at the wholesale level under the FP name.

(ii) FP does not allow uncontrolled taxpayers to distribute the product. Similar products are produced by other companies but none of them is sold to uncontrolled taxpayers or to uncontrolled distributors.

(iii) Based on all the facts and circumstances, Country B's taxing authority determines that the TNMM method will provide the most reliable measure of an arm's length result. BCO is selected as the tested party because it engages in activities that are less complex than those undertaken by FP.

(iii) There is data from a number of independent operators of wholesale distribution businesses. These potential comparables are further narrowed to select companies in the same industry segment that perform similar functions and bear similar risks to BCO. An analysis of the information available on these taxpayers shows that the ratio of operating profit to sales is the most appropriate profit level indicator, and this ratio is relatively stable where at least three years are included in the average. For the taxable years 2007 to 2009, BCO shows the following results:

	2007	2008	2009	Average
Sales	\$500,000	\$560,000	\$500,000	\$520,000
COGS	\$393,000	\$412,400	\$400,000	\$401,800
Operating Expenses	\$80,000	\$110,000	\$104,600	\$98,200
Operating Profit	\$27,000	\$37,600	\$(4,600)	\$20,000

(iv) After adjustments have been made to account for identified material differences between BCO and the uncontrolled distributors, the average ratio of operating profit to sales is calculated for each of the uncontrolled distributors. Applying each ratio to BCO would lead to the following comparable operating profit (COP) for BCO:

Uncontrolled Distributor	OP/S %	COP
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¹⁷ The examples below derive from the US IRS Treasury Regulations. The Manual will include examples from developing countries in the next edition.

A	1.7	\$8,840
B	3.1	\$16,120
C	3.8	\$19,760
D	4.5	\$23,400
E	4.7	\$24,440
F	4.8	\$24,960
G	4.9	\$25,480
H	6.7	\$34,840
I	9.9	\$51,480
J	10.5	\$54,600

(v) The data is not sufficiently complete to conclude that it is likely that all material differences between BCO and the uncontrolled distributors have been identified. The Country B taxing authority measures the arm's length range by the interquartile range of results, which consists of the results ranging from \$19,760 to \$34,840. Although BCO's operating income for 2009 shows a loss of \$4,600, the tax authority determines that no allocation should be made, because BCO's average reported operating profit of \$20,000 is within this range.

6.3.5.2. Example 2: Transfer of tangible property resulting in an adjustment¹⁸

(i) The facts are the same as in Example 1 except that BCO reported the following income and expenses:

	2007	2008	2009	Average
Sales	\$500,000	\$560,000	\$500,000	\$520,000
COGS	\$370,000	\$460,000	\$400,000	\$410,000
Operating Expenses	\$110,000	\$110,000	\$110,000	\$110,000
Operating Profit	\$20,000	\$(10,000)	\$(10,000)	\$0

(ii) The interquartile range of comparable operating profits remains the same as derived in Example 1: \$19,760 to \$34,840. BCO's average operating profit for the years 2007 to 2009 (\$0) falls outside this range. Therefore the taxing authority determines that an allocation may be appropriate.

(iii) To determine the amount, if any, of the allocation the district director compares BCO's reported operating profit for 2009 to comparable operating profits derived from the uncontrolled distributors' results for 2009. The ratio of operating profit to sales in 2009 is calculated for each of the uncontrolled comparables and applied to US Sub's 2009 sales to derive the following results:

Uncontrolled Distributor	OP/S %	COP
C	0.5	\$2,500
D	1.5	\$7,500
E	2.0	\$10,000

¹⁸ All figures and numeric examples are for practical purposes only. They do not reflect actual cases or actual arm's length figures or margins

A	2.6	\$13,000
F	2.8	\$14,000
B	2.9	\$14,500
J	3.0	\$15,000
I	4.4	\$22,000
H	6.9	\$34,500
G	7.4	\$37,000

(iv) Based on these results, the median of the comparable operating profits for 2009 is \$14,250 (the mean observation here is the average of observations F \$14,000 and B \$14,500). Therefore, BCO's income for 2009 is increased by \$24,250, the difference between BCO's reported operating profit for 2009 and the median of the comparable operating profits for 2009.

6.3.5.3. Example 3: Multiple year analysis

(i) The facts are the same as in Example 2. In addition, the taxing authority examines the taxpayer's results for the 2010 taxable year. As in Example 2, the taxing authority increases BCO's income for the 2009 taxable year by \$24,250. The results for the 2010 taxable year, together with the 2008 and 2009 taxable years, are as follows:

	2008	2009	2010	Average
Sales	\$560,000	\$500,000	\$530,000	\$530,000
COGS	\$460,000	\$400,000	\$430,000	\$430,000
Operating Expenses	\$110,000	\$110,000	\$110,000	\$110,000
Operating Profit	\$(10,000)	\$(10,000)	\$(10,000)	\$(10,000)

(ii) The interquartile range of comparable operating profits, based on average results from the uncontrolled comparables and average sales for BCO for the years 2008 to 2010, ranges from \$15,500 to \$30,000. In determining whether an allocation for the 2007 taxable year may be made, the taxing authority compares BCO's average reported operating profit for the years 2008 through 2010 to the interquartile range of average comparable operating profits over this period. BCO's average reported operating profit is determined without regard to the adjustment made with respect to the 2009 taxable year. Therefore, BCO's average reported operating profit for the years 2008 to 2010 is (\$10,000). Because this amount of income falls outside the interquartile range, the tax authority determines that an allocation may be appropriate.

(iii) To determine the amount, if any, of the allocation for the 2010 taxable year, the taxing authority compares BCO's reported operating profit for 2010 to the median of the comparable operating profits derived from the uncontrolled distributors' results for 2010. The median of the comparable operating profits derived from the uncontrolled comparables results for the 2010 taxable year is \$12,000. Based on this comparison, the taxing authority increases BCO's 2010 taxable income by \$22,000, the difference between the median of the comparable operating profits for the 2010 taxable year and BCO's reported operating profit of (\$10,000) for the 2010 taxable year.

6.3.5.4. Example 4: Transfer of intangible to offshore manufacturer

(i) DCO is a developer, producer and marketer of products. DCO develops a new “high tech product” (htp) that is manufactured by its foreign subsidiary HCO located in Country H. HCO sells the htp to JCO (an H Country subsidiary of DCO) for distribution and marketing in Country H. The taxable year 2009 is under audit, and the taxing authority examines whether the royalty rate of 5 percent paid by HCO to DCO is an arm's length consideration for the htp technology.

(ii) Based on all the facts and circumstances the taxing authority determines that the TNMM will provide the most reliable measure of an arm's length result. HCO is selected as the tested party because it engages in relatively routine manufacturing activities, while DCO engages in a variety of complex activities using unique and valuable intangibles. Finally, because HCO engages in manufacturing activities, it is determined that the ratio of operating profit to operating assets is an appropriate profit level indicator.

(iii) Uncontrolled taxpayers performing similar functions cannot be found in Country H. It is determined that data available in countries M and N provide the best match of companies in a similar market performing similar functions and bearing similar risks. Such data is sufficiently complete to identify many of the material differences between HCO and the uncontrolled comparables and to make adjustments to account for such differences. However data is not sufficiently complete to ensure that no material differences remain. In particular, the differences in geographic markets might have materially affected the results of the various companies.

(iv) In a separate analysis it is determined that the price that HCO charged to JCO for the htp is an arm's length price. Therefore, HCO's financial data derived from its sales to JCO are reliable. HCO's financial data from 2007–2009 are as follows:

	2007	2008	2009	Average
Assets	\$24,000	\$25,000	\$26,000	\$25,000
Sales to JCO	\$25,000	\$30,000	\$35,000	\$30,000
COGS	\$6,250	\$7,500	\$8,750	\$7,500
Royalty to DCO (5%)	\$1,250	\$1,500	\$1,750	\$1,500
Other	\$5,000	\$6,000	\$7,000	\$6,000
Operating Expenses	\$1,000	\$1,000	\$1,000	\$1,000
Operating Profit	\$17,750	\$21,500	\$25,250	\$21,500

(v) Applying the ratios of average operating profit to operating assets for the 2007 to 2009 taxable years (derived from a group of similar uncontrolled comparables located in Country M and N) to HCO's average operating assets for the same period provides a set of comparable operating profits. The interquartile range for these average comparable operating profits is \$3,000 to \$4,500. HCO's average reported operating profit for the years 2007 to 2009 (\$21,500) falls outside this range. Therefore, the taxing authority determines that an allocation may be appropriate for the 2009 taxable year.

(vi) To determine the amount, if any, of the allocation for the 2009 taxable year the tax authority compares HCO's reported operating profit for 2009 to the median of the comparable operating profits derived from

the uncontrolled distributors' results for 2009. The median result for the uncontrolled comparables for 2009 is \$3,750. Based on this comparison the district director increases royalties that HCO paid by \$21,500 (the difference between \$25,250 and the median of the comparable operating profits, \$3,750).

6.3.5.5. Example 5: Adjusting operating assets and operating profit for differences in accounts receivable

(i) MCO manufactures parts for industrial equipment and sells them to its foreign parent corporation. For purposes of applying the TNMM, 15 uncontrolled manufacturers that are similar to MCO have been identified.

(ii) MCO has a significantly lower level of accounts receivable than the uncontrolled manufacturers. Since the rate of return on capital employed is to be used as the profit level indicator, both operating assets and operating profits must be adjusted to account for this difference. Each uncontrolled comparable's operating assets is reduced by the amount (relative to sales) by which they exceed MCO's accounts receivable. Each uncontrolled comparable's operating profit is adjusted by deducting imputed interest income on the excess accounts receivable. This imputed interest income is calculated by multiplying each uncontrolled comparable's excess accounts receivable by an interest rate appropriate for short-term debt.

6.3.5.6. Example 6 Adjusting operating profit for differences in accounts payable

(i) KCO is the Country K subsidiary of a foreign corporation. KCO purchases goods from its foreign parent and sells them in the Country K market. For purposes of applying the TNMM, 10 uncontrolled distributors that are similar to KCO have been identified.

(ii) There are significant differences in the level of accounts payable among the uncontrolled distributors and KCO. To adjust for these differences the taxing authority increases the operating profit of the uncontrolled distributors and KCO to reflect interest expense imputed to the accounts payable. The imputed interest expense for each company is calculated by multiplying each company's accounts payable by an interest rate appropriate for its short-term debt.

6.3.7. Arm’s Length Net Profit Margin

6.3.7.1. Several profit level indicators (PLIs) are allowed under the TNMM, typically based on operating profit. A PLI is a measure of a company’s profitability that is used to compare comparables with the tested party. A PLI may express profitability in relation to (i) sales, (ii) costs or expenses, or (iii) assets. More specifically, the PLI can be the operating profit relative to an appropriate base (e.g. costs, sales or assets). With the help of “profit level indicators” the net profitability of the controlled transaction is compared to the net profitability of the uncontrolled transactions.

Table 5: Overview of various profit level indicators:

Return on Assets (ROA)	Operating profit divided by the operating assets (normally only tangible assets)
Return on Capital Employed (ROCE)	Operating profit divided by capital employed which is usually computed as the total assets

	minus cash and investments
Operating Margin (OM)	Operating profit divided by sales
Return on Total Costs (ROTC)	Operating profit divided by total costs
Return on Cost of Goods Sold	Gross profit divided by cost of goods sold
Berry Ratio	Gross profit divided by operating expenses

6.3.7.2. Key Definitions

- The “gross profit” is arrived at by deducting from the total sales the cost of sales, including all the expenses directly incurred in relation to those sales.
- Operating profit or operating income is the income of a company net of direct and indirect expenses but before deduction for interest and taxes. It is defined as sales minus COGS minus operating expenses (alternatively expressed as gross profit minus operating expenses). “Operating profit” is a better term than “net profit” because net profit is also used to represent the profit of a company after interest and taxes have been subtracted. Further, the term “operating profit” indicates more clearly that only profits resulting from operating activities are relevant for transfer pricing purposes.

6.3.7.3. Although all the above PLIs are possible, the three PLIs (i) return on capital employed (ROCE) (ii) operating margin (OM) and (iii) Return on total cost (ROTC) are most used in practice. The Berry Ratio may also be used but subject to certain concerns about inappropriate use of Berry ratio.¹⁹ An OM is typically used for marketing, sales and distribution activities; a Berry ratio may sometimes be used for service of distribution activities; and full cost plus, ROCE or ROA are typically used for manufacturing activities. The ROA and ROCE divide operating profit by a balance sheet figure. These PLIs are based on assets actively employed in the business. Such tangible assets consist of all assets minus investments (e.g. in subsidiaries), minus cash and cash equivalents beyond the amount needed for working capital. In the case of the ROA a deduction is also made for intangible assets such as goodwill. These two PLIs may, for example, be used for leasing companies. This type of PLI may be the most reliable if the tangible operating assets have a high correlation to profitability. For example a manufacturer’s operating assets such as property, plant, and equipment could have more impact on profitability than a distributor’s operating assets, since often the primary value added by a distributor is based on services it provides and these are often less dependent on operating assets. The difference between the ROA and the ROCE is that the ROA focuses on the assets used while the ROCE focuses on the amount of debt and equity capital that is invested in the company.

6.3.7.4. Other PLIs listed above are ratios between income statement items. PLIs based on income statement items are often used when fixed assets do not play a central role in generating operating profits. This is often the case for wholesale distributors and service providers. Operating margin has often been used when functions of the tested party are not close to those of the comparables, since differences in function have less effect on operating profit than on gross profit.

¹⁹ For the use of the Berry ratio to be the most appropriate transfer pricing method to determine the remuneration of a controlled transaction (for instance for the distribution of products) the following elements have to be observed: (i) the value of the functions performed, taking into account assets used and risks assumed, should be proportional to the operating expenses; (ii) the value of the functions performed, taking into account assets used and risks assumed, is not materially affected by the value of the products distributed; in other words it is not proportionate to sales; and (iii) the tested party does not perform other significant functions in the transaction under examination that should be remunerated using another method or profit level indicator.

6.3.7.5. The Berry Ratio represents a return on a company's value added functions on the assumption that these value added functions are captured in its operating expenses. It has been observed in practice that the Berry Ratio is used as a PLI for distributors and service providers. The Berry Ratio assumes that there is a relationship between the level of operating expenses and the level of gross profits earned by distributors and service providers in situations where their value-added functions can be considered to be reflected in the operating expenses. Consequently it may be appropriate to use the Berry Ratio if the selling or marketing entity is a service provider entitled to a return on the costs of the provision of its services.

However some key limitations in use of the Berry ratio are:

- The ratio is very sensitive to functions and classifying of cost as operating cost.
- It misses values of cost needed to maintain the intangible property of an entity.
- Its reliability diminishes if asset intensities of the entities differ

6.3.7.6. In general the gross margin has not been favoured as a PLI because the categorization of expenses as operating expenses or cost of goods sold may be somewhat arbitrary or even subject to manipulation, making comparisons between the tested party and comparables difficult or impossible.

6.3.7.7. 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 assurance that the result is reliable. If there is a broad divergence between the different PLIs it may be useful to examine important functional or structural differences between the tested party and the comparables.

6.3.8. Transactional comparison versus functional comparison

6.3.8.1. The arm's length (range of) net profit margins can be determined by way of:

- transactional comparison: the net profit margin that the tested party enjoys in a comparable uncontrolled transaction which initially has been rejected as an internal comparable; and
- functional comparison: the net profit margins enjoyed by independent companies performing functions and incurring risks comparable to those of the tested party.

6.3.8.2. Much more detailed information will be available with respect to the controlled and uncontrolled transactions if a transactional comparison is possible, because the related parties involved have participated in these transactions. The degree of comparability can then be analyzed more carefully than in a functional comparison in which only public information is available (e.g. business descriptions in a database, annual reports and internet data). This may imply that the reliability of transactional comparisons will be higher than that of functional comparisons in practice. In fact if sufficient data exist to reliably apply a TNMM based on a transactional comparison it may be possible to apply a traditional transaction method.

6.3.8.3. However, functional comparison will be more often used in practice as the data necessary for functional comparison may be available when the data needed for transactional comparison is not. 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 margin. A benchmarking analysis is performed, identifying four comparable independent distributors considering the comparability standard of the TNMM. The arm's length range of operating margin earned by these comparable distributors falls between 2% and 6%. Because the operating profit margin earned by the related party distributor falls within this range (e.g. 4%), its transfer price is considered arm's length.

Table 6: Functional Comparison Example

	Comparable A	Comparable B	Comparable C	Comparable D	Tested Party
Revenue	100,000	120,000	125,000	130,000	122,000
COGS	80,000	92,400	95,000	89,700	92,720
Gross Profit	20,000	27,600	30,000	40,300	29,280
Operating Expenses	18,000	24,000	25,000	32,500	24,400
Operating Profit	2,000	3,600	5,000	7,800	4,880
Operating Profit Margin	2%	3%	4%	6%	4%

6.3.9. Comparability

6.3.9.1. Product comparability is most important in applying the CUP method, as differences in products will result in different prices. The cost plus method and the resale price method are less dependent on product comparability and focus on functional comparability because differences in functions that are reflected in differences in operating expenses may lead to a broad range of gross margins. However, the TNMM is even less dependent on product comparability and functional comparability than the traditional transaction methods, because net margins are less influenced by differences in products and functions. The TNMM focuses on broad product and functional comparability.

6.3.9.2. However, the comparability standard to be applied to the TNMM requires a high degree of similarity in several factors between the tested party and the independent enterprises that may adversely affect net margins. Net margins may be affected by factors that have no effect or a less significant effect on gross margins or prices due to the variation of operating expenses between companies. These factors may be unrelated to transfer pricing.

6.3.9.3. Specific factors that may affect net margins include, but are not limited to:

- barriers to entry in the industry;
- competitive position;
- management efficiency;
- individual business strategies;
- threat of substitute products;
- varying cost structures (e.g. the age of plant and equipment); and
- the degree of business experience (e.g. start-up phase or mature business).

If material differences between the tested party and the independent enterprises are affecting the net margins, reasonably accurate adjustments should be made to account for such differences.

6.3.10. Other guidance for application of the TNNM

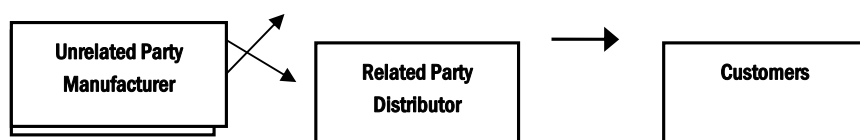
6.3.10.1. The TNMM is less reliable when applied to the aggregate activities of a complex enterprise engaged in various different transactions or functions. The method should be used to analyze only the

profits of the associated enterprise that are attributable to simpler controlled transactions or functions. The TNMM should thus generally not be applied on a company-wide basis if the company is involved in a number of different controlled transactions or functions which are not properly evaluated on an aggregate basis. However, it may be possible to apply TNMM when the aggregate activities/transactions are sufficiently interlinked, as for example when similar sales functions are conducted for products in similar product lines.

6.3.10.2. The TNMM should be applied using transactions or functions of independent enterprises that are comparable to the controlled transactions or functions being examined. Furthermore, results attributable to transactions between the tested party and independent enterprises should be excluded when evaluating controlled transactions. The latter point is illustrated in Table 7 below. The Related Party Distributor purchases products from both the Related Party Manufacturer and an Unrelated Manufacturer and resells these products to customers. The tax authorities in the country of the Related Party Distributor apply the TNMM to determine whether the transfer prices of the Related Party Distributor are arm's length. A benchmarking study performed by the tax authorities shows that comparable distributors earn an operating profit margin between 2% and 6%.

6.3.10.3. The tax authorities apply the TNMM to the P&L of the Related Party Distributor as a whole. The operating profit margin earned by Related Party Distributor is 2% based on aggregate transactions and therefore falls within the arm's length range. The aggregated transactions appear to be at arm's length. However if the TNMM were applied only to the controlled transactions the conclusions would be very different. The operating profit margin earned by Related Party Distributor on the controlled transactions is minus 3%, which falls outside the arm's length range of comparables and merits an adjustment. It appears from the P&L that in this example the controlled transactions generated operating losses, which resulted in lower consolidated results for the company as a whole.

Table 7: Specific Transactions versus Company as a Whole



	Controlled Transactions	Uncontrolled Transactions	Aggregate Transactions
Sales	\$ 100,000	\$ 100,000	\$ 200,000
Cost of Goods Sold	\$ 90,000	\$ 78,000	\$ 168,000
Gross profits	\$ 10,000	\$ 22,000	\$ 32,000
Operating expenses	\$ 13,000	\$ 15,000	\$ 28,000
Operating Profit	\$ (3,000)	\$ 7,000	\$ 4,000

Consistency is important in quantifying these amounts. Net margins should be calculated uniformly between the tested party and the independent enterprises.

6.3.10.4. 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 different countries may take different views about when multiple year data should be analyzed 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 are affected by a factor unique to that taxpayer.

6.3.11. Strengths and Weaknesses of the TNMM

6.3.11.1. The strengths of the TNMM include the following:

- net margins are less affected by transactional differences than price and less affected by functional differences than gross margins. Product and functional comparability are thus less critical in applying the TNMM;
- less complex functional analysis is needed, as TNMM is applied to only one of the related parties involved;
- because TNMM is applied to the less complex party, it can be used even though one of the related parties holds intangible assets for which comparable returns cannot be determined;
- the TNMM is applicable to either side of the controlled transaction (i.e. to either the related party manufacturer or the distributor); and
- the results resemble the results of a modified resale price / cost plus method of analysis.

6.3.11.2. The weaknesses of the TNMM include the following:

- net margins are affected by factors (e.g. variability of operating expenses) that do not have an effect, or have a less significant effect, on price or gross margins. 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 important to consider these (non-pricing) factors in the comparability analysis;
- information challenges, including the unavailability of information on profits attributable to uncontrolled transactions;
- measurement challenges: these may make it difficult to determine sales revenue, operating expenses and assets relating only to the relevant controlled transactions or functions in order to calculate the selected profit level indicator. For example, if a related party distributor purchases products from both a related party and an unrelated enterprise for resale it may be impossible to determine sales revenue, operating expenses and assets attributable to only the controlled transactions to reliably perform a net margin method of analysis. Furthermore, if the companies are engaged in different activities it will also be very difficult to allocate sales revenue, operating expenses and assets between the relevant business activity and other activities of the tested party or the comparables. This measurement problem is an important consideration in practice;
- TNMM is applied to only one of the related parties involved. The arm's length net margin found may thus result in an extreme result for the other related parties involved in the controlled transaction (e.g. operating losses to one of the parties while the other party is guaranteed a net profit). This weakness also applies to the cost plus and resale price methods but may be more important under the TNMM because net margins are affected by factors that may have nothing to do with transfer pricing. A check of the results of all related parties involved may therefore be appropriate;

- it may be difficult to “work back” to a transfer price from a determination of the arm’s length net margins; and
- some countries do not recognize the use of TNMM. Consequently, the application of TNMM to one of the parties to the transaction may result in unrelieved double taxation when the results of the TNMM analysis are not accepted for the other party.

6.3.12. When to use the TNMM

6.3.12.1. TNMM is usually applied with respect to broad comparable functions rather than discrete controlled transactions. Returns to these functions are typically measured by a PLI in the form of a net margin that arguably will be affected by factors unrelated to arm’s length pricing. Consequently, one might expect the TNMM to be a relatively disfavoured method. Nevertheless TNMM is typically applied when two related parties engage in a continuing series of transactions and one of the parties controls intangible assets for which an arm’s length return is not easily determined. Since TNMM is applied to the party performing routine manufacturing, distribution or other functions that do not involve control over such intangible assets, it allows the appropriate return to the party controlling unique or difficult-to-value intangible assets to be determined indirectly.

6.3.12.2. TNMM may also be appropriate for use in certain situations in which data limitations on uncontrolled transactions make it more reliable than traditional methods. TNMM may be more attractive if 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 use TNMM to analyze net margins, a more consistent measured profit level indicator than gross margins in case of accounting differences.

6.3.12.3. Consider the example in Table 8 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 conclusion may be incorrect if, due to accounting inconsistency, the related party differs from the comparable distributor in allocating costs between cost of goods sold and operating expenses.

6.3.12.4. 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 10% for the related party distributor is similar to that of the comparable distributor. The transfer price is therefore considered to be arm’s length based on the TNMM.

Table 8: Accounting Differences: Resale Price Method versus TNMM

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

Also, if the available comparables differ significantly with respect to products and functions, making it difficult 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 differences. For example in performing a benchmarking analysis for the purposes of the resale price or cost plus method it may appear that exact product and functional comparables cannot be found. In fact the comparables differ substantially regarding product and functional comparability. In such a case the TNMM might be more reliably applied using such comparables.

6.3.12.5. Finally, TNMM may be attractive if the data is simply not available to perform a gross margin method of analysis. For example this may be the case if the gross profits of comparable companies are not published and only their operating profits are known. The cost of goods sold by companies may also not be available, therefore only a net margin method of analysis can be applied using the return on total costs as the profit level indicator.

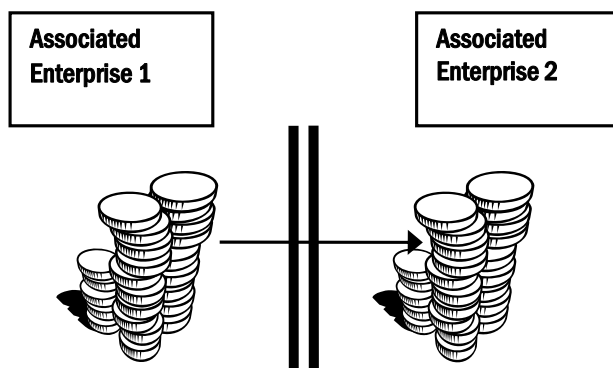
6.3.12.6. In addition to the three situations mentioned above the TNMM is also used in practice by tax authorities to identify companies for an audit by analyzing their net profit margins. Furthermore, the TNMM is often applied to check and to confirm the results of traditional transactional methods. For example, the TNMM may be used in combination with the resale price method to determine an arm's length compensation for a distribution company.

6.3.13. Profit Split Method

6.3.13.1. The profit split method is typically applied when both sides of the controlled transaction contribute significant intangible property. The profit is to be divided such as is expected in a joint venture relationship.

6.3.13.2. The profit split method seeks to eliminate the effect on profits of special conditions made or imposed in a controlled transaction (or in controlled transactions that it is appropriate to aggregate) by determining the division of profits that independent enterprises would have expected to realize from engaging in the transaction or transactions. Figure 3 illustrates this.

Figure 3: Profit Split Method



6.3.13.3. The profit split method starts by identifying the profits to be divided between the associated enterprises from the controlled transactions. Subsequently, these profits are divided between the associated enterprises based on the relative value of each enterprise's contribution, which should reflect the functions performed, risks incurred and assets used by each enterprise in the controlled transactions. External market data (e.g. profit split percentages among independent enterprises performing comparable functions) should be used to value each enterprise's contribution, if possible, so that the division of combined profits between the associated enterprises is in accordance with that between independent enterprises performing functions comparable to the functions performed by the associated enterprises. The profit split method is applicable to transfer pricing issues involving tangible property, intangible property, trading activities or financial services.

6.3.14. Methods to allocate or Split the Profits

6.3.14.1. There are generally considered to be two specific methods to allocate the profits between the associated enterprises: contribution analysis and residual analysis.

6.3.14.2. Contribution analysis: Under the contribution analysis the combined profits from the controlled transactions are allocated between the associated enterprises on the basis of the relative value of functions performed by those associated enterprises engaged in the controlled transactions. External market data that reflect how independent enterprises allocate the profits in similar circumstances should complement the analysis to the extent possible.

6.3.14.3. If the relative value of the contributions can be calculated directly, then determining the actual value of the contribution of each enterprise may not be required. The combined profits from the controlled transactions should normally be determined on the basis of operating profits. However in some cases it might be proper to divide gross profits first and subsequently subtract the expenses attributable to each enterprise.

6.3.14.4. 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 each enterprise to provide basic arm's length compensation for routine contributions. This basic compensation does not include a return for possible valuable intangible assets owned by the associated enterprises. The basic compensation is determined based on the returns earned by comparable independent enterprises for comparable transactions or, more frequently, functions. In practice TNMM is used to determine the appropriate return in step 1 of the residual analysis; and
- *step 2*: allocation of residual profit (i.e. profit remaining after step 1) between the associated enterprises based on the facts and circumstances. If the residual profit is attributable to intangible property then the allocation of this profit should be based on the relative value of each enterprise's contributions of intangible property.

6.3.14.5. The residual analysis is typically applied in cases where both sides of the controlled transaction contribute valuable intangible property to the transaction. For example company X manufactures components using valuable intangible property and sells these components to a related company Y which uses the components and also uses valuable intangible property to manufacture final products and sell them to customers. The first step of a residual analysis would allocate a basic (arm's length) return to company X for its manufacturing function and a basic (arm's length) return to company Y for its manufacturing and distribution functions. The residual profit remaining after this step is attributable to the intangible properties owned by the two companies. The allocation of the residual profit is based on the relative value of each company's contributions of intangible property. The OECD Guidelines do not refer to specific allocation keys to be used in this respect. Step 2 may not, and typically does not, depend on the use of comparables.

6.3.14.6. The following approaches have been specified in some jurisdictions to determine the relative value of each company's contributions of intangible property:

- external market benchmarks reflecting the fair market value of the intangible property;
- the capitalized cost of developing the intangibles and all related improvements and updates, less an appropriate amount of amortization based on the useful life of each intangible²⁰; and
- the amount of actual intangible development expenditures in recent years if these expenditures have been constant over time and the useful life of the intangible property of all parties involved is roughly similar.

6.3.14.7. The residual profit split method is used more in practice than the contribution approach for two reasons. Firstly, the residual approach breaks up a complicated transfer pricing problem into two manageable steps. The first step determines a basic return for routine functions based on comparables. The second step analyzes returns to often unique intangible assets based not on comparables but on relative value which is, in many cases, a practical solution. Secondly, potential conflict with the tax authorities is reduced by using the two-step residual approach since it reduces the amount of profit that is to be split in the potentially more controversial second step.

6.3.15. Comparable profit split

²⁰ A disadvantage of this approach is that cost may not reflect the market value of the intangible property.

6.3.15.1. A different version of the profit split method is used in some countries. In this version one splits the profit by comparing the allocation of operating profits between the associated enterprises to the allocation of operating profits between independent enterprises participating in similar activities under similar circumstances (comparable profit split method). The major difference with the contribution analysis is that the comparable profit split method depends on the availability of external market data to measure directly the relative value of contributions, while the contribution analysis can still be applied if such a direct measurement is not possible.

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

6.3.16. Strengths and Weaknesses

6.3.16.1. The strengths of the profit split method include:

- it is suitable for highly integrated operations for which a one sided method may not be appropriate;
- it is suitable in cases where the traditional methods prove inappropriate due to a lack of comparable transactions;
- the method avoids an extreme result for one of the associated enterprises involved due to its two-sided approach (i.e. all parties to the controlled transaction are being analyzed); and
- this method is able (uniquely among commonly used transfer pricing methods) to deal with returns to synergies between intangible assets or profits arising from economies of scale.

6.3.16.2. The weaknesses of the profit split method include:

- the relative theoretical weakness of the second step. In particular, the theoretical basis for the assumption that synergy value is divided pro rata to the relative value of inputs is unclear (although this approach is arguably consistent with the way interests are divided between participants in a joint venture);
- its dependence on access to data from foreign affiliates. Associated enterprises and tax administrations may have difficulty obtaining information from foreign affiliates; and
- certain measurement problems exist in applying the profit split method. It may be difficult to calculate combined revenue and costs for all the associated enterprises taking part in the controlled transactions due to, for example, differences in accounting practices. It may also be hard to allocate costs and operating expenses between the controlled transactions and other activities of the associated enterprises.

6.3.17. When to use the profit split methods

6.3.17.1. The profit split method might be used in cases involving highly interrelated transactions that cannot be analyzed on a separate basis. This means that the profit split method can be applied in cases where the associated enterprises engage in several transactions that are so interdependent that they cannot be evaluated on a separate basis using a traditional transaction method. In other words, the transactions are so interrelated that it is impossible to identify comparable transactions. In this respect, the

profit split method is applicable in complex industries such as, for example, the global financial services business.

6.3.17.2. The (residual) profit split method is typically used in complex cases where both sides to the controlled transaction own valuable intangible property (e.g. patents, trademarks and trade names). If only one of the associated enterprises owns valuable intangible property, the other associated enterprise will be the tested party in an 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. A practical example would be where company A designs and manufactures electronic components and transfers the components to a related company B which uses them to manufacture an electronic product. Both company A and company B use innovative technological design to manufacture the components and electronic product, respectively. Company C, a related company, distributes the electronic products. Assuming that the transfer price between company B and company C is arm's length based on the resale price method, the residual profit split method is applied to determine the arm's length transfer price between company A and company B because both companies own valuable intangible property.

6.3.17.3. In step 1 of the residual analysis, a basic return for the manufacturing function is determined for company A and company B. Specifically a benchmarking analysis is performed to search for comparable independent manufacturers which do not own valuable intangible property. The residual profit, which is the combined profits of company A and Company B after deducting the basic (arm's length) return for the manufacturing function, is then divided between company A and company B. This allocation is based on relative R&D expenses which are assumed to be a reliable key to measure the relative value of each company's intangible property. Subsequently, the net profits of company A and company B are calculated in order to work back to a transfer price.

6.3.17.4. The profit split method involves the determination of the factors that bring about the combined profit, setting a relative weight to each factor and calculating the allocation of profits between the associated enterprises. The contribution analysis is difficult to apply, because external market data that reflect how independent enterprises would allocate the profits in similar circumstances is usually not available. The first step of the residual analysis often involves the use of the TNMM to calculate a return and is not, in itself, more complicated than the typical application of TNMM. The second step is, however, an additional step and often raises difficult additional issues relating to the valuation of intangibles.

6.3.18. Examples:

Example: Application of Residual Profit Split

(i) XYZ is a corporation that develops, manufactures and markets a line of products for use by police in Country A. XYZ's research unit developed a bulletproof material for use in protective clothing and headgear (Stelon). XYZ obtains patent protection for the chemical formula for Stelon. Since its introduction, Stelon has captured a substantial share of the market for bulletproof material.

(ii) XYZ licensed its Asian subsidiary, XYZ-Asia, to manufacture and market Stelon in Asia. XYZ-Asia is a well established company that manufactures and markets XYZ products in Asia. XYZ-Asia has a research unit that

adapts XYZ products for the defence market, as well as a well-developed marketing network that employs brand names that it has developed.

(iii) XYZ-Asia's research unit alters Stelon to adapt it to military specifications and develops a high-intensity marketing campaign directed at the defence industry in several Asian countries. Beginning with the 2009 taxable year, XYZ-Asia manufactures and sells Stelon in Asia through its marketing network under one of its brand names.

(iv) For the 2009 tax year XYZ has no direct expenses associated with the license of Stelon to XYZ-Asia and incurs no expenses related to the marketing of Stelon in Asia. For the 2009 tax year XYZ-Asia's Stelon sales and pre-royalty expenses are \$500 million and \$300 million, respectively, resulting in net pre-royalty profit of \$200 million related to the Stelon business. The operating assets employed in XYZ-Asia's Stelon business are \$200 million. Given the facts and circumstances, the Country A taxing authority determines that a residual profit split will provide the most reliable measure of an arm's length result. Based on an examination of a sample of Asian companies performing functions similar to those of XYZ-Asia the district director determines that an average market return on XYZ-Asia's operating assets in the Stelon business is 10 percent, resulting in a market return of \$20 million (10% X \$200 million) for XYZ-Asia's Stelon business, and a residual profit of \$180 million.

(v) Since the first stage of the residual profit split allocated profits to XYZ-Asia's contributions other than those attributable to highly valuable intangible property, it is assumed that the residual profit of \$180 million is attributable to the valuable intangibles related to Stelon, i.e. the Asian brand name for Stelon and the Stelon formula (including XYZ-Asia's modifications). To estimate the relative values of these intangibles the taxing authority compares the ratios of the capitalized value of expenditures as of 2009 on Stelon-related research and development and marketing over the 2009 sales related to such expenditures.

(vi) As XYZ's protective product research and development expenses support the worldwide protective product sales of the XYZ group, it is necessary to allocate such expenses among the worldwide business activities to which they relate. The taxing authority determines that it is reasonable to allocate the value of these expenses based on worldwide protective product sales. Using information on the average useful life of its investments in protective product research and development, the taxing authority capitalizes and amortizes XYZ's protective product research and development expenses. This analysis indicates that the capitalized research and development expenditures have a value of \$0.20 per dollar of global protective product sales in the 2009 tax year.

(vii) XYZ-Asia's expenditures on Stelon research and development and marketing support only its sales in Asia. Using information on the average useful life of XYZ-Asia's investments in marketing and research and development the taxing authority capitalizes and amortizes XYZ-Asia's expenditures and determines that they have a value in 2009 of \$0.40 per dollar of XYZ-Asia's Stelon sales;

(viii) Thus, XYZ and XYZ-Asia together contributed \$0.60 in capitalized intangible development expenses for each dollar of XYZ-Asia's protective product sales for 2009, of which XYZ contributed one-third (or \$0.20 per dollar of sales). Accordingly, the taxing authority determines that an arm's length royalty for the Stelon license for the 2009 taxable year is \$60 million, i.e. one-third of XYZ-Asia's \$180 million in residual Stelon profit.