Chapter 5

Transfer Pricing Methods

[This paper is based on a paper prepared by Members of the UN Tax Committee’s Subcommittee on Practical Transfer Pricing Issues, but includes some Secretariat drafting and suggestions not yet considered by them – the Secretariat takes responsibility for any relevant errors and omissions. Formerly, Methods were dealt with in Chapters 4 and 5, which are now combined – hence the reference, on a temporary basis, to Parts 5A and 5B of this paper].

[Table of Contents to be added]

Chapter 5A - Traditional Methods

1. Introduction

This part of the Chapter describes several transfer pricing methods that can be used to determine an arm’s length price and it describes how to apply these methods in practice.
1.1 Use of methods
In order to calculate or test the arm’s length nature of prices or profits, use is made of transfer pricing methods or methodologies. Transfer pricing methods are ways of calculating the profit margin of transactions or an entire enterprise or of calculating a transfer price that qualifies as being at arm’s length. The application of transfer pricing methods is required to assure that transactions between associated enterprises conform to the arm’s length standard. Please 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 transfer pricing methods recognized in the OECD Transfer Pricing Guidelines, this does not mean that its pricing is automatically not at arm’s length and there may be no reason to impose adjustments.

1.2 Selection of methods (how, why and use of methods)
Some methods are more appropriate and indicative to provide for an arm’s length result for certain transactions than others. For example, a cost-based method is usually deemed more useful for determining an arm’s length price for services and manufacturing, and a resale price-based method is usually deemed more useful for determining an arm’s length price for distribution/selling functions.

[The following overlaps with the Comparability Chapter – to be synthesised]

The starting point to select a method is the functional analysis which is necessary regardless of what transfer pricing method is selected. Each method may require a deeper analysis focusing on aspects in relation with the method. The functional analysis helps:

• to identify and understand the intra-group transactions,
• to have a basis for comparability
As such the functional analysis is a major part of the documentation.

The major components of a functional analysis are:

**Functions performed**: It describes the activities performed such as design, purchasing, inbound logistics, manufacturing, R&D, assembling, inventory management, outbound logistics, marketing and sales activities, after-sale services, supporting activities, services, advertising, financing and management, etc. It must be specified 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 be discussed more in detail.

**Risks undertaken**: The functional analysis should identify risk undertaken. Examples are: financial risk (currency, commodity, interest rate, funding risks etc...), credit and collection risk (trading credit risk, commercial credit risk), operational risk ( systems failure risk, reliability of customers, 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), product risk ( product liability risk, warranty risk and costs, contract enforceability). A risk-bearing party should have a chance of higher earnings than a non-risk bearing party, and will incur the expenses and perhaps related loss if and when risk materializes.

**Assets used or contributed**: the functional analysis must identify and distinguish tangible assets and intangible assets. Tangible assets such as a property, plant and equipment have to
be financed and capital assets would usually be expected to earn a long term rate commensurate with the business risk assumed. Some assets could be specific and must be identified and quantified whenever possible. It should be specified which party bears the risk in the legal terms and which party bears the risk based on the economic substance of the transaction.

Intangible assets are very important as sustainable competitive advantage is often achieved by the use of intangible assets. Some intangibles have legal protection (patents, trademarks, trade names) but others without legal protection may be equally important and valuable (know-how, trade secrets, corporate goodwill, exclusive import or export rights, etc). A party that developed the intangibles should be able to obtain benefit from the intangibles either through a sale or licensing of the intangibles or through an increase in prices of products or services with imbedded intangibles. It is important to determine which party has developed the intangibles and in what capacity, which has the legal ownership and which receives the benefit of the intangibles.

Today in a multinational group, operations tend to be more integrated and functions, risks and assets are often shared. The functional analysis provides answers to identify which functions risks and assets are attributable to the various related parties. In some cases one company may perform one function but the cost thereof is incurred/ paid by the other party to the transaction. The functional analysis could emphasise that situation.

The functional analysis includes reference to the industry specifics, the contractual terms of the transaction, the economics circumstances and the business strategies. The functional analysis helps to identify if the operations are complex justifying a higher level of profit or more limited and consequently generating a lower profit.
A checklist with columns for each related party and if needed for the comparable parties could be used to summarize the functional analysis and give a quick idea of which party performs each relevant function, uses what assets and bears which risk. But this short-cut overview should not be used by tax auditors to count the number of enumerated functions, risks and assets in order to determine the arm’s length compensation. It should be used to consider the relative importance of each function, risk and asset.

Once the functional analysis is performed and the functionality of the entity as regards the transactions subject to review (or the entity as a whole) has been completed, it can be determined what transfer pricing method is most suitable to determine the arm’s length price for the transactions under the review (or the operating margin for the entity under review). For all transfer pricing methods access to information on comparables is necessary and it may be that due to difficulty in getting access to reliable data on comparables, in certain instances, other methods may need to be resorted to than those that would seem initially preferred and most reliable.

Although independent unrelated comparables are usually used for transfer pricing purposes, in practice, it may be that it is not possible to identify comparables or reliable company data that meet the comparability requirements. In such cases, practical solutions must be sought in good faith by taxpayers and the tax administration. Without any preference, solutions may include the following:

- Search for comparables in other geographical regions that share certain key similarities with the country in which a company conducts its business.
- Use of industry analysis (publicly-available or internally conducted by the company) to identify profit levels that can reasonably be expected for various routine functions (e.g., production, services, distribution, etc.).
- Undertake an analysis that demonstrates the general applicability of a
company’s transfer pricing policy given the specific economic environment in which the company conducts its business.

Please note that the list above is not intended as an exhaustive list of solutions. Rather, the solutions are presented as examples and are included for information purposes only. It may also be that due to difficulty in getting access to (publicly available) data, in certain instances, other methods may than the ones presented above may need to be used.

1.3 Choice of available methods
The so-called traditional transaction methods (Comparable Uncontrolled Price, Cost Plus and Resale Price Method) are preferred in certain countries, although no hierarchy of methods is being advocated in this Transfer Pricing Manual, other than applying a method that reliably calculates or tests the company’s transfer pricing and application of the arm’s length standard.¹

Once a method is chosen and applied, taxpayers are generally expected to use and apply a method in a consistent fashion. Assuming an appropriate transfer pricing method is being applied, only if facts or functionalities change and those changes require a change in methods, is a change in methods envisaged or alternatively when the available comparable data change such that a method change is required.

2. Traditional Transaction Methods

2.1.1 Comparable Uncontrolled Price
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. It should be observed that the CUP method is also used in practice with respect to royalties. The CUP method applies to controlled transactions of property and services. CUPs may be found as

¹: The OECD Transfer Pricing Guidelines as revised in 2010 also give no formal hierarchy in methods. Reference is made to paragraphs 2.1 – 2.10 of the OECD Transfer Pricing Guidelines.
internal transactions or as external transactions. Figure 1 below explains this distinction.

<table>
<thead>
<tr>
<th>Figure 1: Comparable Uncontrolled Price Method</th>
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<tbody>
<tr>
<td>Associated Enterprise 1</td>
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<tr>
<td>Unrelated Party A</td>
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<tr>
<td>Associated Enterprise 2</td>
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<tr>
<td>Unrelated Party</td>
</tr>
<tr>
<td>Unrelated Party B</td>
</tr>
<tr>
<td>(External) 1</td>
</tr>
<tr>
<td>(Internal) 3 2</td>
</tr>
<tr>
<td>(Internal) Controlled transaction  Uncontrolled transaction</td>
</tr>
</tbody>
</table>

The controlled transaction in this figure concern the transfer of cars between Associated Enterprise 1, a car producer in country 1, and Associated Enterprise 2, a car importer in country 2, which resells the cars to car dealers in country 2. Associated Enterprise 1 is the

Deleted: Working Draft Editorial note:
One possibility would be that taxpayers need not benchmark their transfer pricing with a formal benchmark search in cases where functions and transactions subject to the benchmark do not exceed a stated volume or amount on a fiscal year basis. The industry margins referred to should be: based on objective criteria, regularly updated and readily available at no cost. A possible example could be margins published or formally approved at the appropriate functional level of the UN system, but these do not currently exist.
parent company of Associated Enterprise 2.

In applying the CUP method to determine whether the price charged for cars transferred in this controlled transaction is arm’s length reference can be made to:

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

Comparable uncontrolled transactions similar to transaction #1 or #2 can be referred to as internal comparables. Comparable uncontrolled transactions similar to transaction #3 are called external comparables, because the uncontrolled transaction involves two parties, neither of which is one of the associated enterprises.

The application of the CUP method based on internal comparables involves a detailed transactional comparison, whereby the controlled and uncontrolled transactions are compared based on the five comparability factors mentioned in Chapter [7]. The details of these factors are necessary to perform such a comparison. Usually all of such details are not available when other methods (Cost Plus, Resale Price Method etc.) are being applied. The latter are usually applied using a benchmarking analysis (a search for comparable companies in publically available databases).

2.1.2 Comparability
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 materially affect the price; or
  • Reasonable [Reliable] adjustments can be performed to account for product and other differences that are material.

In performing the comparability analysis the controlled transactions and uncontrolled transactions should be compared based on the comparability factors mentioned earlier and addressed in detail in Chapter [ 7 ]. In determining the degree of comparability between controlled transactions in Figure 1 and uncontrolled transaction #1, for example, the following factors should be taken into account: characteristics of property or services, contractual terms, economic circumstances and business strategies. For functional analysis, it is necessary to analyse the functions performed, the risks assumed and the assets used.

Product comparability should be closely examined in applying the CUP method. A price may be materially influenced by differences between the goods transferred in the controlled and uncontrolled transactions, although the functions performed and risks assumed (e.g. marketing and selling function) are similar so as to result in similar profit margins. The CUP method is appropriate especially in cases where an independent enterprise sells products similar to those sold in the controlled transaction. Reference is made to the Coffee case example below.

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.

Technically, there are two types of CUPs: Close CUPs and inexact CUPs. These are the result of
(unrelated party) transactions that are adjusted to take account of material differences.

Reliable adjustments may be possible for:

• difference regarding the source of the products: unbranded Kenyan as compared with unbranded Brazilian coffee beans;

• difference in delivery terms: for example, Associated Enterprise 1 in Figure 1 sells similar cars 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. 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-warehouse. Associated Enterprise 1’s factory (i.e. ex-works – with the buyer taking responsibility from named place of delivery, which is Associated Enterprise 1’s factory). It is possible to perform reliable adjustments for this difference. The uncontrolled price should then be adjusted for the difference in delivery terms to eliminate the effect of this difference on the price;

• volume discounts: for example, Associated Enterprise 1 sells 5000 cars to Associated Enterprise 2 for $20,000 per car, while it sells 1000 similar cars to an Unrelated Party. It should be analyzed whether differences in volume have a material effect on price, and if so, how to perform adjustments by examining volume discounts in similar markets;
• product modifications: for example, the uncontrolled transactions to an Unrelated Party in Figure 3 involve cars on which product modifications have been made. However, the cars sold in the controlled transactions do not include these product 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.

• risk incurred, for example, Associated Enterprise 1 carries inventory risk related to sales by Associated Enterprise 2 and bad debt risk as regards customers of Associated Enterprise 2, whereas as between Associated Enterprise 1 and Unrelated Party, the Unrelated Party carries inventory risk and bad debt risk as regards its customers. It should now be analyzed and quantified what the effect of the risk allocation is before Associated Party 2’s prices and Unrelated Party’s prices can be considered comparable.

Reliable adjustment may not be possible for:

• trademarks: for example, Associated Enterprise 1 in Figure 1 attaches its valuable trademark ‘Ferrori’ on the cars transferred in the controlled transaction, while uncontrolled transaction #1 concerns the transfer of cars without the trademark ‘Ferrori’. It is known that the effect of the trademark on the price of the car is material. However, it will be difficult, if not impossible, to perform an adjustment to account for the trademark ‘Ferrori’, an intangible property that is unique. As reliable adjustments cannot be made to account for this material product difference, the CUP method may not be the appropriate method in such a case;

• effects of geographical differences: for example, Associated Enterprise 1 sells
cars to Associated Enterprise 2 located in South Africa, while an Unrelated Party to which it also sells the same cars is located in Egypt. The only material difference that could be identified between the controlled and uncontrolled transactions concerns the geographical difference. To perform adjustments to account for this difference one should consider, for example, differences in inflation rates between South Africa and Egypt, the competition in the two countries and governmental regulations; and

- major product differences. If reliable adjustments cannot be performed to account for product differences that are material, then the CUP method will not lead to a reliable measure of an arm’s length result.

Difficulties resulting from performing reasonably accurate adjustments to remove the effect of material differences on prices should not automatically prevent the use of the CUP method. One should try hard to perform reasonable adjustments.

If reasonable adjustments cannot be performed, the reliability of the CUP method is decreased. Another transfer pricing method may then be used in combination with the CUP method or considered instead of the CUP method.

2.1.3 Strengths and Weaknesses
The strengths of the CUP method include:

- it is not a one-sided analysis as the price is arrived at between two parties to the transaction; and
- avoiding the issue of which of the related parties involved in the controlled transaction should be the tested party for transfer pricing purposes. This issue
arises if the other two traditional transaction methods are applied.\textsuperscript{2} These methods determine a transfer price based on 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. However, 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 will probably differ from each other; and

• it involves a detailed transactional comparison.

The weaknesses of the CUP method include:

• it will very often be hard to find closely comparable uncontrolled transactions as strict comparability standard is required particularly with respect to product comparibility; and

• internal comparables frequently don’t exist and external comparables are difficult to find in practice.

2.1.4 When to use the CUP Method?

In cases where comparable uncontrolled transactions can be found, the CUP method is a direct and sound method to determine whether the conditions of commercial and financial relations between associated enterprises are at arm’s length. This implies that when examining a transfer pricing issue the analysis could start with the application of the CUP method. That is, one should probably always consider starting with locating possible internal comparables and external comparables. A standard question that should be asked in any analysis is whether one of the associated enterprises involved is engaged in transactions with

\textsuperscript{2}Also, if the transactional net margin method is used or the comparable profits method.
independent enterprises. In our example of Figure 1 above, the question is whether Associated Enterprise 1 sells comparable cars to an Unrelated Party. Furthermore, does Associated Enterprise 2 purchase comparable cars from an unrelated car manufacturer. If the answer is yes to any one of these questions, 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. If no internal comparables can be found, then one should try to locate external comparables. Data on external comparables will be hard to find in practice, maybe only when the transactions involve a homogeneous product or service. However, the Guidelines indicate that one should strive to make it possible that the CUP method can be applied possibly in combination with another transfer pricing method.

Based on practical experience, the CUP method will be most useful in the following situations:

• one of the associated enterprises involved 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;
• the transactions involve commodity type products, but only those in which product differences are [negligible] [very limited]; and
• the interest rate charged for an intercompany loan.

If the CUP method cannot be applied, other traditional transaction methods available under the Guidelines are the resale price method and the cost plus method.
2.1.5 Case Examples
[to be inserted]

2.2.1 Resale Price Method
The resale price method is one of the traditional transaction methods that can be used to apply 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.

Figure 2: Resale Price Method

<table>
<thead>
<tr>
<th>Associated Enterprise 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Enterprise</td>
</tr>
<tr>
<td>Associated Enterprise 2</td>
</tr>
</tbody>
</table>

Given price = 10,000
- Resale price margin (25%) = 2,500
Arm’s Length Price = 7,500

2.2.2 Mechanism of Resale Price Method
The mechanism of the resale price method reduces the price of a product that the related sales company (i.e. Associated Enterprise 2 in Figure 2) charges to an unrelated customer (i.e. the resale price) by an arm’s length gross margin, which the sales company uses to cover its
selling, general and administrative (SG&A) expenses, and still make an appropriate profit, taking into account its functions performed and risks incurred. The remainder is regarded as an arm’s length transfer price for the intercompany transactions between the sales company (i.e. Associated Enterprise 2) and a related company³ (i.e. Associated Enterprise 1).

Under the resale price method, the starting point of the internal price setting procedure is the sales company.

The formula for the transfer price in intercompany transactions of products is as follows:

\[ TP = RSP \times (1 - GPM), \]

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.

As an example, let us assume that the resale price in Figure 2 is $10,000. This means that Associated Enterprise 2 resells the car to the Independent Enterprise for $10,000. 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 $7,500 (i.e. $10,000 \times (1 - 0.25)).

If the sales company acts as a sales agent that does not take title to the goods, it is possible to

³ Usually a manufacturing company owning valuable patents or the principal in a commissionaire arrangement.
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 performing a general brokerage business should be established considering whether it is acting as an agent or a principal.

2.2.3 Arm’s Length Gross Profit Margin

The financial ratio analysed under the resale price method is the gross profit margin, which is defined as the gross profit to net sales ratio of the sales company.

As discussed above, gross profit equals net sales -/- cost of goods sold of a sales company. The net sales of a sales company concern the sales revenue obtained by selling products to unrelated customers, while the cost of goods sold includes the transfer price paid to the related manufacturer. For a distribution company, cost of goods sold represents the cost of purchasing the goods sold.

Accounting consistency is 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 bananas” but rather, “apples with apples”. Therefore, appropriate adjustments should be performed to the data used in computing the gross margin to make sure that ‘similar’ gross margins are compared. Another example would be that warranty expenses may not belong within operating expenses, as some companies characterize them as included in cost of goods sold.
2.2.4 Transactional comparison versus functional comparison

The arm’s length (range of) gross profit margin to be earned by the sales company in the controlled transaction is determined in the following two ways:

- transactional comparison: the gross profit margin that Associated Enterprise 2 earns when reselling cars purchased from an independent manufacturer in comparable uncontrolled transaction. This uncontrolled transaction should initially have been rejected as an internal comparable; and
- 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.

In practice the application of the resale price method is often based on a functional comparison. The benchmarking analysis under functional comparison is performed using comparable data. Those date may be available via publicly available databases.

Based on the benchmarking and financial analyses, an arm’s length range of gross margins earned by comparable independent distributors is established and fall between x% and y%. If the gross margin earned by Associated Enterprise 2 is within this range, then its transfer price will be considered arm’s length.

2.2.5 Comparability
In applying the resale price method, 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; or
- reasonably accurate adjustments can be performed to eliminate the effect of such differences.

Under the resale price method, functional comparability is important, while product comparability is less important. Product differences are less critical for the resale price method than for the CUP method, because it is less probable that product differences 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.

The OECD Guidelines present an example where the compensation for a distribution company should be the same whether it sells toasters or blenders, because the functions performed (including risks incurred and assets used) are similar for the two activities. The price of a toaster will, however, differ from the price of a blender, as the two products are not close substitutes. Although product comparability is less important under the resale price method, it still applies that closer product similarity will lead to better results of the transfer pricing analysis. In this respect, product comparability will become more important when the transaction involves intangible property. This means that it is not necessary to conduct a resale price analysis for each individual product line distributed by the sales company. Instead, the resale price method is generally not applied on specific product lines, but rather used to define the gross margin a sales company should earn over its full range of products.

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

The following factors may be considered in determining whether an uncontrolled transaction
is comparable to the controlled transaction for purposes of applying the resale price method:

- The reliability of the resale price method can be influenced by factors that have
  less effect on price. These factors include cost structures (e.g., the age of plant
  and equipment), business experience (e.g., start-up phase or mature business),
  or management efficiency.
- A resale price margin requires particular attention in case the reseller adds
  substantially to the value of the product (e.g., by assisting considerably in the
  creation or maintenance of intangible property related to the product (e.g.,
  trademarks or trade names) and 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 besides 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.

• In case there is a set of transactions in which goods are distributed through an intermediate company, tax administrations may not only analyse the price of goods that are bought from the intermediate company, but also the price paid by the intermediary company to its own supplier and the functions performed by the intermediate company, if that information is available.

• The comparability analysis should 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 between the controlled and uncontrolled transactions that materially affect the resale price margin.

• 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.

In practice, significant difference in operating expenses is often an indication of differences in functions, assets or risks. This may be remedied if operating expense adjustments can be performed on the unadjusted gross profit margins of uncontrolled transactions to account for differences in functions performed and the level of activities performed between the related party distributor and the comparable distribution companies. Since these differences are often reflected in variation of the operating expenses, adjustments with respect to differences in the SG&A expenses to sales ratio as a result of differences in functions and level of activities
performed may be required.

### 2.2.6 Strengths and Weaknesses

The strengths of the resale price method include:

- it is based on the resale price, a market price, and thus represents a demand driven method;
  - In situations where there is no relation between the costs incurred and the sales price of a product or services, the resale price may be more reliable;
- it can be used without forcing distributors to make unrealistic profits. The distributor should earn an arm’s length gross profit margin, however, it can make operating losses due to high selling expenses caused by strategies such as a market penetration strategy;
- 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 should 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.

The weaknesses of the resale price method include:

- it is 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 (i.e. loss-making) for the related supplier of the sales company; and

* the data on gross margins may not be comparable due to accounting inconsistencies.

### 2.2.7 When to use the Resale Price Method?

If comparable uncontrolled transactions can be identified, the CUP method may very well be the most direct and sound method to apply the arm's length principle. If the CUP method cannot be applied, however, other traditional transaction methods to consider are the cost plus method and the resale price method.

The resale price method is normally used in cases which involve the purchase and resale of tangible property in which the reseller does not add substantial value to the tangible goods by way of physically modifying the products before resale or in which the reseller contributes substantially to the creation or maintenance of intangible property.

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 a method to use if the CUP method is not applicable and the sales companies do not own valuable intangible properties.

Consider the example of Figure 2. Assume that Associated Enterprise 1 owns valuable patents to manufacture the cars and a valuable trade name. Associated Enterprise 2 purchases the cars from Associated Enterprise 1 and resells the cars 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 will not be selected, 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. It will be very difficult, if not impossible, to identify manufacturers comparable to Associated Enterprise 1 owning comparable intangible properties when applying the cost plus method. 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 compares them to the gross margin earned by Associated Enterprise 2 on the cars purchased from related parties.

The resale price method is also typically 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.

2.2.8 Case Examples
[to be inserted]

2.3.1 Cost Plus Method
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.

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 profit in light of the functions performed, risks assumed, assets used and market conditions.

The cost plus method is used to analyze transfer pricing issues involving tangible property or services. It is most useful where it is 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 Method

Associated Enterprise 1
Associated Enterprise 2
Arm’s Length Price?
Costs for Associated Enterprise 1 = $500
  + Gross Profit Mark Up (50%) = $250
Arm’s Length Price = $750

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 will instruct Associated Enterprise 1 about the quantity and quality of the goods to be manufactured. Associated Enterprise 1 will be guaranteed sales to Associated Enterprise 2.
and will face little risk. If the CUP method cannot be applied, then the resale price method and the cost plus method are the next methods to be considered. Because Associated Enterprise 1 is less complex in terms of functions and risks in comparison with Associated Enterprise 2, the analysis would focus on Associated Enterprise 1 as the tested party. Since Associated Enterprise 1 can be regarded as (a simple) manufacturer, the cost plus method is the best method of analysis in this case. The cost plus method analyses whether the gross profit markup earned by Associated Enterprise 1 is arm’s length or not. The cost plus method thus does not directly test whether the transfer price is arm’s length by comparing prices. As such, it is an indirect method compared to the CUP method.

2.3.2 Mechanism of the Cost Plus Method
Under the cost plus method, 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.

The formula for the transfer price in intercompany transactions of products is as follows:

\[ TP = \text{COGS} \times (1 + \text{cost plus mark-up}), \]

where:
- \( TP \) = the Transfer Price of a product sold between a manufacturing company and a related company;
- \( \text{COGS} \) = the cost of goods sold of 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.

As an example, let us assume that the COGS in Figure 3 is $5,000. Assume 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 $7,500 (i.e. $5,000 \times (1 +
2.3.3 Arm’s Length Gross Profit Mark-up

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 - cost of goods sold of a sales company. For a manufacturing company, cost of goods sold show the cost of producing the goods sold. It includes direct labour, direct material and factory overheads associated with production.

Gross profit mark-ups will not be comparable if accounting principles differ between the controlled transaction and the uncontrolled transaction. Gross profit mark-ups should therefore be calculated uniformly between 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. Appropriate adjustments should therefore be performed to ensure that gross profit mark-up is calculated in a consistent way.

The costs and expenses of a company normally consist of the following three groups: direct cost of producing a product or service (e.g., cost of raw materials), indirect costs of production (e.g., costs of a repair department that services equipment used to manufacture different products), and operating expenses (e.g., SG&A expenses). The cost plus method considers a
profit margin that is calculated after direct and indirect costs of production have been subtracted. A net margin analysis also considers operating expenses. Due to differences between countries, the boundaries of the three groups of costs and expenses are not clear-cut in each and every case. In a situation in which it is necessary to consider certain operating expenses to obtain consistency and comparability, the cost plus method of analysis comes close to a net margin analysis instead of a gross margin analysis.

For example, assume that Associated Enterprise 1, the car manufacturer which manufactures the cars under contract for Associated Enterprise 2, earns a gross profit mark-up of 15 percent on its cost of goods sold and classifies SG&A 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 SG&A expenses as cost of goods sold. The unadjusted gross profit mark-ups of these comparables are thus not calculated similar to the gross profit mark-up of Associated Enterprise 1. Adjustments should be made on the gross profit mark-ups of the uncontrolled transactions for purposes of accounting consistency.

2.3.4 Transactional comparison versus functional comparison

The arm’s length (range of) gross profit mark-ups can be established by 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; 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.

In practice, the comparability standard of transactional comparison will be much higher that that of functional comparison. 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 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.

However, functional comparison is used most often in practice. The search for comparable companies under functional comparison will be performed using publicly available databases. Based on this benchmarking and financial analyses, an arm’s length range of gross profit markups earned by comparable independent manufacturers will be determined (e.g., between 30% and 45%). If the gross profit mark-up earned by the related party manufacturer falls within this range (e.g., 40%), then its transfer price will be considered arm’s length.

2.3.5 Comparability
In applying the cost plus method, 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 profit mark-up; or
• reasonably accurate adjustments can be performed to adjust for the effect of such differences.

Similar to the resale price method, close similarity of products between the controlled and uncontrolled transactions is less important under the cost plus method than under the CUP method, while functional comparability (including risks assumed and assets used) is crucial.
However, because significant product differences may point out significant functional differences, the controlled and uncontrolled transactions should ideally involve the manufacturing of products within the same product family.

As the gross profit mark-up remunerates a manufacturing company for performing manufacturing function, the cost plus method especially relies on functional comparability (taking into account the functions performed, the risks assumed and assets used). If there are material differences that affect the gross profit mark-ups achieved on the controlled and the uncontrolled transactions, adjustments should be made to account for such differences. The adjustments should be made on the gross profit mark-ups of the uncontrolled transactions. The operating expenses in connection with the functions performed and risks incurred should be taken into account in this respect as differences in functions performed may very well be conveyed in operating expenses.

2.3.6 Determination of Costs
Next to accounting consistency, the application of the cost plus method entails a number of potential difficulties associated with the determination of the costs:

- costs may not be relevant in determining the profit for a particular year. The link between costs incurred and the market price can be very weak (e.g., a company has incurred few R&D expenses in developing a very valuable technology);
- it is important to apply a comparable mark up to a comparable cost basis. On this point, the following can be noted:
  - differences between the parties being compared, which may influence the mark-up level, should be examined. 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 represent inefficiencies or
efficiencies of the parties being compared, no adjustment to the gross profit mark-up should be made. If differences represent additional functions that are different from the activities being analyzed, it may be required to establish a separate remuneration for these additional functions. If differences reflect functional difference, an adjustment to the gross profit mark-up should be made, although it is acknowledged that publicly available data often do not provide sufficient information to make adjustments.

- some costs should be excluded from the cost basis and other costs should include a mark-up. Certain expenses qualify as “flow-through” expenses. Typically, these types of expenses do not fall within the scope of control and reach of the related party service provider, but are passed along to the party for whom the services are ultimately rendered, without a mark-up by the related party service provider. One example would be the cost of third party products or services, to the extent those are not core to the services provided by the related party, not subject to its control and the related party service provider incurs no risk related to these third party products or services. The third party service provider simply performs an intermediary role in this respect. This includes disbursements incurred in the provision of its services, which should simply be reimbursed by the service recipients, and not included in the cost basis on which a mark-up is applied. For example, in the process of rendering marketing services to a related subsidiary, a service provider incurs advertisement expenses paid to an unrelated advertisement agency. These expenses should be reimbursed by the related subsidiary and should not include a mark-up. However, the cost incurred by the service provider in rendering the marketing services should include a mark-up.
the cost plus method is typically applied on controlled transactions involving a contract manufacturer which does not own product intangibles and obtains instructions from a related customer about the quantity and quality to produce.

A distinction can be made between a contract manufacturer in which the related customer puts raw materials in consignment with the manufacturer (‘consignment manufacturer’) and a contract manufacturer which purchases the raw materials itself (‘turnkey manufacturer’). The raw materials are used to perform manufacturing functions. The consignment manufacturer does not incur inventory risk relating to the raw materials, while the turnkey manufacturer does take title to the raw materials and therefore incurs this risk.

The cost plus method is applicable in both cases if the CUP method cannot be applied. However, the cost basis and the mark-up will be different. The cost basis of the consignment case will include the value added cost of the contract manufacturer. Hence, the mark-up is applied only to these value added cost. In the turnkey case, the cost basis include the total cost of goods sold (including raw materials) of the contract manufacturer.

The total costs (TC) of the turnkey manufacturer equal the sum of raw material cost (RMC) and value added cost (VAC): \( TC = RMC + VAC \).

The arm’s length mark-up will be equal to:

\[( RMC/TC ) \times \text{mark-up on RMC} + ( VAC/TC ) \times \text{mark-up on VAC} \]

The mark-up on VAC will generally be higher than the mark-up on RMC.
The arm’s length mark-up for the consignment manufacturer is equal to the mark-up on value added cost.

In searching for comparable contract manufacturers when applying the cost plus method, it is important to distinguish among the two types of contract manufacturers as discussed above, because of the difference in cost basis and hence the level of the mark-up. The mark-up on total cost of the turnkey manufacturer will generally be lower than the mark-up of a consignment manufacturer, because the cost basis of the turnkey manufacturer include raw material cost, which generally generate a lower mark-up than the value added cost.

For example, assume that Associated Enterprise 1 in Figure 3 is a consignment manufacturer, which means that a related party customer places raw materials on consignment with Associated Enterprise 1. A benchmarking study found three independent turnkey manufacturers which purchase raw materials and incur inventory risks with respect to these raw materials. If this difference materially affect the gross profit mark-up, adjustments should ideally be made on the unadjusted gross profit mark-ups earned by the three comparable companies. However, in case the determination of the gross profit mark-up is based on external comparison, it will be very difficult to distinguish between raw material cost and value added cost from the information on cost of goods sold presented in the annual reports of the potentially comparable companies.

As comparable data may not disclose the preferred level of detail, one could also check the proportion of material cost to value added cost.

If the determination of the gross profit mark-up is based on internal comparison, however, which means that Associated Enterprise 1 is
engaged in comparable transactions with independent enterprises, then much more information is available to perform the adjustments on the gross profit mark-ups earned by Associated Enterprise 1 on the uncontrolled transactions.

- accounting consistency is 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 discussion regards whether budgeted cost or actual cost should be used in applying the cost plus method. On the one hand using actual costs will better reflect the few risks faced by the contract manufacturer. On the other hand, third parties will usually use budgeted costs in selling products to the market. That is, you will not charge the customer an additional amount at the end of the year if actual costs are higher than budgeted costs. Disbursements on which no mark-up is applied will often be based on actual costs.

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- as the costs that may be regarded 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 /

\[^4\text{Note that if the contract is based on actual costs, the contractual terms may include incentives or penalties depending on the performance of the contract manufacturer.}\]
service provider and the purchaser of goods/services.

2.3.7 Strengths and Weaknesses

The strengths of the cost plus method include:

• third parties are found that indeed use cost plus method to set prices; and
• it is based on internal costs, the information of which is available to the multinational enterprise.

The weaknesses of the cost plus method include:

• there may be no link between the level of costs and the market price;
• accounting consistency is required between the controlled and uncontrolled transactions;
• it is a one-sided analysis as the analysis focuses on the related party manufacturer. Hence, the arm’s length gross profit mark-up found may lead to an extreme result for the other related parties involved in the controlled transaction (e.g., operating losses); and
• if method is based on actual costs, there may be no incentive for the manufacturer to control costs.

2.3.8 When to Use the Cost Plus Method?

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 and incurs low risks, because the level of the costs will then better reflects the value being added and hence the market price. The cost plus method is thus 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 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.

The cost plus method is usually not a suitable method to use in transactions involving a fullyfledged 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 applied in such cases.

As well as simple manufacturing activities, the cost plus method can also be used in the following cases:

- the intra-group provision of services (e.g., legal, accounting, information technology, marketing, tax, and management services) if the services can be considered to provide a benefit to the service recipient;
- the provision of contract research services by Associated Enterprise 1 to Associated Enterprise 2. Associated Enterprise 2 incurs the risks that the research activities do not lead to any results. However, it will own the intangible properties developed under the research services rendered by

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5 It should be noted that for services, often in practice use is made of the Transactional Net Margin Method as well, with a cost-based profit level indicator.
Chapter 5B - Transactional Profit Methods

1. Introduction
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).

These methods differ from traditional methods in that the analysis is not necessarily based on particular comparable uncontrolled transactions. Often, the analysis is based on the return realized by various companies engaged in a particular line of business or, as it is more commonly called, a “function” (that is, a series of transactions that are appropriate to be aggregated). Typically, these methods are applied when one or more of the associated enterprises uses valuable intangible assets (such as technology intangibles) in transactions with other associated enterprises and the appropriate return for the use of the intangible asset must be determined.
Although it is rare that enterprises use transactional profit methods to actually determine their prices, the profit resulting from a controlled transaction might be quite a good signal to establish whether a special condition affected this transaction and reduces it to a transaction that is not at arm’s length. It should be acknowledged that where the complexities of real life business put practical difficulties in the way of the application of the traditional transaction methods addressed in the previous chapter, transactional profit methods may prove to be a good solution.

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 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.

2. Transactional Net Margin Method

2.1.1 Definition and Choice of Tested Party
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 2.3 below.

The TNMM compares the net profit margin\(^6\) (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

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\(^6\) For example, return on total costs, return on assets, and operating profit to net sales ratio.
companies. As such, the TNMM is a more indirect method than the cost plus / resale price method that compares gross margins. It is also a much more indirect method than the CUP method that compares prices, because it uses net profit margins to determine (arm’s length) prices. One should bear in mind that many factors may affect net profit margins, but may have nothing to do with transfer pricing.

The TNMM is used to analyze transfer pricing issues involving tangible property, intangible property or services. However, it is more typically 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 like 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. The tested party should not own valuable intangible property. This approach has the added benefit of resulting in, because generally more comparable data will then being in existence and fewer adjustments will being required to account for differences in functions and risks between the controlled and uncontrolled transactions. In addition, the tested party should not own valuable intangible property. This, by the way, is also the reason why it is recommended to select the least complex entity for the application of the cost plus method or resale price method.

The application of the TNMM is similar to the application of the cost plus method or the resale price method, but the TNMM involves comparison of net profit margins. Figure 1 and the rest of this section will further illustrate this distinction.
Figure 1: Transactional Net Margin Method

Associated Enterprise 1
Associated Enterprise 2
Unrelated Party
Tested Party?
Least Complex
Price is Given

Given price = $10,000
Cost of goods sold = $?
Gross Profit = $?
Operating Expenses = $2,000
Net Profit (5% of Price) = $500 Comparable

Associated Enterprise 1, a car manufacturer in country 1, sells cars to Associated Enterprise 2 which resells the cars to the Independent Enterprise, a car dealer in country 2. Based on these facts, Associated Enterprise 1 is likely to be 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.

The resale price method will be considered if Associated Enterprise 1 owns valuable intangible property. 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 which perform functions and incur risks comparable to those of Associated Enterprise 2.

Sometimes, it may be better to choose the TNMM. 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 in section 2.3.2 below, the ability to use profit level indicators to compare “functions” rather than “transactions” can be a significant practical benefit of using TNMM.

Similar to the resale price method, the application of the TNMM would entail analysis of the least complex party – 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 would be 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).

### 2.2 Mechanism of TNMM

How should one determine the transfer price based on the application of the TNMM? The mechanism of the TNMM is generally consistent with the mechanisms of the resale price and cost plus methods as can be seen in the following examples.

#### 2.2.1 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:

**Table 1: Mechanism of Resale Price Method**

<table>
<thead>
<tr>
<th>Initially Benchmarking analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resale price</td>
</tr>
<tr>
<td>Cost of goods sold</td>
</tr>
<tr>
<td>Gross profit</td>
</tr>
</tbody>
</table>

The determination of an arm’s length transfer price based on the TNMM is more or less similar. The main difference with a gross margin analysis is that operating expenses are considered in calculating back to a transfer price. In applying the TNMM on 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)\(^8\) is found on the basis of a benchmarking analysis. The cost of goods sold and the gross profit are the unknown variables.

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7 For purposes of completeness, it should be noted that the listed margin is provided solely as an example and is not based on an actual benchmark or comparability search.

8 Net profit equals operating profit before interest and taxes.
Assuming a resale price of $10,000, operating expenses of $2,000 and an arm’s length net profit margin of 5%, the transfer price of $7,500 is determined by working backwards using the available information:

**Table 2: Mechanism of TNMM applied on Related Party Distributor**

<table>
<thead>
<tr>
<th></th>
<th>Initial Benchmarking analysis</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resale price</strong></td>
<td>$10,000</td>
<td>$10,000</td>
</tr>
<tr>
<td><strong>Cost of goods sold</strong></td>
<td>$?</td>
<td>$7,500</td>
</tr>
<tr>
<td><strong>Gross profit</strong></td>
<td>$?</td>
<td>$2,500</td>
</tr>
<tr>
<td><strong>Operating expenses</strong></td>
<td><strong>$2,000</strong></td>
<td><strong>$2,000</strong></td>
</tr>
<tr>
<td><strong>Operating profit</strong></td>
<td>$?</td>
<td>$500   (5% of resale price)</td>
</tr>
</tbody>
</table>

**2.2.2 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:
**Table 3: Mechanism of Cost Plus Method**

Initially Benchmarking analysis

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales price</td>
<td>$7,500</td>
</tr>
<tr>
<td>cost of goods sold</td>
<td>$5,000</td>
</tr>
<tr>
<td>Gross profit</td>
<td>$2,500 (50% of cost of goods sold)</td>
</tr>
</tbody>
</table>

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 by Table 4 illustrates that working backwards using the available information leads to the determination that the sales price is $7,500.

**Table 4: Mechanism of TNMM applied on Related Party Manufacturer**

Initially Benchmarking analysis

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Resale price</td>
<td>$7,500</td>
</tr>
<tr>
<td>cost of goods sold</td>
<td>$5,000</td>
</tr>
<tr>
<td>Gross profit</td>
<td>$2,500</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>$1,000</td>
</tr>
<tr>
<td>Operating profit</td>
<td>$1,500 (25% of total cost)</td>
</tr>
</tbody>
</table>
2.3 Arm’s Length Net Profit Margin

2.3.1 Definition of Net Profit Margin
In comparison with the resale price and cost plus methods, several profit level indicators (PLIs) are allowed under the TNMM, which are typically based on either gross profit or operating profit. More specifically, the PLI will be the gross or operating profit relative to an appropriate base (e.g., costs, sales and 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.

Gross profit” means total sales minus the cost of sales. Thus, it takes into account only direct expenses.

“Operating profit” or “operating income” basically equals the income - net of direct and indirect expenses but before deduction for interest and taxes - of a company. “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. Furthermore, the term “operating profit” indicates better that only profits resulting from operating activities are relevant for transfer pricing purposes. “

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.
Table 5: Overview of various profit level indicators:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on assets (ROA)</td>
<td>Operating profit divided by the operating assets (normally, only tangible assets)</td>
</tr>
<tr>
<td>Return on capital employed (ROCE)</td>
<td>Operating profit divided by capital employed which usually computes as the total assets minus cash and investments</td>
</tr>
<tr>
<td>Operating margin (OM)</td>
<td>Operating profit divided by sales</td>
</tr>
<tr>
<td>Gross margin (GM)</td>
<td>Gross profit divided by sales</td>
</tr>
<tr>
<td>Return on total cost (ROTC)</td>
<td>Operating profit divided by total costs</td>
</tr>
<tr>
<td>Return on cost of goods sold</td>
<td>Gross profit divided by cost of goods sold</td>
</tr>
<tr>
<td>Berry Ratio</td>
<td>Gross profit divided by operating expenses</td>
</tr>
</tbody>
</table>

Although all the above PLIs are possible, the three PLIs of (i) return on capital employed (ROCE) (ii) operating margin (OM) and, (iii) Berry Ratio are most used in practice. An OM is typically used for marketing, sales and distribution activities, a Berry ratio is typically used for service of distribution activities, whereas full cost plus, ROCE or ROA are typically used for manufacturing activities.

The two PLIs of the ROA and ROCE divide operating profit by a balance sheet figure. The 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, and, for ROA, minus intangible assets such as goodwill.

This type of PLI may be 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, which 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.

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.

Conceptually, the Berry Ratio represents a return on a company’s value added functions on the assumption that the company’s value added functions are captured in its operating expenses. Observed in practice 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 the case where their value-added functions can be considered as captured 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 its costs of provision of its services alone.
In general, gross margin has not been favored 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.

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.

In certain countries, the Berry Ratio is used in the cases of distribution of tangible property. The OECD Transfer Pricing Guidelines discuss the Berry Ration in paragraphs 2.100 through 2.102. The Berry Ratio may come in useful for intermediary activities where a taxpayer purchases goods from a related party and on-sells them to another related party.

In such cases, the resale price method or the cost plus method may not be easy to use, due to the absence of the right comparables.

2.3.2 Transactional comparison versus functional comparison

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.
Much more detailed information will exist with respect to the controlled and uncontrolled transactions if 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 functional comparison in which only public information is available (e.g., business descriptions in 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.

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 was performed, which identified 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**

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

Product comparability is important in applying the CUP method, as differences in products will result in different prices. The cost plus method and the resale price method 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 less dependent on product comparability and functional comparability as 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.

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.

Specific factors affecting 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 there are material differences between the tested party and the independent enterprises that affect the net margins, appropriate adjustments should be made to account for such differences.
2.5 Other Guidance for Application

The TNMM should not be applied on the aggregate activities of a complex enterprise engaged in various and different transactions or functions. It should 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. The TNMM should be applied employing transactions or functions of independent enterprises, which 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. This may be different when the aggregate activities/transactions are sufficiently interlinked, however. For example, when similar sales functions are conducted for products in similar product lines.

The latter point is illustrated in Figure 2 below. Related Party Distributor purchases products from both Related Party Manufacturer and Unrelated Manufacturer and resells these products to customers. The tax authorities in the country of Related Party Distributor applies the TNMM to determine whether the transfer prices of Related Party Distributor is arm’s length. A benchmarking study performed by the tax authorities show that comparable distributor earn an operating profit margin between 2% to 6%. The tax authorities apply the TNMM to the P&L of Related Party Distributor as a whole. As the operating profit margin earned by Related Party Distributor is 1% based on aggregate transactions and therefore does not fall within the arm’s length range, the tax authorities determine that the transfer price is not at arm’s length. If the TNMM was applied only to the controlled transactions, however, the conclusions would have been very different. The operating profit margin earned by Related Party Distributor on the controlled transactions is 5%, which falls within the arm’s length range of comparables and, in many jurisdictions would not be subject to adjustment. It appears from the P&L that the uncontrolled transactions themselves generated operating losses, which resulted in lower
consolidated results for the company as a whole.

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

An analysis considering multiple year data is better able to take into account the effects on profits of product life cycles and short-term economic conditions. However, as discussed elsewhere in this Manual different countries take different views about when multiple year data should be 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 is affected by a factor unique to that taxpayer.

2.6 Strengths and Weaknesses

The strengths of the TNMM include the following:

• net margins are less affected by transactional differences (than price) and functional differences (than gross margins). Product and functional comparability are thus less critical in applying the TNMM;
• less complex functional analysis needed, as TNMM is applied 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;
• it is applicable to both sides of the controlled transaction (i.e. either the related party manufacturer or distributor); and
• the results resemble the results of a modified resale price / cost plus method of analysis.

The weaknesses of the TNMM include 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: 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, in case 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 practical
problem;
• TNMM is applied only to 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 / resale price method, 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 is therefore appropriate;
• it may be difficult to “work back” to a transfer price from a determination of
the arm’s length net margins; and
• several 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.
2.7 When to use the TNMM?

TNMM is usually applied with respect to 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 disfavored 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.

TNMM may also be appropriate for use in certain situations in which data limitations on uncontrolled transactions make it more reliable than traditional methods:

- 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 analyse net margins, a more consistent measured profit level indicator than gross margins in case of accounting differences.

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

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

Table 7: Accounting Differences: Resale Price Method versus TNMM

<table>
<thead>
<tr>
<th>Related Party Distributor</th>
<th>Comparable Distributor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling price</td>
<td>100 100</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>80 70</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>20 30</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>10 20</td>
</tr>
<tr>
<td>Operating profit</td>
<td>10 10</td>
</tr>
</tbody>
</table>
where the available comparables differ significantly with respect to products and functions in order to reliably apply the cost plus or resale price method, it may be more appropriate to apply the TNMM, because net margins are less affected by such differences. For example, in performing a benchmarking analysis for the purposes of the resale price or cost plus method, it appears 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 appropriate using the same comparables than the resale price or cost plus method; and

• where the data is simply not available to perform a gross margin method of analysis. For example, 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 return on total costs as the profit level indicator.

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

3 Profit Split Method
The profit split method is typically applied when both sides of the controlled transaction own significant intangible properties. The profit is to be divided such as is expected in a joint venture relationship.
3.1 Definition

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 are 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

Associated
Enterprise 1
Associated
Enterprise 2

The profit split starts with 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 and trading activities or financial services.

3.2 Methods to allocate or Split the Profits
There are generally considered to be two specific methods to allocate the profits between the associated enterprises: contribution analysis and residual analysis.

3.2.1 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 the 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.

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.

3.2.2 Comparable profit split
In some countries, another version of the profit split method is used. Alternatively, one can split 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.

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

### 3.2.3 Residual analysis

Under the residual analysis, the combined profits from the controlled transactions are allocated between the associated enterprises based on a two-step approach:

- **step 1**: allocation of sufficient profit to each enterprise to provide a basic 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.
The residual analysis is typically applied in cases where both sides of the controlled transaction own valuable intangible properties. For example, company X manufactures components using a valuable intangible property and sells the components to a related company Y which uses the components to manufacture final products also using valuable intangible property and which sells the final products to customers. The first step of a residual analysis would allocate a basic [routine] return to company X for its manufacturing function and a basic [routine] 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 should be 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.

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

The residual profit split method is more used in practice than the contribution approach for two reasons. First, the residual approach breaks up a complicated transfer pricing problems
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 split in the potentially more controversial second step.

3.3 Strengths and Weaknesses
The strengths of the profit split method include:

- that it is suitable for highly integrated operations for which a one sided method may not be appropriate;
- its suitability in cases where the traditional methods prove inappropriate due to a lack of comparable transactions;
- its avoidance of 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
- its ability (in fact unique among commonly used transfer pricing methods) to deal with returns to synergies between intangible assets or profits arising from economies of scale.

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 in unclear (although this approach is arguably consistent with the way interests are divided between joint ventures);
- its dependence on access to data from foreign affiliates. Associated enterprises and tax administrations may have difficulty obtaining information from foreign affiliates;
- third parties in general do not use the profit split method to establish transfer
prices (maybe only in joint ventures); 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.

3.4 When to use the profit split methods?
The profit split method might be used in cases involving highly interrelated transactions that cannot be analysed on a separate basis. This means that the profit split method can be applied in cases where the associated enterprises engages in several transactions that are interdependent in such a way that they cannot be evaluated on a separate basis using a traditional transaction method. The transactions are thus 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. *The Taxation of Global Trading of Financial Instruments*\(^9\), presents cases in which the profit split method can be applied to such trading, for example.

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

In this respect, the OECD Guidelines present a practical example\textsuperscript{10} whereby company A designs and manufacturers an electronic component, and transfers the components to a related company B which uses the components to manufacturers an electronics product. Both company A and company B use innovative technological design to manufacture the components and electronics product, respectively. Company C, a related company, distributes the electronics 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 knowing that both companies own valuable intangible property.

In step 1 of the residual analysis, a basic return for the manufacturing function is determined for company A and company B. In this respect, a benchmarking analysis is performed to search for comparable independent manufacturers which do not own the valuable intangible property. The residual profit, which is the combined profits of company A and Company B deducting these companies’ basic return for manufacturing function, is then divided between company A and company B, assuming that relative R&D expenses is a reliable key to measure the relative value of each company’s contributions of intangible property. Subsequently, the net profits of company A and company B are calculated in order to work back to a transfer price.

The use of the profit split method will be limited in most countries because it is relatively difficult to apply in comparison with the other methods. 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

\textsuperscript{10}\textit{OECD Transfer Pricing Guidelines, 2010, At page 319}
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 related to the valuation of intangibles.