An Economic Framework for Identifying the Tested Party

By Michael I. Cragg and David J. Hutchings


Michael I. Cragg


David J. Hutchings

Michael I. Cragg is a principal and David J. Hutchings is an associate with the Brattle Group.

In this article, Cragg and Hutchings propose an economic framework for determining the tested party under the comparable profit method for transfer pricing.

The comparable profit method is a standard method for transfer pricing, particularly when the intracompany transactions are entirely between two related parties and third-party prices are therefore not readily observable. A necessary first step in the CPM is identifying the "tested party" — the related party whose profits will be determined through the CPM. For example, if entity A sells to entity B, and entity B is the tested party, the revenue to A and costs to B will be the same and set to generate B's level of profit as determined by the CPM.

The regulations under section 482 define CPM in general:

> The comparable profits method evaluates whether the amount charged in a controlled transaction is arm's length based on objective measures of profitability (profit level indicators) derived from uncontrolled taxpayers that engage in similar business activities under similar circumstances.[1]

Reg. section 1.482-5(b)(2)(i) provides guidance on the choice of tested party:

> For purposes of this section, the tested party will be the participant in the controlled transaction whose operating profit attributable to the controlled transactions can be verified using the most reliable data and requiring the fewest and most reliable adjustments, and for which reliable data regarding uncontrolled comparables can be located. Consequently, in most cases the tested party will be the least complex of the controlled taxpayers and will not own valuable intangible property or unique assets that distinguish it from potential uncontrolled comparables.

The OECD guidelines provide similar guidance:

> A one-sided method (traditional transaction method or transactional net margin method) may be applicable in cases where one of the parties makes all the unique contributions involved in the controlled transaction, while the other party does not make any unique contribution. In such a case, the tested party should be the less complex one.[2]

A key issue immediately presents itself: What does it mean to be "the least complex" party? Several pending Tax Court cases highlight the controversy over how to answer that question.[3] As discussed below, the taxpayers in those cases are disputing substantial adjustments resulting from the IRS's determination to "flip" the tested party.

We believe economic principles provide the proper approach to the tested party issue, particularly the complexity question. It is consistent with the relevant provisions of U.S. tax law, as well as the OECD transfer pricing guidelines.

Economic Theory Underlying the CPM

The premise of the CPM is that companies performing similar functions and assuming similar risks should earn similar returns. The underlying

[1]Reg. section 1.482-5(a).

[2]OECD, "OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations," at para. 2.59 (July 2010) (OECD 2010 guidelines).

[3]*See, e.g.*, *Abbott Laboratories v. Commissioner*, Tax Ct. Dkt. No. 29307-11; *Medtronic Inc. v. Commissioner*, Tax Ct. Dkt. No. 6944-11; and *Guidant LLC v. Commissioner*, Tax Ct. Dkt. No. 5989-11.

economic assumption is that, in the long run, competition will drive out inefficient companies or those with high marginal costs and that the remaining companies will have the same or a similar marginal cost.[4] Otherwise, the theory goes, the more efficient incumbent companies could lower prices and capture the market shares of the less efficient companies. As a result, each company should be charging its marginal cost, which should be the same or similar.

Of course, it will never be so perfect that each company has the exact same cost. There are always differences, such as those between the particular markets served or company-specific events in a given year, that may lead to higher or lower profitability. But with a sample of similar companies and more than a year's worth of data, a reasonable estimate of profitability is possible.

This approach is not dissimilar to the market multiples method for valuation. One identifies similar companies or transactions and looks at the ratio of company value (typically enterprise value) to specific income statement or balance sheet measures. Assuming those companies' operations and profitability are comparable (that is, selected financial measures can be converted into company value at roughly the same rate), using those multiples for the valuation target will give a good estimate.

Both the code and the OECD guidelines recognize that one of the key assumptions required for the CPM to hold true is that competition will drive companies to earn similar profits.

The OECD guidelines provide:

> Economic circumstances that may be relevant to determining market comparability include the geographic location; the size of the markets; the extent of competition in the markets and the relative competitive positions of the buyers and sellers; the availability (risk thereof) of substitute goods and services; the levels of supply and demand in the market as a whole and in particular regions, if relevant; consumer purchasing power; the nature and extent of government contract.[5]

Reg. section 1.482-1(d)(3)(iv) states:

> Determining the degree of comparability between controlled and uncontrolled transactions requires a comparison of the significant economic conditions that could affect the prices that would be charged or paid, or the profit that would be earned in each of the transactions. These factors include —
>
> (A) The similarity of geographic markets;
>
> (B) The relative size of each market, and the extent of the overall economic development in each market;
>
> (C) The level of the market (for example, wholesale, retail, etc.);
>
> (D) The relevant market shares for the products, properties, or services transferred or provided;
>
> (E) The location-specific costs of the factors of production and distribution;
>
> (F) The extent of competition in each market with regard to the property or services under review;
>
> (G) The economic condition of the particular industry, including whether the market is in contraction or expansion; and
>
> (H) The alternatives realistically available to the buyer and seller.[6]

From an economic perspective, the degree of competition is a critical component of the tested party determination. Without assessing the competitiveness of the markets, one cannot conclude that the economic assumptions necessary for the CPM to work will hold true. Thus, we believe an appropriate metric for complexity is the extent to which the services and functions that each party provides to the controlled transaction are competitively supplied. The party whose services are all competitively supplied can be the tested party because the functions can be priced with reference to competitive benchmarks, consistent with the economic theories underlying the CPM. If competitive benchmarks are not used, the CPM must ensure comparability by drawing on the theory of industrial organization for the impact on profit level indicators (PLIs).[7]

---

[4]The concept of price equal to marginal cost in competition is the standard paradigm in economics. The paradigm recognizes that fixed and quasi-fixed costs must also be covered, and any implementation accommodates this reality.

[5]OECD 2010 guidelines, *supra* note 2, at para. 1.55; OECD revised transfer pricing guidelines, at para. 1.110 (Oct. 2015).

[6]Note that reg. section 1.482-1 concerns transfer pricing more generally. Reg. section 1.482-5(b)(2)(i) and (ii), which specifically concerns the CPM, states that these factors must be considered. Therefore, although all the factors described in reg. section 1.482-1(d)(3) must be considered, comparability under this method is particularly dependent on resources used and risks assumed.

[7]The Lerner index is a standard measure used by antitrust economists to describe market power. *See* Kenneth G. Elzinga and David E. Mills, "The Lerner Index of Monopoly Power: Origins and Uses," 101 *Am. Econ. Rev.* 558 (2011). The Lerner index recognizes that the margin between price and marginal costs is inversely related to the company's elasticity of demand,

(Footnote continued on next page.)

It is important to assess both parties to see which (if either) could be the tested party and to then continue the split of value at the end as a ''sanity check.'' In essence, the CPM says that the tested party's profit is fixed at $X. Because the total profit earned by the related parties is knowable — call it $Y — the CPM implicitly assigns the residual profit ($Y - $X) to the non-tested party. The CPM is, in a way, saying how much the non-tested party would pay for the functions performed by the tested party if it were to procure them from a third party. So the payment that would permit the tested party to earn a profit of $X is simply a cost of the non-routine, non-tested party doing business.

Next we assess when we are likely to satisfy the economic assumptions necessary for the CPM.

When Competitive Supply Is More Likely

One requirement of the CPM is that there be active competition, or at least the potential for entry, which should mean the marginal costs of incumbents are at the same or a similar level (and that the price has been driven down to that level). Indicia of competitive supply include:

- many incumbent companies serving similar markets;
- a shifting market share of incumbent companies;
- observed entry and exit of companies from the market;
- similar profitability of companies in the market; and
- relatively standardized functions being performed across all incumbents.

The functions being performed are critically important. The functions of each party must be assessed to determine which party has functions that meet the criteria and is therefore a candidate tested party. Note that performing *more* functions is not a signal that a party is more complex. If each function is competitively supplied and can be benchmarked, it is straightforward to benchmark them. For example, if one party performs five functions and a second party performs one function, it is tempting to say the first party is more complex. However, if each function performed by the first party is competitively supplied and the function performed by the second party is not, the second party is more complex from an economic perspective.[8]

In assessing the functions, it is important to consider both how the function is being performed and what risks are being borne in performing it. The ownership of risk is a bedrock principle of finance — compensation is due for bearing risk — and so it cannot be overlooked. For example, if one is investigating a selling function, it is important to consider where the price risks from holding inventory are. Are the products to be sold acquired first by the party performing the selling? If so, higher compensation would be due than if title was not taken to the goods being sold.

When Competitive Supply Is Less Likely

Unless prices are lowered through competition, we cannot be sure that all companies are earning similar profits since not all incumbents need have the same marginal cost. Instead, there will be variation in profits, with the least efficient incumbent earning its marginal cost or slightly above. The other companies may not expand and replace this company if, for instance, (1) the market is already concentrated, and further consolidation would increase regulatory scrutiny; or (2) there are capacity constraints to effective expansion — that is, an incumbent could not capture enough of the target markets to operate efficiently without substantial expansion in capacity, which may lower prices and profitability.

The following are some of the indicia of situations in which functions may not be competitively supplied:

- there are few competitors;
- there is no meaningful entry or exit from the market for some time;
- there are stable margins and market shares for the incumbents;
- there is limited or nonexistent outsourcing ability;
- incumbents enjoy cost advantages from scale or scope economies, or learning by doing;

which itself is a function of market structure. When there is perfect competition, the company faces an infinite elasticity because if it raises prices, it loses its customers to its lower-cost rivals. The Lerner index shows that when there is a deviation from perfect competition, profitability (and therefore the PLI) becomes a function of the properties of demand facing the company. The company's price elasticity of demand in a four-company oligopoly with a high degree of substitution between competitors will be very different from the company's elasticity of demand when the four companies' products are differentiated so that consumers have affinities for each company's products, allowing them to raise prices. This illustrates why comparable PLIs in noncompetitive industries become a function of economic properties that are not captured in a company's accounting statements and why application of the CPM to situations in which competition is weak requires caution.

[8]The OECD guidelines are clear that the individual transactions are what should be tested under the transactional net margin method, which is akin to the CPM, although the focus is again more transactional. OECD 2010 guidelines, *supra* note 2, at para. 2.58. The transactional net margin method examines the net profit relative to an appropriate base (*e.g.*, costs, sales, or assets) that a taxpayer realizes from a controlled transaction.

- intangible assets like patents are prominently used; and
- there are important asymmetries of information between buyers and sellers.

In these situations, even if the incumbents were performing the same or similar functions, one could not be certain that they would be earning similar profits because there is a lack of competition to force inefficient companies out of the market. The primary reason these conditions can persist is that the incumbents benefit from material barriers to entry, meaning that a new entrant would have to invest in substantial, and potentially unrecoverable, fixed costs.

Role of Intangibles

Reg. section 1.482-5(b)(2)(i) notes that the tested party will often neither own valuable intangibles nor use unique assets. This aligns well with economic principles regarding competition. If the related party uses a unique asset in the controlled transaction, that asset, by definition, cannot be competitively supplied. And if an asset is unique, its uniqueness is almost certainly a valuable intangible. However, just as we have argued that the term ''complexity'' should be considered in an economic context, we caution against a literalist reading of the term ''unique.'' A nominally unique system often is not truly unique (or functionally unique) and extra valuable because company-specific assets are needed just to remain competitive.

Suppose, for example, that Acme Corp. designed an internal accounting system called AcmeBooks into which all its transactions were recorded. No one else has it because it was designed by Acme. So in a literal sense, the system is unique. But do we really believe other companies don't have the same type of system? If the functions of AcmeBooks are no different than those of QuickBooks (and based on our description of them, they are not), there is no reason for the existence or use of AcmeBooks to be an obstacle in determining the tested party. Again, the notion of functions being competitively supplied is the overarching concern. This becomes a problem only if there is a truly unique *function* being performed that is not provided elsewhere in the market.

The OECD guidelines recognize this fact:

> There are also many cases where a party to a transaction makes contributions that are not unique — *e.g.*, uses non-unique intangibles such as non-unique business processes or non-unique market knowledge. In such cases, it may be possible to meet the comparability requirements to apply a traditional transaction method or a transactional net margin method because the comparables would also be expected to use a comparable mix of nonunique contributions.[9]

The comparable uncontrolled transactions method for pricing patents, brands, and other intangible assets relies on the economic insight that the market can provide prices for items that are superficially unique.

Technical Aspects of Implementing the CPM

Quantitative and qualitative screenings of comparable companies are useful in implementing the CPM and finding the appropriate set of comparable companies once the tested party determination is made. The choice of PLI is important, too. Here the goal is to find the income statement or balance sheet measure that most appropriately drives profits in the industry being studied. The profit measures that companies highlight in public financial statements may be useful evidence in determining what *they* believe drives value. Restricting potential comparable companies based on size and spending in specific areas can also be helpful in selecting companies most similar to the potential tested party. However, size may matter only to a point, and assessing economies of scale is important here (for example, comparing companies' total sales to the selected PLI to see if there is a relationship with size and whether that holds true for all company sizes).

The functions performed by the tested party (and the comparable companies) are directly relevant to selecting the PLI. The selected PLI should be the main ''driver'' of a company's profit and value, and it should be the same across companies (because, in effect, it is being assumed that the PLI can determine profits by reference to comparable companies).[10] If large industrial plants are the main driver of company value, an asset-based measure may be more appropriate than if the main driver of profitability is the sales force. One should consider the statistical distribution of PLIs for the comparable companies because wide variation in profitability

[9]OECD 2010 guidelines, *supra* note 2, at para. 2.60.

[10]*See id*. at para. 2.87:

> The denominator should be focused on the relevant indicator(s) of the value of the functions performed by the tested party in the transaction under review, taking account of its assets used and risks assumed. Typically, and subject to a review of the facts and circumstances of the case, sales or distribution operating expenses may be an appropriate base for distribution activities, full costs or operating expenses may be an appropriate base for a service or manufacturing activity, and operating assets may be an appropriate base for capital-intensive activities such as certain manufacturing activities or utilities. Other bases can also be appropriate depending on the circumstances of the case.

measures may be a sign that either the function is not competitively supplied or the selected PLI is a poor predictor of profitability and value.[11] Thus, revisiting the tested-party determination and the selection of comparable companies may be in order.

It is useful to consider what part of the income statement or balance sheet the tested party is most in control of because that is where a rational company would focus energy in minimizing costs and maximizing revenues. The companies that are best at doing so will be the most efficient companies and the ones we would expect to see in the industry in the long run, after competition has weeded out the less efficient alternatives.

With distributors, for example, the appropriate measure will probably be operating expenses because the cost of goods sold is simply the purchase price from manufacturers and the revenue is likely market prices. In that case, a company would be expected to focus on minimizing sales force costs while maintaining the level of sales. In a manufacturing example, the appropriate measure might be gross margin (the ability to minimize the cost of goods sold) or the return on assets (the ability to profitably use manufacturing equipment) because the companies are turning raw goods into a finished product (considering that the production process must be readily replicable for the tested-party determination). The specific choice of PLI will vary by scenario, but this is a useful heuristic in approaching the problem.

One must consider the financial statements for the related parties to see what adjustments should be made to bring them in line with the (typically) generally accepted accounting principles-based (or international financial reporting standards-based) financials that are likely used in the publicly available financial statements for comparable companies. Otherwise, one runs the risk of making apples-to-oranges mistakes.[12] Along those lines, a careful consideration of depreciation is needed if one is attempting to use a balance-sheet-based PLI because the book values and economic values of assets can be quite different (the same could be true for income-statement-based PLIs if depreciation is not recorded in the same way).[13] How intangibles, such as goodwill, are treated can also be inconsistent across companies and must be taken into account to ensure that returns are being measured in a consistent and economically sensible way.

Another consideration is whether the transfer pricing analysis is a forward-looking or backward-looking exercise. If it is backward-looking, one should think about restricting the comparable set to the companies that are profitable.[14] The reasoning is straightforward: (1) In the long run, unprofitable companies cannot exist, so there must be some idiosyncratic event for those comparable companies; and (2) in a backward-looking transfer pricing analysis, we already know that the tested party has not become insolvent, so we want to specifically account for survivorship bias. If the transfer pricing analysis is forward-looking, one could use all data, even from companies in financial distress, but only if there were no implicit or explicit guarantees from related companies that would make the tested party less likely to fail than a stand-alone company.

Flipping the Tested Party

We mentioned above that the IRS has recently been flipping the tested party. There are four pending cases (one of which has gone to trial) that highlight this: *Abbott Laboratories v. Commissioner*,[15] *Medtronic Inc. v. Commissioner*,[16] *Eaton Corp. v. Commissioner*,[17] and *Guidant LLC v. Commissioner*.[18]

---

[11]Value is the present value of cash flows, typically profit. Thus, looking at enterprise value measures can be informative because it will provide a market-based guideline of how a company's financial statements translate into profits and value.

[12]*See* OECD 2010 guidelines, *supra* note 2, at para. 2.75:

> Another important aspect of comparability is measurement consistency. The net profit indicators must be measured consistently between the associated enterprise and the independent enterprise. In addition, there may be differences in the treatment across enterprises of operating expenses and non-operating expenses affecting the net profits such as depreciation and reserves or provisions that would need to be accounted for in order to achieve reliable comparability.

[13]*See id.* at para. 2.98:

> In cases where the net profit is weighted to assets, the question arises how to value the assets, *e.g.*, at book value or market value. Using book value could possibly distort the comparison, *e.g.*, between those enterprises that have depreciated their assets and those that have more recent assets with on-going depreciation, and between enterprises that use acquired intangibles and others that use self-developed intangibles. Using market value could possibly alleviate this concern, although it can raise other reliability issues where valuation of assets is uncertain and can also prove to be extremely costly and burdensome, especially for intangible assets. Depending on the facts and circumstances of the case, it may be possible to perform adjustments to improve the reliability of the comparison. The choice between book value, adjusted book value, market value and other possibly available options should be made with a view to finding the most reliable measure, taking account of the size and complexity of the transaction and of the costs and burden involved, see Chapter III, Section C.

[14]When, of course, financial statements are on an apples-to-apples basis.

[15]Tax Ct. Dkt. No. 29307-11.

[16]Tax Ct. Dkt. No. 6944-11.

[17]Tax Ct. Dkt. No. 5576-12.

[18]Tax Ct. Dkt. No. 5989-11.

In *Abbott*, the transfer pricing question concerns transactions between an Irish subsidiary and a U.S. subsidiary for stents and vascular intervention devices. Abbott's transfer pricing used both a CUT method and a CPM with the U.S. subsidiary as the tested party since the Irish subsidiary was engaged in the manufacture of complex, regulated products, while the U.S. subsidiary was serving a distribution role. The IRS's adjustments involve using both a resale-price method and a CPM with the Irish subsidiary as the tested party. The petition takes pains to highlight the risk-bearing nature of the Irish manufacturing subsidiary, as opposed to that of a routine contract manufacturer.

It will be critical to see which subsidiary is identified as the tested party and which functions the court views as complex. If the U.S. subsidiary is in fact a routine distributor, it would seem straightforward to determine a transfer price with the U.S. subsidiary as the tested party. However, if the U.S. distributor is performing additional functions and bearing more risk, so that the Irish subsidiary is akin to a contract manufacturer, it may be more appropriate to have the Irish subsidiary as the tested party. (The discussion of the CUT method versus the resale price method will also be of interest, in particular to see what guidance, if any, is provided on the interpretation of a unique intangible.)

Medtronic has been tried, and a decision is pending. The dispute involves a Puerto Rican subsidiary that manufactured medical devices in Puerto Rico using specific U.S.-based intellectual property. The devices were then distributed by a U.S. subsidiary. As we understand it, Medtronic used a combination of a CUT method (to price intangibles) and a CPM (to price the distribution function) with the U.S. subsidiary as the tested party. The IRS proposed using a CPM with the Puerto Rican manufacturing operation as the tested party.

Again, the court's determination of the least complex party will be informative. It will also be useful to see what consideration, if any, is given to pricing the functions separately (through a CUT method and a CPM for the U.S. subsidiary) rather than together (a CPM for the Puerto Rican subsidiary). A more disaggregated approach may yield more reliable results since the level of comparability can be higher for a more precisely defined function.

Eaton also involves the IRS determining a new tested party, in this case using a CPM with Caribbean manufacturing facilities (which were licensing U.S.-based intangibles) as the tested parties. Manufacturing complexities are at the heart of this dispute, regardless of whether the manufacturing operations were easily replaceable (that is, competitively supplied). *Guidant* shares features of all the above cases.

We highlight these cases to show the widely divergent opinions that exist on which party should be the least complex (tested) party. There thus seems to be a need for a principled, economic framework for assessing this key question. We believe assessing the competitiveness of the supply of functions is the right approach because it is consistent with the economic theory at the heart of the CPM.

Final Thoughts

We have argued that the term ''complex'' in the tested-party context is often best interpreted as meaning noncompetitively supplied functions (and for competitively supplied functions, how comparable they are to competitors'). That interpretation is consistent with the economic assumptions underlying the CPM and consistent with other guidance in both the OECD guidelines and U.S. tax law.