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## ARM'S LENGTH PRICING: SOME ECONOMIC PERSPECTIVES

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**Abstract**

This paper was prepared for the Conference on Policy Alternatives for Transfer Pricing sponsored by the Office of Tax Policy Research of the University of Michigan on October 25, 1991. It addresses a number of economic issues involved in determining, for tax purposes, the appropriate terms governing transactions among commonly controlled corporations when those corporations are located in different taxing jurisdictions. The paper notes that in almost all industrialized nations the accepted standard in this regard is the so-called arm's length standard. The paper then discusses the underlying economic logic of U.S. Treasury Regulations governing the application of that standard, noting discrepancies in some recent Court decisions. The paper argues that compliance by multinational corporations could be improved significantly if the basic economic thrust of these Regulations were better and more widely understood. The authors, however, also note the inherent ambiguity, in some instances, of the arm's length standard, and welcome a recently proposed U.S. alternative administrative procedure for dispute resolution.

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## 1. Introduction

An income tax, including one levied on corporations, is based on the terms of transactions -- the terms at which goods and services are bought and sold. A transfer pricing problem may arise when those transactions (including financial transactions) take place between entities that are commonly controlled. Much as an individual could write arbitrary contracts with himself without affecting in any material way that individual's economic circumstance, commonly owned corporations could write contracts among themselves without necessarily implying anything about the actual economic conduct of those firms.

For commonly controlled corporations that are resident within the United States, and for federal tax purposes, the ability to write such contracts does not generally create a problem. Income that is artificially reduced by one such firm in contracting with an affiliate will be captured and reported by that affiliate. The aggregate income of the two, and hence their total federal tax liability, will not be altered by the terms of any contract between them.<sup>1</sup>

The situation, of course, is quite different when the commonly owned or controlled corporations reside in different tax

jurisdictions. In this setting, the self-cancelling which renders errors in the terms of such inter-company contracts unimportant for federal tax purposes is not present. Section 482 of the Internal Revenue Code has therefore come to impose the requirement that the terms of transactions among commonly controlled corporations in this setting correspond to those that would be expected were the corporations in question not commonly owned or controlled. This is the "arm's length pricing" standard that is currently the basic underpinning of U.S. taxation of multinational corporations.

This standard relies on economics. It involves the determination or estimation of what would have been true had the transactions in question been carried out by unrelated, as opposed to commonly controlled, firms. In this paper, we accept that starting point. Our paper is not, therefore, (as advertised) "an economist's proposal" to re-define the basis for the taxation of multinational corporations. It is rather an economist's reaction to the ways in which some others have interpreted the economics implicit in the arm's length standard itself. Our thesis is that many problems in implementing the arm's length principle could be substantially alleviated if the Courts had a better grasp of the economist's logic, and a better sense of what one can reasonably conclude from economic data.

We begin with an economic interpretation of an arm's length standard. We then relate that interpretation to the first three methods prescribed by Treasury Regulations for determining arm's

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<sup>1</sup>We are consciously ignoring a myriad of other problems that are indeed present -- including the interests of minority shareholders in corporations that are commonly controlled but not totally commonly owned, as well as the ability, or lack thereof, to offset losses in one area by gains in others. There is also, of course, the possibility that such contracts can affect the aggregate liability of such firms for state income taxes or their proxies, which presumably is why state allocation formulas have developed. See also below at page 6.

length prices, and illustrate the differences between our logic and the logic that the Courts have, on occasion, turned to. Our purpose is not to propose a "fourth" or even a "fifth" method, but rather to comment primarily on those areas where economics may have something to offer, and where, perhaps, economic inference has been misunderstood.

## 2. The Arm's Length Standard in Theory.

Section 482 does not explicitly prescribe an arm's length standard. Indeed, Section 482 merely enables the Secretary of the Treasury, or his delegate, to re-allocate gross income in order properly to "reflect" the source of that income. The standard, however, for properly reflecting that income has become, not just in this country, but in virtually all other major taxing jurisdictions, the income that would have been earned at arm's length.<sup>2</sup> While it might be tempting, in a paper such as this one, to suggest alternative means of allocating income, such as a formula method of the type employed by American states in their corporate income tax accounting, it seems to us that formula allocation could be a viable alternative only with a

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<sup>2</sup>Of the 25 industrialized countries surveyed by Lawlor (1985), 24 applied the arm's-length principle to taxation of related-party transactions; Hong Kong was the sole exception.

very radical change in world-wide tax procedures.<sup>3</sup> The differences that have persisted among allocation formulas in different states suggest further that the development of an acceptable international formula allocation system would itself not be without conflict.

The appeal of the arm's length standard is that it purports to place, in each taxing jurisdiction, the commonly controlled firm on the same footing as an equivalent uncontrolled firm, thereby providing no competitive advantage or disadvantage to commonly controlled firms, and hence no incentive to alter the ownership structure of corporations as a consequence of the way in which tax liability is defined. Ideally applied, the tax liability of a given firm would be unaffected were it to be totally

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<sup>3</sup>Nevertheless, there have been a variety of proposals to introduce formula methods to determine the US-source taxable income of multinational firms (see, for example, Summers (1988)) and to allocate tax bases within the European Community (McLure (1989) and Weiner (1991)). While relatively simple in application, the ad hoc nature of tax base allocation by formula can introduce distressingly large distortions in the incentives that firms face, as Gordon and Wilson (1986) show. For an alternative method of taxing multinational corporations that attempts to avoid the distortions inherent in formula methods and does not rely on arm's length pricing, see Giovannini and Hines (1991). The implementation of this alternative method would, however, require extensive international cooperation in its enforcement.

controlled, dealing only with its corporate parent, or were it to be sold and operated totally independently.<sup>4</sup>

### 3. The Arm's Length Standard in Practice.

That comparison -- the terms of transactions between unrelated parties in contrast with those within commonly controlled groups -- is the starting point in the application of an arm's length standard. That application begins, therefore, with a firm that deals, not at arm's length, but with another firm, or set of firms, with which it has a common interest by virtue of either

direct or indirect common ownership.<sup>5</sup> The relevant question is how the terms of that firm's transactions would have been affected had that common ownership been absent. What would have happened, for example, had the ownership link been severed, and had the firm in question been motivated only by its own independent self-interest?

The first important point is that the assumption of independence is relevant, not just to that single firm, but also to the other firms in the commonly controlled chain. For example, suppose a US firm, Bausch & Lomb, totally owns an Irish manufacturer, B&L Ireland. Suppose further that the issue concerns transactions in both directions between Bausch & Lomb and B&L Ireland. To judge the arm's length nature of those transactions it is not sufficient to ask what would have been in B&L Ireland's self-interest had ~~that~~ firm been independent. The other side of the coin is equally important. What would have been in Bausch & Lomb's self-interest had that firm also been

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<sup>4</sup>Note that this neutrality condition, which has substantial appeal on grounds of fairness, is not necessarily compelling on grounds of economic efficiency. In terms of pure economics, second best considerations (the presence of some inefficiency elsewhere) could well lead to the conclusion that efficiency gains overall might be had by the introduction of non-neutrality in the treatment of firms with overseas subsidiaries. Arguments of this sort are at the core of many tax policy debates. To take a familiar example, it is generally (though not universally) accepted that a sheltered treatment of qualified retirement saving is a good policy even though that policy is inconsistent with the treatment of other saving that, from the standpoint of the taxpayer, is economically identical. In effect, the "wrong" (non-neutral) treatment of certain retirement saving is regarded as a corrective to the result that would apply if pure neutrality were the rule. It is also true, as we note later, that true neutrality may be impossible because the controlled transactions would, for organizational reasons, never take place among independent entities.

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<sup>5</sup>For the purposes of this paper we assume that the foreign affiliates of the multinational firms in question are 100% owned by their parent companies. Hence we do not address the interesting question of at what point indirect control becomes strong enough to warrant government scrutiny of the prices used to record international transactions. For an analysis of some of the channels of indirect control, and overlapping control, see Gordon (1990). Note, however, that minority ownership in an overseas subsidiary acts, from the standpoint of the controlling parent, as an additional tax to overseas earnings, and can very much affect relative U.S. and overseas marginal "tax" rates, since the parent's net overseas earnings will be diluted by distributions to overseas minority shareholders. For a formalization of this effect, see Kant (1990).

independent (which of course it would have been had B&L Ireland been independent).

#### Method One - Comparable Uncontrolled Price

It is precisely this pair of questions which underlies the economic logic of the first method -- the comparable uncontrolled price (or "CUP") method -- of the Treasury Regulations. Why should the prevailing market price of a widely traded product be the basis for establishing an "arm's length price" for transactions between commonly controlled parties trading in that same product? The answer is not simply that there is an arm's length price for that product. The answer is that the self-interest of any independent firm would dictate that such a firm would never pay more for any product than the price at which the same product could be obtained from an alternative seller, and that no independent firm would ever accept less, in selling that product, than the price it could obtain from an alternative buyer.

In the case of Bausch & Lomb, had soft contact lenses been a standardized product selling in world markets at a known and standardized price, the parent, had it been independent, would not have been willing to pay anyone (including an independent B&L Ireland) more for those lenses than that known and standardized price, and an independent B&L Ireland would not have been willing to accept less from anyone (including Bausch & Lomb) than that known and standardized price. Thus the interest of the assumed

independent firms, each acting in its own assumed independent self-interest, dictates that at arm's length the two parties -- Bausch & Lomb and B&L Ireland -- would have traded at that same known and standardized price. That is the intellectual under-pinning of the CUP method. It looks to the self-interest, under the assumption of independence, of each of the commonly controlled firms.

#### Method Two - Resale Price Method

This same logic, moreover, is implicit in the resale price method -- Method Two of the Treasury Regulations. Method Two, however, is not given the same priority as Method One -- the CUP method -- in the Regulations. The reason is not hard to find. If a known and standardized price is available, there is no need for any other method. The logic just outlined is binding. The other methods relate to procedures to be followed when such a known and standardized price is not available, usually because the product in question is significantly differentiated -- the product is not the same as the products purchased from other firms or sold to other firms.

If the product is different, then of course the logic of the CUP method is not applicable -- the buying or selling firm cannot readily turn to another equivalent source to either acquire or

dispose of its product -- though even that statement can easily be carried too far.<sup>6</sup>

Even if a known and standardized price is available, the controlled transactions will always be to some extent differentiated. The product has a different label, it is sold in different amounts, it has preferential credit terms, and so forth. From an economist's standpoint, these are not worrisome differences. It is relatively straightforward to adjust "known and standardized" prices to correct for these differences by valuing them to the buyer and to the seller. The CUP method fails, however, when such an adjustment is not possible -- when, for example, the product is unique. A Sony television set is not an RCA set, and the price of the latter, even if it were known, is not a measure of the price that would be paid for a Sony set, even if the two have identical features.

What do you do, then, as an economist attempting to predict the price that would have been paid had the commonly controlled buyer and seller in fact been independently owned and motivated? The answer, again, is to ask what the best options of each would have been had each been independent and had each been concerned only with its own independent self-interest. Method Two -- the

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<sup>6</sup>A problem in Section 482 proceedings is that when it is favorable to do so taxpayers will assert that their products are different, and hence that the CUP method is not to be applied. Indeed, as we discuss below, products and transactions are never exactly identical. The issue is whether the products or transactions in question are sufficiently similar so that reasonable adjustments for pertinent differences among them may be made.

Resale Price Method -- however, views the picture more narrowly. It asks what the interest of the seller would have been had that seller been unaffiliated with its buyer. In other words, the logic is that the seller, at arm's length, would not have accepted a price from any buyer less than the price that would have been offered by an alternative buyer.

The issue is how that alternative price is to be determined. Method Two looks to the gross profit margin generally realized by the buyers (and re-sellers) of other similar products. If, for example, the product is a television set, the method asks what margin is obtained by re-sellers of other similar television sets (or other electronic devices) when those re-sellers deal with their suppliers at arm's length. The rationale for so doing is that the manufacturer in question, had it indeed dealt with such independent re-sellers, would have had to concede a similar margin to obtain the services of those re-sellers. It would not, therefore, have conceded a greater margin to its affiliated re-seller had the two not been affiliated. Again, the logic is that the manufacturer -- the seller -- will concede nothing beyond its next best alternative. But unlike the CUP method, the resale price method looks only at one side -- the options hypothetically facing the seller. The other side -- the options hypothetically facing the buyer (or re-seller) -- are addressed by Method Three, the cost plus method.

### Method Three - Cost Plus

The cost plus method, like the resale price method, is applicable when the product in question is sufficiently differentiated so that there is no market directly establishing clear alternatives for both the buyer and the seller. However, the cost plus method looks only to the alternatives facing the buyer of the product in question. It reasons that the buyer -- the re-seller -- would, were it independent of its supplier, pay no more for the product it re-sells than the price at which that same (identical) product could have been obtained from an alternative seller. But the problem, by definition, is that there are never perfectly identical products. The product in question is always (at least to some degree) unique. What options, then, does the buyer -- the re-seller -- have? The answer is that the buyer would either have to arrange to have that "unique" product manufactured by someone else, or the buyer would have to do the job itself.<sup>7</sup>

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<sup>7</sup>The issue of whether a particular product is "unique" lies, of course, at the heart of the choice among the methods. If the product is standardized, then Method One of the Regulations gives a good estimate of what it would cost the buyer, or an alternative manufacturer, to make that product -- the price at which other manufacturers are able to make and profitably sell that product -- or the prevailing market price. If the product in question is "nearly" standardized, then a good estimate might be the prevailing market price of a "closely similar" product, adjusted for the estimated cost of the particular differences. What "closely similar" means is necessarily a judgment call, but as the discussion below attempts to indicate, the objective of the methods is the same -- estimation of the cost of acquiring the product in question.

The conventional application (and interpretation) of the cost plus method is to estimate the price that would be paid in the event that another manufacturer were engaged. This estimated price is formed by adding a gross profit to the direct manufacturing costs realized by independent manufacturers engaged in the production and sale of other similar products. The logic of the method is that the buyer -- the re-seller in question -- would not, were it independent of its supplier, pay that supplier more for its manufacturing services than the price it would have had to pay another manufacturer to do the job instead. The question is, what would be the terms of a contract the buyer could have obtained from an independent seller.<sup>8</sup>

In some cases, the independent seller would be what is known in the trade jargon as a "contract manufacturer," that is, a firm that customarily produces goods to the specification of, and under contract to, other firms. In the context of litigation, a great deal is made of the question of whether the subsidiary manufacturer "looks" like a contract manufacturer or like a

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<sup>8</sup>An alternative procedure would be to allocate to that manufacturer net income equal to a competitive rate of return on the seller's invested capital -- what has now come to be known as the "Basic Arm's Length Rate of Return Method" (BALRM). The appeal of this procedure is that it follows directly from standard economic principles -- competitive firms earn a competitive rate of return on their investment, and the seller in question is assumed to be competitive. The difficulty with BALRM is the difficulty in many instances of identifying the true value of the relevant investment -- book values of capital assets can vary greatly from the economic value of those assets. The use of gross profit mark-ups from comparable firms is an attempt to avoid this difficulty. For a more detailed discussion of this point, see Berry (1989).



full-scale integrated manufacturer. The courts seem to regard the demonstration that the subsidiary does not look like a contract manufacturer as implying that the cost plus methodology is inappropriate. This completely misses the economic logic of the approach, which is to ask what sort of contract would one have been able to draw up with an independent manufacturer, regardless of what that firm looks like, to render attractive the production of the good or service in question. The margins beyond operating costs realized by other, independent manufacturing concerns producing and selling similar products provide a measure of what that payment would have to have been. That payment therefore provides an upper bound to the price that would have been paid to the affiliated manufacturer had the affiliation been severed.

#### Method Two - or Method Three?

The resale price method looks therefore only at the options of the manufacturer or seller, while the cost plus method looks only at the options of the buyer. The obvious question is why not look at both? That is what the CUP method does. Why ignore either the options of the seller or the options of the buyer? Logically the answer is that one should not. Under competitive conditions, both methods (indeed, all three methods), correctly applied, should produce the same answer. For example, suppose that there is a standardized product, widely produced and sold at "standardized and known" prices -- to use our earlier wording.

Suppose further that both a seller and a buyer of that product are commonly owned, and that we want to apply an arm's length standard to the "controlled transactions" between them. The CUP method is clearly called for. But suppose for some reason we turn instead to the resale price method. We look in this instance to the margins on resale realized by independent re-sellers of that product. Since the product is standardized, the re-selling prices of those buyers should be nearly identical. They buy, for resale, at those "standardized and known" prices. They therefore all have very similar if not identical margins. If we deduct those margins from the re-selling prices, we have accurately estimated what we knew beforehand -- those "standardized and known" prices.

We could have done it the other way -- we could have used Method Three, the cost plus method. In that event we would look at the margins, over direct operating costs, realized by independent manufacturers of that product. Since the product is standardized, and since there are many such producers, taking their average gross profit margins over costs (the "standardized and known" prices, less average operating costs) and adding those

margins to those costs will again give us what we knew to begin with -- the prices prevailing in the market place.<sup>9</sup>

That example, however, indicates the rationale for the preference for the CUP method only when the CUP method can be applied. It says nothing about the relative advantages of Methods Two and Three under other circumstances. How does one choose among the methods in that setting -- where the product is not standardized, and when the "standardized and known" prices do not exist? The answer, from an economist's viewpoint, is that the method should be employed which is most likely to be the most accurate -- and that includes the CUP method as well. It may be, for example, that the most accurate method is to adjust the market prices of similar products to take account of the features that differentiate those products from the product at issue -- clearly the preferred procedure when the differentiation arises, for example, because of the terms of payment, delivery charges, or some other minor (and tractable) variation.

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<sup>9</sup>Most price information, even for highly standardized products or services, will show some variation both over time and across different sellers. Markets are never absolutely perfect or without friction. What these methods are seeking, however, is an "average" or competitive norm -- what would be reasonable to expect under average circumstances. There is therefore a strong case, from an economist's perspective, to use average experience and not, as is sometimes suggested, to restrict the comparison to a particular comparable or to experience which is strictly contemporaneous. This is a variation on a theme noted earlier -- to estimate an arm's length price one would like, logically, to use all methods, and all the information that is available, and not to be arbitrarily restricted ex ante to a particular procedure or a particular comparison. That, however, is not a very viable theme for the writing of regulations which must prescribe procedures.

But suppose that is not the case. Suppose, again, that we have the case of the Sony television set. Suppose further that there is nothing special about the Sony set. It is different from other models, but there is nothing, other than the Sony name, which would prevent its replication by any of a number of electronics manufacturers. Which of the two other methods would be likely to be the more accurate? The answer is that the resale price method is likely to be preferred, and for two reasons. First, there are likely to be relatively standardized mark-ups for the distribution of such equipment which either might be obtained directly, or could be estimated from the gross profit rates of independent distributors. Those would probably provide a better guide than the alternative of estimating the mark-up on costs that an independent manufacturer would demand to provide the equivalent set developed to Sony's specification. The first is an estimate of the price that Sony could have obtained at arm's length for its sets. The second is an estimate of the cost -- to Sony or to Sony's distributor -- of obtaining those sets elsewhere. The second procedure would also raise a variety of issues involving the quality of the alternative source, and the question of whether the equivalent of Sony's product could in fact be obtained elsewhere. But it is nonetheless still perfectly true that the cost plus method is not logically inappropriate.

The problem lies in the fact that it is quite possible, and even likely, that cost plus method, properly applied, in this

context would yield a price less than the price estimated by deducting the standard distribution margin from the re-seller's net price of the Sony sets. The reason is that the name "Sony" itself adds value. By stamping the name "Sony" on the set, its selling price, or marketability, is increased. If that is the case, then the choice of the method is dictated by the location of the ownership of the right to the use of that name. If it belongs to the manufacturer, then the resale price method is to be preferred, since that price includes the value added by the Sony name. If the sole right to that name rests with the distributor, then the cost plus method is to be preferred, since that price excludes the value added by the Sony name, which the manufacturer would not, under this assumption, be able to apply. The preference, in the Section 482 Regulations, for the resale price method, makes the assumption that such intangible rights will in general be the property of the seller or manufacturer.<sup>10</sup>

This point, and its implications, can also be illustrated by Bausch & Lomb. Here the issue was not just the Bausch & Lomb name, but also the proprietary (and highly efficient) technology involved in the manufacture of the soft contact lenses in question. Bausch & Lomb licensed its subsidiary, B&L Ireland, enabling that firm to employ that technology to manufacture and

<sup>10</sup>This is not necessarily the case, and indeed in many instances of dispute under Section 482, there has been an explicit effort to transfer the ownership of such rights to either a controlled manufacturer or to a controlled distributor in order to justify the method that is advantageous to the taxpayer.

sell the lenses in question to its parent as well as to other (foreign) affiliates. Those lenses competed in the market place with the lenses of other, less efficient manufacturers who did not have access to the superior Bausch & Lomb technology.

On the basis of the (arm's length) prices of those other lenses, the Court accepted the reported B&L transfer price as the correct one for the lenses manufactured in Ireland, and focused on the arm's length royalty to be paid for the license as a separate issue. But consider the starting point. Bausch & Lomb owns the name Bausch & Lomb, and all the proprietary technology relating to the relevant contact lenses. Hypothetically, Bausch & Lomb is to consider whether it should agree to buy those lenses (for itself and its foreign affiliates) from an independent manufacturer (which happens to be called B&L Ireland). Bausch & Lomb, were it purely self-interested, would in that setting enter into such an agreement only if the cost to Bausch & Lomb were less than the cost at which it could obtain the same lenses from an alternative source, including its own in-house manufacturing of those lenses. This dictates the cost plus method, Method Three -- estimation of the price at which an independent manufacturer would have been willing to supply the lenses to Bausch & Lomb under the assumption that the manufacturer was given access to the proprietary technology but not given the right to sell to anyone other than Bausch & Lomb. That price would leave with Bausch & Lomb all value associated

with the brand name and the technology, both of which, ex ante, are indisputably the property of Bausch & Lomb."

In fact, in this case, the simplest method for limiting the price which would have been acceptable to an independent Bausch & Lomb might have been to estimate the cost (including capital costs) to Bausch & Lomb of manufacturing those lenses in the United States. The Court rejected this standard on the grounds that Bausch & Lomb did not manufacture the lenses. That is not the point. The point is that it could have, and that its cost

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"Note that this procedure would structure Bausch & Lomb as the sole buyer of the lenses in question, for U.S. as well as for overseas distribution. It does not, therefore, avoid the question of an arm's length price for the sale of those lenses to other foreign affiliates. Indeed, one could argue that the Court, by accepting the Irish transfer price as an arm's length price, and focussing on a royalty for the use of the Bausch & Lomb technology was implicitly adopting exactly this structure, though a more direct route to the per unit royalty would have been the difference between the two arm's length prices -- the price at which the finished lenses could have been sold by Bausch and Lomb, and the price at which Bausch & Lomb could have acquired (or made) those lenses.

Our concern here, however, as we indicate below, is that the Court in its deliberation explicitly rejected consideration of a clearly relevant alternative -- the "make-or-buy" option. In Lilly, the Court also rejected the use of internal data for a different reason -- the data did not relate to a "third party", and hence were not relevant to an arm's-length determination. Again, from the standpoint of economics, the Court was wrong. All the options of the buyer or the seller are relevant, including the in-house option.

Note also, and it is important, that in Bausch & Lomb were it not for the presence of sales of the Irish lenses to other overseas affiliates there would be no need to consider separately the matter of a transfer price and a royalty. The correct transfer price to Bausch & Lomb would end the matter -- and would also eliminate the ability to treat the implicit royalty as foreign source income.

per unit of so doing would have placed an upper limit on the price Bausch & Lomb would have been prepared to pay any independent manufacturer, including B&L Ireland, for manufacturing those lenses.

#### The Question of Intangibles

What we have tried to illustrate thus far is that the arm's length standard is not a standard which is somehow determined without reference to the particular setting of the commonly controlled firms. It is rather a standard which asks how the commonly controlled firms would be expected to behave were they not commonly controlled. Each of those firms is therefore postulated to look to the best options that would, under that assumption of independent ownership, confront that firm. The standard assumes that no such firm would engage in a transaction which would be inferior to an alternative transaction which can reasonably be argued to exist. This is the point which has been difficult for economists to communicate. It says that the starting point is to define those options in their entirety -- including the ownership of proprietary rights whatever those rights may be, and including any transfer of those rights within the commonly controlled framework.

We have also tried to show, when the ownership of those rights is unambiguous, that the choice of methods among those of the Treasury Regulations is also unambiguous. When the intangible property is owned by the seller, the resale price method is

applicable. When that property is unambiguously owned by the buyer, the cost plus method is applicable. In either case, the owner is to be viewed as contracting with another firm for the added services -- either with a manufacturer or with a distributor -- and bounded in that framework by the option of doing the added work in-house. The reason is that those options are the options that would confront any independent firm. If this point could be learned, much of the dispute about arm's length pricing could be avoided.<sup>12</sup>

But that would not end the matter, and a major reason for this is that the ownership, and economic contribution, of intangible property may frequently be unclear. In part, this arises because intangible property need not be uniquely or exclusively associated with patents, copyrights and trademarks. Consider again the case of Sony. Suppose that a hypothetical US firm, Sony US, is established as the wholly owned subsidiary of its Japanese parent. Initially, the name Sony means nothing. But

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<sup>12</sup>Note the consistency of this reasoning with the concept of a "super-royalty" that is "commensurate with income." Some intangible property, particularly (but not only) in the case of pharmaceuticals, can be extremely valuable. Its possession would generate very large income streams over and above those that would be possible without the possession of that property. The size of such an income stream can also vary over time as market conditions change. At arm's length, the owner of such property would be expected to capture that income through whatever combination of transfer prices and royalty payments is developed. In a non-arm's length setting, the notion both that a royalty payment should be commensurate with such income, and that the extent of that income should be periodically re-examined, is certainly not inappropriate. As we argue below, however, the problem is more difficult when the ownership of such intangible property is in doubt or is shared.

over the years, Sony US advertises the Sony name (and deducts the cost of that advertising from its taxable income). The name becomes familiar, and people learn that the name denotes quality. The name now has economic value. Who owns it -- the firm that promoted the product in the US market, or the Japanese manufacturer whose products are of high quality? After all, part of the value of the Sony name in the US derives from the fact that the Japanese firm produces high-quality products outside the US. The ownership is ambiguous, and it is not a minor or isolated problem. It is also present in the case of Mercedes-Benz, Honda, Toyota, Panasonic, Porsche, Seiko, and any number of other household names. In any such case, it is entirely possible that the use of a cost plus method would produce a lower estimate of a transfer price than would the use of a resale price method. The difference between the two represents the contribution of intangible property which can quite properly be regarded as at least in part commonly owned.

This is the economic foundation for a "fourth" method, or some kind of profit sharing.<sup>13</sup>

#### Economies of Scope

Finally, to make the matter even more cloudy, there is the reverse of this situation -- in which the cost plus method, properly applied, would yield a higher transfer price than the resale price method, yet the commonly owned firms are nonetheless profitable. In other words, the commonly owned firms together are more profitable than the two would be were they independent yet performing the same functions. Economists refer to this situation as one which displays "economies of scope," and the rise of major multinational corporations is frequently attributed to economies of scope. Firms in different countries, or firms doing different things are linked together by ownership because there is some internal economy generated by that ownership link -- whether that be quality control, managerial efficiency, an

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<sup>13</sup>We have not attempted here to propose a method for dealing with intangible property that is jointly or commonly owned. Others have. For a relatively sophisticated argument for income splitting, see Hart and Mas-Colell (1988, 1989). For discussion of the efficiency consequences of this proposal, as well as discussion of an alternative based on historical costs, see Hines (1990). Rules designed to allocate income from intangible property will of course inevitably influence the incentives that firms have to develop such intangible property in the first place. In general, those rules will promote efficiency only if it is not possible for firms to allocate those costs of creating intangible property -- R&D expenditures, advertising, and so forth -- to high-tax jurisdictions while reporting the resultant income in low-tax jurisdictions. Hines (1990) suggests requiring that such income be allocated in accordance with the location of those costs.

improvement of information flow, or whatever. There can be little doubt that such economies of scope do indeed exist. Honda, for example, has been successful in assembling automobiles in the United States in a manner which, apparently, has eluded US manufacturers, and the US location has apparently also provided advantages to the Japanese parent.<sup>14</sup>

From the standpoint of Section 482, this means that if each taxing jurisdiction picks the arm's length standard that maximizes that jurisdiction's tax revenues, then double taxation will inevitably be the result. For example, suppose there is an economy from the joint manufacture and distribution of automobiles. Consider a case in which the US employs a resale price method to gauge the income of a controlled distributor in this country, and Japan employs a cost plus standard for the manufacturer. It is possible to do that. Chrysler has distributed Japanese cars under its name. The mark-ups on those arm's length transactions could be estimated. Similarly, the mark-ups on the cost of those Japanese cars could also be estimated by the Japanese. But those two mark-ups, applied to the integrated operations of, say, Toyota, could more than equal that firm's total operating earnings on cars exported to the

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<sup>14</sup>It is interesting in this context that now almost all foreign automobile manufacturers employ in the US only distributors that are controlled subsidiaries. The last major independent importer was Subaru of America. The well publicized cancellation of Nissan's contract with an independent importer in the United Kingdom suggests that the reason for this common ownership is very much related to the failure of arm's-length contracting to be efficient -- a good example of an economy of scope.

United States, precisely because the major competition in the market is between integrated entities with economies of scope, and because the Chrysler example - the purchase of automobiles for resale from an independent manufacturer -- is the exception and not the rule.<sup>15</sup>

In this context, therefore, it is not tax avoidance, but double taxation, that is at issue, and this, presumably, is exactly the appropriate setting for appeal to Competent Authority involving the tax authorities of both nations. The task of Competent Authority then becomes one of agreeing on a common method to be employed by both taxing authorities so that the aggregate income subject to tax does not exceed the total income actually realized. The source of this problem is not an incorrect application of arm's length method(s), but the

(generally universal) presence of economies of scope in question.<sup>16</sup>

#### 4. Economic Risk

Thus far we have emphasized largely conceptual matters -- the rationale for, and some problems with -- the application of an arm's length standard. There is a further area, however, in which some comment may be helpful, and this relates to the general question of form versus substance in these transactions among commonly controlled firms. It is a general principle of tax law that a taxpayer has the freedom to structure activities in such a fashion as to take full advantage of any relevant provisions of the tax code. In the case of multinational organizations, this has meant that contracts between and among

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<sup>16</sup>The possibility of the presence of economies of scope has led several analysts to conclude that an arm's length price will for this reason be the "wrong" transfer price. See, for example Witte and Chitty (1990). It can be the "wrong" transfer price if the "right" transfer price is the one that provides the managers of decentralized units of a commonly owned firm with the correct (profit-maximizing) incentives, and, indeed, there is an older literature which addresses this problem. For example, see Hirshleifer (1956) and Gould (1964). But this does not mean that the arm's length standard is inherently wrong for tax purposes, since the object is to determine taxable income, not to design the internal management incentives of an integrated firm. As we noted earlier, the arm's length standard implies that a controlled firm is to be treated as though it were not a part of its parent, and the question of any economy of scope is therefore ignored. This does not, incidentally, involve perverse incentives since if market conditions are set by non-integrated firms, the application of the arm's length standard to the components of an integrated firm will, if an economy of scope is present, result in the taxation of income which is less than the total income of the integrated firm. In other words, the incentive to efficient integration will not be removed.

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<sup>15</sup>The point is that if, for the most part, market competition is among efficient integrated firms, the combined "arm's length" income of the two commonly owned firms could exceed their actual joint income if the two taxing jurisdictions employ different methods. As illustrated above, this would occur if the country of the exporting firm were to employ the cost plus method while the country of the importing firm elected the resale price method. While this is not a violation of the application of an arm's length standard, it does contradict a principle that taxpayers would generally consider equitable -- that taxable income should not exceed total income. Much of the dispute about state allocation formulas also relates to the fact that allocation formulas which differ among states can have exactly this same effect. States tend to select allocation formulas which operate in their favor. See, for example, Weiner (1991).

related taxpayers in different jurisdictions are written (or construed) in such a fashion as to minimize overall tax liabilities.<sup>17</sup> Section 482, however, by its very nature, provides an exception to that freedom: contracts may not be written in such a fashion as to distort the source of income.

Although the primary focus of Section 482 has been the prices at which products or services are transferred, there are other issues as well, at least one of which we have mentioned -- the ownership of intangible property. This does not, however, relate simply to the transfer of the ownership of intangible property, such as the transfer of exclusive patent rights to a Possessions Corporation as a part of paid-in capital. Consider, again for illustration, the case of a major Japanese manufacturer selling to its (wholly-owned) American importer-distributor. The American firm advertises and promotes the brand name, and the brand name, after a while, has value -- as do the names Seiko, Honda, Toyota, and so forth. That value is intangible property. Who owns it? It could be the exclusive property of the Japanese parent -- if the parent had contracted with its subsidiary to

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<sup>17</sup>It is this behavior that attracts attention -- and not just from taxing authorities. For example, Lall (1973) analyzes the pricing of pharmaceutical imports from Columbia. Kopits (1976) relates royalty payments by the overseas subsidiaries of U.S. multinationals to the excess foreign tax credits of the parent companies. Jenkins and Wright (1975) and Bernard and Weiner (1990) allege that U.S. petroleum companies report above-average profit rates in tax-advantaged locations. Harris, Mork, Slemrod and Yeung (1991) report that U.S. corporations with foreign affiliates have lower U.S. tax liabilities per dollar of sales than U.S. firms without such affiliates. See also Hines and Rice (1990) who relate financial and non-financial data for U.S. multinationals to tax rates in 59 foreign tax jurisdictions.

provide the necessary advertising and promotion on a fee basis, retaining no permanent right to any intangible property created as a consequence. Alternatively, the original contracts might have provided that the exclusive rights to the name in the U.S. market would be the permanent property of the American firm.

At arm's length, the contract might have been written either way. Other terms of the contractual agreement would have differed, but in regard to the intangible property the contract could have been written either way. After the fact, it is entirely likely, in the case of Section 482 disagreement, that the parties to the disagreement will characterize the terms of the implicit agreement in the way that suits the particular positions taken.<sup>18</sup>

These issues, however, go beyond the question of intangible property, and become particularly interesting if the so-called "Basic Arm's Length Rate of Return Method" is to be considered. Again, recall Bausch & Lomb. B&L Ireland was established to

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<sup>18</sup>The problem is vexing, since it is possible that contracts even among independent firms dealing truly at arm's length may be written in alternative ways which would affect the terms of compensation. To take an example, Honda, had it dealt with an independent distributor-importer to the United States, might, at the outset, have given that independent firm exclusive and perpetual rights to the name Honda or Acura in this country -- in which case that property, which is now valuable, would rest with the American firm. But on that basis, the payment, at arm's length, to that importer for its services would have been expected to be less than if the importer had no such permanent or exclusive right. This is the problem that has led some analysts to argue that the income from such intangible property, in the absence of a specific contractual commitment to do otherwise, ought to be shared in proportion to the relative contributions to the cost of creating that property. See, for example, Hines (1990).



manufacture soft contact lenses on behalf of the parent. The investment in the new firm could readily be estimated, and it was therefore tempting to ask at what rate of return an independent firm would have been willing to undertake an equivalent investment. But the terms of the implicit contract make a difference when that question is addressed. Who bore the risk of an unfavorable development in the market for those lenses? If it was the parent -- i.e., the parent implicitly agreed to buy a specific quantity of lenses at a specified price over a specified period of time -- the required rate of return might be close to a risk free one. Alternatively, if that risk had been assigned to the subsidiary, then the investment in question might have been one that an independent firm would have been loathe to undertake, even at very substantially higher rates. Bausch & Lomb could change its mind overnight, and the investment would be lost. Again, in this setting, the taxpayer and the taxing authority can each be expected to pick the contract structure that is individually advantageous.

What does economics have to offer in this context? Again, the answer lies in the self-interest of the firms ex ante. Bausch & Lomb had the option of manufacturing the lenses itself (at home), or contracting for their manufacture (either at home or abroad). Had it selected the in-house option, there would have been some risk, and Bausch & Lomb would have borne it. In contracting with an independent firm, that same risk could have been accepted, through the contract terms, by Bausch & Lomb, or it could have

been transferred to the contractee. In either case, the cost -- to Bausch & Lomb -- would have been the same. It either pays the manufacturer to accept the risk, or it retains the risk itself and bears the implicit cost.

But a greater degree of risk could also have been transferred to the contractee -- the risk that Bausch & Lomb would do something itself to adversely affect that contractee -- in which case the risk premium would have been increased, to the detriment of Bausch & Lomb. The answer is, therefore, that acting in its own self-interest, taking into account all options, a contract would not have been written at arms length which assigned non-market risk to the contractee, and therefore, under Section 482, such implicit or explicit contract terms need not be accepted.<sup>19</sup>

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<sup>19</sup>Much the same thing can arise in the case of subsidiaries funded largely by debt. It is sometimes alleged that some multinationals have funded their American subsidiaries almost entirely by debt, with the result that the net earnings of those subsidiaries, after payment of interest to their parents, are very low or non-existent. For example, Grubert, Goodspeed and Swenson (1991) find that the debt to asset ratio of Japanese subsidiaries in the United States is on the average about ten percentage points higher than the corresponding ratio for domestically controlled firms, with, of course, correspondingly higher (deductible) interest expense. There is nothing in Section 482 which would prevent the treatment of some interest payments in such instances as constructive dividends on the grounds that, at arm's length, investment is not made in corporations with debt equity ratios approaching infinity. The economics literature, however, will be searched in vain for the specification of a correct "arm's length" debt-equity ratio. Just as contracts may be written in various ways, investment can be financed in various ways, and the tax law will affect the choices made!

## 5. Concluding Thoughts

Section 482, and the arm's length standard that has evolved, is not a neatly contained topic, and this paper has touched on only some of the many issues that might be addressed. It is therefore hard to draw sweeping conclusions. Nevertheless, first, it seems to us that the arm's length standard in international tax matters is firmly in place and unlikely to be either rapidly or unilaterally replaced, whatever the merits may be of so doing.

Second, it is clear that there are, and will continue to be, Section 482 disputes that will not be resolved easily by appeal to an arm's length standard. While the standard itself may be conceptually clear, the application of that standard can be made murky. Nevertheless, we believe that in many instances the record of compliance could be greatly improved if the arm's length standard, as interpreted by the Courts, were to look more broadly to the alternatives which would have faced each of the commonly controlled entities, had that common ownership not been present. This means that the stigma of "contract" manufacturing or distributing should be eliminated, as should the presumption that the internal make-buy options of the controlling firm are not relevant. To cite Bausch & Lomb one final time, we would take issue with the Court's finding that:  
respondent argues that B&L could have produced the contact lenses purchased from B&L Ireland itself at lesser cost.  
However, B&L did not produce the lenses itself. The mere power

to determine who in a controlled group will earn income cannot justify a Section 482 allocation of the income from the entity who actually earned the income. (92 T.C. No. 33)

Our point, once again, is that if Bausch & Lomb could have made those lenses, that fact would have been taken into account in any arm's length negotiation with any independent firm. That fact must not simply be ignored. It is exactly this kind of information that should form the basis for a Section 482 allocation.

Finally, we would also suggest that with the increasing complexity of international transactions, the Courts will, to an increasing degree, not be the optimal site for the resolution of many of these issues. We mentioned Honda earlier. Honda exports tractors, outboard motors, pumps, lawn mowers, motorcycles, cars, trucks, replacement parts, as well as partial assemblies for its manufacturing activities in this country. It is literally beyond comprehension that arm's length prices for each of these items could meaningfully be evaluated in an adversarial courtroom setting without enormous expense and enormous uncertainty. The same thing is true, not only for other auto importers, but certainly for many major electronic and heavy equipment manufacturers. That setting is also ripe for enforcement abuse -- the threat of litigation to extract concessions even when compliance has been attempted in good faith and is reasonable. We have not attempted here to design a response. We would, however, note that the recent guidelines of the Internal Revenue

Service for the determination of Advanced Pricing Agreements may provide a welcome step toward the development of settlement in a non-adversarial setting, with, possibly, the cooperation of other taxing authorities which may be involved. These guidelines are potentially a very important innovation. They may become widely used. Indeed, they may ultimately provide the forum within which international agreement on simpler and more direct procedures can be forthcoming.

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