Recent Issues in Transfer Pricing*

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OTA Paper 61 November 1988

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* This paper is based on the authors' work on the joint Treasury/IRS Study of Intercompany Pricing. It presents supplemental theoretical issues that reinforce the approaches that the study has advanced. The authors would like to thank Harry Grubert, Eugene Steuerle, Mark Beams, Michael Patton, and participants in OTA's Work in Progress seminar for comments on earlier drafts of this paper; and Vicky Conway for preparing the manuscript. The views presented in this paper are those of the authors and do not necessarily reflect those of the Treasury Department.

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RECENT ISSUES IN TRANSFER PRICING

I. Introduction

The goal of section 482 of the Internal Revenue Code is to allocate gross income and deductions between related parties in order to "clearly...reflect the income of any such organization." It is left to regulations to implement this goal. The need for such a section arises when a taxpayer has operations in more than one tax jurisdiction and transfers goods and services between the different locations. For tax purposes, the taxpayer must charge itself a price when it makes a transfer. Depending on the relative tax rates and other components of the tax systems in the two countries, the taxpayer may have an incentive to manipulate the price the company charges itself when transferring the good.[1]

A market based approach is presently adopted by the income tax regulations for the purpose of allocating income under section 482.[2] The goal of this approach is to attribute income in the same way that the market would distribute the income. That is, related parties are to earn the same returns that unrelated parties would earn under similar circumstances. This approach, often referred to as the arm's length standard, is implemented through separate accounting. An individual transfer price is determined for each transaction.[3]

Recently, the arm's length standard has been attacked on both practical and theoretical grounds. Opponents with practical concerns argue that distortions arise when one attempts to apply rigid rules in order to implement the standard.[4] Theoretical opponents argue that multinational firms are able to take advantage of economies of scale which lead these firms to employ technologies that differ from those employed by other producers. Therefore, the argument continues, one will get skewed results if a transfer price for a multinational is based on what non- multinational parties would do.[5] During the development of the Tax Reform Act of 1986, a related issue arose as Congress was concerned that taxpayers had made use of inappropriate arm's length prices as comparables.

From the perspective of economic theory, one is interested in the way that a set of rules implementing section 482 affects a firm's economic behavior. Distortions may arise if the rules lead to changes in the relative benefits and costs of producing in different locations. Changes in after tax prices might lead the firm to change its location of production or to change the factors employed in different locations. Similarly, the rules could affect a firm's decision when choosing between the following alternatives: (1) establishing a manufacturing subsidiary in another country or (2) licensing the technology necessary to produce the final product to an unrelated firm in the other country. Rules which distort a firm's activities would not meet the goal of clearly reflecting income and would cause needless economic inefficiencies in the marketplace.

This paper evaluates the arm's length standard from the perspective of economic theory in order to address these concerns and to show that the standard can be applied in such a way that it will not distort decisions about the choice of affiliation. The paper also argues that attempts to depart from the arm's length approach in order to use transfer pricing policy to ameliorate the distortions created by differential tax rates would lead to additional distortions that would discriminate between imports and exports and that would affect affiliation choices.

The remainder of the paper is divided into four sections. Section II presents the market based approach and addresses the concern that the arm's length standard leads to economic distortions. Section III provides an alternative means of implementing the arm's length standard in response to the challenge that an arm's length standard is inappropriate for intra-firm transfers in situations where economies of scale exist. Section IV addresses issues raised during the creation of the Tax Reform Act of 1986. Section V provides concluding remarks.

II. The Market-Based Approach

The market based alternative for the allocation of income is articulately promoted by Surrey (1978). Surrey starts by discussing unrelated parties and the way that they are taxed:

> Tax administrators do not question transactions that are governed by the market-place. If Company A sells goods to unrelated Company B at a certain price or furnishes services at a particular price, the income of both companies is determined by using that price. One company may be large and the other small; one may be a monopoly; one may be financially strong and the other in a weak condition. But these and other factors which may affect the price at which the transaction occurs are not the concern of the tax administrator.[6]

Having established the tax system's acceptance of the market- place, he concludes:

> Presumably, most transactions are governed by the general framework of the marketplace and hence it is appropriate to seek to put intra-group transactions under that general framework. Thus, a use of the standard of arm's length, both to test the actual allocation of income and expense resulting under controlled intra-group arrangements and to adjust that allocation if it does not meet such standard, appears in theory to be a proper course.[7]

The goal of a market approach is to ensure that the return to an economic activity is allocated according to the location of the economic activity. By determining the amount of income earned in each location with reference to an arm's length standard, this approach neutralizes tax motivated reasons to affiliate or to disaffiliate (at least with respect to transfer pricing).

Up to this point a market based means of allocating income seems theoretically sound. However, it is necessary to be more specific about how the arm's length price is determined in order to examine what distortions might be created. Various authors have addressed this question. Horst (1971) argues that multinationals view potential transfer prices as being bounded at the low end by the marginal cost of producing the good and at the high end by the final price for which the good is sold. He shows that firms will have an incentive to choose one of the two bounds given different tax rates in the different countries. It is this type of distortion that the regulations for arm's length transfer pricing must confront. If the regulations are carefully crafted, the firm will not legally be able to manipulate, to any great degree, where it claims profits are earned.

Samuelson (1982) also considers the effects that arm's length pricing has in a world in which tax rates differ. He shows that firms with some monopoly power will not only find it profitable to choose one of the bounds, but they will also find it profitable to manipulate production in order to change the bounds.[8] Halperin and Srinidhi (1987) examine the existing U.S. regulations on transfer pricing and find that, given differential tax rates, the present rules lead firms to distort their use of resources relative to that which would prevail in a no tax world.[9] In essence the firm shifts production in response to differential tax rates.[10]

Transfer price policy, whether based on arm's length or some other principle, cannot correct for this distortion and still remain neutral with respect to inbound and outbound transfers. An example illustrates this point. Suppose all countries start with the same effective tax rate. If one country lowers its statutory tax rate, thereby lowering its effective tax rate relative to other countries, there will be a change in the pattern of production as production moves from the high tax countries to the low tax country. To the extent that this movement occurs within multinationals, countries could arrest the movement by means of their transfer pricing policies. Since the transfer price will affect the amount of income in one country and the size of the deduction in the other country, a transfer pricing policy could be constructed that would re-equalize effective tax rates. However, the policy would have to treat identical inbound and outbound products differently. The decreased flow of products outbound to the low tax country would be required to have a higher transfer price. Conversely, the increased flow of identical products inbound from the low tax country would be required to have a lower transfer price. These opposing actions would re-equalize the effective tax rates in all countries at the expense of discriminating between inbound and outbound transfers.

In addition to discriminating between inbound and outbound transfers, any attempt to equalize effective tax rates by changing transfer pricing policy will lead to discrimination between related parties and unrelated parties.[11] Using the scenario described in the previous paragraph, multinationals will have an incentive to deal with unrelated parties in order to avoid the transfer pricing rules and obtain the benefits of the new lower tax rate in the one country.[12] Therefore, the relevant issue is whether, given differential tax rates, the application of the arm's length standard leads multinationals which transfer goods among entities to respond in the same way as firms that do not transfer goods among entities.

Consider a world in which there are no multinationals, capital is internationally mobile, and all tax rates are equal. If one country raises its tax on capital, capital will flow out of the high-tax country and into the other countries with lower taxes on capital. This flow of capital will lead to a change in the capital/labor ratio in each country and therefore to a change in the relative pre-tax returns to each factor. The changing costs of the factors will lead to distortions in the amounts of capital and labor employed per unit of production relative to the pre-tax-increase position. The flow of capital will continue until the after tax rate of return on capital is re-equalized across countries. This example illustrates a non-transfer price situation in which differential tax rates would lead to distortions. Transfer price policy cannot eliminate these distortions because it cannot affect the behavior of firms that are not under common control.

In the real world, some groupings of capital are commonly controlled and therefore are affected by section 482 while others are not. However, all capital owners will attempt to respond to changing after tax returns on the use of their capital. Therefore, if transfer price policy is used to eliminate the distortions for the subset of cases within its purview new distortions will be created which will affect the choice of the form of organization.

The fact that an arm's length price will not eliminate the economic distortions caused by unequal tax rates in various countries should not be viewed as a flaw in a market based transfer-pricing system. It is an inevitable reaction to the different tax rates. Similarly, firms that shift their production locations in response to the incentives created by differential rates should not automatically be viewed as if they are trying to manipulate transfer prices.

III. An Alternative Application of the Arm's Length Standard in the Presence of Firm Specific Economies

The previous section assumes that multinational firms are similar enough to firms located in only one country so that meaningful comparisons are possible. Recent critiques by McLure (1984) and Langbein (1986) question this assumption and question whether it is possible to isolate the income earned in each country in order to apply the arm's length standard.[13] McLure (1984) claims that economies of scale may lead firms to integrate and that the resulting industry may be populated with a few firms earning "extraordinary profits" which would be "difficult" to allocate between affiliates.[14] McLure also perceives difficulties with horizontal integration. In particular he is concerned with inputs that have some of the aspects of a public good.[15] Langbein claims that the flaw in an arm's length approach is that it does not allow a return to the form of organization. That is, because an integrated enterprise is presumably more efficient it will be able to execute an integrated economic activity at a lower cost than a series of independent firms whose joint efforts are necessary to execute the same series of transactions. The omission creates what he calls a continuum price problem, a situation in which the sum of the returns for individual services rendered by independent parties would be less than the actual return of the combined group.

McLure and Langbein's arguments grow out of the literature on the existence of multinationals. Caves (1982) explains that many multinationals exist because of a failure in the market for intangibles. In essence, intra-firm transactions can be more profitable than inter-firm transactions because of the expense of negotiating complete contracts or the inability of a firm to capture the full value of a piece of knowledge without fully explaining the knowledge and thus eliminating its value. Horstmann and Markusen (1985) develop a model which predicts that multinational enterprises will come into existence when these intra-firm savings exist and when transportation costs are high relative to plant scale economies. In other words, if transportation costs from the existing plant to the potential market are high and if a new plant in the potential market could produce the product at about the same cost as could be obtained by expanding existing production, then it is more likely that a new plant will be opened. Therefore, the product will be produced in both countries. Relatively high benefits from having production within one company imply that multinational enterprises are more likely to come into existence, so that the plants in different countries will be under common control.

Support for the contention that multinationals exist because of firm specific economies does not automatically imply a rejection of the arm's length principle. Grubert (1987) explains that one can approach the arm's-length problem by asking what unrelated parties would do if they had the opportunities available to related parties. The goal would be to distribute income in the way that unrelated parties would distribute the income if they were considering affiliation. As Grubert explains, the decision to affiliate could take the form of a joint venture, an acquisition, a merger or a decision to hire necessary labor and capital within a subsidiary. Such an approach effectively accounts for the benefit of the firm's choice of organization and ensures that the distribution of income is based on the relevant technology.[16]

Another way of expressing the arm's length agreements that have to be considered in this situation is to say that they are the arrangements that would be made between unrelated parties if they could choose to have the costs of related parties, i.e. to use the related party technology. Recall the fundamental objective of tax policy in the area of transfer pricing: In general, tax rules should distort business decisions as little as possible because rules that minimize such distortions will lead to the greatest possible production efficiency. Transfer pricing rules will allow the most efficient production technology to come to the fore if, holding the cost functions constant, they result in the same tax burdens whether or not the parties are related. In other words, if unrelated parties somehow had access to the integrated technology, their operations should not result in more or less total taxes than would be paid by a multinational using this technology. If this goal can be met, transfer pricing policy will refrain from distorting the optimal mix of unrelated- party versus within-multinational transactions in the market.[17] The only difficulty would seem to be the practical application of this alternative interpretation of the arm's length standard.

This practical problem can be analyzed more concretely using certain tools of microeconomic theory. Restated in these terms, the "continuum price problem" arises in the situation in which a vertically or horizontally integrated production technology, which is available to multinational corporations, leads to lower costs than a non-vertically or horizontally

integrated technology, which unrelated parties would have to use. The goal is then to determine if an examination of unrelated-party transactions can lead to a satisfactory resolution of the transfer pricing problem.

It is helpful to step back at this point, and consider an industry in which there is no difference in costs between related-party and unrelated-party dealings; there is only one production technology, and it is available to the parties in both types of arrangements. There is thus no "continuum problem", and the arm's length standard, as traditionally interpreted, can be applied. It is likely that both unrelated-party and related- party transactions will actually occur in the marketplace, and it should be possible to observe prices from the former and use them to determine the incomes of each party in the latter. This procedure satisfies the objective outlined above. The related parties that sell intermediate goods will be given the same gross revenues as the corresponding unrelated parties; related parties that purchase them will be given the same cost-of-goods-sold as corresponding unrelated parties. Further, it has already been assumed that the two sets of parties operate in the same market and have the same cost structure; therefore, the external prices and internal costs will be equal. Thus, the related parties will have the same net taxable incomes as the corresponding unrelated parties. They should therefore pay the same taxes. Thus, the multinational will face the same total tax burden as the unrelated parties with which it is competing.

Now return to the situation in which a vertically or horizontally-integrated technology, which is available only to multinational companies, is dominant. (Even though multinational corporations have an advantage, relative to smaller companies, it does not follow that monopolistic practices must be a problem, because there might be many competing multinationals.) If multinational corporations are able to produce at a lower cost, then, in the long run, it should be difficult for the smaller companies to continue in existence. Therefore, arm's length prices may be unavailable.

An appropriate result will be achieved if each related party is assigned the income that the corresponding unrelated party would earn, if the latter were using the efficient cost structure. Microeconomic theory leads to an unambiguous and natural statement of what the income of unrelated parties should be taken to be in these circumstances. Specifically, as long as the industry under analysis is competitive and the factors of production are homogeneous and mobile between sectors, we may employ the familiar concept that "economic" or "excess" or "above-normal" profits will be zero in the long run. This concept states that each firm will earn just enough to be able to pay for the land, labor, capital, and other factors of production that it uses to produce its outputs.[18] If owners of the firm have supplied it with capital or other inputs, then the firm should earn enough to be able to reward the shareholders for these factors; otherwise, the shareholders would be wise to find a better use for them. Algebraically:

$$(1)\quad P^*Q - \sum_{n=1}^{N} r_n^* X_n = 0,$$

where P and Q are the price and quantity of the firm's output, X_n are the amounts of the factors of production used to produce Q, and r_n are the market returns to these factors. X_n includes factors that are internal to the enterprise and those that are hired or rented from the outside. Let X_1 through X_I be internally owned inputs, and let X_{I+1} through X_N be the inputs hired from the outside. Then:

$$(2)\quad P*Q - \sum_{j=I+1}^{N} r_j * X_j = \sum_{i=1}^{I} r_i * X_i$$

This formulation is useful because the left-hand side can be taken as the simplest possible representation of taxable income. If the enterprise is an affiliate of a larger firm, the left-hand side also displays the simplest possible version of the arm's- length approach to the transfer pricing problem. Presumably, one can observe Q and the amounts that the enterprise pays to outside suppliers of factors of production. Thus, if one can measure P, one can calculate the proper tax base of the affiliate.

The new element is the right-hand side. It suggests an alternative way of approaching the problem of measuring the taxable income of an affiliate. In words, the right-hand side of equation (2) is the normal return to the factors of production that are internal to the enterprise, the factors that it is entitled to use to produce the goods and services that it sells but that it doesn't have to pay someone for (at least before determining the proper measure of taxable profits). Examples include plant and equipment and other assets owned by the enterprise, and perhaps, labor and other factors provided for "free" by an owner. Equation (2) states that the sum of the returns to these factors equals the tax base as conventionally measured.

The traditional approach looks for the prices that the firm's outputs would command in the marketplace, whereas the alternative approach seeks to determine the returns that the firm's factors would earn in the marketplace. Therefore, both approaches are equally consistent with the basic goal of the arm's length principle, which is to use information about unrelated parties operating at arm's length to determine the allocation of income in a related-party setting.

There are two further issues which should be analyzed at this point. The first concerns monopolistic, rather than competitive, situations. Consider a market in which only one or a few firms are able to enter. Then, the existence of "above-normal" profits cannot be ruled out, because potential competitors will not be able to compete them away. The equality discussed above, and the results derived from it, cannot then be assumed to hold. However, it may still be possible to apply the basic idea. For example, consider a situation in which a corporation has been granted worldwide patent rights to a unique product. The company can still choose between exploiting this patent through related- party or unrelated-party dealings, and it would be worthwhile for this decision to be made free of distortions caused by transfer pricing rules. To get an unrelated party to provide a good or service, the corporation would have to pay it the sum of the returns that would be earned by the factors it would employ.

Therefore, it would still be proper to use the alternative procedure to determine the income of the corporation's affiliates, because then the parent corporation would not have a tax-motivated reason for choosing between using them versus unrelated parties.[19]

The second issue is closely related. The starting point for the alternative application of the arm's length approach is to measure the factors of production employed by the related parties, and to determine the returns that they would earn in the marketplace. This procedure can be implemented in a straight forward fashion only if the factors can be identified and measured. However, there is at least one type of factor of production, intangible assets, to which it is often difficult to assign a precise value. These assets are often unique and it is frequently difficult to decide what returns they would earn if separately employed in the marketplace. One should not conclude that the presence of any intangible asset will make the alternative procedure impossible to implement. It may be that only one of the related parties employs intangible assets to any significant degree. In this situation it suffices to measure the factors of production employed by the other party or parties.

To summarize, microeconomic theory would seem to lend support to transfer pricing rules based on the arm's length principle, properly interpreted. In certain situations, production technologies may be such that unrelated parties operating at arm's length can be expected to coexist with vertically or horizontally integrated multinational corporations. In these cases, arm's length prices for related-party transactions should exist and their use will, in theory, lead to appropriate results. In other situations, vertically or horizontally integrated technologies available only in related-party dealings may dominate. Then, arm's length prices will be difficult to find and their use, if they exist, may be inappropriate. However, information may exist as to the arm's length returns attributable to the factors of production employed by the related parties, and it is appropriate, from a theoretical standpoint, to base the allocation of income among the related parties on this information.

IV. Theoretical Aspects Of Issues Raised During Tax Reform

The Tax Reform Act of 1986 made the first significant change in section 482 since its inception in the tax code. The change specifies that, "in the case of any transfer (or license) of intangible property...the income with respect to such transfer or license shall be commensurate with the income attributable to the intangible."[20] The discussions leading up to this change raised a number of the theoretical issues discussed above. The section of the House Committee Report that discusses the commensurate with income provision is a useful summary. Specifically, it raises four major issues: Do multinational firms operate as if their parts were unrelated? Are there inappropriate comparable prices? How does one provide a framework that allows flexibility for real world uncertainty? And, are methods for determining transfer prices for intangibles fundamentally different than those for tangible goods? The following section will address each of these concerns in an effort to explore the theoretical basis of an arm's length system more completely.

A. Multinationals Operating As If Their Parts Were Unrelated

> A fundamental problem is the fact that the relationship between related parties is different from that of unrelated parties. Observers have noted that multinational companies operate as an economic unit and not "as if" they were unrelated to their foreign subsidiaries.[21]

This issue was discussed in detail above. It is obvious that firms will not, in general, operate exactly as if their parts are unrelated. However, the appropriate solution is to allocate income based on the way that unrelated parties would act if they could use the factors of production and technologies that the related parties do.

B. Commensurate with Income

> There are extreme difficulties in determining whether the arm's length transfers between unrelated parties are comparable. The committee thus concludes that it is appropriate to require that the payment made on a transfer of intangibles...be commensurate with the income attributable to the intangible.[22]

This statement focuses on the attempt to comply with section 482 by using only information about arm's length prices. The theoretical reason that a distortion might occur when the taxpayer was making a good faith effort to comply with the regulations has been explained above. The structure of multinationals may mean that they drive out other methods of production so that appropriate comparable prices are not available. Therefore, as the committee report suggests, it is necessary to determine the income that should be earned by the factors of production employed by the different entities. The appropriate arm's length comparison is the returns earned by unrelated parties for the factors they employ and the functions they perform.

C. Uncertainty

Uncertainty is a topic that has not yet been addressed. There are at least two major topics of concern: First, are all risks ultimately borne by the parent, and second, since future events are uncertain, will it be necessary to make adjustments over time to reflect changing circumstances?

The House Committee Report addressed the issue of risk in the following way:

> . . .a parent corporation that transfers potentially valuable property to its subsidiary is not faced with the same risks as if it were dealing with an unrelated party. Its equity interest assures it of the ability ultimately to obtain the benefit of future anticipated or unanticipated profits, without regard to the price it sets.[23]

This statement is true, but not on point. All risks in an enterprise must ultimately be borne by the shareholders of the parent corporation, regardless of what transactions are undertaken between a parent and its subsidiaries. This is indeed a relevant way of looking at the risk takers, but one must ask where the shareholders are taking the risk. When a domestic corporation elects to earn income abroad, the United States generally cedes primary taxing authority to the country which is hosting the corporation's activities. In electing to perform certain functions abroad, the shareholders are taking risks abroad. Therefore, the return on those risky activities should also accrue abroad. In other words, if a corporation is undertaking activities that earn a risk premium in the marketplace, the risk premium should be attributed to the entity that is performing the risky function.

Potential adjustments over time are another means of addressing uncertainty:

> The committee intends that consideration also be given the actual profit experience realized as a consequence of the transfer. Thus the committee intends to require that the payments made for the intangible be adjusted over time to reflect changes in the income attributable to the intangible.[24]

Is the use of actual profit experience consistent with an arm's length approach? There is no single answer to this question, because there are a variety of ways that actual profit experience could be used. Certain uses are clearly consistent with arm's length principles. If relevant, actual performance data may be used consistently with arm's length as an indication of what the parties' expectations were at the time the transaction was entered into. Further, it is consistent with arm's length to require related parties to adjust transfer prices in the same way that unrelated parties would have adjusted them. For example, it may be determined that certain types of royalty arrangements between unrelated parties typically are limited in duration, say to five years. If so, related parties in similar circumstances ought to adjust their payments at least every five years.

Alternatively, it may be that unrelated parties do not limit the duration of their agreement, but allow either party to terminate with notice. Simply requiring related-party agreements to include termination clauses would clearly be inadequate, because the related parties would choose not to exercise them in some circumstances when unrelated parties would. It would be consistent with arm's length to require related parties to adjust their agreement if unrelated parties would have exercised a termination clause. In some circumstances, these type of adjustments may closely approximate the results contemplated by the House Bill Committee Report.

D. Tangibles vs. Intangibles

The commensurate with income change singles out intangible property. A partial list of intangible property includes patents, inventions, designs, know-how, copyrights, trademarks, brand names and technical data. The production and exploitation of intangible property often falls into the category of cases for which claims are made that it is not possible to use separate accounting. It is undeniable that the application of a separate accounting approach

is more difficult in the case of intangibles. However, the present goal is to ask whether there is a theoretical difference between valuing tangible and intangible property which would preclude using an arm's length approach in order to determine transfer prices for intangibles.

Under the arm's length approach, the goal of transfer pricing rules with respect to any type of property is that the income should be allocated according to the location of the economic activity that went into producing and exploiting the property. Given this goal, there would seem to be no theoretical difference between tangible and intangible property.

What might seem to make intangibles different as a matter of economic theory is that the marginal cost of using an existing intangible to produce another unit of a good or service is zero. (For example, once one knows the formula to make a product, it does not have to be reinvented each time the raw materials roll onto the assembly line.) Any return to the intangible contained in the second through n^{th} units of the product means that the price is greater than the marginal cost of producing the last unit. This does not provide a distinction between tangible and intangible goods, however, since price can be greater than marginal cost for any type of good.

Another distinction is that problems may arise in identifying the intangibles. Tangible property, by definition, has physical properties which make it easy to classify. Intangible property is more elusive. Wright (1984) discusses the identification of intangible property, the distinction between manufacturing tangibles and marketing intangibles, and the pattern of value over time for these two types of intangibles. The fact that there are different types of intangibles with different values at different points in time emphasizes the necessity of identifying all the intangibles. If an intangible is overlooked, one may not establish the correct transfer price. Therefore, it is important to emphasize intangibles, not because they should be treated differently from tangibles, but because they may be more easily overlooked.

The possibility of overlooking certain intangibles, together with the difficulties in valuing the ones that can be identified, suggests that, if possible, one should seek to analyze a transfer pricing problem from the point of view that minimizes the necessity of looking at intangibles. In certain cases, one may feel confident both about the total income accruing to a group of related parties from a line of activities, and about the fact that one or more of the parties does not own or employ intangibles to any sizeable degree. The preceeding discussion of an approach based on arm's length returns implies that it is reasonable in this case to start by deciding on the income of the entities making the least use of intangibles, and to allow the income of the other parties to be determined as a residual. However, such suggestions involve practical considerations. The conclusion here is that there is no theoretical reason to reject the use of an arm's length standard for intangible property.

V. Conclusion

From the standpoint of economic theory, there does not seem to be any reason to reject a market-based approach implemented via separate accounting as a means of allocating income between related parties. This is true regardless of whether the property under consideration

is tangible or intangible. Application of the arm's length approach will result in firms changing their production decisions relative to a no tax world, but the shift in resources will be the same as that which would result if unrelated parties were faced with different tax rates in different countries. Use of the arm's length standard does not distort the decision to use affiliates versus unrelated parties. Although these points favor application of the standard, they do not imply that the standard as previously implemented is flawless. As critics have suggested, and as discussion during the Tax Reform Act of 1986 points out, there are problems with a practical application of an arm's length standard that focuses only on prices charged by unrelated parties for similar goods, services or intangibles. This paper has shown that it may be worthwhile to focus on incomes earned by unrelated parties instead of on price in order to appropriately compensate related parties for the functions they perform and the inputs that they employ.

ENDNOTES

[1]The United States allows deferral of taxation for the active business income of a foreign subsidiary until it is repatriated. Therefore, a U.S. corporation with a foreign subsidiary in a low tax country has an incentive to charge itself a relatively low price for the transfer of goods and services from the parent to the subsidiary. If the subsidiary were located in a high tax country, the firm would have an incentive to charge a high transfer price.

[2]See Treas. Reg. § 1.482.

[3]The leading alternative to the arm's length approach, implemented through separate accounting, is the unitary business approach, implemented through formula apportionment. See McLure (1984) and works cited therein for a discussion of this approach. We intend to analyze this method, specifically the effective tax rates on capital that can arise under a simple representation of it, in future research.

[4]For example, see Halperin and Srinidhi (1987).

[5]For example, see Langbein (1986) and McLure (1984).

[6]Surrey (1978), p. 414.

[7]*id* at 414.

[8]Rollinson (1986) shows ways in which transfer pricing can be used to provide incentives to change the input mix chosen by multinationals.

[9]The income tax regulations examined by Halperin and Srinidhi are found at section 1.482-2(e). These regulations describe the methods to be used when determining a transfer price for tangible property.

[10]As Halperin and Srinidhi are quick to point out, it is not solely the tax rate differential that causes this shift. Instead, it is the combination of tax rate differentials and an effective transfer price policy. Halperin and Srinidhi emphasize that if a multinational firm could arrange its transfer price policy so that all of its profits were earned in the country with the lowest tax rate then differential tax rates would not lead multinational firms to shift their resources. Our paper assumes that high tax countries would find such a result untenable so that this type of manipulation is not considered as an option.

[11]While this paper was in its final stages of preparation, this concern was voiced, in a remarkably similar fashion in an important judicial decision. *Alcan Aluminum Ltd. v. Franchise Tax Board*, No. 87-2239, (Seventh Circuit, 10/19/88) concerns two foreign parents whose U.S. subsidiaries are subject to California's worldwide unitary system of taxation. The basic issue in the case is whether the parents suffer injuries that are "sufficiently direct and independent of the injuries to their subsidiaries to confer standing." A key element in the judges' decision is so similar to the concerns addressed in this paper, and is so cogently stated, that it bears quoting at length:

> However, the arguments that Alcan and Imperial incur no direct and independent injury from costs plausibly viewed as burdens on their subsidiaries remains persuasive only so long as the relationship between parents and subsidiaries is viewed narrowly, focusing exclusively on the parents' status as shareholders. It is indisputable that, but for their ownership of stock in corporations that operate in California, Alcan and Imperial would have no complaint about their compliance costs or double taxation. This line of argument, however, ignores a second important feature of the relationship between the foreign parents and their domestic subsidiaries: the subsidiaries are owned as instrumentalities of the foreign commerce of their parents. Foreign companies seeking to sell or purchase products or services in California choose between conducting business through dealings with American subsidiaries or through contracts with unrelated companies. Plantiffs allege that for many enterprises subject to the unitary tax, the earnings of operations in California, computed under the arm's length transaction approach, are lower in relation to labor costs, capital assets and sales than are the similarly computed earnings of related operations in countries other than the United States. These companies will show a higher taxable income in California under the unitary tax scheme than they would if they

engaged in precisely the same foreign commerce through arm's length contracts with unaffiliated companies. From the perspective of the foreign parent, therefore, the unitary tax diminishes the attractiveness of owning American subsidiaries in comparison with entering into contracts with independent companies as a means of engaging in foreign commerce. The potential for the unitary tax to penalize foreign ownership of American assets distinguishes the unitary tax from environmental or safety regulation that might cause comparable increases in the cost of doing business in California, but would presumably affect foreign and domestically owned operations fairly equally. It is the incidence of the unitary tax, its potential to disfavor a particular mode of foreign participation in the American economy, rather than the magnitude of the costs it imposes that provides the strongest argument for standing.

[12] Alternatively, if multinationals could set their own transfer pricing policy so that all profits were earned in the low tax country, then there would be a bias against unrelated-party transactions and in favor of multinational operations.

[13] The genesis of the debate over the arm's length standard may be attributed to Hirshleifer (1956). Hirshleifer derives the appropriate internal transfer price for goods that are transferred between divisions of a firm. In this context the "appropriate" price means the price that will signal enough activity at each division so that the overall profit of the firm will be maximized. Hirshleifer finds that the market price is the correct internal transfer price only when the product being transferred is produced in a competitive market. If the market for the product is imperfectly competitive then the optimal transfer price will be lower than the market price. Since the arm's length standard uses the market price, critics have pointed to Hirshleifer's article as an indication that the arm's length standard will not always yield an appropriate price. Such arguments are misguided because Hirshleifer's transfer price is for internal use by the firm. The transfer price used for tax purposes does not put any restrictions on the internal prices used by a firm. See Langbein (1986) for a more complete discussion of earlier critiques of the arm's length standard.

[14] McLure (1984), p. 94.

[15] An example is advertising for a particular product which promotes brand loyalty toward all of the firm's product lines.

[16] A discussion by Steuerle (1982) of the efficient valuation of fringe benefits in the presence of taxes also addresses the distortions that are created if one applies a market price, which is derived from one type of technology, in situations where a different production function is appropriate. However, the solution to the fringe benefit case is slightly different because the market for a company's fringe benefits is potentially segregated from the market for the company's product so that both markets may remain in existence. In the transfer pricing case, potentially different technologies are being used to supply identical consumers. If one technology is more efficient, the other will disappear in the long run.

[17] Hines (1988) presents six criteria that transfer pricing rules should satisfy. It would be interesting to consider whether these criteria imply or are implied by the goal discussed in this paragraph; however, this issue is beyond the scope of our paper.

[18] Below we relax the assumption of homogeneous factors.

[19] In more complicated situations, both the affiliated corporation and any potential unrelated-party participant may each possess monopoly rights that allow it to earn above-normal profits. In deciding whether to use such an unrelated party, a corporation would have to consider what would happen if it attempted to bargain with it. There are analyses, relating to economic game theory, that are able to predict what the outcomes would be in such a bilateral monopoly situation. If the outcome, specifically the income of the potential unrelated-party, can be predicted, then it would be proper to use it to determine the income of the corporation's affiliate. This is so, to repeat, because this procedure would allow the corporation's choice between using an affiliate versus an unrelated-party to be made free of tax distortions. To implement this procedure, however, one would need to analyze the theoretical models of bargaining situations in detail, and this analysis is beyond the scope of this paper.

[20] Sec. 1231(e)(1), Tax Reform Act of 1986, P.L. 99-514-October 22, 1986, 100 Stat. 2085.

[21] Committee on Ways and Means, H. Rep. No. 99-426, 99th Cong., 1st Sess. at 424 (1985).

[22] *id* at 425.

[23] *id* at 424.

[24] *id* at 425-426.

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