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by

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A MODIFIED FRACTIONAL APPORTIONMENT PROPOSAL FOR TAX TRANSFER PRICING

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Recent years have witnessed the erosion of confidence in prevailing techniques for allocating the tax base of multinational corporations. These techniques are premised on the "arm's length standard."[1] This erosion has resulted in part from theoretical criticism of the "arm's length standard" and the manner in which that standard is implemented by current regulations.[2] But it has resulted as much from evident practical difficulties with the regulations. There has been considerable publicity in the general press concerning the avoidance by foreign enterprises of United States tax through manipulation of transfer prices,[3] and it is recognized that these difficulties affect the collection of tax from United States based enterprises as well. The Government's difficulties in

enforcing the standard have been publicly detailed,[4] and the sheer volume of outstanding controversies between the Internal Revenue Service and corporate taxpayers suggests a near breakdown of the system.[5]

These concerns have led to a search for a refinement or replacement of the prevailing techniques. The Treasury Department in 1988, acting pursuant to a congressional directive,[6] issued a "White Paper,"[7] which recommended modifications to the system. But the proposals of the White Paper provoked widespread criticism and received little support in the business and professional communities concerned with these questions.

This paper sketches a proposal to replace prevailing methods. The proposal is based upon what is traditionally conceived as the alternative to "arm's length," fractional apportionment. This proposal differs from conventional fractional apportionment both because it incorporates certain methods developed in administering the "arm's length" system, and because it uses criteria for dividing the profits of enterprises different from those employed by traditional fractional methods. The method selected, and the criteria for dividing portions of the profits of the enterprises, are developed in light of prevailing theories of the multinational enterprise. These theories have formed the basis of the theoretical critique of the prevailing "arm's length" system, criticism which has contributed to

current doubt about the long term viability of that system.

Part I sketches the proposed pricing system, which may be and is done quite briefly. Part II summarizes contemporary theory of multinational enterprise (MNE), which underlies both the theoretical critique of "arm's length," and the reform proposed here.

Part III relates the suggested "profit split" criteria of the proposal to the theory of MNE. This section spells out a conception of a component's relative contribution to a group, and describes how that conception can be approximately measured by reasonably available information about an enterprise's operation.

Part IV relates the proposal to the historic contradistinction between "arm's length" and fractional apportionment, and evaluates the consistency of the proposal with what are presumed to be "international norms" for allocating the tax base of a MNE.

I

Contours of the pricing determination. Under the proposal, transfer prices would, essentially, be backed into; what would be determined directly is the allocation of an integrated group's profit from separate product lines to

the group's various components. This requires an a priori definition and determination of the profit being allocated.

The profit to be allocated would be that earned by the group with respect to the broad product category or categories of the products marketed by the group internationally. In the absence of special circumstances, particularly the existence of demonstrable cross product subsidies among products in different categories, standard industrial classification categories could be used. The allocation would be on a category by category basis. Profit would be the excess of revenues from products in that group over costs allocable to the group. This profit would fully absorb costs incurred by the group on behalf of a number of product categories. The precise manner in which the product categories would be defined, and costs allocated to product category, are not set forth here. These are manageable issues, which are left for later consideration.[8]

It is intended that "group profit" from a product category be determined on a global basis, that is, taking into account the enterprise's operations with respect to that product category in all countries. Thus, one would not simply make a determination of combined, 2-country profit in the 2 countries involved in a particular transfer pricing dispute. To work ideally, this feature would require the development of international arrangements whereby a unique and final determination of global profits could be made,

rather than relegating enterprise to relitigating the question in the context of a series of 2-country determinations. The formulae for determining the "residual" profit and for "splitting" that profit, set forth below, would also work best if administrative machinery of this nature could be developed.

The proposed pricing regime would proceed in 2 steps, familiar in connection with contemporary transfer pricing practice.[9]

Step 1. Allocation of adequate return to components. Each component of the enterprise would be permitted to recoup its allocable costs, plus a reasonable profit margin, computed as a return on business assets employed by the component. The profit margin should be determined under a "rate of return" method, like that suggested by the White Paper or by the testing method in the duPont case[10] supported by the testimony of Dr. Irving Plotkin, rather than a markup-from-cost method,[11] like that suggested by the present Regulations' "cost-plus" approach, or by the method in the duPont case supported by the testimony of Professor Charles Berry.[12]

The profit margin should reflect prevailing rates of return as of the period to which the allocation relates. In order to shield a range of cases from the uncertainty and controversy bound to attend the application of Step 2, it

may be advisable to permit relatively high rates of return to be used (say 20% when prevailing longer term interests rates are in a 8-10% range). This will reserve Step 2 for instances of demonstrable "superprofitability," instances for which that step is designed.

Each component would be allowed a "location savings" for the net production cost saving realized from operating in its jurisdiction. The savings would be determined along the lines accepted by the Tax Court in Eli Lilly Co.[13] and Sundstrand Corp.[14]

Step 2. Profit Split. Step 1 would define an amount of profit as "residual," the amount of profit in excess of the aggregate of the profit margins which would attract all parties to the transaction were they unrelated. The residual profit would be split among the components on a formulary basis. The formula for allocating profits to a particular jurisdiction would be:

$$P_j = \frac{KR + SR}{2} P_T$$

where P_j is the profit to be allocated a particular jurisdiction with respect to the product or product group in question; P_T is the total profit of the enterprise for the product group in question; and KR and SR are the "capital

ratio" and the "sales ratio," respectively, The capital ratio is the ratio of the business capital employed in the jurisdiction in the product line to the total business capital employed by the enterprise in the product line. The sales ratio is the ratio of sales in the jurisdiction in the product line to total worldwide sales of the enterprise in the product line.

The residual profit is thus allocated according to a 2-factor formula. One factor, assets, is an "input" criterion, representing the situs of productive capacity utilized by the enterprise. The other, sales, is a "market factor," relating to the markets at which the firm's entrepreneurial efforts are directed.

II

1. The structure of transfer pricing questions: "residual" income and profit splits. Transfer pricing disputes have a common structure, and transfer pricing systems, extant or recommended, ordinarily take a form corresponding to this structure.

The existing Regulations proceed by first looking for "comparable uncontrolled prices" -- prices charged by "uncontrolled" parties in a transaction "comparable" to the

"controlled" transaction.[15] If these cannot be found, one uses either the resale price or cost plus method.[16] If these do not work, one uses unspecified "fourth methods."[17]

The Treasury's White Paper follows a similar structure. First, one looks for "comparables," which may be either "exact," or "inexact."[18] If these cannot be determined, one determines the income attributable to the satellite components by determining the rate or return the component should earn on its assets.[19] One either then subtracts the sum for all components to determine the parents income, or, if this is not appropriate, one performs a profit split, with the criteria for the determination of the percentage split left to "judgment."[20]

This is the typical structure of pricing controversies. First, one looks for comparables. These are rarely found, so one proceeds to the second step, which involves, in effect, determining the marginal prices which would bring the various components of the integrated group "to the table." This is in accord with the theory of "arm's length." This is what the resale price and cost plus methods of the existing regulations implicitly do, and what the "arm's length return" method of the White Paper explicitly does.

There are 2 difficulties, identified by the contemporary critique of prevailing practices. First, when one seeks comparable uncontrolled prices, they are rarely

found. This is because multinational enterprises exist for reasons growing out of their production and market situations, and because organizations and markets tend to be substitutes for one another -- so that they rarely coexist.[21] Second, when one determines the "marginal" return a party will demand, one fails fully to allocate the income of the group. One encounters a "continuum price problem," since any of a number of prices along a continuum will constitute an arm's length price.[22]

The existing Regulations give no guidance as to what to do in this situation. The White Paper explicitly directs a "profit split," but does not give precise guidance either as to when this will be undertaken, as opposed to an allocation of the entire "residual" income to the group's parent entity, or as to what percentages are to be used in "splitting" the residual. Existing case law deals with the problem by deciding each case on an openly ad hoc basis. This ordinarily means that lenient and sometimes economically questionable applications of the "comparable uncontrolled price" methods are tolerated;[23] or that ad hoc profit split percentages are adopted.[24]

Nor does the extant contemporary critique give guidance as to the appropriate means of "splitting" the "residual" profit.[25] The principal objective here is to set forth and to defend a basis for a principled profit split, once the "marginal" allocations are made to each component of the

group.

2. The theory of the MNE. The implications of the theory of the MNE for the tax jurisdiction question require a brief description of MNE theory.

The contemporary theory of MNE begins with the insight by Hymer that classical theory of international capital movements, which describes cross border investment by reference to relative interest, inflation, exchange, and other factor price rates, does not explain the phenomenon of foreign direct investment, which had become increasingly important after 1945.[26] Hymer postulated that enterprises expand abroad when they possess firm-specific "ownership advantages," which foreign expansion is necessary to protect. The impetus for foreign expansion derives from the need to remove conflict or potential competition from firms in foreign countries engaged in activities similar to that of the expanding firm.

Hymer's is the first of what are termed "market power" or "structural" interpretations of the modern multinational corporation.[27] This market power approach was challenged and largely eclipsed by work in the mid-1970s introducing the now dominant "internalization" theory. The internalization theory was advanced independently by a number of theorists, some of whom showed no or little cognizance of the others.[28]

Internalization theory borrows from contemporary developments in the theory of the firm, notably "transaction cost" explanations of the origin and nature of firms. This theory derives from a seminal 1937 article of Ronald Coase.[29] Coase visualized firms and markets as alternative forms of economic organization, and postulated that they are subject to a process of substitution much like the process by which classical microtheory conceives of producers selecting among substitutable factors of production, or consumers among products or services. The basis for substitution, according to Coase, is transaction cost. Activity is organized by markets when the transaction costs of the market are less than those of the firm; activity is organized by firms, conversely, when the firm economizes on transaction costs.[30]

According to internalization theory, multinational integration occurs to obviate certain hazards. It is useful to label the hazards; the labels are original, but all the concepts are elaborated in the literature of the late 1970s and early 1980s.

Forward integration into distribution occurs in order to mitigate 2 kinds of hazards, each of which is associated with the possession and significance of intangible property. Where the market internalized is a market for valuable technology, a "manufacturing intangible" in the lexicon of international tax lawyers, internalization obviates

appropriation hazards. The internal market bears a condition of information impactedness: the seller cannot costlessly reveal the nature of the technology, for fear the buyer will appropriate it; the buyer cannot costlessly accept the seller's representations as to the technology, at the same time.[31] The danger is the buyer will appropriate the technology without compensating the seller if the seller explains the technology's value to the buyer.

Where the market internalized is a market for goodwill or valuable reputation, the hazard obviated is a hazard of reputation debasement. An unrelated distributor might have an incentive to "free ride," lowering quality or withholding aftermarket service to restrain its own cost, with damage to the functioning of the system reputation.[32]

Integration into production activities, whether backward or forward, minimizes any of 3 possible hazards. First, if valuable technology is involved, there will be an appropriation hazard like that in forward integration into distribution. Second, integration will occur in the absence of intangible property where there is "asset specificity," large investment in assets which are specific to the production process involved. This condition is almost always accompanied by a "small numbers bargaining" condition, which might lend an unrelated separate stage producer the opportunity to holdup the specific asset owner (a holdup hazard).[33] Finally, there is a quality debasement

hazard; integration will facilitate quality control.[34]

The final major development in the modern theory was the response to internalization theory embodied in the "eclectic paradigm," associated primarily with Dunning.[35] This approach is an effort to explain the extent and pattern of international production, rather than the dynamics which lead to the formation of multinational corporations. Its establishes an "OLI" (ownership-location-internalization) framework, which holds that the pattern of international production will be determined by 3 sets of forces. These are the presence of ownership advantages to particular firms (ownership); the extent to which it is perceived to be profitable to internalize markets for the assets (internalization); and the firm's perceptions of the value of locating value-adding activities outside their national borders (location). The eclectic paradigm refers back to the pre-internalization, Hymerian or "market power" theories, especially in reintroducing a hard conception of "ownership advantages" -- which may include market dominance or structural advantages, as well as transaction cost advantages.

The internalization theorists elide one important point in establishing their theory. The internalization theorists downplay the role of firm-specific advantages. This is due in part to the internalization theorists' objective of deflecting the negative view of multinationality inherited

from Hymer, which associate ownership advantages with oligopoly conditions. The eclectic paradigm specifically aims to reintroduce the concept of ownership advantages, allowing that they might be structural but that they also the might be of net social benefit.

But internalization theory never really denies or escapes firm-specific advantages. Transaction cost theory posits integration occurs in the presence of "asset specificity"; "asset specificity" is a broad term, denoting a condition in which a small numbers bargaining condition has devolved from what might originally have been a large numbers condition as the firm has developed its own advantages at considerable sunk cost -- this is what Williamson calls the "fundamental transformation."[36] And the protective function internalization theory ascribes to the different forms of transnational integration all assume the presence, ordinarily the preexistence, of a firm-specific advantage -- valuable technology in the forward/technology-intensive case; valuable reputation in the forward/goodwill-intensive case; heavy investment and perhaps valuable technology in the backward investment case.

III

The contemporary theory of MNE thus posits that the profitability of an integrated group depends upon the operations of all its components; the removal of any given component will damage the profit of the group. Moreover, the theory suggests particular means whereby the damage will occur, through the various hazards which operation in integrated form mitigates.

This suggests a straightforward idea for allocating "residual" or "superprofits" of an integrated enterprise. The portion of the residual which should be allocated to each component should be measured by the relative contribution of the component to the group; and this in turn should be measured by the loss to the group which would occur if the component left the group. This suggestion, however, encounters 2 difficulties. First, there is no convenient way to measure precisely the damage to the group's profits which would occur if a component left the group. Second, even if there were, different components of a multicomponent group, by hypothesis, jointly contribute to the group profit; so the departure of one component might cause loss of the same slice or slices of profit as would be caused by the departure of another. This kind of standard thus might multiply account for the group's profit -- the

obverse of the vice of current technique, which fails exhaustively to account for the entire profit.

To overcome these difficulties, one might approach the question of relative contribution from a different angle. This approach would look to what would happen to the group were it completely disaffiliated -- that is, if all components in all jurisdictions were "set free," and made to operate as independent enterprises. The idea would be to preserve each such separate enterprise's share of the aggregate profit earned by all such hypothetically separate enterprises, so that the residual would be allocated in accordance with the relative share of the aggregate each component would earn if all components were separate. Implicitly one is saying that as the group moved from complete disaffiliation to complete integration, its components would demand that incremental profits be divided up in proportion to the profits enjoyed by the disaffiliated components without integration. This still leaves the problem that it is nearly impossible to measure the loss that would be occasioned if all the components of an enterprise were separate.

But it may be possible, using the "internalization" interpretations of the major forms of multinational integration, to make an approximation of various components' "relative contributions," defined in this way, using readily available, and conventionally understandable, measurement

criteria.

The attached tables (Tables 1 through 5) represent an attempt at this. These tables proceed as follows. Each relates to a particular category of integration setting (backward, forward, or combination backward-forward). The table then gives cost, revenue, and asset data for the integrated enterprise, reflecting profitability indices as well (return on assets and "Berry ratios"). The tables then set forth corresponding data were the enterprises in the separate countries disaffiliated. These data are assumed, not derived, but the assumptions seek to reflect the predictions and hypotheses of internalization/OLI theory in relation to the particular integration setting. Based on these assumptions, the tables show a breakdown of the aggregate profit of the disaffiliated enterprises, and each component's share of that aggregate.

The tables then evaluate available allocation criteria (cost, revenue, asset values, or combinations among them) to see what kind of breakdown of the profit earned by the integrated enterprise each such criterion would effect. These are compared to the hypothesized breakdown of the profit of the disaffiliated enterprise among its components to determine which of the allocation criteria best determines the "relative contribution" of the enterprises with respect to each integration "setting." Once this is determined for the various major settings, we can begin to

evaluate different rules or legal regimes for splitting the residual profit, specifically asking which criteria work best for which situations; whether we want different criteria for different situations; if so, how we determine which situation we are in for purpose of selecting allocation criteria; or, if not, which criteria will work best if we must select one set to apply to all situations.

Forward integration (reputation debasement and appropriation hazards). Table 1 (set forth as Tables 1a through 1c) reflects a "forward" integration setting, beset, as described above, by reputation debasement or appropriation hazards. Country A is presumably the "home" country, where most production takes place (83.3% or production cost is incurred there; 85.7% of asset values are located there). In Country B, the enterprise engages in some production, but effects one-third its sales and incurs one-half its distribution cost. Only 2 countries are involved.

In Table 1a, when the enterprises are disaffiliated, we keep production cost and asset values constant, but assume an increase in distribution cost (in both Country A and Country B); damage to Country A revenue; and an increase in Country B revenue. This reflects perhaps an appropriation hazard -- the Country B enterprise is perhaps invading the Country A market (through licensing to third parties or nonintegrated export to Country A), which enhances its

revenues. The competitive consequences of appropriation and reputation debasement cause the need for enhanced distribution costs. The consequence of these assumptions is that the joint profit of the 2 enterprises is 5000, less than the 8000 of integrated operation. But the Country B corporation is earning a profit actually in excess of the "separate" Country B profit under integrated operation (3500 vs. 3000). The Country A operation has borne a share of the damage (3500) in excess of the total damage to "pooled" profit (3000).

The result is that Country B's enterprise would earn 70% of the aggregate profit, Country A 30% of the profit.

The third group of figures on the chart shows a breakdown of the integrated profit according to the terms of the eclectic paradigm. The shares so identified are crudely defined. The "nonresidual" profit to each component represents 20% of the asset base of the component. The "ownership/location" profit represents the excess of the separate profit assumed to be earned by each of the separate enterprises over the "nonresidual" profit: it is, in effect, the "residual" which survives "disaffiliation." The "internalization" component is the excess of the integrated profit over the total of the "nonresidual" and the "ownership/location" profit.

The final 2 blocks of figures represent percentage

allocations of the total profit. The block entitled "full residual allocation" shows the percentage of profit allocated each component using the criterion or criteria identified in the first column to allocate "residual" profit. The block entitled "internalization residual allocation only" reflects how the profit would be allocated if it were possible to allocate only the "internalization" profit according to the criteria set forth in the first column. These latter allocations are of course hypothetical, since they would require a determination of the hypothetical profits under "disaffiliation," which is what we begin by assuming we cannot do directly. The allocations under "full residual allocation" can, of course, be performed directly.

The relevant comparison for our purposes is the relation between the percentage of the profits figures for the disaffiliated enterprises and the percentages shown for "residual full allocation" according to the various criteria. On our assumptions, given this integration "setting," we had a 30-70 split between the home and satellite jurisdictions under disaffiliation. None of the available criteria really approach this split. The closest we come is using a pure sales allocation figure, which still splits the profit only about 68-32 (in favor of the home jurisdiction). We fall short largely because, in this example, we have a large residual profit even under

disaffiliation. Moreover, our assumptions reflected the cause of this residual factors associated with the market in the satellite jurisdiction, which enabled the hypothetically separate satellite enterprise to reap large profits from appropriation/debasement. These are "locational" advantages, in the terms of the eclectic/OLI framework.

But it is worth emphasizing that the sales allocation factor brings us closest to the breakdown of profits occurring under disaffiliation. This is not a coincidence, but rather reflects the fact that the hazards of "forward" integration will tend to be associated with sales, rather than "input" criteria like assets or costs. If "relative contribution" is measured by how the profits would break down under disaffiliation, then where integration functions o forestall debasement/appropriation hazards, sales may be our best available criterion for making the allocation. We may take this as a first proposition in developing criteria for a residual profit split.

Tables 1b and 1c vary the assumptions for what happens under disaffiliation, progressively reducing the profit realized by the appropriating/debasing Country B enterprise. We keep Country A revenue at 5000 in Table 1b, while the Country B enterprise has revenue of 3000; in Table 1c, the revenue for the two components fall to 4500 and 2000 respectively. Correspondingly, the "residual" surviving disaffiliation falls; so the original residual is more and

more associated with internalization, rather than location advantages. The ultimate profit split under disaffiliation falls to 50-50 in Table 1b; and to 33-67 in Table 1c. Thus, as the "locational" advantage contribution shrinks, the allocation effected by the sales factor more closely approximates the proportions of the profit split under disaffiliation. This we may takes as a second proposition.

Backward integration (product debasement and holdup hazards). Table 2 sets forth parallel numbers for a case of pure backward integration. Here, the Country B component is engaged in production with heavy investment; when it becomes independent, it "holds up" the main enterprise. The holdup is reflected on the table by revenue of 18000 to the separate enterprise; this also enters into Country A production cost. This reflects the satellite enterprise's appropriating the lion's share of the integrated profit through "holdup." In addition, disaffiliation is assumed to trigger an additional 6000 in actual (i.e., non-internal market) costs, borne 4500 by the B enterprise and 1500 by the A. Assets and revenue figures remain the same; the enterprise is selling only in Country A.

These assumptions -- which again are simply imposed, but again reflect the interpretation of backward integration as economizing on transaction costs associated with "holdup" and quality debasement -- generate a 20-80 profit split between home country and component. Note again the tilt

toward the "satellite" country. Again the breakdown of the integrated profit shows a "non-internalization residual" -- associated presumably and primarily with "location savings" in the host country. If we examine the profit splits generated by the available criteria for allocating the residual, the one which most closely approximates the split our assumptions generate is a single factor asset allocation. This again stands to reason, and undergirds a third proposition: that in backward integration settings in which integration forestalls holdup/quality debasement hazards, assets will probably be the best criterion for making the allocation.

Multistage vertical integration. Tables 3, 4, and 5 reflect 3-country enterprises where the enterprise is integrated both forward and backward. In each table, Country A is the home country, where substantial production and the most substantial sales take place; Country B is a backward-integrated operation in a jurisdiction where no or negligible sales take place; and Country C is a forward-integrated operation in a jurisdiction where some sales take place, at least partly serviced by local production.

Table 3 reflects the situation in which the forward-integrated enterprise only is "nonintegrated"; Table 4 where the backward-integrated enterprise only is taken out of the group; and Table 5 where the enterprise is fully disaffiliated. Unsurprisingly, where only the forward

integrated enterprise is removed from the group, the sales-only allocation factor gives the best approximation of the 53-0-47 profit breakdown under partial disaffiliation; where only the backward integrated enterprise is removed, the asset-only factor gives the best approximation; and where there is full disaffiliation, the mixed sales/assets factor (50-50) gives the best approximation. This yields a fourth and final proposition, derivable, in all likelihood, from the first and third: that in an integration setting reflecting both forward and backward integration, an allocation based in part on sales and in part on assets will best approximate the relative contribution of the components measured by their share of the profits which would be achieved on full disaffiliation of the group.

A rudimentary relative contribution standard. These examples have obvious shortcomings. They are based on hypothetical circumstances, and assumptions imposed by fiat about what would happen if a component were removed from the group. But the assumptions made are fair in terms of the prevailing internalization interpretation of MNEs, and of the different settings in which MNEs emerge and function. And the analysis suggests at least the rudiments of a workable "relative contribution" standard for transfer pricing.

This standard would allocate to each components a return on its assets -- we have used 20% throughout. When a

residual remained, it would be allocated according to criteria which have their analogues in existing fractional apportionment systems, like those used by the states in connection with the "unitary method," as well as in many suggested "safe harbor" regimes for transfer pricing.

The analysis here suggests that one approach to allocating the residual would be to select different criteria depending upon the type of integration which the MNE in question represented -- using a single factor sales allocation in "forward" integration contexts, a single factor asset allocation in pure "backward" integration contexts, and a mixed sales and asset factor in mixed contexts. There are a number of objections to doing this. Foremost among these is that it would condemn tax administration to the task of determining what kind of integration a particular multinational's business constituted. This task would present considerable difficulty. Moreover, the logic of using different criteria in different settings might be carried further, to warrant different weightings of the criteria depending on context -- for instance, where both forms of integration were present, but the integration could be said to be "predominantly" forward, it might be argued that the sales factor should be weighted 80% and the asset factor 20%, and so forth. It is probably best to cut short such efforts at precision, in the name of both administrability and acceptance of the

proposal, and to do so at a relatively early stage.

This suggests a residual allocation scheme which would give 50% weight to the sales factor and 50% to the asset factor in all settings. This departs from the ideal of a "relative contribution" standard, as defined here, and will do so in relatively significant ways in pure integration settings, as a glance at Tables 1 and 2, in particular, will show. There are substantial reasons for accepting this imprecision. First, the extreme allocations effected in the "pure" settings by the use of a single standard may be difficult for many parties, including many governments, to accept. This is particularly true since in both forward and backward settings the tendency of single factor methods is to allocate income from a home country to a satellite country, sometimes to an extreme extent. More conventional suggestions for overcoming the difficulties of transfer pricing have always tended in the opposite direction, of moving income to a home country rather than a satellite. Since the use of mixed factors in pure-form integration settings generally mitigates the allocation out, it will blunt objections to the proposal based on its undeniable tendency to favor satellite country claims over home country claims.

Second, as noted above, the use of allocation criteria which do not vary according to the "transaction cost" nature of an enterprise's business situations forestalls disputes

about the category into which the situations of particular enterprises fit.

Finally, the use of two equally weighted factors mitigates the unfamiliarity of the use and defense of the sales factor suggested here. Although the sales factor has historically been employed in fractional systems, it has frequently been criticized and viewed as the least legitimate of the factors employed. Indeed, it was not until 1978 that the constitutionality of a using a single factor sales allocation by the states was established.[37] This was because sales, unlike payroll and property, do not represent an "input" justifying a conclusion that profits are "earned" in a jurisdiction.

The exegesis here suggests, by contrast, that sales, if anything, are the more or most important factor in indicating the "relative contribution" of a component to an enterprises' group profit. While this is not empirically demonstrable here, it is likely that "forward" and "horizontal" cases of integration represent the predominant, or most significant, range of cases of multinational integration. If this is the case, then the use of the sales factor will be the most generally and widely reliable guide to a component's "relative contribution" of any of the available indices. Further consideration of this problem thus could do well by focusing upon an expanded, rather than reduced, role for a sales or some comparable factor. In

this light, the use of an asset factor on an equal footing with a sales factor really is a concession to prevailing and conventional conceptions, which insist upon viewing profits as the outcome of, and as ultimately traceable to, "inputs," rather than as traceable to organizational and transactional decisions executed by firms after profit situations have been identified and developed.

IV

For many years, the question of allocating MNE profits for tax purposes was conceived as a choice between the prevailing system -- the "arm's length" method, or separate accounting -- and the methods used by the states for multistate allocations, fractional apportionment, based, in the case of the states, on the "unitary method." The last 5 years have seen a proliferation of suggested new approaches or alternatives: the White Paper's BALRM is the best known; but other approaches include an Economic Capital Employed Approach,[38] what is termed (by others than its author) a "central management" approach,[39] what is termed (again by others than its author) a "microeconomic" approach;[40] or an equalized rate of return approach.[41]

The instant proposal is a modified form of conventional fractional apportionment. It is modified principally by its use of the first step, allowing a market rate of return on assets to all components of the group. This step is, as indicated above, borrowed from contemporary practice, and is a more or less accepted feature of the "arm's length" regime as currently imposed.

The proposal is modified, too, in its use of product line profit, a narrower conception than the "unitary business" concept applied under state law and under federal constitutional law in imposing limits on the power of states to tax. Perhaps most important, the proposal is modified in that it uses different criteria than are used by state fractional apportionment system. It dispenses with a "payroll" factor, or any other explicitly cost-oriented factor, and uses a broad concept of business assets employed as an "input" criterion for allocations.

But the suggested regime differs from conventional fractional apportionment in a still more significant respect. The suggested regime is intended as a principled method for measuring the "relative contribution" of a component of an enterprise to the enterprise's total profit. The state "unitary methods" have never been conceived in this spirit. The Supreme Court has upheld fractional systems by inquiring "whether the taxing power exerted by the state bears fiscal relation to protection,

opportunities, and benefits given by the state," and whether "the state has given anything for which it can ask return."[42] This requires a "'minimal connection between the interstate activities and the taxing State, and a rational relationship between the income attributed to the State and the intrastate values of the enterprise," the "linchpin" in the identification of which is the existence of a "single unitary business."[43]

Conventional fractional apportionment, thus, is justified by reference to a "benefit" principle of taxation -- the conventional criteria measure the right of a state to tax by reference to what it offers to an enterprise; payroll, property, and sales reflect the protection of a state's legal regime offered the enterprise's operations. The suggested regime undertakes to frame a fractional system in light of an ability to pay regime. The enterprise's profits are the measure of its taxpaying capacity in toto; the suggested regime attempts to quantify the extent to which that ability derives from or is attributable to its operations in a particular jurisdiction. The suggested regime does this through the interpretation of MNE operations, integration economies, and the "relative contribution" principle described in parts II and III.

A final concern in the design of this system is its compatibility with what is said to be the prevailing international norm, the arm's length standard. It would

seem the system is compatible with that standard, at least in the broad conception now given it, notwithstanding the historic contradistinction between that standard and conventional fractional apportionment.[44]

Perhaps a decade ago, it may have been conceived that the arm's length standard was a determinate standard -- that it was intended to generate a determinate, or at least reasonably determinate, price in every case. In the years since, however, it has come to be accepted that the arm's length standard is only a general rubric allowing a number of different approaches.[45] In 1986, Congress adopted the "superroyalty" provision. It was well understood that this mandated a different approach from previous transfer pricing methods under section 482 of the Code. But the Congress and Treasury have consistently defended the provision as consistent with the arm's length standard.[46] The White Paper proposed a BALRM standard, understood to be a refinement on prior approaches, but was emphatic about defending it as an arm's length approach.[47] Other commentators have made numerous proposals for replacing current techniques with new ones, while defending their approaches as "arm's length" approaches.[48]

In that light, the instant proposal is consistent with the arm's length approach. It is structurally similar to current approaches, except for the particular that it dispenses with a search for comparable uncontrolled

prices.[49] By performing the first step, it ensures that each jurisdiction is allocated at least the amount of the minimum that would be required to induce the component operating in that jurisdiction to enter the transaction were it an unrelated party -- which appears to be the working definition of arm's length under current approaches.

Moreover, as the discussion in parts II and III suggests, the appropriate inquiry, even under "arm's length," properly conceived, may be not what marginal return would induce all parties to enter the transaction, but rather the game theoretic question of how, viewing the multinational grouping as a cooperative game, and the "residual" profit as the aggregate value of the game, the separate components, as players, would divide the residual profit. That question turns upon the "value" of the game to each of the players. The suggested pricing regime, with its notion of "relative contribution," is a crude attempt to measure such values, without delving into the complexities and difficulties of game theory techniques for assigning the "value" of a game to particular players.

As such, the proposed system represents a true estimation of how the components would deal with each other were they unrelated than do the techniques pursued by current practice of hypothesizing transactions which, as hypothesized, ignore the most salient characteristics of what actually takes place.

[1] The "arm's length" standard is imposed under United States law by <s> 1.482-1(a)(1) of the Income Tax Regulations, promulgated pursuant to section 482 of the Internal Revenue Code of 1986, and the various bilateral income tax conventions to which the United States is a party, which are typical of those in most bilateral conventions of other nations. All section references are to the Internal Revenue Code of 1986 unless otherwise indicated.

[2] See H.R. Rep. No. 426, 99th Cong., 1st Sess. at 423-24 (1985); JOINT COMMITTEE ON TAXATION, PRESENT LAW AND CERTAIN ISSUES RELATING TO TRANSFER PRICING 23-24 (Comm. Print JCS-22-90) (1990); GENERAL ACCOUNTING OFFICE, IRS COULD BETTER PROTECT U.S. TAX INTERESTS IN DETERMINING THE INCOME OF MULTINATIONAL CORPORATIONS (GGD-81-81 September 30, 1981); Langbein, The Unitary Method and the Myth of Arm's Length, Tax Notes, Feb. 17, 1986, p. 625.

[3] See NEW YORK TIMES, Feb. 18, 1990, p. 1, col. 8; Tax Underpayments by U.S. Subsidiaries of Foreign Corporations, Hearings Before the Subcomm. on Oversight, House Comm. on Ways & Means at 62 (1990) (statement of Fred T. Goldberg, Commissioner, Internal Revenue Service) [hereinafter cited as 1990 House Oversight Hearings].

[4] See, e.g., 1990 House Oversight Hearings at 74-79 (statement of Fred T. Goldberg).

[5] See id. at 62 (estimates of disputes in the area of $40-$50 billion suggested by Committee Chairman Pickle).

[6] See H.R. Rep. No. 841, 89th Cong., 2d Sess. at 638 (1986).

[7] UNITED STATES TREASURY DEPARTMENT & INTERNAL REVENUE SERVICE, A STUDY OF INTERCOMPANY PRICING (1988) [hereinafter cited as WHITE PAPER].

[8] Some adjustments to this manner of determining the allocable profits might be made in 2 circumstances. The first is where there is some demonstrable "cross subsidy" by the group of products in one broad category by products in another. This situation might call for combining the product categories profit from which would be allocated according to the pricing method. The second is where, with respect to the same products or products in the same category, the final market level which the enterprise directly controls directly is different in different countries. This might call for some segregation of profits according to the level which represents the final level on which the enterprise is integrated. The desirability of such adjustments is left to later consideration.

[9] See pp. 8-9 infra.

[10] E.I. duPont & De Nemours Co. v. United States, 608 F.2d 445 (1979), cert. denied, 100 S.Ct. 1648 (1980).

[11] See WHITE PAPER at 40.

[12] See id. at 39-40.

[13] Eli Lilly Co. v. United States, 84 T.C. 996 (1985), aff'd, 856 F.2d 855 (7th Cir. 1988).

[14] Sundstrand Corp. v. Commissioner, 96 T.C. 226 (1991).

[15] Income Tax Regulations § 1.482-2(e)(2).

[16] Id. § 1.482-2(e)(3)-(4).

[17] Id. § 1.482-2(e)(1)(iii).

[18] WHITE PAPER at 87-94.

[19] Id. at 94-99.

[20] Id. at 101.

[21] See Langbein, supra note 2, at 654, 668. See also Frisch, The BALRM Method of Transfer Pricing 17 NAT'L TAX J. 261 (1989); White Paper at 21-22, and sources there cited.

[22] Id. at 654-55, 668-69. See WHITE PAPER at 80-82; Hines, The Transfer Pricing Problem, NBER Research Paper No. 3538, at 4-5 & n.7.

[23] See Bausch & Lomb Optical Co. v. Commissioner, 92 T.C. 510 (1989), aff'd, -- F.2d -- (2d Cir. 1991); Sundstrand Corp. v. Commissioner, 96 T.C. 226 (1991), appeal docketed, No.xx, 7th Cir.; United States Steel Co. v. Commissioner, 617 F.2d 942 (2d Cir. (1980).

[24] E.g. Eli Lilly Co. v. Commissioner, 84 T.C. 996 (1985), aff'd, 856 F.2d 855 (7th Cir. 1988).

[25] See Langbein, Transaction Cost, Production Cost, and Tax Transfer Pricing, Tax Notes, September 13, 1989, p. 1391. An important exception is Higinbotham, Asper Stoffregen & Wexler, Effective Application of the Section 482 Transfer Pricing Regulations, 42 TAX L. REV. 293 (1987), and Stoffregen, Higinbotham, Asper & Wexler, The BALRM Approach to Transfer Pricing: One Step Forward, Two Steps Back, Tax Notes, March 6, 1989, p. 1257.

[26] S. HYMER, THE INTERNATIONAL OPERATIONS OF NATIONAL FIRMS: A

STUDY OF DIRECT FOREIGN INVESTMENT (1976). The study involved was an MIT doctoral dissertation written in 1960. It was first published in 1976 by MIT press.

[27] See Cantwell, A Survey of Theories of International Production, in C. PITELIS & R. SUGDEN (eds.), THE NATURE OF THE TRANSNATIONAL FIRM (1991). A prominent later statement of the Hymerian "market power" or structural approach is C. KINDLEBERGER, AMERICAN BUSINESS ABROAD: SIX LECTURES ON DIRECT FOREIGN INVESTMENT (1969). A related later version of this genus of interpretation is the "product cycle" interpretation, which held, in its ultimate form, that investment in a foreign country was an "import-substituting" investment of a firm operating in the mature stage of a product's life cycle. Vernon, The Product Cycle Hypothesis in a New International Environment, 41 OXFORD BULL. OF ECON. & STATISTICS 4 (1979); Vernon, The Location of Economic Activity, in J. DUNNING (ed.), ECONOMIC ANALYSIS AND THE MULTINATIONAL ENTERPRISE (1974); Vernon, International Investment and International Trade in the Product Cycle, 80 Q. J. ECON. 2 (1966). According to the product cycle theory, the investment operates to forestall the development of threatening competition in the market in which the MNE has market power from imports by uncontrolled firms in the foreign jurisdiction.

[28] The earliest statement is McManus, The Theory of the Multinational Firm, in PAQUET (ed.), THE MULTINATIONAL FIRM AND THE NATION STATE (1972). This was followed by J. BUCKLEY & M. CASSON, THE FUTURE OF MULTINATIONAL ENTERPRISE (1976); an unpublished University of Maryland doctoral dissertation, Hennart, A Theory of Direct Investment, later revised as J.-F. HENNART, A THEORY OF MULTINATIONAL ENTERPRISE (1982); Teece, Technology Transfer by Multinational Firms: The Resource Costs of Transferring Technological Know-how, 87 ECONOMIC JOURNAL 2 (1977); A. RUGMAN, INTERNATIONAL DIVERSIFICATION AND THE MULTINATIONAL ENTERPRISE (1979). For early literature reviews, see Rugman, Internalization as a General Theory of Foreign Direct Investment: A Reappraisal of the Literature, 116 WELTWIRTSCHAFTSLICHES ARCHIV 2 (1980); R. CAVES, MULTINATIONAL ENTERPRISE AND ECONOMIC ANALYSIS (1982). For a recent summary of the state of the theory, see Hennart, The Transaction Cost Theory of the Multinational Enterprise, in C. PITELIS & R. SUGDEN, supra note 30.

[29] Coase, The Nature of the Firm, 4 ECONOMICA 4 (1937), reprinted in R. COASE, THE FIRM, THE MARKET, AND THE LAW (1988).

[30] The original Coasean formulation was, contemporaneously with its introduction to the theory of the multinational firm, receiving considerable amplification in the general domain of transaction cost economics. The "markets and hierarchies" formulation of Williamson, O. WILLIAMSON, MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST

IMPLICATIONS (1975) develops the idea of transaction cost savings achievable by firms. The approach is updated and formalized in O. WILLIAMSON, THE ECONOMIC INSTITUTIONS OF CAPITALISM (1985). For a general synopsis of the "markets and hierarchies" formulation of transaction cost economics, presented with conscious reference to its implications for tax transfer pricing, see Langbein, supra note 28, at 1399-1405.

[31] The idea of information impactedness is set forth in Arrow, Economic Welfare and the Allocation of Resources for Invention, in K. ARROW (ed.), THE RATE AND DIRECTION OF INVENTIVE ACTIVITY (1962). On its relation to transaction cost economics, see O. WILLIAMSON, MARKETS AND HIERARCHIES, supra note 33, at 31-37. On its role in internalization theory, see R. CAVES, supra note 31, at 5-7.

[32] See O. WILLIAMSON, THE ECONOMIC INSTITUTIONS OF CAPITALISM, supra note 33, at 108-11; Dunning & McQueen, The Eclectic Theory of the Multinational Enterprise and the International Hotel Industry, in A. RUGMAN, NEW THEORIES OF THE MULTINATIONAL ENTERPRISE 79 (1982).

[33] See Hennart, The Transaction Cost Theory of the Multinational Enterprise, in C. PITELIS & R. SUGDEN, supra note 30, at 89-91.

[34] See id. at 92-93.

[35] For an early statement of the eclectic approach, see J. DUNNING, Trade, Location of Economic Activity, and the Multinational Enterprise: A Search for an Eclectic Approach, in OHLIN, HESSELBORN & WIJKMAN (eds.), THE INTERNATIONAL ALLOCATION OF ECONOMIC ACTIVITY (1977). For its most general expression, see J. DUNNING, EXPLAINING INTERNATIONAL PRODUCTION (1988). For a brief recent statement, Dunning, The Eclectic Paradigm of International Production: A Personal Perspective, in C. PITELIS & R. SUGDEN, supra note 30, at 117.

[36] See O. WILLIAMSON, THE ECONOMIC INSTITUTIONS OF CAPITALISM, supra note 33, at 61-63.

[37] Moorman Mfg. Co. v. Bair, 437 U.S. 267 (1978).

[38] Higinbotham, Asper Stoffregen & Wexler, supra note 25.

[39] See Picotto, International Taxation and Intra-firm Pricing in Transnational Corporate Groups (forthcoming), discussing, inter alia, Hirschleifer, On the Economics of Transfer Pricing, 29 J. BUSINESS 172 (1956); R. ECCLES, THE TRANSFER PRICE PROBLEM (1985).

[40] See Picotto, supra note 39, discussing Langbein,

supra note 25.

[41] Witte & Chipty, Some Thoughts on Transfer Pricing, Tax Notes, November 26, 1990, p. xx.

[42] Wisconsin v. J.C. Penney Co., 311 U.S. 435, 333 (1940).

[43] Mobil Oil Corp. v. Commissioner of Taxes of Vermont, 445 U.S. 425, 436-37 (1980), citing Moorman Mfg. Co. v. Bair, 437 U.S. 267, 272-73 (1978).

[44]

[45] See Picotto, Slicing a Shadow: Business Taxation in an International Framework, in L. HANCHER & M. MORAN, CAPITALISM, CULTURE, AND ECONOMIC REGULATION 20 (1989) ("the attack on the 'myth of arm's length . . . had achieved some effect: even the strongest advocates of separate accounting began to stress that the arm's length criterion is only a means of establishing true or fair accounts").

[46] See WHITE PAPER at 61; H.R. Rep. No. 841, 99th Cong., 2d Sess. at 637-38.

[47] WHITE PAPER at 56-58.

[48] See, e.g., Frisch, supra note 24; Stoffregen, Higinbotham, Asper & Wexler, supra note 28.

[49] The proposed pricing scheme dispenses with the search for comparables for 3 reasons. First, comparables do not often exist, because markets and hierarchies do not often coexist. When they do, the matter is likely to be coincidental, or, worse, a function of some consideration not superficially apparent and not taken into account in the determination of comparability -- that is, since the 2 organization forms ought not coexist, an apparent coexistence is apt to be a function of some undetermined, underlying "noncomparability." Thus, the direction to use comparable uncontrolled prices is misleading, and invites sloppy determinations of comparability.

Second, if one is using profit split criteria which have a principled basis and are consistently applied, one has no way of knowing whether, when by happenstance comparable prices are found, they will yield results like those generated by the generally applicable method. The principle of allocation, as suggested above, is what would happen to the overall profitability of the group if a component left -- a relative contribution standard. There is no a priori basis for believing that in the rare cases of their use comparable uncontrolled prices would effect this

profit division.

Finally, the use of comparable uncontrolled prices has contributed to the uncertainties of the present system, because comparability determinations are difficult to anticipate, and because enterprises do not routinely have information concerning their competitors' pricing and market situations. There is no reason to perpetuate this situation in a reformed pricing regime.

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