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Legal and Economic Realities of Transfer Pricing: An Analysis of the Draft Revenue Procedure on Advance Transfer Price Rulings, The

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The Legal and Economic Realities of Transfer Pricing: An Analysis of the Draft Revenue Procedure on Advance Transfer Price Rulings

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I. INTRODUCTION

Perhaps the thorniest issue in more than four decades of international tax planning for transactions among related taxpayers is that of transfer pricing. The 1954 Internal Revenue Code (I.R.C.) provided the statutory basis for addressing issues of allocation of income and deductions, requiring that allocations of income and deductions be based upon an "arm's length standard."[1] I.R.C. §

1. I.R.C. § 482 (1986); 26 U.S.C. § 482 (1988). In pertinent part, § 482 states "in any case of two or more organizations . . . or businesses . . . owned or controlled directly or indirectly by the same interests, the Secretary may distribute, apportion, or allocate gross income, deductions, credits, or allowances between or among such organizations . . . or businesses if he determines that such . . . is necessary in order to prevent evasion of taxes or clearly to reflect the income of any such organizations . . . or businesses." I.R.C. § 482 (1986).

482 provides omnibus authority for the Commissioner to reallocate income, deductions, credits or allowances as though the transaction had been entered into between parties operating at arm's length. The arm's length standard has been clarified over the years, particularly in 1969, at which time § 482 regulations were first promulgated.[2]

Two of the more difficult questions to arise under § 482 are:

(1) Is there ever a completely "closed" transaction among taxpayers controlled by the same interest so that the Commissioner is denied a "bite at the apple" under § 482? (otherwise stated, Can there be an economic reality among related taxpayers such that the tax consequences of the transaction may be fully contemplated at the time the contract is signed?), and

(2) Can an economic procedure be created which enables related parties to enter into transfer priced contracts on a basis which will withstand § 482 scrutiny by the Commissioner?

Issues arising under § 482 are not limited to "outbound" transactions. Indeed, the Internal Revenue Service (IRS) has shown considerable concern over foreign investment in the United States, suggesting that substantial amounts are underpaid by foreign firms through the device of "transfer pricing." Japanese firms are increasingly being closely scrutinized since the net trade surplus of Japan with the United States has provided substantial amounts of dollars to be reinvested in the United States economy.[3] Some have criticized the Internal Revenue Service for failing to provide proposed regulations concerning the "commensurate with income" standard under the revised § 482 of the 1986 Tax Reform Act. However, the Service has been approaching the task with serious deliberation, particularly following the U.S. Department of Treasury's § 482 "White Paper" released in the fall of 1988. The

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2. Treas. Reg. § 1.482 (1990).

3. Stout, *IRS Seeks to Determine if Foreign Firms Owe Billions of Dollars in U.S. Taxes*, Wall St. J., Feb. 20, 1990, at A6.

White Paper proposals recommended increased documentation of transactions involving transfer pricing of intangibles, and required that all the documentation be provided at the beginning of an examination of a taxpayer's return.[4] The Service appears to have taken to heart the suggestions of the Treasury § 482 White Paper and has incorporated them into the draft revenue procedure on advanced determination rulings.

One of the long standing debates among economists is whether businesses employ average cost pricing or marginal cost pricing in conducting their operations. The difference in approaches may well lead to significant differences in profitability. Economic theory establishes the theoretical foundations that, in terms of Pareto optimality in the purely competitive market place, marginal cost pricing is a necessity.[5] However, evidence tends to indicate that the large majority of businesses use average cost pricing in conducting operations since both practically and theoretically it is a simpler approach.[6] Indeed, since marginal cost pricing implies the existence of perfect information, and given the reality that there exist substantial imperfections in the market place for information, it would seem that even large corporations with sophisticated staffs of economists only approach marginal cost pricing asymptotically.

The Internal Revenue Service, in carrying out the policy mandates of legislation, is charged with not exacting "rough justice," but with implementing procedures and regulations which produce tax revenues based on rather precise notions of economic

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4. Bonney & Sherwood, *White Paper Proposals for Intercompany and Intangible Transfers*, 15 INT'L TAX J. 91 (1989).

5. *See* W. BAUMOL, ECONOMIC THEORY AND OPERATIONS ANALYSIS 512ff (4th ed. 1977). *See also* Silk & Moscowitz, *Marginal Analysis: The Case of Continental Airlines* 203; Kempner, *Costs and Prices in Launderettes* 205 in MCCONNELL & CAMPBELL, ECONOMIC ISSUES: READINGS AND CASES (1969).

6. There are more than five million firms in the United States, many small, family owned and operated, without the expertise or wherewithal to procure the expertise necessary to engage in marginal cost pricing. However, some economists argue that competitive forces necessitate an asymptotic approach to marginal cost pricing, with the firms unable to meet the demands of economic necessity being driven from the industry.

reality.[7] The Service employs a notion of economic reality which presumes that "perfect information" exists in the market place and that firms operate within an "arm's length" of each other. Given these two conditions, the Service prices transactions to reflect the Pareto optimality of the purely competitive market place. It is not difficult to understand the inherent conflict which results when businesses, required to make pricing decisions in an instant, faced with imperfect information, base those decisions upon notions of average cost pricing, and the Service, having years to draft regulations to implement policy based upon marginal cost pricing, end up at an impass.

The purpose of this article will be to explore the position of the Service regarding the assertions that the development of regulations pursuant to the "commensurate with income" standard added to § 482 by the 1986 Tax Reform Act on the transfer of intangibles, supports the proposition that the Service bases its approach to regulation upon the Pareto optimizing notions of marginal cost pricing.

An interesting aspect of the taxing powers of the United States government, is the fact that the IRS Commissioner appears to have the power to choose the best of both worlds, as the Commissioner's view of economic reality dictates. Thus, on the one hand, with respect to a contract between two parties, even though there remain obligations to be performed, the Service can determine that the economic reality underlying the transaction is such that the income is deemed received by a party which the Service wishes to tax.[8] While on the other hand, as we shall see in the context of § 482, the Commissioner has the authority indefinitely to review the economic reality underlying a contract to determine if the price, indeed, reflects the economic reality consistent with the commensurate with income standard, regardless of the parties' honest effort to fix contractual obligations at arm's length. The

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7. From time to time, IRS Commissioners have suggested that simplification of the tax structure would necessarily imply implementation of laws which would exact "rough justice," that is, a statutory approach that would be more in accord with "average" economic notions than marginal notions.

8. *See, e.g.*, I.R.C. § 451 (1986); Treas. Reg. § 1.451-3(c)(2) (1990).

Commissioner retains the authority to review all transactions even though the review may be several or even many years after the transaction was cast. Given the Commissioner's power to indefinitely undertake an arm's length standard review of the contract to determine if the terms and conditions originally agreed upon are consistent with the income which the transacion generates over the course of its life, a contract for the transfer of intangibles between related parties is never fully executory.

Many of the transactions to which this review would apply involve the types of high risk transactions in which substantial capital will be required to be invested. In these transactions, there is a speculative belief that above-market rates of return may be garnered in the course of the lifecycle of the transaction. In view of the commensurate with income standard, to the extent that the returns to the transaction are above those consistent with normal economic profits, the transaction will be recast as not being based upon an arm's length standard which is commensurate with income. However, given the fact that transactions to which the commensurate with income standard will apply involve parties which receive tax-favored treatment,[9] the tax paying public may well deem the § 482 powers to be entirely appropriate.

Recently a number of prominent international tax practitioners considered the draft revenue procedure on advance transfer price rulings, estimating the cost of compliance with it to be, at an absolute minimum, $100,000, with a more likely figure to be between $500,000 and a million dollars.[10] Accepting the proposition that transactions costs allocated to legal fees should be no more than one-half to one percent of the total value of a transaction, the procedure would only be of benefit for transactions in the amount of at least ten million dollars, with a more likely minimum transaction value being somewhere between fifty and one hundred million dollars. Needless to say, few transactions involving

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9. Under appropriate circumstances, foreign subsidiaries of U.S. parent corporations may defer recognition of income in the United States until earnings are repatriated.

10. The practitioners referenced above included the private sector co-chairs for the Internal Revenue Service's 1990 3rd Annual Institute on International Taxation entitled, "Current Issues in International Taxation."

the transfer of assets, either tangible or intangible, will support the use of the draft revenue procedure on advance transfer price rulings, without contemplation of opportunity costs engendered as result of the inevitable delays so commonly a part of complying with such procedures.

II. ORGANIZATION OF THE DRAFT REVENUE PROCEDURE

The organization of the draft Revenue Procedure (Rev. Proc.) is straightforward and unremarkable. The first section is a statement of its purpose. The second describes the scope of the draft revenue procedure. The third section is a brief discussion of the background which motivates the issuance of the revenue procedure together with an overview of the role of the taxpayer and the Service in the ADR procedures. The fourth section is one of the two principal substantive sections which states the requirements which must be fulfilled in order to obtain an advance determination ruling. Section 5 details the form and content of request for an advance determination ruling. Section 6 outlines the procedure the Service employs to process requests for an advance determination ruling pursuant to § 482. Section 7 is a brief statement of the effect that the draft Rev. Proc. would have on other documents issued by the Service. The last section, section 8, provides information as to contact persons within the Office of Associate Chief Counsel (International), to whom inquiries may be directed and comments forwarded.

III. PURPOSE OF THE REVENUE PROCEDURE

The purpose of the revenue procedure is to provide instructions and procedures which are to be employed by the taxpayer in seeking an advance determination ruling ("ADR") from the Office of Associate Chief Counsel (International). If the ADR issues from the Office of Associate Chief Counsel (International), it will provide prospective application of § 482 to the class of international transactions of the foreign or domestic taxpayers which have submitted their request.

IV. SCOPE OF THE ADVANCE DETERMINATION RULING

An advance determination ruling (ADR) is available for any issue encompassing the application of § 482, with respect to any apportionments and/or allocations of gross income, deductions, credits, or allowances between or among two or more organizations, trades, or businesses owned or controlled, directly or indirectly, by the same interest.[11] While the draft Rev. Proc. provides for broad application of the advance determination ruling procedure, it is expected that the procedure would be most frequently used with respect to transfer pricing issues or cost sharing arrangements between or among affiliated corporations.[12]

The Internal Revenue Service has broad discretion in refusing to consider an advance determination request and similarly has broad discretion in refusing to issue a ruling notwithstanding the fact that it may have agreed to consider the ADR request. Decisions with respect to ADR requests are not announced in the Internal Revenue Bulletin (IRB). The draft Rev. Proc. suggests that future revenue procedures may address the situations for which ADRs will not be considered.[13]

V. FOUNDATIONS FOR THE REVENUE PROCEDURE ON ADVANCE DETERMINATION RULINGS

The Internal Revenue Service recognizes that international transfer pricing cases, in examination, frequently result in lengthy and expensive administrative appeals, litigation and competent authority proceedings.[14] The purpose of the ADR procedure is to reduce the uncertainties and improve predictability for both the taxpayer and the government arising out of international transactions and, simultaneously, to ease the cost burden and

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11. Prop. Rev. Proc. 90-__ § 2.01, *reprinted in* 2 Tax Notes Int'l 565 (1990).
12. *Id.*
13. *Id.* at § 2.02.
14. *Id.* at § 3.01 Competent authority proceedings involve negotiated resolution of tax issues arising from conflicting tax policy of two or more nations which result in, *inter alia*, double taxation of a taxpayer.

expense of examination necessary to resolve transfer pricing controversies for both the taxpayer and the governments involved (in the case of competent authority proceedings).[15] The goal of the ADR process is to reach an agreement between the Service and the taxpayer on an appropriate method, pursuant to § 482, for determining transfer pricing or cost-sharing agreements of control taxpayers.[16] The draft revenue procedure recognizes that, given the highly technical factual nature of international transactions and the sometimes inconsistent views of the parties with an interest in the structure of multinational inter-company transactions, the ADR procedure may not be appropriate in certain situations.[17]

The advance determination ruling procedure will require that the taxpayer submit to the Service a request for a ruling on a proposed method to apply to a transaction pursuant to § 482. The method advanced by the taxpayer must have the objective of reaching a clear reflection of income of the taxpayer and all or some of its affiliates with respect to all or some of the inter-company transactions. The requirements to be met by the taxpayer are set forth in section 4 of the draft Rev. Proc.,[18] and the technical form of the submission is set forth in section 5.[19]

The Internal Revenue Service will judge the request after analyzing the information supplied by the taxpayer together with other relevant information.[20] The Service will review the submission and, if necessary, discuss it with the taxpayer, and, if found acceptable, issue a ruling concerning the applicability of the proposed method with respect to § 482 allocations.[21] As will be discussed in greater detail below, the ADR may also include agreements between competent authorities, a result which could be of great comfort to a taxpayer.

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15. *Id.*
16. Prop. Rev. Proc. 90-__ § 3.01 *reprinted in* 2 Tax Notes Int'l 565 (1990).
17. *Id.*
18. *See infra* notes 22-83 and accompanying text (discussing section 4 of the draft Rev. Proc.).
19. *See infra* notes 84-126 and accompanying text (discussing section 5 of the draft Rev. Proc.).
20. Prop. Rev. Proc. 90-__ § 3.02(b) *reprinted in* 2 Tax Notes Int'l 565 (1990).
21. *Id.*

VI. CONTENT REQUIREMENTS FOR AN ADVANCE DETERMINATION RULING AS SET FORTH IN THE DRAFT REVENUE PROCEDURE

The proposed advance determination, pursuant to § 482, will be issued in the form of a ruling (hence, Advance Determination Ruling).[22] Given that the terms and conditions of an Advance Determination Ruling (ADR) are satisfied, the method of distribution, apportionment or allocation of gross income, deductions, credits, or allowances between or among the organizations, trades, or businesses specified in the ruling (the "apportionment method" where relevant, this term also refers to a "cost sharing arrangement") will be deemed to clearly reflect the income of such organizations, trades or businesses within the meaning of § 482 and the regulations pertinent thereto. The parties are precluded from relying on the ruling for tax years not encompassed by the ruling or for transactions or parties not encompassed within the ruling, unless mutually agreed upon otherwise. The fact that the taxpayer did or did not request an ADR pursuant to the revenue procedure, or the fact that the taxpayer proposed a particular apportionment method, is not to be introduced or relied on by either the taxpayer or the Service in subsequent administrative or judicial proceedings unless the parties have agreed otherwise.[23]

The proposed apportionment method submitted must be generally consistent with the principals of § 482 and the regulations thereunder. The Service will consider other economic approaches, even though not specifically mentioned in the § 482 regulations, where such methods clearly reflect income.[24] The draft Rev. Proc. cites, as an example of other methods which might be considered, a formulary approach which uniquely applies to the specific facts and circumstances of a taxpayer in a particular transaction.[25] The

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22. *Id.* at § 4.01.
23. *Id.* at § 4.02.
24. *Id.* at § 4.03.
25. Prop. Rev. Proc. 90-__, § 4.03 *reprinted in* 2 Tax Notes Int'l 565 (1990).

fundamental requirement is that the method agreed upon should be the most "reasonable". The method should clearly reflect income, be supported by the best available and reliable data, require few adjustments, and be properly and presumably easily administered.[26] The taxpayer bears the burden of applying the foregoing principles to the proposed apportionment method, and the application of those principles must be fully explained in the taxpayer's request for a ruling, as set forth in § 5.06.[27]

For supporting data, the parties may agree upon specific economic measurements, accepted by the Service, of selected independent competitors to support a range of appropriate transfer prices which take into account the taxpayer's particular situation. For each ADR request, the taxpayer must, to the extent possible, identify comparable competitors:[28]

> Where comparable competitors do not exist, or are not readily found, the taxpayer must to the extent possible identify the types of businesses that are similar to the taxpayer's, though not directly comparable. The taxpayer has the *burden of documenting the research efforts* undertaken to obtain the information required pursuant to this paragraph as set forth in §§ 5.07 and 5.08 (emphasis added).[29]

The taxpayer is not to be excluded from the ADR process merely because direct comparables or similar businesses do not exist. However a taxpayer, in the absence of such direct comparables or similar businesses, would bear the burden of demonstrating that the proposed apportionment method adequately fits the facts of the taxpayer's operations and that the apportionment method satisfies the requirements of § 4.03.[30]

Agreement reached on the application and operation of an apportionment method is to be based on the critical assumptions,

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26. *Id.*
27. *See infra* note 108 and accompanying text (discussing section 5.06).
28. Prop. Rev. Proc. 90-__ § 4.04 *reprinted in* 2 Tax Notes Int'l 565 (1990).
29. *Id. See infra* notes 111-18 (discussing section 5.07 of the proposed Rev. Proc.). *See also infra* note 119 and accompanying text (reviewing section 5.08).
30. Prop. Rev. Proc. 90-__ § 4.04 *reprinted in* 2 Tax Notes Int'l 565 (1990).

data and computations. The taxpayer bears the burden of establishing, upon subsequent examination, that the data and computations are correct and that the critical assumptions remain valid and that each was consistently applied pursuant to the agreement in the term of the ruling.[31]

If the taxpayer's actual operations remain within the agreed-upon parameters set forth in the ruling, the Service will not propose adjustments pursuant to § 482 to the transactions covered by the ruling during the ruling period.[32]

If the actual results fall outside the limits specified by the parameters, but within acceptable limits of variability, the taxpayer may make adjustments following the close of the taxable year to bring the pricing for the transactions back within the agreed-upon limits stated in the rulings.[33] Variability of the aforementioned parameters will be in the form of either a specified permitted percentage deviation or a monetary amount of deviation.[34] The procedures for making the adjustment following the close of the taxable year and establishing the account receivable are those provided in the guidelines of Rev. Proc. 65-17, 1965-1 C.B. 833.[35]

The application of the principles by the taxpayer as stated in paragraphs 4.04(a)-(d) to the proposed apportionment method is to be fully explained in the taxpayer's request for a ruling, as required by § 5.06.[36] On an annual basis, the taxpayer's compliance with § 4.04(b)-(d) must be fully explained and documented in the annual report required pursuant to § 4.09.[37]

The ADR is to be effective prospectively, generally for the taxable years beginning after the date of the ruling.[38] The initial term of the ruling is to be negotiated with the Service, but

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31. *Id.* at § 4.04(b).
32. *Id.* at § 4.04(c).
33. *Id.* at § 4.04(d).
34. *Id.*
35. Prop. Rev. Proc. 90-__ § 4.04(d) *reprinted in* 2 Tax Notes Int'l 565 (1990). *See* draft Rev. Proc. 65-17, 1965-1 C.B. 833.
36. Prop. Rev. Proc. 90-__ § 4.04(b) *reprinted in* 2 Tax Notes Int'l 565 (1990).
37. *Id.* at § 4.04(f). For a discussion of § 4.09, see *infra* notes 67-75 and accompanying text.
38. Prop. Rev. Proc. 90-__ § 4.05(a) *reprinted in* 2 Tax Notes Int'l 565 (1990).

generally the term is not to exceed three years.[39] The actual duration of the ruling is dependent upon the type of industry, product, or transaction involved.

The ADR procedure contemplates renewal upon mutual agreement of the parties. The taxpayer's request to renew must be accompanied by a newer, updated, study, analysis and supporting documentation.[40] The request to renew may be made at any time prior to the expiration of the initial term of the original ruling or, presumably, any subsequent renewed ruling. The request for renewal is to follow the procedures for annual reports as set forth in § 4.09.[41]

If the taxpayer fails to comply with the terms and conditions stated in the rulings, or if there is a misrepresentation or omission of material facts in the request for a ruling, subsequent submissions or annual reports, the ruling may be revoked by the Service.[42] Additional taxes, interest and penalties may be assessed as if the ruling had never existed where a ruling is revoked for cause such as taxpayer noncompliance or misrepresentation or the omission of material facts.[43] More importantly, in a case of revocation, the "egregious case" provision of Rev. Rul. 80-231 may apply to the foreign tax credit resulting from any adjustment under § 482 relating to any transactions covered by the revoked ruling.[44] Furthermore, if a ruling is revoked, application of Rev. Proc. 65-17 may be denied in appropriate cases.[45] If the Service determines that the taxpayer is entitled to the relief provided by Rev. Proc. 65-

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39. *Id.* at § 4.05(b).

40. *Id.* at § 4.05(c).

41. *See infra* notes 66-74 and accompanying text (discussing section 4.09 of the draft Rev. Proc.).

42. Prop. Rev. Proc. 90-__ § 4.05(d) *reprinted in* 2 Tax Notes Int'l 565 (1990).

43. *Id.*

44. *Id.* The "egregious case" provisions noted above are found in draft Rev. Rul. 80-231, 1980-2 C.B. 219.

45. Rev. Proc. 65-17, provides the position of the Internal Revenue Service and the procedures to be followed in cases in which the United States taxpayer, whose taxable income has been increased for a taxable year by reason of an allocation under § 482 of the Internal Revenue Code, requests permission to receive payment from the entity from, or to, which the allocation of income or of deductions, was made of an amount equal to a part or all of the amount allocated, without further federal income tax consequences. Rev. Proc. 65-17, 1965-1 C.B. 833.

17, interest on the account receivable due under § 40.03 of Rev. Proc. 65-17, or its foreign equivalent, may not be subject to mutual agreement for correlative relief. In the event of revocation for cause, the taxpayer may apply for § 7805(b) relief in accordance with instructions in Rev. Proc. 87-4.[46] In such situations, the taxpayer bears the burden of establishing to the satisfaction of the Service that the terms and conditions of the ruling were substantially complied with and all material facts were disclosed and properly stated. So asserting, the taxpayer must make an affirmative showing of all the facts alleged as a reasonable cause. Revocation for cause will be based on overall compliance and presentation of the facts.[47] Although not an item by item determination, the failure of one significant item could be sufficient grounds for revocation. The effective date of the revocation will be set forth in the Service's notification to the taxpayer. A revocation, as set forth above, will, in addition, be coordinated with appropriate competent authorities.

Where the critical assumptions (specific triggering events) underlying the ADR change in a manner that causes the determination to be unfair or unworkable, the taxpayer and the Service may enter into discussions to revise the ruling, or the ruling may be canceled by the Service (or with the consent of the Service). Examples of such a fundamental change would be a significant change in business operations or a substantial uncontrolled economic event.[48] Of course, it might be noted here, it is exactly such a change in fundamental circumstances that taxpayers planning such a transaction might well hope for,

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46. *Id.* Section 7805(b) empowers the secretary to prescribe the extent, if any, to which any ruling or regulation relating to the Internal Revenue laws, shall be applied *without* retroactive effect (emphasis added). I.R.C. § 7805(b) (1986). Rev. Proc. 87-4 provides, generally, for procedures for obtaining rulings, closing agreements, and information letters on federal tax issues under the jurisdiction of the Associate Chief Counsel (International) and provides information concerning determination letters under the jurisdiction of the Assistant Commissioner (International) and the District Directors. The Associate Chief Counsel (International) is responsible for the uniform interpretation and application of the federal income tax laws and income tax treaties relating to international transactions. Rev. Proc. 87-4, 1987-1 C.B. 529.

47. *Id.*

48. Prop. Rev. Proc. 90-__ § 4.05(e) *reprinted in* 2 Tax Notes Int'l 565 (1990).

particularly, for instance, where the transaction might involve the development of a new market and the parties anticipate the generation of significant profits abroad, based upon the transfer price, (fully fair at the time of transfer) in the face of a nascent market. The revision or cancellation of a ruling will be coordinated with appropriate competent authorities. Critical assumptions are to be defined in the ruling. The taxpayer may notify the Service that a change in a critical assumption has taken place at any time during the year giving rise to the event, but no later than the date for filing the annual report for that year. Together with the notification, the taxpayer must provide all supporting documentation and a request to cancel or revise the prior ruling. The mailing instructions for a request to revise or cancel a ruling are set forth in the procedures for annual reports noted in § 4.09.[49] The existing ruling is to remain in effect until the stated expiration date unless the Service and taxpayer (and, where appropriate, the involved competent authorities) agree to the terms of a revised ruling. The effective date for the revised ruling is to be stated in the modified or new ruling.[50] If the parties are not able to successfully negotiate the terms of the revised ruling, or if it would not be appropriate to issue a revised ruling, the Service will specify the effective date of cancellation in its notifice to the taxpayer.[51] The effective date will be no earlier than the beginning of the tax year encompassing the event causing the cancellation and no later than the date of that event.[52] A change of critical assumptions resulting from actions within the control of the taxpayer and not initiated for compelling business purposes will be deemed non-compliance with the meaning of § 4.05(d).[53]

If actual operating results for the year fall outside the specified limits, noted above in § 4.04(d), a change in critical assumptions

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49. For a discussion of § 4.09, *see infra* notes 66-74 and accompanying text.
50. Prop. Rev. Proc. 90-__ § 4.05(e) *reprinted in* 2 Tax Notes Int'l 565 (1990).
51. *Id.*
52. *Id.*
53. *Id.* For a discussion of § 4.05(d), see *supra* notes 42-44 and accompanying text.

will be deemed to have occurred and the ruling will be subject to cancellation or revision under the guidelines of § 4.05(e).[54]

The Internal Revenue Service has the right to request the taxpayer to supply any and all additional information related to the taxpayer's activities, products, industry, and countries of operation that it deems necessary in order to arrive at a mutually agreeable basis for a ruling.[55] The Service may request the taxpayer to provide, at the taxpayer's own expense, an independent expert or independent experts, mutually acceptable to the taxpayer and the Service (and, where necessary, the appropriate competent authorities) to review and evaluate the taxpayer's proposed apportionment method.[56] Instructions for the use of independent experts are provided at § 6.08.[57] The evaluation of the taxpayer's proposal by the Service is not to constitute an examination or an inspection of the taxpayer's books and records, as provided under § 7605(b).[58]

If one or more of the parties to a ruling undertakes operations within a foreign country which has a tax treaty with the United States, the ruling may include one or more mutual agreements between or among competent authorities. The subject of the competent authority agreement will be the proposed apportionment method.[59] The taxpayer will share the responsibility of working out the terms of the agreement with the involved foreign governmental authorities in a manner coordinated with the Service.[60]

In order to facilitate bilateral negotiations with respect to competent authority agreements, the full cooperation of the

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54. Prop. Rev. Proc. 90-__ § 4.05(e) *reprinted in* 2 Tax Notes Int'l 565 (1990). For a discussion of § 4.05(e), see *supra* notes 50-52 and accompanying text.

55. Prop. Rev. Proc. 90-__ § 4.06 *reprinted in* 2 Tax Notes Int'l 565 (1990).

56. *Id.*

57. *See infra* notes 139-43 and accompanying text (discussing section 6.08).

58. Pursuant to § 7605(b) which states that no taxpayer shall be subjected unnecessary examination or investigations, and only one inspection of a taxpayer's books of account shall be made for each taxable year unless the taxpayer requests otherwise, or unless the secretary, after investigation, notifies the taxpayer in writing that an additional inspection is necessary. I.R.C. § 7605(b) (1986).

59. Prop. Rev. Proc. 90-__ § 4.07(a) *reprinted in* 2 Tax Notes Int'l 565 (1990).

60. *Id.*

taxpayer under the standards of Rev. Proc. 82-29, is required.[61] The taxpayer must consent to the disclosure of all relevant data to the involved treaty partners. However, the taxpayer may assert that the disclosure of confidential matters, such as trade secrets, may substantially harm the taxpayer's competitive position, if released. If the taxpayer requests, the parties shall attempt to negotiate a mechanism to permit verification by a competent authority without exposing the trade secrets or other proprietary information of the taxpayer.[62]

It is not mandatory that the taxpayer's request for a ruling be contingent upon reaching a Competent Authority Agreement. Under certain circumstances, the Service may consider issuing such a ruling to a taxpayer without having first reached a Competent Authority Agreement. Circumstances in which a Competent Authority Agreement may not be deemed necessary may include transactions with a non-treaty country or a request by the taxpayer for a unilateral understanding where the taxpayer can show good and sufficient justification for such a ruling.[63] If the Service issues such a ruling and the taxpayer has activities with a related party in a treaty country, the regular competent authority procedures as established in Rev. Proc. 82-29 will apply if double taxation occurs as a result of the taxpayer's compliance with the terms of the ruling.[64] The fact that the competent authorities fail to reach a mutual agreement shall not be deemed to be sufficient evidence under § 1.901-2(e)(5) of the regulations that the taxpayer has exhausted all effective and practical remedies to reduce the

61. Rev. Proc. 82-29 explains the procedures to be used by the Internal Revenue Service and taxpayers in certain cases of double taxation that are governed by income tax treaties of the United States. The cases covered by this revenue procedure concern the allocation of income and deductions between a United States taxpayer and a related person (including a branch office) subject to the taxing jurisdiction of a country ("treaty country") that has entered into an income tax treaty with the United States. *See* Rev. Proc. 82-89, 1982-1 C.B. 481.

62. Prop. Rev. Proc. 90-__ §4.07(b) *reprinted in* 2 Tax Notes Int'l 565 (1990).

63. *Id.* at § 4.07(c).

64. *Id.*

taxpayer's liability pursuant to the foreign tax audit adjustment.[65] If such a ruling is issued, any affected foreign competent authority which has a mutual agreement with the United States competent authority covering the ADR process will be notified of the existence of the ruling in accord with appropriate tax treaty provisions.

VII. ADVANCE DETERMINATION RULINGS: ADMINISTRATIVE CONSIDERATIONS

The taxpayer is required to file an annual report containing all data including economic accounting and tax data sufficient to detail the results for the year to demonstrate compliance with the terms and conditions of the ruling.[66]

The annual report is required to be sent to the District Director or the Assistant Commissioner (International) that has or would have examination jurisdiction over the return or the returns of the control group within 120 days after the close of the taxable year. In any event, a duplicate copy of the annual report is to be sent to the Associate Chief Counsel (International).[67] The taxpayer is required to attach a copy of the annual report to its tax return for

65. Regulation § 1.901-2(e)(5) provides, in pertinent part, that an amount paid is not a compulsory payment, and thus is not an amount of tax paid, to the extent that the amount paid exceeds the amount of liability under foreign law for tax. An amount paid does not exceed the amount of such liability if the amount paid is determined by the taxpayer in a manner that is consistent with a reasonable interpretation and application of the substantive and procedural provisions of foreign law (including applicable tax treaties) in such a way as to reduce, over time, the taxpayer's reasonably expected liability under foreign law for tax, and if the taxpayer exhausts all effective and practical remedies, including invocation of competent authority procedures available under applicable tax treaties, to reduce over time, the taxpayer's liability for foreign tax (including liability pursuant to a foreign tax audit adjustment). Treas. Reg. § 1.901-2(e)(5) (1990).

66. Prop. Rev. Proc. 90-__ § 4.09(a) *reprinted in* 2 Tax Notes Int'l 565 (1990).

67. *Id.*

the taxable year covered in the annual report.[68] The annual report is subject to the penalties of § 7203 and § 7206.[69]

The annual reports must address the requirements of § 4.04, § 4.05(c), (e) and (f), § 5.01, § 5.02(d), § 5.03(c)-(e), § 5.05 (but only as to data as cited in the ADR), §§ 5.06-5.08 (but only if representations have changed or as agreed to in the ADR), and § 5.12 and § 5.13.[70] The annual report, when received, is to be reviewed by the Service for any actions which might require immediate attention, such as requests to renew or cancel. The guidelines for processing such requests are contained in § 6.[71]

The Service's processing activities are to be coordinated between the Field and the National Office with the taxpayer (and, if appropriate, with the involved competent authorities).[72] If the Field deems it necessary to evaluate or verify the representations made in the annual report (for example, representations pursuant to § 4.04(b), § 4.05(d), and § 4.10(b) the guidelines provided in § 6.05 are to be followed.[73] The contact which might occur between the Service and the taxpayer for the purpose of clarifying and/or verifying the information contained in the annual report is not to constitute an examination of the taxpayer as stated in § 7605(b).[74]

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68. *Id.* at § 4.09(b). The address for sending the duplicate copy to the Associate Chief Counsel (International) is: Associate Chief Counsel (International) CC: INTL FO, Internal Revenue Service, 1111 Constitution Avenue, N.W., Room 3501, Washington D.C. U.S.A. 20224.

69. *Id.* Generally, § 7203 provides that any person required . . . to pay any estimated tax or tax, or required . . . by regulations . . . to make a return, keep any records, or supply any information, who willfully fails to pay such estimated tax or tax, make such return, keep such records, or supply such information, at the time or times required by law or regulations, shall in addition to other penalties provided by law, be guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than $25,000 ($100,000 in the case of a corporation), or imprisoned not more than one year, or, or both, together with the costs of prosecution. I.R.C. § 7203 (1986).

Section 7206 provides that any person who falsely declares under penalty of perjury or aids or assists or procures counsel or advises the preparation or presentation of any document, return, affidavit, or claim which is fraudulent or false as to any material matter. . . shall be guilty of a felony and, upon conviction thereof, shall be fined not more than $100,000 ($500,000 in the case of a corporation) or imprisoned not more than three years, or both, together with the costs of prosecution. I.R.C. § 7206 (1986).

70. Prop. Rev. Proc. 90-__ § 4.09(d) reprinted in 2 Tax Notes Int'l 565 (1990).

71. For a discussion of § 6, see *infra* notes 127-43 and accompanying text.

72. Prop. Rev. Proc. 90-__ § 4.09(e) *reprinted in* 2 Tax Notes Int'l 565 (1990).

73. *Id.*

74. *Id.* at § 4.09(f).

The Internal Revenue Service is empowered to conduct a complete examination of the operation of the pricing mechanism as outlined in the ADR.[75]

In determining a taxpayer's liability arising under the ADR, the Field will ascertain whether (1) the terms and conditions stated in the ruling have been properly complied with by the taxpayer, (2) the taxpayer's representations upon which the ruling and the annual reports were based reflected an accurate statement of all material facts, and (3) the transactions were actually carried out substantially as proposed in the ADR (for example, critical assumptions have not changed).[76] The general examination guidelines are provided in § 4.04(b), § 4.05(d), and § 4.09(d) of the draft revenue procedure. The examination at this point is not to be considered a reevaluation of the acceptability of the previously agreed-upon apportionment method.[77]

The taxpayer is required to retain all records which it relied upon in reaching the ADR and all supporting data referred to in its annual reports with respect to the ADR.[78] The ADR may specify the record retention. Otherwise, records are required to be kept as long as they are relevant.[79] Upon examination, any records pertaining to the ruling are to be made available to the Service upon request within 60 days and any foreign base company data along with appropriate translations within 120 days. The fact that a foreign jurisdiction may impose a penalty upon the taxpayer or other person for disclosing the material will not constitute reasonable cause for noncompliance with the Service's request, a fact which could very well create consternation for many taxpayers.[80]

If the Field believes that an ADR should be revised, canceled, or revoked because the taxpayer has failed to meet the above

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75. *Id.* at § 4.10(a).

76. *Id.* at § 4.10(b).

77. Prop. Rev. Proc. 90-__ § 4.10(b) *reprinted in* 2 Tax Notes Int'l 565 (1990).

78. *Id.* at § 4.10(c). Sections 4.04, 4.06, 4.09(a), 5.01-5.09, and 6.02 of this proposed revenue procedure provide the general guidelines for the retention of records.

79. *Id. See* I.R.C. § 6001 and the Regulations thereunder.

80. *Id.*

requirements, the findings and recommendations will be forwarded to the National Office following the procedures for requesting technical advice. Otherwise the ruling is required to be applied by the Field in determining the taxpayer's liability.[81]

As a condition to the issuance of the ruling and for the years covered by the ruling, the taxpayer may be required to agree to the extension of any statute of limitations for a mutually agreed-upon period of time for any returns subsequently examined, where the Field cannot complete an examination of the pricing mechanism contained in the ruling before the expiration of the statutory period.[82]

Where a mutual agreement exists between the respective competent authorities covering the apportionment method of the taxpayer, to the extent possible the Service will attempt to coordinate the examination of the operation of the pricing mechanism contained in the ADR with such foreign countries.[83]

VIII. THE FORM AND CONTENT OF ADVANCED DETERMINATION RULING REQUESTS

As set forth below, requests for an advanced determination ruling are to provide the following information which is required to be organized to correspond with the instructions which will be detailed below. If a request is not sufficiently specific, or does not have the requisite detail, it will not be considered. If the information required is not applicable to the requests, the taxpayer bears the burden of providing a statement to that fact and adequate justification.[84]

Materials which are submitted pursuant to the ADR requests become part of the Service's file and are not to be returned to the taxpayer. Thus, it is suggested that original documents not be submitted.[85]

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81. Prop. Rev. Proc. 90-__ § 4.10(d) *reprinted in* 2 Tax Notes Int'l 565 (1990).
82. *Id.* at § 4.10(e).
83. *Id.* at § 4.10(f).
84. *Id.* at § 5.01(a).
85. *Id.* at § 5.01(b).

Copies of all contracts, agreements, instruments, economic studies and other documents relating to the transaction are required to accompany the request. If the supporting records or documents are too voluminous for transmittal with the request, the taxpayer will sufficiently incorporate the items by reference in the request and certify that the items exist at the time the request is submitted, stating where the items are located and whom the Service can contact to secure the items if deemed necessary, and stating that the items will be made available to the Service upon request.[86] Documents supporting the requests must be accompanied by a narration of all material facts and an analysis of their relevance to the issue or issues involved in the ADR requests.[87]

Relevant documents originally published in a foreign language are required to be submitted with a certified English translation, although no guidance is provided as to what would constitute a sufficient certification for the purposes of fulfilling this requirement.[88]

IX. Required Form and Content of ADR Request

The paragraphs which follow will outline in detail the form and content of requests for an advanced determination ruling. Reviewing these requirements, the reader will become impressed with the quality and quantity of materials necessary and, as noted above, the information required certainly approaches, in an asymptotic sense, the limits of that information which would constitute "perfect information" in the sense of Pareto optimality.

Each ADR request is required to contain a complete statement of the names, addresses, telephone numbers, and tax identification numbers (TINs) of the controlled taxpayers[89] which are parties to the advanced determination ruling.[90]

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86. Prop. Rev. Proc. 90-__ § 5.01(c) *reprinted in* 2 Tax Notes Int'l 565 (1990).
87. *Id.* at § 5.01(d).
88. *Id.* at § 5.01(e).
89. "Controlled taxpayers" here as defined in the regulations pursuant to § 482.
90. Prop. Rev. Proc. 90-__ § 5.02(a) *reprinted in* 2 Tax Notes Int'l 565 (1990).

The requests are required to contain a general history of the business operations, a description of the world-wide organizational structure, ownership, principal businesses, and the place or places where such businesses are conducted, major transaction flows, and significant transfer pricing arrangements or practices in effect which may have a bearing on the current or proposed apportionment method for all members of the controlled group regardless of whether such controlled group members are parties to the request.[91]

The discussion provided above must state whether any of the parties to the request have pricing arrangements with any other related or unrelated entity that are or may be similar to the current or proposed apportionment methods cited in the request for which an ADR has not been sought. Any such other entity is required to be identified in the pricing arrangement explained.[92]

Where it is reasonably anticipated that independent expert opinion may be requested by the Service, the taxpayer must submit, as part of the ADR request, the names of at least two independent experts for each country including the United States involved in the proposed apportionment method, consistent with the instructions of § 6.08.[93]

Each ADR request must discuss any relevant statutory provisions, tax treaties, court decisions, regulations, revenue rulings or revenue procedures that significantly relate to the current or proposed apportionment method.[94]

All requests are required to disclose and explain the taxpayer's and the government's positions on previous and current issues at the examination, appeals, court, or competent authority levels which are related to the current or proposed apportionment method. The same information must be supplied for any similar circumstances involving foreign tax authorities.[95]

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91. *Id.* at § 5.02(b).
92. *Id.* at § 5.02(c).
93. *Id.* at § 5.02(d). For a discussion of § 6.08 see *infra* notes 140-44 and accompanying text.
94. Prop. Rev. Proc. 90-__ § 5.03(a) *reprinted in* 2 Tax Notes Int'l 565 (1990).
95. *Id.* at § 5.03(b).

Requests must also state whether identical or similar requests have been submitted for a ruling to the Service by the taxpayer, its predecessor, or any related party. If such is the case, the statement must specify the date of submission, withdrawal, or determination and other details of the Service's consideration of the previous request or requests.[96]

If, following the filing of the request, but before a ruling is issued, the taxpayer knows that an examination of the issues addressed in the request has been started by the Field, the taxpayer must notify the National Office of such action. This same information is required to be supplied for similar circumstances involving the foreign tax authorities.[97] All requests are required to provide the location of the field office that has or will have examination or appeals jurisdiction over the returns of the group.[98]

The ADR request is required to contain a complete discussion of the current apportionment methodologies that have a bearing on the request which are used by the members of the control group who are parties to the request. This discussion should describe any apportionment and allocation of gross income, deductions, credits, or allowances; principal transaction flows; transfer pricing arrangements or practices, including the basis for establishing the current transfer price and the net profit apportionment; and all tangibles, intangibles, and services currently subject to apportionment methods which may have a bearing on the apportionment method. If intangibles are involved, the discussion should include reference to developed and acquired intangibles. For acquired intangibles, the underlying documentation must be provided.[99]

The ADR request is required to detail the base of the proposed apportionment method; that is, the organizations, trades, or businesses (the "parties") and the transactions that will be subject to it.[100]

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96. *Id.* at § 5.03(c).
97. *Id.* at § 5.03(d).
98. *Id.* at § 5.03(e).
99. Prop. Rev. Proc. 90-__ § 5.04 *reprinted in* 2 Tax Notes Int'l 565 (1990).
100. *Id.* at § 5.05(a).

Summarized financial and tax data of the parties from the last three years must be provided, including sales, cost of goods sold, operating expenses, profit before taxes, assets, liabilities, number of employees and other relevant data.[101] The request must supply the statutory and effective tax rates of each foreign country involved, the functional currency and taxable year of each party to the request[102]. A brief description of the significant accounting (GAAP) methods employed by the parties to the ADR which may have a bearing on the proposed apportionment method is required to be provided.[103] Any significant accounting (GAAP) and tax accounting differences between the U.S. and the foreign countries which may be involved and which have a bearing on the proposed apportionment method must be explained.[104]

Tax returns, financial statements, annual reports and other pertinent U.S. and foreign government filings (for example, customs reports); existing pricing, distribution or licensing agreements; company-wide accounting procedures, business segment reports, budgets and projections and other relevant data (such as business plans and world-wide product line or business segment profitability reports) which may have a bearing on apportionment method must be cited in the taxpayer's proposal and made available to the Service upon request.[105]

The ADR request is required to provide a detailed explanation and an analysis of the proposed apportionment method as outlined earlier in § 4.03[106] and § 4.04.[107] If more than one pricing arrangement is involved in the request, separate detailed discussions are required. The proposed apportionment method must be

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101. *Id.* at § 5.05(b). The required other relevant data is the type of information contained on Form 5471, Information Report with Respect to a Foreign Corporation, and Form 5472, Information Report of a Foreign Corporation.

102. *Id.* at § 5.05(c).

103. *Id.* at § 5.05(d).

104. Prop. Rev. Proc. 90-__ § 5.05(e) *reprinted in* 2 Tax Notes Int'l 565 (1990).

105. *Id.* at § 5.05(f).

106. *See supra* notes 24-26 and accompanying text (discussing section 4.03 of the draft Rev. Proc.).

107. *See supra* notes 28-37 and accompanying text (explaining section 4.04).

illustrated by applying it to the prior three years' financial and tax data of the parties.[108]

Each ADR request is required to establish the conformity of the proposed apportionment method to the "clear reflection" standard of § 482 and the "arms-length" standard of income tax treaties. The taxpayer is required to apply the general guidelines contained in the regulation under § 482 for the pricing method proposed and, in addition, supply data specific to the pricing method under paragraphs (a) through (h) below. Where the volatility of the industry makes a single year's data less reliable because of the peculiarity of the business cycle or the product life, the Service may request the information specified in this section for the years covered in § 5.06 of this revenue procedure or for such period as may be necessary. Where the proposed apportionment method is a cost-sharing arrangement, the instructions of § 5.08[109] are to be followed.[110]

To be included in the request are all pertinent measurements of profitability and return on investment (for example, gross profit margin, gross income/total operating expenses (the BERRY ratio), net profit margin, or return on assets) for the parties to the request which will serve as the basis for competitor comparability.[111]

The ADR request is required to provide a functional analysis of the role of each party involved in the pricing arrangement, setting forth the economic activities performed, the assets employed, the economic costs incurred, and the risks assumed.[112]

The ADR request is required to provide an economic analysis or study of the general industry pricing practices and economic functions performed within the markets and geographical areas to be covered by the ruling.[113]

The request is required to provide a statement of all pertinent measures of profitability within the general industry for the factors

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108. Prop. Rev. Proc. 90-__ § 5.06 *reprinted in* 2 Tax Notes Int'l 565 (1990).
109. *See infra* note 119 and accompanying text (examining section 5.08).
110. Prop. Rev. Proc. 90-__ § 5.07 *reprinted in* 2 Tax Notes Int'l 565 (1990).
111. *Id.* at § 5.07(a).
112. *Id.* at § 5.07(b).
113. *Id.* at § 5.07(c).

selected under subsection (a) above. These data are to provide the Service the industry perspective within which the taxpayer operates but may not necessarily be adequate support for a proposed pricing method.[114]

The Advanced Determination Ruling is required to provide a list of the taxpayer's competitors and a discussion of any business or types of businesses that are similar to the taxpayer's, even though not comparable, as well as research efforts, underlying financial data and screening criteria used to identify comparable competitors[115].

Included is to be a detailed presentation of comparability criteria used to identify independent competitors. The proposed repertoire provides an example of the types of adjustments which could be made to selected independent competitors' activities to create parity with the activities of the entities covered by the request. These include: segregating lines of business activities performed; accounting differences; functional differences relating to activities performed (marketing), assets employed (inventories and receivables), or risks (currency fluctuations) and costs (warranty) incurred; volume or scale differences; differing market penetration (allowances granted and product demand differences); market level of operations; product maturation; terms of sale (including freight insurance, shipping, and financing); and capitalization (debt/equity ratios).[116]

The ADR application is required to include development of profitability measures under subsection (a) above for independently comparable competitors under subsection (e), also above, based on adjustments pursuant to subsection (f) above.[117] Also to be included is the development of profitability measurement ranges of selected comparable competitors under subsection (g) above. This analysis is to include identification of competitors with economic activities performed, assets employed (including intangibles), and

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114. *Id.* at § 5.07(d).
115. Prop. Rev. Proc. 90-__ § 5.07(e) *reprinted in* 2 Tax Notes Int'l 565 (1990).
116. *Id.* at § 5.07(f).
117. *Id.* at § 5.07(g).

economic costs and risk incurred which are comparable to the taxpayer's. The profitability ranges should reflect the inherent factors of the product, business, industry market or taxpayer.[118] The taxpayer is required to apply the general guidelines contained in the regulations under § 482 for a cost sharing arrangement proposal. The information requested above in §§ 5.01 through 5.06 are to be provided when appropriate.

In addition, the ADR draft Rev. Proc. requires that the following information be submitted to establish that the cost sharing arrangements result in a clear reflection of income:

(a) The date that the arrangement commenced, the date that the arrangement was reduced to writing, and the date each participant entered the arrangement; if there is a written arrangement, it must be provided along with any agreements, amendments, addenda, and exhibits;

(b) Whether the service has examined the arrangement (if there has been an examination, see § 5.03(b) of the proposed Rev. Proc. for instructions);

(c) The history of the business operations, the geographic locations and principal business activities (for example, manufacturing or marketing) of each of the participants in the arrangement (as provided in § 5.02(a) of this proposed Rev. Proc.);

(d) Each participant's original contribution to the arrangement, tangible and intangible;

(e) Whether royalties or other amounts based on the value of contributing intangibles were paid to the participants who contributed to them;

(f) Whether the arrangement provides for research and development to be conducted in general product areas, processes, or services or just for the research and development of specific products (any documents describing the technical scope of the developmental efforts, together with documentation

118. *Id.* at § 5.07(h).

which explains the relationship between the participants' businesses and the expected use of the results of the developmental efforts must be provided);

(g) How each participant's benefit or expected benefit can be measured (by any relationship agreements between the participants) must be provided;

(h) Which developmental costs are to be shared or excluded (for example, costs associated with abandoned projects; costs associated with specific stages of product development; and relevant labor, material, and overhead costs; how the division of costs is based (for example, on units of production, budgeted sales, actual sales, or number of years until the research and development will be used); any relationship agreements between the parties must be provided);

(i) The ownership rights of each participant in the research and development, how these rights relate to the tangibles and intangible contributions of the participants to the arrangement;

(j) Whether there have been changes in the arrangement since its inception (for example, with respect to participants, products, or product areas covered; the estimation of benefits; the inclusion, exclusion, or division of costs; or the assignments of rights to the research and development) (if there have been any changes, the dates and substance of the changes and any documents explaining the changes must be provided);

(k) Whether the participants have established procedures for periodically estimating the benefits that each will receive from the research and development and for adjusting each participant's share of costs accordingly;

(l) The accounting procedures used to determine each entity's contribution to the costs of the research and

development, and whether these procedures have been uniformly followed (pursuant to §§ 5.05(b) and (e) of the proposed Rev. Proc.);

(m) How the cost sharing payments made and received have been treated for U.S. tax purposes;

(n) Each participant's gross and net profitability (historical and projected) with regard to the product area covered by the arrangement together with an analysis of sales to related and unrelated parties, costs incurred, costs shared, and results of developmental efforts (pursuant to instructions provided in §§ 5.05(b) and (f) and § 5.06 of the proposed Rev. Proc.);

(o) How the arrangement provides for the buy-in of any new participants, or the expansion of an existing participant's rights, and for repurchasing the rights of a participant that withdraws from the arrangement, or of a participant that will not be using its rights in the active conduct of its trade or business (for example, a participant who will simply be selling or licensing its rights in any intangible property produced);

(p) Whether any payments are made for contract research, the manner in which such payments are accounted for by the participants, and how such payments are treated for U.S. tax purposes;

(q) Whether any payments are received from third parties for the licensing or selling of intangible property developed through the arrangement and how such payments are treated for U.S. tax purposes;

(r) Whether comparable or similar arrangements between related or unrelated parties exist and the research efforts undertaken to secure this information (pursuant to instructions provided in §§ 4.04(a), 5.02(c), and §§ 5.07(e) and (f) of the proposed revenue procedure);

(s) Identification of any internal manuals, directives, guidelines, and similar documents prepared for accounting, financial or managerial personnel for purposes of implementing or operating the cost-sharing arrangement (such as research and development committee meeting minutes, market studies, economic impact analyses, capital expenditure budgets, engineering studies, reports and studies of trends and profitability in the industry published by third parties, and financial analyses for financing and cash flow purposes) (pursuant to instructions provided in § 5.05(f) of the proposed revenue procedure).[119]

All ADR requests are required to discuss any domestic tax issues which would have to be resolved before the proposal is accepted. The draft Rev. Proc. cites, for example, domestic issues which may arise from the entry into and the termination of the ruling. The requests are required to explain how the proposed apportionment method would interrelate with sub-part (f), the foreign tax credit, and other relevant provisions of domestic law.[120] The ADR requests are required to contain a statement as to which treaty partners are involved with the transactions described in the request, together with information indicating whether the taxpayer intends to seek a mutual agreement between the involved competent authorities.[121]

All ADR requests must propose an initial term, renewal conditions and critical assumptions which, if changed, would cause the ruling to be revised or canceled.[122] The request for an ADR and any supplemental submission regarding the request must be accompanied by a declaration in the following form:

Under the penalties of perjury, I declare that I have examined this request, including accompanying documents,

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119. *Id.* at §§ 5.08(a)-(s).
120. Prop. Rev. Proc. 90-__ § 5.09 *reprinted in* 2 Tax Notes Int'l 565 (1990).
121. *Id.* at § 5.10.
122. *Id.* at § 5.11.

> and, to the best of my knowledge and belief, the facts presented in support of the request for an advanced determination ruling are true, correct, and complete.

The declaration must be signed by the person or persons on whose behalf the request is made and not by the taxpayer's representative. The person signing for a corporate taxpayer must be an officer of the taxpayer who has personal knowledge of the facts. The person signing for a trust or a partnership must be a trustee or a partner who has personal knowledge of the facts.[123]

A request by or for a taxpayer must be signed by the taxpayer or the taxpayer's authorized representative. If the request is to be signed by an authorized representative, the taxpayer is referred to Rev. Proc. 87-4 as to whom may be properly authorized as a representative.[124] The requests for ADRs must be submitted in duplicate to the Associate Chief Counsel (International).[125]

The user fee for an ADR is to be $5,000. In this respect, the draft Rev. Proc. would modify Rev. Proc. 90-17.[126] Concurrently with the submission of the request to the National Office pursuant to the instructions in § 5.14, the taxpayer is to notify the District Director or the Assistant Commissioner (International) that has or will have examination jurisdiction of the return or returns of the control group that an ADR request has been filed with the office of Associate Chief Counsel (International).

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123. *Id.* at § 5.12.

124. *Id.* at § 5.13. *See* Rev. Proc. 87-4, 1987-1 C.B. 529.

125. Prop. Rev. Proc. 90-__ § 5.14 *reprinted in* 2 Tax Notes Int'l 565 (1990). The address for the Associate Chief Counsel (International) is: CC: INPL: FO, Internal Revenue Service, P.O. Box 7604, Ben Franklin Station, Washington, D.C. U.S.A. 20224. The ADR requests may also be hand-delivered pursuant to Rev. Proc. 88-4, 1988-1 C.B. 586.

126. *Id.* at § 5.15. Rev. Proc. 90-17 makes certain changes in the user fee program of the Internal Revenue Service that was established pursuant to Section 10511 of the Revenue Act of 1987 (Title X of the Omnibus Reconciliation Act of 1987). The user fee program, which is modified by Rev. Proc. 90-17, is set forth in Rev. Proc. 89-4, 1989-1 C.B. 767. *See* Rev. Proc. 90-17, 1990-12 I.R.B. 13.

X. THE SERVICE'S PROCESSING OF ADR REQUESTS

Upon receiving the ADR requests, the Service will contact the taxpayer to discuss any questions regarding the request or any additional information believed necessary in order to process the request. The taxpayer will be granted up to 90 days to submit any additional data or perfect any defects in the requests. If the National Office does not receive a curative submission within the 90 day period, the file may be closed by the Service. The National Office will then notify the appropriate field offices of any of the above activities.[127]

The Service is to verify and evaluate the supporting data relevant to the taxpayer's ruling and, if necessary, request additional information to complete its evaluation of the ruling. The Service will limit requests for additional information to the subject matter of the ruling and to data which is needed for the Service's evaluation of the taxpayer's ruling request. The scope and content of any additional request will depend upon the completeness of the taxpayer's supporting data. It is expected that any additional information requested by the Service will be submitted within the time period provided or as agreed to between the Service and the taxpayer. If additional time is needed, an extension of time in which to submit additional information requested by the Service may be requested. If the Service does not receive the submission within the agreed-upon time period, plus any extensions, negotiations on the request for the ADR may be terminated. The taxpayer's and the Service's cooperation with the above procedures is essential to the success of the process.[128]

If the Service intends to reject the request, the taxpayer will be granted a conference. If, after the conference, the Service declines to consider the request, the taxpayer may request a return of user fees pursuant to Rev. Proc. 90-17.[129] Once the process of considering a request for an ADR has begun or during the

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127. Prop. Rev. Proc. 90-__ § 6.01 *reprinted in* 2 Tax Notes Int'l 565 (1990).
128. *Id.* at § 6.02.
129. *Id.* at § 6.03(a). *See* Rev. Proc. 90-17, 1990-12 I.R.B. 13.

renegotiation of an existing ruling, the taxpayer is entitled to a conference in the National Office. Other conferences may be proposed and scheduled as circumstances deem necessary. No conference proposed by the Service will be considered the taxpayer's "conference of right."[130] A request for an ADR may be withdrawn at any time before the issuance of a ruling. In those cases where a Competent Authority Agreement is sought, the taxpayer may unilaterally withdraw at any time prior to the conclusion of the Competent Authority Agreement.[131] The National Office will notify the involved field offices and, if appropriate, the United States Competent Authority of activities noted above.[132]

After the request is determined to be complete, the National Office will refer the request, along with the National Office's views on any areas that may need development or verification, to the appropriate field offices for consideration of the taxpayer's request. If appropriate, where a request involves an entity with activities within a foreign country that has a tax treaty with the United States, the National Office will notify the United States Competent Authority that a request is pending.[133] In coordination with the National Office, the Field office will have primary responsibility for the timely evaluation and verification of the taxpayer's proposal by evaluating the taxpayer's submission, discussing it with the taxpayer, verifying the date as supplied by the taxpayer, requesting additional supporting data from the taxpayer and pursuing other means or sources of data available to the Service. The Field office will transmit to the National Office its evaluation of the taxpayer's request, including any issues arising from verification of the taxpayer's submitted material, any additional development of comparable data, any proposed changes to the method, and any questions or areas of concern (together with appropriate suggested remedies).[134]

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130. Prop. Rev. Proc. 90-__ § 6.03(b) *reprinted in* 2 Tax Notes Int'l 565 (1990).
131. *Id.* at § 6.03(c).
132. *Id.* at § 6.03(d).
133. *Id.* at § 6.04.
134. *Id.* at § 6.05.

Having received the Field office's comments, the National Office, the Field and the taxpayer will discuss the acceptability of the proposals made in the ADR request. As appropriate, the discussions will be subject to negotiations by the United States Competent Authority with the involved foreign governments. If the Service and the taxpayer successfully conclude negotiations, the Office of Associate Chief Counsel (International) will issue an ADR on the taxpayer's proposed (or as revised) apportionment methodologies under § 482. If appropriate, the issuance of the ruling may be made subject to a mutual agreement with the involved competent authorities.[135]

The taxpayer (the "parties") to the request in coordination with the Service will be expected to participate in the process by filing a similar request for an ADR (the foreign equivalent) on the proposed pricing mechanism with the appropriate foreign competent authority. In addition, the taxpayer is expected to cooperate to the extent necessary to conclude a mutual agreement between the Service and the foreign authority.[136] The Service will attempt in so far as possible to coordinate its evaluation and verification of the taxpayer's proposal with the involved competent authorities.[137] Negotiations with the foreign competent authority are to be initiated as soon as it appears likely that the Service and the taxpayer will be able to successfully conclude the ADR process. The Assistant Commissioner (International) is to notify in a timely and expeditious manner the foreign competent authorities of the Service's intent to reach a mutual agreement as to the taxpayer's ADR request after receipt of a memorandum from the Associate Chief Counsel (International) forwarding the taxpayer's request to initiate the competent authority process. With respect to negotiations of ADRs with the involved foreign competent authorities, the Office of the Assistant Commissioner (International) will coordinate with the Office of Associate Chief Counsel

135. Prop. Rev. Proc. 90-__ § 6.06 *reprinted in* 2 Tax Notes Int'l 565 (1990).
136. *Id.* at § 6.07(a).
137. *Id.* at § 6.07(b).

(International) to ensure a consistent Service position with the taxpayer.[138]

As noted earlier in the discussion with respect to § 4.06 and § 5.0(d) of the draft Rev. Proc., the reasons that the taxpayer is to provide for one or more independent expert opinions, if requested by the service during the ADR process, is to reasonably assure the taxpayer and the Service that the proposed apportionment method offered by the taxpayer conforms to standard economic principles and supports and produces a clear reflection of income.[139]

A qualified independent expert for purposes of the draft revenue procedure is one who possesses the requisite education and experience in the appropriate field of study as well as in the industry and geographic area relevant to the proposed apportionment method. The independent expert may not have participated to any material extent in the development of the initial proposal, in the preparation of any annual reports relating to the transactions associated with the current ADR, or in the preparation of any tax return related to the transactions described in the ADR for the period covered by the ruling.[140]

The independent expert is expected to render an opinion that represents a critical analysis of the taxpayer's apportionment method proposal. The opinion should comment on the adequacy of the taxpayer's economic study, address the questions and concerns raised by the Service, and, if appropriate, be involved with competent authorities and conclude whether the proposed apportionment method is supportable and fairly presents the economic interests of the parties to the ruling and the basis of such conclusion.[141]

In addition to providing mutually acceptable independent experts to review the initial requests, the taxpayer may be required to provide an independent expert to review the statements and conclusions in the annual reports required by the ruling. The

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138. *Id.* at § 6.07(c).
139. *Id.* at § 6.08(a).
140. Prop. Rev. Proc. 90-__ § 6.08(b) *reprinted in* 2 Tax Notes Int'l 565 (1990).
141. *Id.* at § 6.08(c).

independent expert will be required to compare the actual operating results for the year to the terms and conditions of the ruling and render an opinion whether the taxpayer has complied with the terms and conditions of the ruling and whether the ruling continues to fairly represent the economic interests of the parties to the ruling and the basis for that conclusion.[142]

If an independent expert is necessary, the taxpayer will provide a waiver under § 6103(c) to the service for the purposes of discussing a return or return information with the independent expert. In addition, the taxpayer will be responsible for securing, in writing, from the independent expert an assurance that the independent expert is aware of the sanctions under § 7431(a)(2) for any unauthorized disclosure or use of any return or return information as defined in § 6103 of the Code.[143]

The taxpayer is responsible for assuring that the independent expert is familiar with the provisions of the revenue procedure and that any opinion rendered by such independent expert is in compliance with the requirements of §§ 4, 5, and 6.03 of the draft revenue procedure.

XI. Effect of the Draft Revenue Procedure on Other Documents

When and if issued, the proposed Rev. Proc. would modify Rev. Proc. 90-17 to the extent that the draft revenue procedure

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142. *Id.* at § 6.08(d).

143. *Id.* at § 6.08(e). Section 6103 of the Code provides the statutory requirements concerning the confidentiality and disclosure of returns and return information. It provides, in pertinent part, that returns and return information are to be confidential and that, except as authorized in the statute, no officer or employee of the United States or no officer or employee of any state . . . or no other person (or officer or employee thereof) who has or had access to returns or return information. . . shall disclose any return or return information obtained by him in any manner in connection with his service as such an officer or an employee or otherwise under the provisions of . . . § 6103. I.R.C. § 6103 (1986).

With respect to unauthorized disclosures, § 7431(a)(2) of the Code states that "if any person who is not an officer or employee of the United States knowingly, or by reason of negligence, discloses any return or return information with respect to a taxpayer in violation of any provision of § 6103, such taxpayer may bring a civil action for damages against such person in a district court of the United States." I.R.C. § 7431(a)(2) (1986).

provides for an additional category and amount payable for a user fee under § 6.031(a) of Rev. Proc. 90-17 for ADRs.[144]

XII. CONCLUDING REMARKS

Given the complexity and costs obviously associated with a request for an Advanced Determination Ruling pursuant to the draft Rev. Proc., and particularly given that the Service is empowered to review the Advanced Determination Ruling at any time to determine the extent to which it comports with economic reality (as the Service determines that economic reality), it is questionable whether any company would bother to request an Advanced Determination Ruling.

As indicated earlier, the explorations of this article were based upon the draft revenue procedure. The Service circulated the draft revenue procedure to receive comments as to how the procedure might be improved. It was suggested earlier that there may very well be an inherent conflict between the marginal approach which the Service is under a legal obligation to employ and the more "relaxed" average determinations which may very well be employed by the majority of private sector enterprises. Even if the Commissioner desires to provide simplified procedures, perhaps based on the notions of "rough justice," unless the Congress takes note of the differing economic approaches and provides statutory authorization for a less demanding standard of scrutiny, it is quite unlikely that any true simplification with respect to taxpayer compliance will be realized. Indeed, given the trend toward income tax rate reductions in the 1980s, Congress has turned to base-broadening and increased compliance in order to increase tax revenues and, notwithstanding these efforts, very little progress has been made on reducing the deficit! Thus, it does not seem likely that, in general, any simplification will occur in the area of taxpayer compliance and, in particular, is unlikely that the well-intentioned effort of the Service to provide certainty in the area of

144. Prop. Rev. Proc. 90-__ § 7 *reprinted in* 2 Tax Notes Int'l 565 (1990).

§ 482 compliance as reflected in the draft Revenue Procedure will prove fruitful.

APPENDIX A
AVERAGE COST PRICING CONCEPTS V. MARGINAL COST PRICING CONCEPTS IN BUSINESS DECISIONS

The purpose of this Appendix is to provide the reader with a sound intuitive understanding of the concepts of *average cost pricing* and *marginal cost pricing*.[1] Although the material will be somewhat technical, there will be no attempt to resolve an issue of debate which dates back more than thirty years, nor will the reader be expected to become overzealous in the use of mathematical rigor.[2]

Figure A[3] depicts the average cost (AC) curve and marginal cost (MC) curve for a firm in a purely competitive market. The vertical axis represents cost per unit while the horizontal axis represents the quantity of units sold. Thus, each ordered pair on the average cost curve is of the form (Q_i, AC_i) which represents the average cost associated with the i-th unit of output, while on the marginal cost curve, each ordered pair is of the form (Q_i, MC_i) which represents the marginal cost associated with output level Q_i. Thus, the vertical distance for any value of Q from the horizontal axis to the average cost curve represents the average cost of that level of output and the vertical distance from the horizontal axis to the marginal cost curve represents the marginal cost of that unit of output. As we shall see below, the long run competitive equilibrium will occur at the point where marginal cost and average cost are equal, that is, the point at which the two curves cross.

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1. For a more contemporary discussion of the concepts of Average Cost Pricing and Marginal Cost Pricing, see Bonnisseau & Cornet, *Existence of Equilibria When Firms Follow Bounded Losses Pricing Rules*, 17 J. MATHEMATICAL ECON. 119-47 (1988); Kamiya, *Existence and Uniqueness of Equilibria with Increasing Returns*, 17 J. MATHEMATICAL ECON. 139-78 (1988); Ledyard, *Incentive Compatible Space Station Pricing*, 76 AM. ECON. REV. 274-79 (1986); Willman, *Pricing Policies for Outdoor Recreation*, 64 LAND ECON. 234-41 (1988).

2. *See generally* W. BAUMOL, ECONOMIC THEORY AND OPERATIONS ANALYSIS (4th ed.1977) (providing the analytical framework for the assertions contained herein); J. HENDERSON & R. QUANDT, MICROECONOMIC THEORY: A MATHEMATICAL APPROACH (3d ed.1980) (giving a rigorous mathematical treatment of the subject); G. THUESEN & W. FABRYCKY, ENGINEERING ECONOMY (6th ed.1984).

3. *See* BAUMOL at 396.

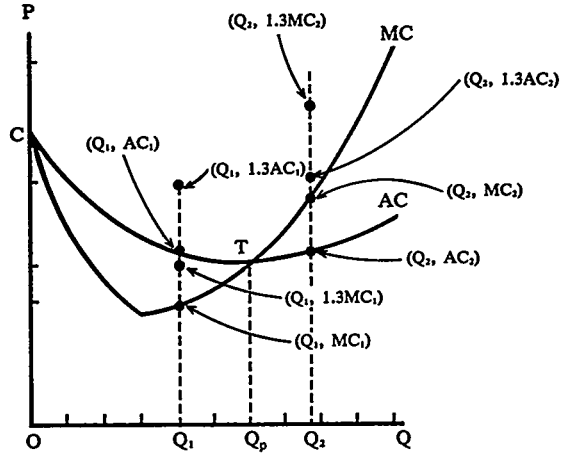

Figure A

The crux of the argument suggested in the article is that a businessperson in the period of adjustment towards competitive equilibrium may base pricing on average concepts rather than the more sophisticated marginal concepts. That the marginal concept is more sophisticated than the average concept can be determined from the mathematical sophistication required to compute average cost and marginal cost. To compute average cost, the *total cost* for a given quantity of output is simply divided by the *number* of units of that output. Marginal cost, on the other hand, is computed as the first derivative of the total cost function, which requires taking the limit of the difference quotient for infinitesimal changes in the total cost function. The level of mathematical knowledge required to determine average cost is relatively simple algebra whereas the knowledge required in order to determine marginal cost is at the level of relatively elementary calculus.[4]

Figure A considers the implication of employing the average concept rather than the marginal concept. At output level Q_1, which is associated with the average cost level of AC_1, a businessperson

4. Although it may be somewhat an overstatement of the difference in the degree of sophistication between the two concepts, it might be noted that the level of knowledge necessary to determine average cost is that taught in the freshman year of high school while the knowledge required to determine marginal cost is normally taught as a part of a first course in college calculus. It is not at all unrealistic to suppose that, of the more than five million small and medium size businesses in the United States, many executives are much more comfortable with average concepts than marginal concepts.

marking up to price at retail with a thirty percent gross margin would obtain a selling price of 1.30 AC_1, noted in Figure A as the ordered pair (Q_1, 1.3 AC_1). On the other hand, applying the same mark-up based upon marginal cost at Q_1, the price obtained is that shown in the ordered pair (Q_1, 1.30 MC_1). At this point in the cost structure, average cost pricing results in a higher price than marginal cost pricing. Given the effect of the competitive marketplace and the inability of the individual firm to affect price in a purely competitive market, the selling price may be the lower of the two prices. For this to be the case, the gross profit per unit would be lower and average cost would be relatively higher, meaning that the deductible part of unit revenue would be proportionately higher.

The Internal Revenue Service (Service), if it were following marginal concepts, would want to argue that a firm really was experiencing deductible costs at the level of MC_1, and that therefore its unit gross profit, ergo, in the final analysis, its taxable income, is higher than would be the case based upon the firm's position. On the other hand, at Q_2, where the firm is confronted with average cost lower than its marginal cost, the ostensible position of the parties would be reversed. However, if, indeed, the firm continued to base its mark-ups on average cost rather than marginal cost, it would soon find itself plunging into bankruptcy since an assumed thirty percent mark-up based on average cost would result in a price lower than the unit marginal cost at that level of production. While the service might very well wish to argue that the deductible amount was the lower figure of average cost, nevertheless, the economic reality of the firm's declining fortunes would permit it to argue conclusively that average cost was an understatement of the true cost. If, in the long run, the market price of the item cannot be raised, the firm will cease to produce the item. Effectively then, the argument that the parties' differing perceptions of economic reality, that is, the firm employing average cost pricing while the Service argues that the proper basis for determination of cost is marginal cost pricing is really only applicable in the region of output where average cost exceeds marginal cost.

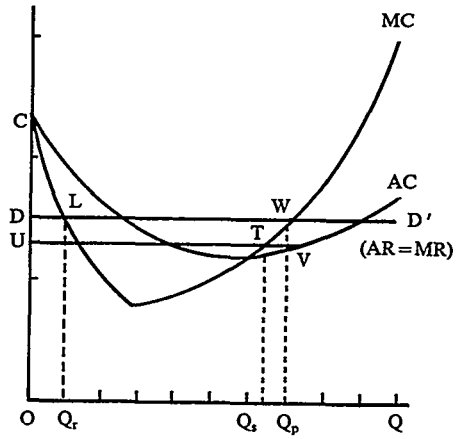

Figure B

Figure B[5] adds to the analysis the firm's demand curve. The demand curve is horizontal in that, in a purely competitive market, the number of firms is so large that the additional units sold by any one firm is not enough to result in decreasing per unit prices and, therefore, rather than a downward sloping demand curve, the individual firm is based with a horizontal demand curve, which is also the average revenue curve for the firm. The total revenue received by the firm then is obtained by multiplying the average revenue, that is the price per unit sold, by the total number of units sold which is represented by the area under the demand curve between the origin and a given quantity sold. In the short run, profit maximizing will occur for the output level Q_p at which marginal cost equals marginal revenue. The firm, at that point, earns a per unit profit obtained as the vertical distance between the point of intersection of the marginal cost and marginal revenue curves and the average cost which corresponds to the level of output Q_p. The firm's total profit for the level of output Q_p is represented by the area UVWD. The implication for the analysis of average cost pricing verses marginal cost pricing in Figure B is that, for any output level less than Q_p, there is a greater constraint on the percentage mark-up based upon average cost than that based upon marginal cost since the price is determined by the purely competitive market and the vertical distance from the average cost curve to the demand curve is less than the vertical distance

5. *See* BAUMOL at 396.

between the marginal cost curve and the demand curve. Beyond the quantity Q_p, any mark-up based on marginal cost would very quickly lead to inventory accumulation as a result of unsold product and either the firm would be forced to engage in substantial cost-cutting to return profitability or else leaved the industry. On the other hand, at least nominally, in the region beyond Q_p, mark-ups based upon average cost will result in competitively priced product but, nevertheless, in this region the implications of marginal cost per unit exceeding marginal revenue will mandate the consequences just noted.

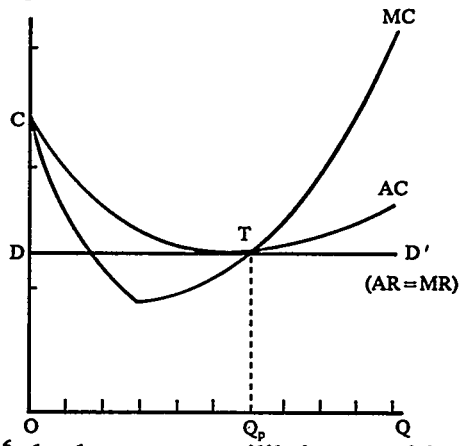

Figure C

In Figure C,[6] the long run equilibrium position of the firm is depicted reflecting the fact that the per unit profits denoted in Figure B induce the entry of other firms into the industry, driving unit profits to zero. In this case, the optimum quantity will be Q_p and for quantities less that Q_p, mark-ups based upon average cost would very quickly lead to inventory accumulation which would precipitate price declines, while mark-ups based on marginal cost would be constrained to not exceed the price per unit. But since Figure C depicts equilibrium, practically speaking, all firms would be operating at a level of output comparable to Q_p implying that the marketplace would have provided to them "perfect information" in terms of efficient manufacturing and pricing of the

6. *See id.*

product relative to the equilibriating needs of the market. It is to be noted that:

> In equilibrium, every firm in the industry must have the same costs, for the product price will be the same for all such companies and both marginal and average costs will equal price . . . Firms with dissimilar resources, production techniques, and operating procedures all end up with the same costs . . . (as a result of) of the competitive mechanism. . . . The zero profit rule may seem implausible at first glance . . . The term "profits" is used here in a rather strict sense. A small businessman may earn a comfortable living. But if his earnings are no more than he can get by spending the same amount of time working for someone else, plus the return he can get by investing his money elsewhere, the economist states that he is receiving just the wages for his labor and interest on his capital. Only if he receives any more than this sum is the excess counted as profit. It is surely true that many a small businessman has shown himself willing to work for even negative profits (i.e., lower total return as salary and return on capital) when the term is interpreted in this sense.[7]

It is quite likely that the existence of a fairly competitive equilibrium in any economy is at most a transitory phenomenon. In the purely competitive equilibrium, since average cost equals marginal cost, the feedback of perfect information to the price determination process leads to a consistent position by both interested parties, that is, the reporting entrepreneur and the Internal Revenue Service. It is interesting to note, however, that under these circumstances, since the economic profit is zero, the firm itself has no taxable income and the only tax consequences are indirect to the extent that the entrepreneur's employment with the firm produces taxable income to him and the entrepreneur's investment of capital

7. Id. at 398 (parenthetical added).

produces a return on that capital comparable to returns available to him in the capital markets generally.

Thus, if the Service is driven by legal mandate to presume marginal cost pricing consistent with competitive equilibria while the vast majority of entrepreneurs base decisions on less than perfect information and base pricing upon average cost concepts, it is quite obvious that the parties may be motivated by "irreconcilable differences" which may only be resolved through "rough justice."

APPENDIX B
THE THEORY OF PERFECT INFORMATION

The value of information has increased dramatically over the past fifty years with the advent of electronic data processing. Indeed, recent studies have indicated that fifty-nine percent of the jobs in the American economy are involved with the collection, processing, and analyzing of information while seventeen percent of the jobs are in the industrial manufacturing sector, with the balance comprised of jobs in the non information processing services sector and the extractive industry sector. While it appears that employment in the information services sector has peaked, current figures indicate that it constitutes well above fifty percent of the labor force. Thus, information costs money and perfect information has associated with it costs which approach infinity.

The analysis which follows, as in the case of Appendix A, is not intended to be mathematically rigorous, either in terms of its representation of the theory of perfect information or in terms of the comprehensiveness of the economic analysis. It is intended to provide the reader with an intuitive understanding of the concept of perfect information and its relationship to the theory of the purely competitive marketplace.[1]

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1. For a more thorough treatment of the theory of perfect information, see R. ECK, AN INTRODUCTION TO QUANTITATIVE METHODS FOR BUSINESS APPLICATION (1979). The reader is referred in particular to chapter 16, *Introduction to Statistical Decision Making* and chapter 17 *The Revision of Probability Assessments and The Expected Value of Additional Information.* For a more thorough treatment of the theory of perfect information discussed in periodicals, see McNamara, *An Appraisal of Executive Information and Decision Support Systems*, 41 J. SYS. MGMT. 14-18 (1990); Pfeifer & Smidt, *A Decision-Theoretic Valuation of Information in Sealed-bid Auctions for Items of Known Value*, 21 DECISION SCI. 461-70 (1990); Hartbough & Turner, *A Streamlined Approach for Calculating Expected Utility and Expected Values of Perfect Information*, 6 DECISION SUPPORT SYS. 1, 1-11 (1990); Sampson, *The Value of Information From Multiple Sources of Uncertainty In Decision Analysis*, 39 EUR. J. OPERATION RES. 254-60 (1989).

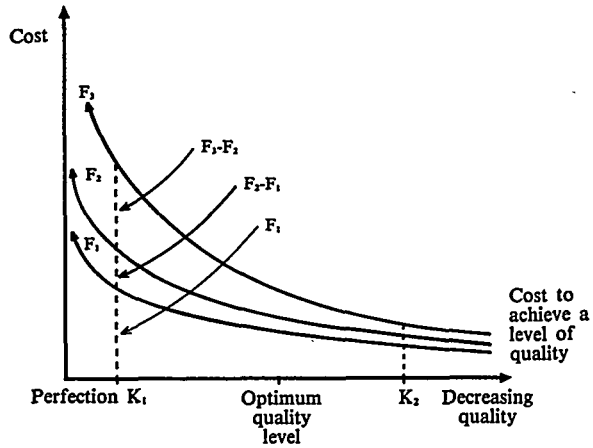


Figure A

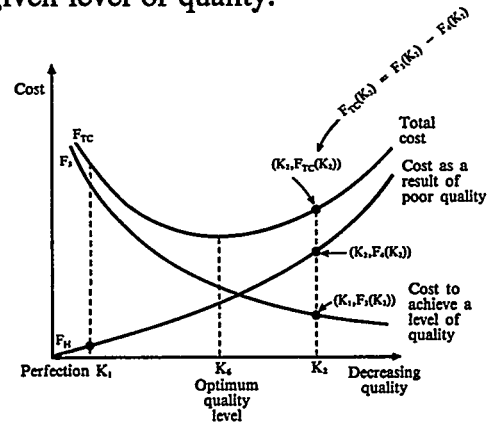
Figure A depicts the relationship between levels of quality and the cost of achieving a given level of quality. The representation is best understood by considering its implications *from right to left* rather than the more common interpretation of graphical representation which is from left to right. F_3 represents the total cost to achieve a given level of quality. Thus, the cost of achieving the level of quality at K_2, is substantially less than achieving the much higher level of quality reflected at K_1.

The analysis contemplates that, at a given level of quality, the cost to achieve that level of quality is comprised of three components. The first component is the cost of materials, which is represented by the vertical distance from the horizontal axis to F_1. The second component of the total cost to achieve the given level of quality is represented by the vertical distance between F_1 and F_2 which, mathematically, is obtained as $F_2 - F_1$. This component of the cost quality represents the cost of obtaining market information about the value of a given level of quality. This component of cost would include the cost of market research to determine consumer perceptions as to the value of quality as well as specific information as to the marketability of products of the given level of quality. The third component of the cost to achieve a given level of quality is represented for a given quality level as the vertical distance between F_2 and F_3, which, mathematically, is obtained as $F_3 - F_2$. This component of cost is that which arises from the research necessary to develop the technology to achieve the production excellence for increasingly higher levels of quality. The

vertical distance from F_3 to F_1, mathematically determined as $F_3 - F_1$, is the total information cost component of achieving a given level of quality.[2]

The analysis suggests that, as the quality of a product approaches perfection, the cost of achieving perfection approaches affinity, which of course implies that *no* perfect product ever reaches the marketplace. The analysis also suggests that the cost of developing the technological know-how to produce an increasingly perfect product approaches infinity more rapidly than the costs of obtaining marketing information with respect to the product, which cost, in turn, approaches infinity more rapidly than the material costs associated with a perfect product. This relationship is only suggestive and should not be assumed to be "cast in concrete."

In the subsequent figures, the resolution of the cost to achieve a given level of quality will be not depicted in terms of its three components, but rather will be included only as the total cost to achieve the given level of quality.



The reader will note in Figure B that the total cost to achieve a given level of quality is the sum of the cost to achieve that level of quality, plus the cost which arises as a result of poor quality (i.e., service and maintenance costs). For example, at the quality level designated K_2, the total cost which is $F_{TC}(K_2)$ is equal to

2. For the purposes herein, it is assumed that roughly one-third of the total information cost is allocable to the cost of market research and two-thirds is allocable to the cost to develop the technological sophistication to build the higher quality products.

$F_3(K_2) + F_4(K_2)$. Thus, for a relatively low quality product, the cost of purchasing the product reflected as the cost to achieve that level of quality, is quite low, while the cost which arises as a result of the poor quality is quite high, with the result that the *total cost* is relatively high. On the other hand, at a level of quality approaching perfection, say at K_1, the cost of purchasing the given level of quality is relatively high, $F_3(K_1)$, while the costs arising as a result of poor quality are relatively low, $F_4(K_1)$, so that the *total cost* again is relatively high. Obviously, following the quality continuum to the left approaching perfection, the purchase cost of perfection approaches infinity asymptotically, while the direct and indirect costs which arise as a result of poor quality at perfection are zero. The optimum quality level is that for which the sum of the purchase cost of a given level of quality plus the costs which arise as a result of poor quality are at a minimum. This occurs at K_0.

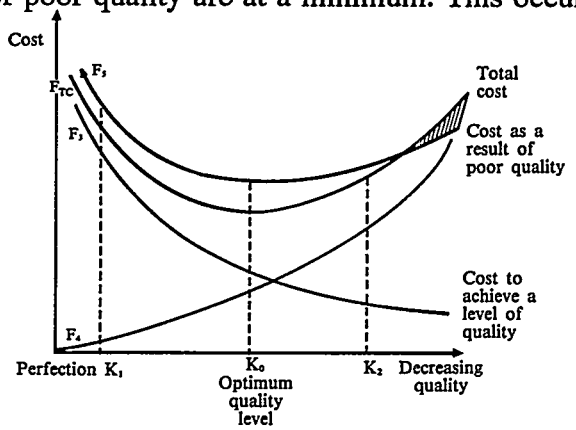


Figure C

In Figure C, a consumer demand curve which reflects the price a consumer would be willing to pay for a given level of quality is added as F_5. The per unit profit for a given level of quality is the vertical difference between the curve F_5 and F_{TC}, that is, for example, at a quality level K_1, the unit profit is $F_5(K_1) - F_{TC}(K_1)$. It is presumable that, as the quality of the product approaches perfection, the unit profit on a percentage basis may be higher than at lower levels of quality, given that very high quality products are purchased by individuals for whom prices are a secondary consideration. At the other end of the spectrum, it should be noted that the price which a consumer would be willing to pay is actually

lower than the total cost, implying that qualities falling within the region which is shaded reflect subsidized goods.

The nexus between the theory of perfect information and the theory of equilibrium in perfectly competitive markets is that products sold in a perfectly competitive marketplace are such that the optimum quality of that particular market is well-known, and that, therefore, the trade-offs as to the purchase cost to obtain a given level of quality and the cost arising out of a given level of poor quality are in equilibrium. By analogizing the conditions described (with respect to the product market) to the relative positions of tax paying enterprises, it might well be argued, that the Internal Revenue Service because of its legal mandate, tends to employ practices and procedures that approach perfection. From the Services' point of view, the cost of as a result of poor quality, that is, the tax revenues lost to the government approach zero, while, on the other hand, the cost to achieve the high level of quality approaching perfection asymptotically approaches infinity.

For the businessperson, the effort by the Service to approach perfection in fulfillment of its legislative mandate implies record keeping and compliance costs which are, at each level of quality, to the extent possible, passed on to the consumer. If, as indicated earlier, the firm is operating in a position of long run competitive equilibrium, theoretically the information which it needs to compete is known to it and therefore readily available to meet the needs of compliance. Practically speaking, however, as noted earlier, the rule of the marketplace is probably such that long-term competitive equilibria exist only rarely and probably *not* for the long term.