Taxing Global Trading: An Appropriate Testing Ground for Formula Apportionment?

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INTRODUCTION

The eighties were the decade of "globalization," a time when economic, social, and political thought took on an increasingly global perspective.[1] Significant results of this trend have been the emergence of global markets[2] and the rise of global trading[3] of financial instruments.[4] The international trading

1. For a discussion of the rise of globalization, see Barry Gillman, *October Crashes Prove Global Outlook a Luxury No More*, PENSION WORLD, Apr. 1990, at 14.

2. One commentator has defined "global market" as a market "that has no national boundaries, to which participants — be they investors, issuers, borrowers, or savers — from all over the world have access, in which price is established by supply and demand from around the world, not from a single domestic market, and in which transactions can be effected on a 24-hour basis or close to it." Richard Debs, *Globalization of Financial Markets: 'What is Happening and Why,'* INT'L BUS. LAW. 198, 199 (1987) [hereinafter Debs, *Globalization*]. *See also* Richard Debs, *The Development of International Equity Markets*, 4 B.U. INT'L L.J. 5, 6 (1986).

3. This Note adopts Charles Plambeck's definition of "global trading" as used in his article, *The Taxation Implications of Global Trading*, 48 TAX NOTES 1143 (1990) [hereinafter Plambeck, *Taxation Implications*]. According to his definition, "global trading" refers to "the capacity of financial intermediaries to execute customer orders and to take proprietary positions in financial products in markets around the world and around the clock." *Id.* at 1143-44. This activity is also sometimes called "twenty-four-hour trading."

4. The degree of globalization varies greatly among financial instruments and thus their tax treatments inevitably differ. This Note, which focuses on the tax issues rather than the financial aspects of global trading, discusses financial products generally rather than focusing on specific financial instruments.

Financial instruments of all kinds are traded on a twenty-four-hour basis. The main instruments are currencies/foreign exchange, debt instruments, some equities and even derivative products such as forwards, futures, options and swaps. *Id.* at 1144. Commodities like oil, gold and other precious metals are also traded on a twenty-four-hour basis. Debs, *Globalization*, *supra* note 2, at 199.

The foreign exchange market is the largest global financial market. In 1987 alone, it had a daily turnover approaching $200 billion. *Id.* Debt instruments have also been globally traded for years, initially in the Eurodollar syndications. Stephen Kindel, *Markets Far and Wide: Global Trading is Becoming an Efficient Way to Raise and Shift Capital*, FIN. WORLD, Sept. 16, 1986, at 106, 107. In the 1980s, trading in Treasury issues became one of the fastest growing areas in global trading. This growth resulted from a skyrocketing United States govern-

system has revolutionized financial markets by liberating them from temporal and geographic constraints. For the first time, market participants can trade financial instruments globally on a 24-hour basis.[5]

Global trading creates unique business opportunities for market participants,[6] particularly those operating in multiple jurisdictions.[7] It also poses a novel and difficult multi-jurisdictional tax allocation/intercompany pricing problem. Each time

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ment deficit and 1984 legislation that allowed foreign investors to buy government securities tax-free. Scott McMurray et al., *Endless Dealing: U.S. Treasury Debt Is Increasingly Traded Globally and Nonstop*, WALL ST. J., Sept. 10, 1986, at A1. In 1986, the average daily volume in U.S. Treasury securities trade was about $100 billion. *Id.* On the other hand, the global equity market is traditionally the smallest global market. Debs, *Globalization*, *supra* note 2, at 200. According to Solomon Brothers, however, cross-border equity holdings now amount to more than $600 billion. Claire Makin, *How to Manage a Global Money Manager*, INSTITUTIONAL INVESTOR, Apr. 1990, at 69.

5. Commentators have identified numerous factors which contributed to the rise of global trading in the 1980s. Five of the most prominent factors are: (1) the advancement in information technology — especially in the telecommunications and computer industries; (2) the development of a global economy dominated by multinational corporations; (3) international capital imbalances, particularly the United States' federal debt service requirements and Japan's investment needs; (4) the emergence of huge institutional investment funds whose investment needs require cross-national diversification; and (5) regulatory changes in many foreign stock exchanges that for the first time open those exchanges to foreign memberships. For a full discussion of those factors, see OFFICE OF TECHNOLOGY ASSESSMENT, U.S. CONGRESS, TRADING AROUND THE CLOCK: GLOBAL SECURITIES MARKETS AND INFORMATION TECHNOLOGY — BACKGROUND PAPER (July 1990).

6. The term "market participants" as used in this article refers to financial intermediaries who trade globally. They are primarily commercial and investment banks as well as securities dealers. Plambeck, *Taxation Implications*, *supra* note 3, at 1143-44.

Global trading creates business opportunities for three different groups of market participants: capital users, capital suppliers, and financial intermediaries. *Id.* at 1145-46. Under the global system, users of capital (e.g., corporate borrowers) can raise capital in a more efficient manner. Differences in interest rates between countries can be exploited and newly issued financial instruments can be marketed and traded simultaneously to a much larger pool of potential investors in different countries. On the other hand, capital suppliers also benefit. They now have access to investment opportunities in virtually the entire industrialized world and thereby have more options when creating their global portfolio. By diversifying their investment in multiple countries, investors can reduce their exposure to regional political or natural risks associated with specific geographic areas. Moreover, brokers or dealers benefit from the extreme spontaneity and fluidity the global system provides.

7. Jurisdiction in this Note refers to tax jurisdiction of a sovereign country.

a company engages in a related-party[8] cross-border transaction, a transfer price must be determined for tax allocation purposes.[9] Corporate taxpayers usually make such determinations but they may be challenged by the Internal Revenue Service[10] during an audit. In the United States, transfer price determinations are primarily governed by applying section 482 of the Internal Revenue Code (I.R.C.) and the Treasury regulations promulgated thereunder.[11] They require the use of the arm's length standard (the price which an uncontrolled taxpayer is willing to pay when dealing at arm's length with another uncontrolled taxpayer).[12] Global trading, however, is based on different economic assumptions than traditional domestic business transactions.[13] Recog-

8. An example of a related party transaction is a U.S. taxpayer which sells to a foreign parent, foreign subsidiary, or other foreign related entity.

9. A transfer price is the price at which one business entity transfers a certain product (e.g., tangibles, intangibles, services, loans) to a related party in a different tax jurisdiction. Because different tax jurisdictions usually have different tax rates, a taxpayer who manipulates the transfer price can cause the bulk of the profits to be taxed in the jurisdiction with the lower rate and thereby reduce the total tax for the global enterprise. For example, assume that the U.S. tax rate is 30% and the British tax rate is 60%. A U.S. parent corporation manufactures widgets at $10 per unit. It then sells widgets both to its related British sales subsidiary and to an unrelated British company. Both British companies in turn resell the widgets for $20 per unit. The global enterprise would like to sell the widgets to the British subsidiary at $19. This allows $9 of profit on each unit to be realized in the United States and taxed at the lower U.S. rate (30%) and only $1 to be realized and taxed at the higher British rate (60%).

10. Hereinafter the Service.

11. Unless otherwise noted, all statutory citations and references are to the Internal Revenue Code, as amended by the Tax Reform Act of 1986, Pub. L. No. 99-514, 100 Stat. 2085 (1986). All references to Treasury regulations are to income tax regulations issued by the U.S. Treasury Department. All citations to the § 482 regulations refer to the regulations as promulgated in 1968 and 1969. T.D. 6952, 1968-1 C.B. 218; T.D. 6998, 1969-1 C.B. 144.

12. Treas. Reg. § 1.482-1(b)(1) (1968). For a discussion of the arm's length standard, see *infra* notes 43-54 and accompanying text. The current Treasury regulations under § 482, as they were promulgated in 1968 and 1969, rejected the formula apportionment approach and preserved the arms length principle originally adopted in the 1934 regulations. Harlow N. Higinbotham et al., *Effective Application of the Section 482 Transfer Pricing Regulations*, 42 TAX L. REV. 295, 330 (1987). "Uncontrolled taxpayers" are basically unrelated third parties. This contrasts with "controlled taxpayers" or "related parties" which refer to a U.S. taxpayer which controls a foreign subsidiary, is controlled by a foreign parent, or is related to other foreign parties.

13. Global trading repudiates many economic assumptions which govern traditional business transactions and on which the arm's length standard is based. Those rejected assumptions include the assumptions of integrity of distinct legal entities and the relevance of national boundaries to capital markets. Charles Plambeck, *Taxation Implications of Global Trading: A Summary*, 14 HASTINGS INT'L & COMP. L. REV. 359, 364 (1991).

nizing the need to promulgate tax guidelines for the fast-developing and increasingly revenue-rich area of global trading,[14] the Service has officially requested interested parties to submit opinions and recommendations on the appropriate tax treatment of global transactions.[15] It is currently examining the entire global trading arena with the objective of formulating regulatory or statutory amendments.[16]

This Note examines the applicability of the current transfer pricing regime under section 482 to global trading. This Note concludes that the existing system based on the arm's length standard is inadequate, and proposes a new system for governing the global trading area.

Part I provides a background discussion of global trading of financial instruments, traditional income allocation standards under section 482, and the Service's recent attempt to resolve transfer pricing disputes by using administrative agreements governed by the Advance Pricing Agreement (APA) procedures.

Part II discusses the problems encountered under the current transfer pricing system. It posits that the arm's length standard is inadequate to deal with certain models of global trading such as the global 24-hour trading model. Part II further exam-

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14. Global trading is fast becoming a very profitable business. In 1988, pretax profits for eight money center banks from global trading were in the $2 billion range. Nigel A.L. Brooks, *Global Trading; This High-Stakes Game Demands Technological Savvy*, MAG. OF BANK ADMIN., Sept. 1989, at 36.

15. In Announcement 90-106, 1990-38 I.R.B. 29 (1990), the Service requested comments on issues raised by global trading of financial instruments. Many major institutions and interested parties have submitted comments discussing various tax issues involved in global trading. Among the responses are comments from Edward O'Brien, President of the Securities Industry Association (SIA) (representing the view of the securities industry), comments by the accounting firm of Ernst & Young for the Institute of International Bankers (IIB) (representing the view of the international banks), and comments prepared by the accounting firm of KPMG Peat Marwick (representing the views of their foreign financial clients). For a reprint of these reports, see *Securities Association Offers Guidelines on Rules for Taxing Global Trading of Financial Instruments*, Jan. 16, 1991, *available in* LEXIS, Fedtax Library, TNI file, 91 TNI 3-40 [hereinafter *SIA Report*]; Ernst & Young, *Tax Implications of Cross-Border Trading by International Banks*, May 15, 1991, *available in* LEXIS, Fedtax Library, TNI file, 91 TNI 20-27 [hereinafter *Ernst & Young Report*]; *Peat Marwick Clients Comment on Global Trading of Financial Instruments and Potential Regulations*, May 29, 1991, *available in* LEXIS, Fedtax Library, TNI file, 91 TNI 22-19 [hereinafter *Peat Marwick Report*].

16. The Service plans to alleviate this problem by statutory amendments or regulatory examples under §§ 482 and 864 and/or other relevant code sections. *Ernst & Young Report*, *supra* note 15, at *8. (Ed.'s note: for the purpose of this Note, the asterisk-numbers refer to the screen number in LEXIS; the parenthetical section numbers refer to the actual report section numbers).

ines two alternative methods for calculating transfer pricing: the mark-to-market method[17] and the formula apportionment method.[18] This section concludes that the formula apportionment method should be the substantive transfer pricing method and that it should be governed by APA procedures. Finally, this Note recommends the adoption by Congress of an integrated system which involves both a default and an opt-out method. Initially, taxpayers would be required to use the formula apportionment method as the default allocation method. If taxpayers found this method did not accurately reflect their economic circumstances, they would be allowed to opt out of the default method by entering into an administrative agreement with the Service. The theory behind this dual method system is that individually tailored administrative agreements usually best reflect economic reality and, therefore, should be preferred. Taxpayers who did not find this approach cost-effective[19] or who were arranging an administrative agreement would use the formula apportionment method.

I. BACKGROUND

This Background introduces three major issues underlying the United States taxation of global trading. First, the concept of global trading and the three methods used to conduct it — global twenty-four-hour trading, centralized product management and separate entities coordinated by a head office — are reviewed. Second, I.R.C. § 482, which governs transfer pricing issues, is analyzed with particular attention given to its applicability to global trading. A discussion of the administrative Advance Pricing Agreement (APA) procedure concludes this section.

17. The mark-to-market method measures the daily profits or losses of an entity by calculating the difference in value of the global portfolio between the time it passes into and out of the jurisdiction.

18. The formula apportionment method apportions profits between tax jurisdictions according to a predetermined formula. Some commentators have often discussed this method as a close contender behind the arm's length standard, but the Treasury Department has never seriously considered it.

19. Taxpayers may not find the APA method cost effective for various reasons, one of which is that they only have minimal global involvement. The scale of their global trading activity, therefore, may not justify engaging in such negotiation.

A. WHAT IS GLOBAL TRADING?

"Global trading," also called "twenty-four-hour trading,"[20] refers to a financial market participant's ability to "execute customer orders and to take proprietary positions in financial products in markets around the world and around the clock."[21] A company can structure and conduct its global trading activities in one of the following three ways:[22] (1) global twenty-four-hour trading;[23] (2) centralized product management;[24] or (3) separate entities coordinated by a head office.[25]

From a theoretical standpoint, twenty-four-hour trading is the ultimate in market globalization. Products traded under this method are typically quite volatile and are actively traded in different jurisdictions around the clock.[26] A company using such a system maintains inventories of its financial products in different countries. Typically, a company keeps multiple sets of inventories, one in each of its key trading jurisdictions.[27] Although the inventories are physically dispersed, only one jurisdiction owns and controls all global inventories and can make centralized trading decisions at any particular time. Thus, the

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20. The two definitions refer to the same economic activity but focus on two distinct dimensions. "Global trading" refers to the geographic aspect of this type of trading and its ability to transcend national barriers. "twenty-four-hour trading," however, refers to the time dimension of the trade and its ability to transcend time barriers. This Note categorizes all such trading activity as "global trading."

21. Plambeck, *Taxation Implications*, *supra* note 3, at 1143-44.

22. For a discussion of the three separate trading models mentioned here, see *Ernst & Young Report*, *supra* note 15, at *26-*32 (§ II.D.1-4); *Peat Marwick Report*, *supra* note 15, at *15-*17, *25-*28 (§§ II.B.1-3, III.D).

23. Global twenty-four-hour trading is also sometimes called the "sequential trading model." For a discussion of global twenty-hour trading, see *Ernst & Young Report*, *supra* note 15, at *26-*27 (§ II.D.2); *Peat Marwick Report*, *supra* note 15, at *16-*17, *28 (§§ II.B.3., III.D.).

24. Centralized product management is also sometimes called the "single inventory model." For a discussion of centralized product management, see *Ernst & Young Report*, *supra* note 15, at *27-*30 (§ II.D.3); *Peat Marwick Report*, *supra* note 15, at *16, *26-*28 (§ III.D).

25. The separate entities with head office coordination model is sometimes called the "multiple inventories model." For a discussion of separate entities with head office coordination, see *Ernst & Young Report*, *supra* note 15, at *31-*32 (§ II.D.4); *Peat Marwick Report*, *supra* note 15, at *15, *25-*28 (§§ II.B.1, II.D).

26. An example of such a product is foreign currency options. *Peat Marwick Report*, *supra* note 15, at *29 (§ III.D).

27. For most international financial traders, the three key trading jurisdictions are New York, London and Tokyo, which are also the three major world trading centers for financial products. COOPERS & LYBRAND, EXECUTIVE SUMMARY TO OPPORTUNITIES AND RISK IN THE 24-HOUR GLOBAL MARKETPLACE 8 (1987).

single trading authority is said to own the trading "book" or portfolio.

Under this system, a company continuously transfers the authority to trade the entire global portfolio between trading centers located in different time zones.[28] Companies that use this system usually operate as a global team[29] where employees engaged in trading activities are located in multiple jurisdictions.[30] A team member in a particular region can trade the global portfolio regardless of where the individual product is physically located. This system, however, has been attempted in only a few instances, mainly in the foreign exchange area.[31]

The second global trading model — the centralized product management method — uses multiple business units which are not fully integrated, but rather are coordinated by a central management office. An individual in a specified location is primarily responsible for a particular product.[32] Unlike the dispersed inventories characteristic of global twenty-four-hour trading, inventories of companies practicing centralized management are primarily located in the "natural home" or primary trading market of the product.[33] A global product manager pro-

28. For example, a global trader might keep its entire U.S. stock portfolio in New York. When the New York Stock Exchange (NYSE) is open, all global trading activities are conducted in New York. When the NYSE closes, the authority to trade (or the "book") will be passed from New York to the company's Tokyo office, which will then trade the U.S. stock portfolio on the Tokyo Stock Exchange. When the Tokyo Stock Exchange closes, the book will eventually pass to London. The London office will then assume the authority to trade the portfolio on the London Stock Exchange and will pass the book back to the New York office. *See generally Ernst & Young Report*, *supra* note 15, at '26-'27 (§ II.D.2).

29. A global team usually consists of managers, traders, the sales force and a support group. *See generally Ernst & Young Report*, *supra* note 15, at '35-'37 (§ II.E.1).

30. *Peat Marwick Report*, *supra* note 15, at '28 (§ III.D).

31. For example, two U.S. banks (Chemical Bank and Citibank) have their Japanese branches engage in global twenty-four-hour foreign exchange trading. NIKKEI FINANCIAL DAILY, Jan. 29, 1992, at 1, *cited in* COMLINE DAILY NEWS TOKYO FINANCIAL WIRE, Jan. 29, 1992, *available in* LEXIS, Nexis Library, CURRNT File.

A new twenty-four-hour global trading system named Globex started June 24, 1992. Globex was started as a partnership between Reuters PLC, the Chicago Mercantile Exchange and the Chicago Board of Trade to facilitate twenty-four-hour trading in commodity futures contracts. The partners believe, however, that it could take up to two years before the system is successful. *See* William B. Crawford, Jr., *GLOBEX Trading Network Ready for Takeoff*, CHI. TRIB., June 21, 1992, § 7, at 1.

32. *Ernst & Young Report*, *supra* note 15, at '30 (§ II.D.3).

33. The natural home of a product is where the product is primarily traded.

vides regional book managers with instructions and limits for carrying out the primary trading responsibilities for regional inventories. When the primary market closes, traders in other time zones assume these delegated tasks.[34]

The third trading model — separate entities coordinated by a head office — involves multiple local entities that operate autonomously.[35] Under this trading model, companies maintain inventories of financial products at independent operating units around the world. This model is usually used by trading operations that involve products with broad appeal that are actively traded in a number of jurisdictions.[36] Unlike products traded in the centralized product management model, products traded in this model usually do not have one clear "natural home" but are traded widely in numerous jurisdictions. Unlike products traded by a unified trading authority which passes from one jurisdiction to another around the clock under the global twenty-four-hour model, products under this model are traded by numerous individual units which are geographically dispersed. Under this model, every region is an independent operating unit with minimal coordinated management of portfolios. Regional offices are usually only restricted by broad credit limitations and other prudential concerns imposed by the head office. Each office, therefore, is a profit center with wide managerial and investment decision power.[37]

For example, New York is the natural home for U.S. Treasury securities. *Peat Marwick Report*, *supra* note 15, at *11 (§ III.(d), Organization of Trading Operations).

34. For example, a company using the centralized product management method of trading that keeps its inventory in the United States would pass the "book" to its Tokyo trader who would trade the U.S. portfolio after the primary market (New York) closes. If the portfolio was bought at $10.00 in New York and sold at $12.00 in Tokyo, the $2 "profit" must first be reduced by allocated expenses, then apportioned between the two tax jurisdictions — in this case, the United States and Japan.

35. *Ernst & Young Report*, *supra* note 15, at *31 (§ II.D.4).

36. An example is the trading of foreign currencies and derivative products like interest rate swaps. *Peat Marwick Report*, *supra* note 15, at *17-*18 (§ III.A.).

37. Under this system, for example, New York, London and Tokyo would each have their own separate inventory and portfolio of U.S. stocks. They would then trade independently and be subject to minimal coordination. Two dangers of this strategy are that the lack of coordination might lead to duplicated efforts or that two centers might use totally opposite trading strategies.

B. THE SUBSTANTIVE LAW DEALING WITH TRANSFER PRICING: I.R.C. SECTION 482

Whenever a company engages in an intercompany or related party transaction which involves more than one tax jurisdiction, it must allocate its global profits among those jurisdictions.[38] The company must also account for its transfers under intercompany pricing rules so that each jurisdiction can tax its share while avoiding double taxation.[39] Because global traders engage in cross-border transactions, the tax consequences of their actions are directly governed by the allocation method employed.

Under the U.S. tax regime, transfer pricing rules between related entities are governed primarily by § 482 of the Internal Revenue Code and its accompanying regulations. Section 482 authorizes the Service to modify the distribution of tax obligations between related taxpayers if the Service determines that, as a result of transactions between those related entities, an allocation is necessary to prevent evasion of taxes or to reflect income clearly.[40] Although § 482 was originally written as an accounting rule,[41] it is now also widely used as the prime authority governing transfer pricing for cross-border, related party transactions.[42] The Treasury regulations promulgated under

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38. Under general tax principals, income earned through efforts in more than one tax jurisdiction should be apportioned between those jurisdictions so that each can tax its allocable share.

39. For a basic discussion of income allocation and transfer pricing, see D. Kevin Dolan, *Intercompany Transfer Pricing for the Layman*, 49 TAX NOTES 211 (1990).

40. I.R.C. § 482 states that:

> In any case of two or more organizations . . . 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 . . . if he determines that such distribution . . . is necessary in order . . . clearly to reflect the income of any of such organizations.

41. The legislative history of the predecessor of § 482 (§ 45 of the Internal Revenue Code of 1939) indicates that the purpose was "to prevent evasion (by the shifting of profits, the making of fictitious sales, and other methods frequently adopted for the purpose of 'milking')." H.R. REP. NO. 2, 70th Cong., 1st Sess. 16-17 (1928). It is also used to prevent corporations from "jugg[ling] transactions and tak[ing] advantage of questionable sales to each other to get deductions." 69 CONG. REC. 605 (1928). The current approach, however, applies § 482 even in instances where no intention of tax evasion exists. Treas. Reg. § 1.482-1(c). *See generally* Higinbotham et al., *supra* note 12, at 300.

42. In the international tax context, § 482 is now used primarily to allow the I.R.S. to second-guess taxpayers' "transfer price" determinations in order to ensure that they "clearly" reflect income. Dolan, *supra* note 39, at 214.

§ 482 provide technical rules which apportion income based on the arm's length principle.[43] This principle posits that the appropriate transfer price (the "arm's length price") of a transaction between two related parties is the price that would have been agreed upon if the two parties were not related or "controlled."[44]

A taxpayer applying the arm's length standard to a business transaction first must characterize the transaction according to one of the following regulatory categories: 1) loans or advances;[45] 2) performance of services for another;[46] 3) use of tangible property;[47] 4) transfer or use of intangible property;[48] or 5) sales of tangible property.[49] The taxpayer then applies the arm's length standard to determine the transfer price of transactions which fall under the appropriate category. Of the five paradigms, performance of services and the sale of tangible property are the two categories most relevant to global trading.

(1) The Separate Entities Coordinated by Head Office Model

The separate entities coordinated by head office model contains local profit centers which operate independently. Each local entity engages in regular sales and purchases of financial products at an arm's length market price like an unaffiliated independent operating unit. The prices can be easily determined by reference to similar unrelated trades with third parties in the home jurisdiction. Because such transactions are more akin to a

43. Nearly all countries currently use the arm's length standard to establish transfer price between related parties for income allocation. Britain, France, Germany, the United States and Japan, among other industrialized countries, have adopted the arm's length standard for international tax apportionment. Furthermore, this standard was specifically endorsed by the Organization for Economic Co-operation and Development (OECD) as the preferred universal standard. OECD, Model Double Taxation Convention on Income and on Capital, art. 9(1) (1977); OECD, TRANSFER PRICING AND MULTINATIONAL ENTERPRISES, ¶ 3, 37 (1979). *See also* Higinbotham et al., *supra* note 12, at 302 ("Most developed countries and most tax treaties have adopted the arm's length principle for testing intercompany transfer prices, consistent with the section 482 regulations.").

44. Dolan, *supra* note 39, at 214. For example, in the sales of tangible property context, the arm's length price is defined as "the price that an unrelated party would have paid under the same circumstances for the property involved in the controlled sale." Treas. Reg. § 1.482-2(e)(i).

45. *Id.* § 1.482-2(a).

46. *Id.* § 1.482-2(b).

47. *Id.* § 1.482-2(c).

48. *Id.* § 1.482-2(d).

49. *Id.* § 1.482-2(e).

sales transaction than a service transaction, their tax treatment should be governed by the sale of tangible property paradigm.

In general, the sale of inventory or tangible property paradigm requires the taxpayer to find the arm's length price by comparing it to a similar uncontrolled transaction.[50] One of the following three regulatory methods for finding the arm's length price should be used:[51] (1) the similar uncontrolled price method,[52] (2) the resale price method,[53] or (3) the cost-plus method.[54] For most financial products or heavily traded commodities, the comparable uncontrolled price method is used because those products invariably have an established and active market which makes it extremely easy to find comparable transactions.[55] An arm's length price can be established by comparing it to the market price, which is also the uncontrolled price.[56] In this context, the use of the arm's length standard is justified because the separate entities already operate in such an autonomous fashion that using market price as the determining price accurately reflects economic reality.

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50. The availability of a comparable transaction is the key to using the arm's length standard successfully. Various types of arm's length standards all require the existence of a comparable uncontrolled transaction.

51. Treas. Reg. § 1.482-2(e)(1)(ii). If none of the three methods apply because there is no comparable uncontrolled transaction, the regulations permit some kind of "fourth" method to be used. *Id.* § 1.482-2(e)(1)(iii). Which methods the Service will accept as the "fourth" method, however, has not yet been statutorily determined. This uncertainty results in frequent litigation.

52. *Id.* § 1.482-2(e)(2). The comparable uncontrolled price method applies if there are comparable uncontrolled sales of the same or similar products by either the taxpayer or a competitor. If such comparable sales exist, this method must be used. This method is used very frequently in the securities and similar markets where market prices exist for the product.

53. *Id.* § 1.482-2(e)(3). The resale price method is especially useful when determining an appropriate mark-up for distributors selling products manufactured by related parties. Using this method, the taxpayer identifies the resale margin of unrelated distributors which sell the same or similar products and perform similar functions. The arm's length price then reflects the unrelated resale margin.

54. *Id.* § 1.482-2(e)(4). The cost-plus method is typically used when a manufacturer sells products to a related distributor. To establish the arm's length price, the manufacturer will try to identify other unrelated manufacturers that use cost-plus mark-ups, perform similar manufacturing functions and assume similar risks.

55. Most frequently, publicly traded financial products have one or more established markets. For example, most publicly traded stocks, bonds and other securities are listed on exchanges like the New York Stock Exchange, the London Stock Exchange and the Tokyo Stock Exchange. Prices for any listed stock are continuously available to the public. Most commodities, like oil, gold and silver have their own markets, making prices readily available.

56. *See* Treas. Reg. § 1.482-2(e).

(2) The Centralized Product Management Model

The arm's length standard for sales should not be applied to the second type of global trading, the centralized product management model. Under this model, all traders are located in one tax jurisdiction[57] but salespeople are employed globally in multiple foreign jurisdictions.[58] The salespeople market the financial products and solicit business from customers, whereas traders provide the price for each transaction and actually close each trade.[59] Because the salespeople perform a sales service rather than transact a sale, this economic activity should more properly be characterized as the performance of a service, rather than a sale of goods transaction. Thus, the compensation for services paradigm rather than the sale of tangible property paradigm should determine the calculation of the arm's length price.[60] As contrasted with the separate entities with head office coordination method, the centralized product management method focuses on services rather than sales.

The compensation for services paradigm provides that a taxpayer must generally compensate a member of a controlled group who performs services for another controlled group member. If no charge or a non-arm's length charge is paid, the Service can make an allocation to reflect the arm's length transaction.[61] This paradigm would, for example, require a foreign agent to charge an arm's length fee for a transaction executed for its U.S. parent corporation rather than allowing the execution of the trade free of charge.

The regulations require the use of a "benefits test" to determine the allocation or amount that should be charged for the intercompany service.[62] Under this test, the allocation must correspond to the relative benefits the provider intends to confer, based upon the facts known at the time the services are con-

57. Tax jurisdiction, in this Note, has the same meaning as trading jurisdiction.

58. In a typical global securities trading setting, four types of personnel are usually involved in a transaction. They are the managers, the traders, the sales force and the support group. The managers or market strategists identify the economic trends, design and implement strategies and manage the traders and sales forces. The traders establish positions, make hedging decisions and create markets. The sales force executes customers' orders; and the support group gathers, summarizes and dispenses information and provides technology to all functions. *Ernst & Young Report*, *supra* note 15, at '21-'23 (§ II.C.1).

59. *Peat Marwick Report*, *supra* note 15, at '16 (§ II.B.2).

60. *See* Treas. Reg. § 1.482-2(b); *Id.* § 1.482-2(e).

61. *Id.* § 1.482-2(b)(1).

62. The benefits test is set forth in Treas. Reg. § 1.482-2(b)(2).

ferred.[63] Actual benefits conferred are irrelevant.[64] In determining the arm's length amount, the regulations lay out different price determination methods for services which are integral versus non-integral parts of either the provider's or the recipient's business.[65] If the transaction is not an integral part of either party's business, the entities can use the "cost or deduction" method. This method treats the arm's length price as equal to the costs or deductions incurred with respect to the services.[66] However, entities must use the more stringent "comparable arm's length charge" standard, which requires a determination of an arm's length service charge, if the transaction is an integral part of the business.[67] In the global trading context, because the integral part of a financial intermediary's business is rendering financial services, such services are usually considered an integral part of the business of both the renderer and recipient. That is, both the renderer and recipient are either a broker or trader. Therefore, both entities must use the "comparable arm's length charge."

The arm's length standard might be difficult to apply in this instance because it is difficult to find a comparable arm's length charge. Unlike sales of securities (goods) which have an easily determinable market price, compensation structures between different financial intermediaries can vary greatly. In such cases, comparable uncontrolled services may not exist. Even if the traders have similar compensation structures, the Service may argue, for example, that the difference in trading volume or services performed renders prices incomparable.[68] Also, service

63. Treas. Reg. § 1.482-2(b)(2)(i).

64. *Id.*

65. *Id.* § 1.482-2(b)(3). "Integral part" is defined in Treas. Reg. § 1.482-2(b)(7)(i), which provides that "[s]ervices are an integral part of the business activity of a member of a controlled group where either the renderer or the recipient is engaged in the trade or business of rendering similar services to one or more unrelated parties."

66. *Id.* § 1.482-2(b)(3).

67. The regulations define an arm's length charge as "the amount which was charged or would have been charged for the same or similar services in independent transactions with or between unrelated parties under similar circumstances considering all relevant facts." *Id.* § 1.482-2(b)(3).

68. A similar argument has been made by the Service in U.S. Steel Corp. v. Comm'r, 36 T.C.M. (CCH) 586 (1977), *rev'd and modified*, 617 F.2d 942 (2d Cir. 1980). In that case, a U.S. parent corporation owned a foreign subsidiary that was in the shipping business. The subsidiary shipped iron ore for both the parent corporation and independent third parties, charging both the same price. The parent corporation considered the independent third parties' sale an independent uncontrolled sale, qualifying the third party sale price as the arm's length price. The Service rejected this argument, arguing that in light of the

transactions are much more difficult to quantify than tangible properties transactions.

Another problem in applying the arm's length standard here is its disregard for the synergies inherent in a multinational enterprise.[69] Because arm's length pricing results in charging a related corporation and a third party the same price, it fails to take into consideration the significant "economies of integration" or cost savings that a controlled group can achieve using controlled sales.[70] By forcing related parties to account for those sales by using the arm's length standard, the regulations essentially deprive the parties of the unique benefits derived from integration. In the global trading context, the elimination of third party agents or brokers is one such benefit.[71] This method, therefore, usually does not reflect economic reality.[72]

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unique relationship between the parent and the subsidiary and given the volume of ore the parent corporation shipped, the sales of the independent third parties and the controlled sale to the parent were not comparable. The Tax Court agreed. The Second Circuit reversed, however, asserting that a contrary holding would "allow the taxpayer no safe harbor from the Commissioner's virtually unrestricted discretion to reallocate." 617 F.2d at 951-52. This case demonstrates the difficulty in applying the inherently subjective arm's length standard and the "unreasonable" positions which the Service may take. It also indicates that even if uncontrolled transactions exist, the Service has allowed application of that method only under circumstances in which the transactions are nearly identical, with very strict comparability requirements. Therefore, unless the Service changes its position, the Service will likely reject the use of the comparable arm's length price if there is a substantial difference in volume between the related party and unrelated customers.

69. *See, e.g.*, Stanley I. Langbein, *The Unitary Method and the Myth of Arm's Length*, 30 TAX NOTES 625 (1986). (Langbein argues for the application of the formula apportionment method in place of the arm's length standard).

70. For a discussion of the failure of the arm's length standard to take into consideration economies of scale by integration, see Higinbotham et al., *supra* note 12, at 330-35.

71. The elimination of third party brokers and agents can be a huge cost saving to global traders. By doing all transactions in-house, brokerage expenses are cut down. This benefit would not be reflected correctly if taxpayers are required to treat such transaction for tax purposes as an arm's length transaction.

72. *See generally* Higinbotham et al., *supra* note 12, at 332 (*citing* Coase, *The Nature of the Firm*, 4 ECONOMICA (new Series) 386 (1937); Oliver F. Williamson, *Transaction-Cost Economics: The Governance of Contractual Relations*, 22 J.L. & ECON. 233 (1979)). The authors posit that when business enterprises engage in intercompany transactions for goods or services, they are motivated at least in part by favorable costs or other economic benefits of the normally cheaper internal source of supply as compared to the external sources. Because this motivation to capture the cost savings is a significant incentive for companies to vertically integrate, a method that forces the taxpayer to report those transactions under the arm's length method would artificially distort eco-

(3) The Global Twenty-Four-Hour Trading Model

Traders following the global twenty-four-hour trading model are located in several tax jurisdictions and trade from a common inventory. The authority to trade the inventory continuously passes from one jurisdiction to another concurrent with the local market trading hours. Each trader in the system has the power to quote prices and conclude contracts with customers.[73]

The arm's length standard is also an inadequate method of taxation for these kinds of transactions. The Code and the accompanying regulations do not provide a proper means of apportioning income among jurisdictions under this method. Neither the performance of services paradigm nor the sale of inventory paradigm is sufficient for this new type of transaction. By its nature, global twenty-four-hour trading defies national boundaries, and can easily be double taxed under this method, as illustrated below.

Suppose a trader in a global financial trading company's London office buys 100 shares of Company A's stock for US $90 per share. At the end of the trading session, she passes the shares on to the New York office, which sells them for $100 per share. The trading company's gross profit is $10 per share. British tax authorities may argue that the London office identified the valuable stock, and the value of the later sale thus belongs in London and is subject to British tax. U.S. tax authorities may contend that the sale in New York produced the profit, and the value thus belongs in New York (and is subject to U.S. tax).[74] Because both arguments have some merit, double taxation may not be avoidable without some kind of improved international taxation method.[75]

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nomic reality. It would also reduce the benefit the taxpayer can enjoy from integration. Higinbotham et al., *supra* note 12, at 332.

73. *Peat Marwick Report*, *supra* note 15, at '17 (§ II.B.2).

74. Martin, *IRS Sees Tax Troubles in Global Trading*, XXII:35 WALL ST. LETTER, Sept. 3, 1990, at 1, *available in* LEXIS, Nexis Library, CURRNT file.

75. As a tax specialist aptly put it, "It is a real problem when you have people from all over creating a pool of income and then you try to split up the pie. . . . What threatens to happen is Uncle Sam eats 33% and Mrs. Thatcher takes around 35% . . . and obviously the business quickly becomes unprofitable." *Id.*

C. AN IMPROVEMENT IN THE ADMINISTRATIVE DETERMINATION PROCESS: THE ADVANCE PRICING AGREEMENT (APA)

After a taxpayer has determined a method to use and has applied it accordingly, it may be accepted or contested by the Service. Before 1991, transfer pricing questions only arose on an *ex post facto* basis when the Service audited a taxpayer's return and disagreed with the transfer price used by the taxpayer. The Service would then propose an adjustment to the taxpayer's tax liability. If the taxpaying entity disagreed with the adjustment, it could seek administrative or judicial remedies through lengthy appeals conferences or litigation.[76]

Realizing the inconvenience of this process, the Service implemented a major procedural change in 1991. In Revenue Procedure 91-22,[77] the Service promulgated a series of steps through which taxpayers could approach the Service for advance consideration of their "transfer pricing methodologies" (TPMs).[78] Under the new procedures, rather than engage in *ex post facto* examinations, the Service contracts with a taxpayer and enters into a mutually agreed upon transfer price methodology prior to the consummation of the business transaction. This Advance Pricing Agreement (APA) between the taxpayer and the Service protects the taxpayer's allocation methodology from challenges in subsequent audits.[79] Reaching a transfer price through the APA procedure thus spares participants the costs involved in the traditional approach which may include *ex post facto* audit discussions, appeals conferences and litigation.

In general, the APA procedure attempts to produce an understanding between the taxpayer, the Service and, if necessary, other third parties[80] on: (1) an appropriate transfer pricing methodology; (2) the factual nature of the transaction involved;

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76. It is not uncommon for such litigation to last for several years.

77. Rev. Proc. 91-22, 1991 C.B. 526.

78. Transfer Pricing Methodologies (TPMs) are methods which a taxpayer uses to price its intercompany transfers. The Revenue Procedure contemplates that the TPM be consistent with the arm's length standard, supported by available and reliable data, and efficiently administrable. The Revenue Procedure also envisions that the TPM should produce, with as little adjustment as possible, an anticipated range of arm's length prices that clearly reflects income. *Id.* § 3.02.

79. For a discussion of the Advance Pricing Agreement (APA), see Joseph L. Andrus et al., *The New Section 482 Advance Pricing Agreement Procedure: Overview and Analysis*, 51 TAX NOTES 353 (1991).

80. Third parties usually include foreign countries' tax authorities. Because transfer pricing is inevitably a multi-jurisdictional issue, it is important

and, if appropriate, (3) the expected result of the transfer pricing methodology.[81] To obtain an APA, a taxpayer first proposes a transfer pricing methodology and provides data showing that it will produce arm's length results for the particular intercompany transaction between the taxpayer and the specified affiliates.[82] The Service then evaluates the APA request by analyzing the data submitted and any other relevant information.[83] If the request is approved and the APA is executed, it becomes a binding contract between the taxpayer and the Service.[84] As long as a taxpayer complies with the terms and conditions of the APA, applying the TPM satisfies the arm's length standard requirement under § 482.[85] Wide use of this method may resolve transfer pricing problems in a more efficient and inexpensive manner, in part because of reduced litigation costs.[86] So far, this method has been well received and has been used with increasing frequency.[87]

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for affected taxpayers to bind all relevant tax authorities to the apportionment agreement so that they can avoid double taxation.

81. Rev. Proc. 91-22, *supra* note 77, § 3.03.

82. *Id.* § 2.

83. *Id.*

84. *Id.* § 9.01 ("An APA is a binding agreement between the taxpayer and the Service"). By entering into a binding agreement with the Service, the taxpayer is assured that as long as the terms of the agreement were complied with and as long as there was no change in a critical assumption underlying the agreement, the transfer pricing methodology approved in the APA will be upheld in subsequent audits. *Id.*

85. *Id.* §§ 9.01, 9.02.

86. It is administratively easier and cheaper to negotiate an agreement with the Service to cover a future transaction than to settle a pricing dispute on a *ex post facto* basis. Not only can the taxpayer avoid the expensive and lengthy audit, appeal, and possible litigation, it can also plan its transaction with a much higher degree of certainty. The experience of Apple Computer provides a good example. Apple entered an APA with the Service concerning the sale of its products to an Australian distribution subsidiary. The Director of Taxes for Apple stated that Apple applied for the APA and settled the whole transfer price issue by submitting three binders of information. If the case had taken the traditional *ex post facto* approach and if Apple was audited, resulting in litigation, the court information necessary for a trial would instead amount to three boxcars. The APA procedure not only saved Apple a lot of hassle, but also significant litigation expenses. Emily E. Eliot, *Transfer Pricing: Apple and GM Tax Chiefs Discuss Their Experiences in Obtaining Advance Pricing Agreements*, 3 TAX NOTES INT'L 373 (1991) (comments of Eric D. Ryan, Director of Taxes for Apple Computer).

87. The APA process has "moved from an experimental notion that is now reaching maturity." *International Taxes: Transfer Pricing Rules, Penalty Guidance Top IRS International Guidance Priorities*, 218 Daily Tax Rep. (BNA) (Nov. 12, 1991), *available in* WESTLAW, BNA-TX database, WL 218 DER G-5, 1991. As of November 1991, the IRS had received about 30 active APA applications. In addition, treaty partners of the United States such as Germany, the

Despite its many advantages, the APA in its current form suffers from a number of shortcomings. There is a possibility that it may not protect taxpayers' confidential trade secrets from disclosure to third parties under the Freedom of Information Act (FOIA).[88] The FOIA requires federal agencies to make some agency records available to the public on request. Disclosure can only be refused if it is determined that the information sought is within one or more of the nine stated exemption categories, each of which identifies a class of information.[89] In general, tax return information is confidential and protected from disclosure by section 6103 of the I.R.C.[90] However, there are doubts whether an APA and its supporting documentation constitute tax return information. Therefore, it is possible that such information might be discoverable by the public.[91] If so, trade secrets such as profit margin by product line, subsidiary or branch and sensitive corporate data may become available to competitors. This could reduce the attractiveness of the APA procedure and make taxpayers reluctant to enter into such agreements.

A second problem with the APA procedure is that data voluntarily disclosed to the Service might be used by the Service in subsequent audits. Section 9.04 of the Revenue Procedure provides that:

> [I]f the APA is not executed or if an executed APA is later revoked or canceled, neither the APA or the proposal to use a particular TPM nor any non-factual oral or written representations or submissions made during the APA process may be introduced by the taxpayer or the Service as an admission by the other party in any administrative or judicial proceeding for the taxable years for which the APA was requested or executed.[92]

Although this provision protects the taxpayer from the Service's use of non-factual data in subsequent controversies, it does not prohibit the Service from using factual data against the taxpayer. Confidential corporate material, once delivered to the

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United Kingdom, Canada, Japan and Australia have been receptive to the process and have publicly expressed support for the program. *Id.* at *2-*3.

88. 5 U.S.C. § 552 (1988 & Supp. 1990).

89. *Id.* § 552(b)(1-9).

90. I.R.C. § 6103 (1988 & Supp. 1990). Section 6103(a) provides that "returns and return information shall be confidential, and except as authorized . . . (1) no officer or employee of the United States . . . shall disclose any return or return information obtained . . . ." *Id.*

91. For a discussion of the possible effect of the FOIA on the APA, see Mike McIntyre, *The Case for Public Disclosure of Advance Rulings on Transfer Pricing Methodologies*, 2 TAX NOTES INT'L 1127 (1990).

92. Rev. Proc. 91-22, *supra* note 77, § 9.04.

Service in connection with an APA request, could conceivably be used freely by the Service in any subsequent controversy.[93] Thus, despite the benefits of the APA procedure, the significant dangers which may be connected with such a request call for administrative or legislative reassurance. APA information should be recognized as tax return material in order to protect it from disclosure. Moreover, the Service should be limited in its ability to use this sensitive tax information, which has been voluntarily disclosed by the taxpayer.

II. ANALYSIS

The arm's length standard inadequately deals with the global twenty-four-hour trading model and, to a lesser extent, the centralized product management model of global trading. Although the APA procedure can alleviate some of the problems of the arm's length standard, the APA procedure itself is also in need of much improvement. This section first discusses why the arm's length standard is inadequate to deal with both global twenty-four-hour trading and centralized product management. Next, it discusses why an alternative method, the mark-to-market method, is also unworkable. Finally, a second alternative, the formula apportionment method, is analyzed.

A. INADEQUACY OF THE ARM'S LENGTH STANDARD

Despite the limited benefits offered by the arm's length standard in traditional international transactions, it is grossly inadequate when applied to the global trading area.[94] The arm's length standard has often been criticized as difficult to apply and unjust.[95] It poses three major problems. First, from the practical standpoint of compliance, it remains almost impossible to establish an arm's length price because reasonable people may differ over the appropriate price for a particular transaction.[96]

93. Andrus et al., *supra* note 79, at 358.

94. Two often acclaimed benefits of the arm's length standard are its universal acceptance in the industrialized world and its purported ability to reflect economic reality.

95. *See, e.g.*, Langbein, *supra* note 69, at 657-58; STAFF OF THE JOINT COMMITTEE ON TAXATION, 101ST CONG., 2D SESS., PRESENT LAW AND CERTAIN ISSUES RELATING TO TRANSFER PRICING (CODE SECTION 482) 24 (Comm. Print 1990) (discussing criticism of the arm's length standard); Kathleen Matthews & J.M. Turro, *International Tax Policy in the 21st Century*, 2 TAX NOTES INT'L 454, 456 (May 1990) (quoting Joint Committee on Taxation Chief of Staff for the proposition that "the arm's length standard is not viable").

96. D. Kevin Dolan & Ronald Pearlman, *Dolan, Pearlman Square Off over Arms-Length v. Formula Apportionment*, 50 TAX NOTES 1336 (1991).

Determining a transfer price is a subjective factual judgment that, in most situations, involves the exercise of a certain amount of business judgment and discretion.[97] The good faith determination of a transfer price by a taxpayer may be very different from the price estimated by the Service's experts years after the transaction. In fact, taxpayers sometimes may have no incentive to set a correct price. The common perception is that regardless of how hard the taxpayer tries to find the "correct price," the Service may nevertheless challenge it. This encourages taxpayers to honestly understate income by choosing the lowest sustainable arm's length price, thereby promoting *ad hoc* determinations in that grey area.[98] This, in turn, undermines the predictability that companies need when planning transactions.[99] For example, a global trader using the centralized prod-

97. Alan Greenspan, Chairman of the Federal Reserve Board, when testifying before the Ways and Means Committee's Hearing on International Competitiveness on June 18, 1991, said that "[T]ransfer prices, by their very nature, are synthetic. That is, they are statistical and accounting constructs . . . on which people's judgements can reasonably differ." June 21, 1991, *available in* LEXIS, Fedtax Library, TNT file, 91 TNT 133-26 (Doc. 91-5234). *See also* U.S. Steel Corp. v. Comm'r, 36 T.C.M. (CCH) 586 (1977), *rev'd and modified*, 617 F.2d 942 (2d Cir. 1980).

98. Taxpayers who are disappointed at the futility of trying to establish an arm's length price might find determining the arm's length price a waste of effort. Instead, the taxpayer might find it more advantageous to fix the transfer price at the outer bound of the reasonable price range (either at the maximum or the minimum reasonable price, depending on the differences in tax rates of the two relevant jurisdictions) and let the Service make any adjustments from that point. E.I. Du Pont De Nemours & Co., for example, once took the following tax strategy, as revealed in a memorandum from its tax planning department:

> It would seem to be desirable to bill the tax haven subsidiary at less than an 'arm's length' price because: (1) the pricing might not be challenged by the revenue agent; (2) if the pricing is challenged, we might sustain such transfer prices; (3) if we cannot sustain the prices used, a transfer price will be negotiated which should not be more than an 'arm's length' price and might well be less; thus we would be no worse off than we would have been had we billed at the higher price.

Du Pont De Nemours v. United States, 608 F.2d 445, 447 n.4 (Ct. Cl. 1979).

99. A company's ability to plan and estimate tax liability before it executes a transaction is particularly important in the international tax area where taxes totalling millions of dollars are often at stake. A taxpayer under the current tax regime has no way of telling whether the Service will accept its good faith transfer price determination. The Service will not need to decide to accept or reject the taxpayer's determination usually until years after the transaction has been completed when the Service audits the tax return. Because every retroactive redetermination of transfer price involves a question of fact (whether the price of a certain transaction is at arm's length), great uncertainty exists for the taxpayers. This in turn undermines the business community's need for predictability and finality. In the worst case scenario, it might even turn what was

uct management model might have difficulty finding the arm's length service charge for foreign sales representatives, an integral part of the parent corporation's operation.[100]

Furthermore, as discussed above, the *ex post facto* audit procedure breeds litigation and is very expensive for taxpayers. Whether a taxpayer has set a transfer price at arm's length is a factual question which can arise year after year when the taxpayer resets the arm's length price.[101] The arm's length standard, therefore, creates a tremendous burden on international traders and places a noticeable strain on the court system.

Moreover, because the arm's length standard requires a transaction-by-transaction analysis of arm's length price, its use is very burdensome in the fluid, fast-moving field of global trading.[102] In the centralized product management model, for example, every one of the millions of transactions executed by the foreign country agents each year would have to be analyzed individually for their respective arm's length service charge. Information must be gathered regarding numerous aspects of the transactions. Although information concerning where, when, and at what price the product was bought, sold, held and transferred between jurisdictions would be readily available, information of an aggregate nature (e.g., cost of backroom activities, trader compensation) is more difficult to allocate to individual transactions.[103] With millions of transactions, the compliance cost would be unrealistically high.

The two oft-cited advantages of the arm's length approach are its universal acceptance and its ability to reflect economic reality. Both advantages are illusory in the global trading context. The arm's length approach is currently the universally accepted method of income allocation between countries.[104]

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contemporaneously seen as a profitable deal into an after-tax loss, years after the transaction was completed.

100. For a discussion of the centralized product management model, see *supra* text accompanying notes 57-61.

101. The Service itself also recognizes the problem of using a straight arm's length standard. As Charles Triplett, Deputy Associate Chief Counsel (International) for international tax matters of the Service noted, "[T]here 'has to be a better way' than having so many transfer pricing cases ending up in Tax Court." Eliot, *supra* note 86, at 374.

102. Kathleen Matthews, *U.S. Tax Authorities Grapple with Implications of Global Capital Market Transactions*, 2 TAX NOTES INT'L 217, 217-18, (1990).

103. The entities would need to keep good record of their support staffs, incidental expenses and overhead expenses so that they could be allocated to the different sales.

104. *See supra* note 43. Some commentators, however, have questioned whether the arm's length standard's universal acceptance is attributable to its

Proponents of the arm's length standard often argue that because discrepancies among different countries' allocation rules would result in international double taxation, a universal standard should be used.[105] Even if all countries were to use the arm's length standard, however, double taxation could still occur. Two countries both using the arm's length standard can reach different arm's length prices.[106] This difference can cause double taxation in an international arm's length regime.

Similarly, the arm's length standard does not reflect economic reality in the global trading context. Although designed to reflect the income and expense of transactions, the arm's length approach actually ignores the fundamental theory of economies of scale. Companies often enter into related-party transactions and use either horizontal or vertical integration to cut costs.[107] If the arm's length standard is used, all related-party transactions will have to be recalculated at arm's length. This eliminates any cost savings from integration. Companies often perform transactions with related brokers because they can then pay a lower related-party fee. By forcing taxpayers to artificially recalculate the cost at arm's length, the tax law

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merits or to the United States' active lobbying and sponsorship. In the post-war period, when the international community was searching for a universally applicable income allocation standard, the United States adopted the arm's length approach via the § 482 regulations. Because the United States was the largest global trader in the early post-war period, its active lobbying for the arm's length standard in other countries might have been a significant factor which contributed to its universal acceptance. *See, e.g.*, Higinbotham et al., *supra* note 12, at 301 n.22.

105. For example, suppose country *X* adopts the arm's length standard and country *Y* uses formula apportionment (the method that apportions income based on one factor — workforce size). A corporation with all managerial personnel in *X* (e.g. 2% of its global work force) and all sales employees in *Y* (e.g. 98% of its global work force), engages in global trading between *X* and *Y* and earns $100,000 in global profits. Country *X* may argue that because all the economic risks are borne by the country *X* Parent Corp. with the country *Y* employees merely acting as its agent, the bulk of the income should be allocated to country *X*. Country *Y*, however, might argue that since 98% of the employees are in *Y*, 98% of the income should be allocated to *Y*. This discrepancy, if left unresolved, will create international double taxation. Both countries *X* and *Y* will tax the bulk of the income of the consolidated group.

106. Using a performance of services paradigm, suppose a parent corporation *A* buys securities for $20 and, at the end of the trading day, transfers them abroad to its subsidiary *B*, which sells them for $100. Ignoring expenses, the net profit between *A* and *B* is $80. Double taxation will result if the tax authority in *A*'s jurisdiction finds the arm's length prices to be $80 and taxes $60 of profit, while the tax authority in *B*'s jurisdiction finds the arm's length price to be $40 and also taxes $60 of profit.

107. *See supra* text accompanying notes 69-72.

forces them to forgo such cost savings. Thus, the arm's length standard ignores economic reality.

B. THE INADEQUACY OF THE MARK-TO-MARKET METHOD

The mark-to-market method is a potential alternative to the arm's length standard. It is founded on the theory that the daily income of a jurisdiction is reflected by the difference in the value of the global book between the time it passes into and out of a jurisdiction.[108] However, because this method takes two arbitrary points in time (the opening and closing of the market) and considers any difference between the price of the two as profit or loss, it does not reflect economic reality. This method has been widely rejected as a suitable alternative to the arm's length method.

The mark-to-market method requires the use of a two-step process of computing trading profits. First, the global book's assets and allocable liabilities are valued and calculated daily. Under this method, the value of the book is marked to market value at each passing. Whenever a portfolio enters or leaves the market, its value is calculated at that time according to the current market price. Second, the trader determines the net profits of the jurisdiction by subtracting allocable expenses from the allocated profits.[109] The profit attributable to a specific tax jurisdiction is the change in value of the book from the beginning to the end of the trading day in that jurisdiction.[110]

For example a U.S. parent corporation (Parent Corporation) passes its trading book with a portfolio of 100,000 shares of Company A common stock to its Tokyo trading office when the New York Stock Exchange closes. When the Tokyo Stock Exchange opens, Company A common stock in Tokyo is trading at US $99.50.[111] Later, when the Tokyo Stock Exchange closes, Parent Corp. will pass the book to its London trading office. By

108. For a full discussion of the mark-to-market approach, see Plambeck, *Taxation Implications*, *supra* note 3, at 1155. (dismissing the mark-to-market approach as a viable alternative).

109. Major allocable expense items include commissions paid to salespeople, compensation to management and fees to support groups. In the allocation process, either the traditional arm's length realization approach or some kind of formula apportionment method can be used.

110. This is the same as the difference in value between the time of receipt of the book and the time of passing of the book. Plambeck, *Taxation Implications*, *supra* note 3, at 1155.

111. For simplicity, this illustration does not take into consideration the differences between bid and ask prices. However, this factor should have little impact on the analysis.

closing time in Tokyo, Company A stock is trading at US $100.00. Under the mark-to-market method, the Tokyo subsidiary would have a $50,000 profit (($100.00 − $99.50) × 100,000). With allocated expenses of $10,000, the net profit of the Tokyo office on that day would be $40,000.

The mark-to-market approach is objective and simple to apply. Valuation can be determined easily because most of the financial products involved have active and established markets.

This method, however, poorly reflects economic reality. The mark-to-market approach ties the profit determination directly to market movements and considers the market participant's effort only indirectly. It does not consider the function performed by local personnel nor the economic risks taken by the different jurisdictions. Therefore, it does not clearly reflect the input and investments of the taxpayers. Also, there is no rational basis for believing that the value of the portfolio is particularly representative when the book is passed. It is just an arbitrary choice detached from economic foundation. Finally, most of the United States' major trading partners have expressed serious reservations about this approach.[112] Thus, the mark-to-market method should not be used in the global trading area.

C. THE FORMULA APPORTIONMENT ALTERNATIVE

The formula apportionment method is the most suitable method for both global twenty-four-hour trading and centralized product management models of global trading. The formula apportionment method divides profits among tax jurisdictions according to a predetermined formula.[113] It first defines the tax base upon which the apportionment formula is to be applied,[114] and then applies a prearranged formula to that tax base. Factors of production (e.g., labor, assets and capital) are usually used as bases for constructing the formula.[115] Because labor is usually

112. *See Ernst & Young Report*, *supra* note 15, at '85, '86 (§ II.B.2.g.). The countries surveyed include Australia, Canada, France, Germany, Japan, Switzerland and the United Kingdom.

113. For a full discussion of the formula apportionment method, see Plambeck, *Taxation Implications*, *supra* note 3, at 1155-56.

114. The tax base is usually defined as the sum of the gains and losses from trades and hedges, less allocable expenses such as interest, commissions to salespeople, and also management and administrative expenses. *Id.* at 1156.

115. Factors of production are usually used as bases for the formula because when unrelated parties in different tax jurisdictions enter into a joint venture to conduct business, they might be expected to allocate the profits in accordance

the most significant component in global trading, it typically constitutes a major factor in the apportionment formula.[116]

If the formula apportionment method were applied to the aforementioned Parent Corporation hypothetical, local profit allocation would be disregarded. Instead, the tax authority could define the tax base as the global income of the consolidated group and thereby subject the entire income of Parent Corporation and its subsidiary to apportionment. If tax authorities use the popular three-factors formula based on payroll, property, and sales,[117] it would compare the portion of those factors present in the jurisdiction to the total amount of those factors in all jurisdictions. The authorities would then allocate a certain amount of income to a particular jurisdiction based on this comparison.[118]

The formula apportionment method offers many benefits, most importantly, flexibility. This method is applicable to all products and all forms of global trading.[119] Once established, a formula can be used for all three types of global trading. The arm's length standard, on the other hand, requires the use of a different standard for different situations.

Additionally, the formula apportionment method is more efficient than the arm's length approach. Under formula appor-

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with each one's relative contribution of inputs. *See, e.g.*, Rollinson & Frisch, *Recent Issues in Transfer Pricing*, Office of Tax Analysis Paper 61 (Nov. 1988).

116. Plambeck, *Taxation Implications*, *supra* note 3, at 1156 n.135, (citing R. Gordon et al., *Global Trading: Tax Issues in Intercompany Pricing of Securities Transactions*, Paper delivered at the American Tax Institute in Europe conference, Intercompany Pricing USA/Europe: Developments, Strategies and Planning (Paris, June 18-19, 1990)). The Paper suggests an allocation formula based on (1) relative trader compensation; (2) relative numbers of personnel, including clearance and support; and (3) relative levels of interest and dividends representing costs of risk capital. The three factors indicate economic risk — namely activity, fixed presence, and risk assumed. *Id.*

117. These three factors are commonly used in state tax apportionment formulas in the United States. *See, e.g.*, CAL. REV. & TAX CODE ANN. § 25110 (Deerings 1992); Ill. Rev. Stat. § 3-304 (1991).

118. For example, suppose a multinational company is headquartered in the United States. It has global income of $1,000,000. It has $10,000,000 in sales, of which $500,000 is sold in the United States. Of its 1000 employees worldwide, 250 are located in the United States. Of its total assets valued at $4.0 billion, $3.0 billion are in the United States. Using an equally weighted Property-Payroll-Sales three factors formula, $500,000 of the global income would be allocated as taxable to the United States, computed as follows:

$$\frac{\frac{500{,}000}{1{,}000{,}000} + \frac{250}{1000} + \frac{3 \text{ billion}}{4 \text{ billion}}}{3} \times 1{,}000{,}000$$

119. Plambeck, *Taxation Implications*, *supra* note 3, at 1156.

tionment, taxpayers do not have to go through an annual product-by-product or service-by-service search for comparable uncontrolled transactions in order to establish their arm's length price. Furthermore, taxpayers need not go through the lengthy process of negotiation and litigation whenever the transfer price they have established differs from the Service's determination. The formula apportionment method streamlines tax administration and shortens dispute resolution and collection cycles.

Moreover, formula apportionment makes theoretical sense. This method recognizes that the profit of a company is generated by the factors of production employed — mainly property (assets used), payroll (labor used) and profits as reflected by sales (income). By allocating those factors of production among the various tax jurisdictions, different jurisdictions can then properly tax their share of the income of the global corporation according to their contribution. In short, the more a jurisdiction contributed to a company's success, the more the company's assets, labor or income is expected to derive from that jurisdiction, so that jurisdiction would in turn deserve to tax a larger share vis-a-vis other jurisdictions. Therefore, the method fairly represents economic reality.

Critics of formula apportionment have advanced two major arguments against its application to international transfer pricing determinations. First, they argue that this method is not internationally accepted. Unless the United States reaches agreements with all its major trading partners to change the universally accepted arm's length standard, it is argued, this approach could lead to international double taxation.

This criticism, however, fails to recognize the unique characteristics of global trading. The formula apportionment method, as applied to the global trading area, would have a minimal negative effect on the international community if certain procedural safeguards were applied. Unlike regular business transactions, global trading is still in its infancy and is geographically limited to a small number of major trading centers.[120] Unlike other kinds of business transactions for which a change in standard would affect millions of taxpayers, adopting the formula apportionment method at this time for global trading

120. The global marketplace is currently limited to major financial centers. The largest are New York, London and Tokyo. Smaller centers include Hong Kong, Sydney, Zurich, Chicago, Singapore and Toronto. COOPERS & LYBRAND, *supra* note 27, at 5.

purposes would probably affect only a handful of major U.S. trading partners and a number of the more sophisticated international taxpayers.[121] Reducing double taxation, therefore, would not be too difficult. In light of the benefits in administrative cost savings and possible revenue gains that such a method would bring to all parties involved, a multilateral tax treaty setting forth the standard to be used and the industries to be affected would be negotiable. This would provide taxpayers with realistic protection against double taxation.

The second argument critics make against formula apportionment is that countries would be unable to apportion factors among jurisdictions and work out an arrangement for reporting the necessary information.[122] Furthermore, they argue that even if all countries accept formula apportionment as the universal standard, the choice of factors used in the formula would be extremely subjective and perhaps even totally unrelated to economic reality. Thus, the method would not clearly reflect the respective contributions of the parties.

While these criticisms have merit, they are really blessings in disguise. The criticisms do not really dispute the merits of formula apportionment, but raise the potential difficulty of its application. This, indeed, is a good argument for using formula apportionment as the standard while preserving administrative agreements as an option. If the few countries in which trading is conducted agree on a treaty specifying the factors of allocation, the treaty's formula would govern tax liability in each country. Then, if the taxpayers did not agree that the formula reflects economic reality, they could change the *status quo* by entering into an international Advance Pricing Agreement. Individually tailored agreements should be encouraged because they usually can better reflect economic reality.

Global trading offers a unique opportunity for us to write on a clean slate. Rarely do we find ourselves facing a totally new kind of business transaction which requires an income allocation

121. Taxpayers who enter into international transactions are usually more sophisticated than common individual taxpayers. And tax law compliance should be less of a hurdle to those businesses than to most domestic family businesses.

122. Countries with different economic characteristics would favor different formulas in order to maximize revenue. A country with a consumer-driven economy would put more emphasis on the sales factor whereas a country with a production-driven economy would put more emphasis on the property or payroll factors. This aspect of formula apportionment reinforces the importance of agreement in this field between the financial centers listed in note 120, *supra*.

method. The Treasury should seize this golden opportunity to gain experience with the income allocation method in an international context. Once the usefulness of the formula apportionment method is demonstrated in the global trading area, the international community will be more willing to reexamine whether the universally and historically favored arm's length standard, accepted by international tax practitioners as a necessary evil, can safely be rejected on a grand scale.

III. RECOMMENDATIONS AND CONCLUSION

Having concluded that the formula apportionment method and the APA procedure are more suitable to global trading than the traditional *ex post facto* arm's length standard, this section recommends a replacement for determining transfer prices in global trading.

Under the proposed standard, the Service should first set up a formula apportionment allocation method. Taxpayers should, however, be able to opt out of this method by negotiating an APA agreement with the Service. Big global traders will enter into such agreements if they find the formula apportionment method unfair. To make this method work, the APA procedure should be refined to better accommodate global trading and to better protect taxpayer confidentiality. Congressional action could ensure that the APA agreement is covered by an exception to the Freedom of Information Act and that the Service cannot use such tax information freely against taxpayers in future disputes.[123]

A. DEVELOPING A FAIR AND EQUITABLE APPORTIONMENT FORMULA

The keystone of this system is the default formula apportionment method. In order to apply formula apportionment on a global basis, working with Congress the Treasury Department, should develop a fair and equitable apportionment formula method. This approach must address both the composition of the calculable tax base and the composition of the applicable formula.

The tax base for the formula should include all global transactions of a taxpayer. Instead of requiring taxpayers to establish an arm's length price for each transaction, however, the formula apportionment method would apportion income based on a

123. *See supra* notes 88-93 and accompanying text.

preset formula. The formula apportionment method should be used as long as it is consistently applied across all the tax jurisdictions for bona fide business reasons.

Regarding the factors to use in the formula, a review of the traditional state tax formula is instructive. States in the United States have been using formula apportionment in their state tax systems for decades. In its developed stage, a typical multi-state apportionment method uses a three-factor formula to apportion income. The three factors usually are payroll, property and sales. This three-factor formula can be modified and made applicable in the global trading area.

A formula should be used to apportion global trading income using the following three factors: (1) relative trader compensation, (2) relative properties employed and (3) capital at risk. The three factors reflect differently on the company's degree of involvement and exposure in a jurisidiction: labor (activity level), assets (investment level) and capital (financial involvement).

Relative trader compensation is similar to the payroll concept in the traditional state tax apportionment context. Both relative trader compensation and payroll reflect the activity level of the profit center according to its services. Because commissions are often a function of sales volume, commissions are a good yardstick for comparing activity levels between tax jurisdictions.

The global property factor mirrors the one used in traditional state tax apportionment formulas. Because most global traders, unlike their manufacturer counterparts, do not invest heavily in machinery, their major property or production assets will be reflected in their computers, software, support network and inventory if there is any. The fixed cost of the different jurisdictions may be reflected by comparing the number of support personnel or computers in those jurisdictions.

The amount of capital at risk reflects the risks which different jurisdictions assume. Basically, the more capital at risk and the longer the portfolio is exposed, the higher the percentage of the profit that should be allocated there.

B. IMPROVING THE EXISTING ADVANCE PRICING AGREEMENT PROCEDURE

In addition to recognizing formula apportionment as a viable alternative to the arm's length standard for satisfying the

requirements of § 482, the Service should also work to improve the existing Advance Pricing Agreement procedure.

To improve the protection the APA provides, the Treasury should seek explicit congressional protection of APA agreements from the general disclosure requirement of the FOIA. Also, after the Service adopts the formula apportionment method as the standard, a corresponding change should be made to the APA procedure to allow the use of formula apportionment as a negotiable method.

C. CONCLUSION

We have entered the global era and can no longer turn back. Global trading, therefore, is here to stay. The traditional income allocation methods under § 482 of the Internal Revenue Code, which use the arm's length standard for income allocation, are not the best methods to use for this new kind of business transaction. The formula apportionment method, which allocates income according to contributions of each taxing jurisdiction, should be adopted as the prevailing standard. Taxpayers who find the formula apportionment method unduly burdensome because of the danger of double taxation may take advantage of the Advance Pricing Agreement procedure.