

CHAPTER 21

TAXES, TRANSFER PRICING, AND THE MULTINATIONAL ENTERPRISE

LORRAINE EDEN

21.1 INTRODUCTION

I can find only one functional area in which governments have made a serious effort to reduce the conflicts or resolve the ambiguities that go with the operations of multinational enterprises. The industrial countries have managed to develop a rather extraordinary web of bilateral agreements among themselves that deal with conflicts in the application of national tax laws. Where such laws seemed to be biting twice into the same morsel of profit, governments have agreed on a division of the fare. Why governments have moved to solve the jurisdictional conflict in this field but not in others is an interesting question. Perhaps it was because, in the case of taxation, the multinational enterprises themselves had a major stake in seeing to the consummation of the necessary agreements.

(Vernon 1985: 256)

TRANSFER pricing—the pricing of cross-border intra-firm transactions between related parties—used to be a term known only to a few international tax specialists. No longer. For more than ten years now, transfer pricing has been the top international taxation issue faced by multinational enterprises (MNEs) according to Ernst &

Young's biennial *Transfer Pricing Global Surveys*. The United Nations (UNCTAD 1999) and *The Economist* (2000) have published major pieces on transfer pricing. A quick search on the keyword 'transfer pricing' by the author on Google.com in November 2007 returned 1.47 million hits. The largest ever transfer pricing settlement (US \$3.4 billion, paid by GlaxoSmithKline in a dispute with the US Internal Revenue Service) in October 2006 was widely publicized (*New York Times* 2006). Thus, the transfer pricing domain has spread from an obscure area to a subject of informed public knowledge.

The reasons for this change are not hard to understand. Since every cross-border transaction means that two governments are involved in regulating the transfer price, there is always the possibility for conflict. First, as Rugman and Eden (1985) argued, the MNE sees differences in corporate income taxation systems as exogenous market imperfections that can be arbitrated through tax avoidance strategies, such as tax deferral, financial maneuvers (for example double dipping), and transfer price manipulation (over- or underinvoicing intra-firm transfers of goods, services, or intangibles).¹ Second, concern about inappropriate (too much or too little, but particularly too little) tax paid by the MNE has led national tax authorities to devise evermore sophisticated national tax systems to regulate transfer pricing. Third, disputes between home and host governments over MNE taxes, have led national tax authorities to reach out to the international level to devise a series of bilateral and international institutional responses.

Over the 1986–1994 period, the US Treasury revised its corporate income tax legislation and regulations in this area, responding to pressures of globalization, heavy inward foreign direct investment (FDI), and the growing international trade in services and intangibles. The 1994 US rules were much more complicated, detailed, and onerous than their predecessors (Eden 1998). In 1995, the OECD's Committee of Fiscal Affairs (CFA) issued the first major update of OECD (1979), its first transfer pricing guidelines for member states; these guidelines are now regularly updated and issued in loose-leaf form (OECD 1995). The US Treasury has continued to develop sophisticated regulations on transfer pricing, most recently issuing new services regulations (Eden 2005).

Over the past ten years, these regulatory changes have generated a rapid, domino-like round of changes in OECD member countries, including Canada, Mexico, Australia, New Zealand, and the United Kingdom (Eden, Dacin, and Wan 2001). Recent OECD entrants have adopted the OECD guidelines, including The Czech Republic, Hungary, Korea, Poland and the Slovak Republic. In addition, many non-OECD member countries have also adopted transfer pricing regulations, including Argentina, Brazil, Chile, China, Colombia, Ecuador, India, Israel, Kazakhstan, Kenya, Peru, Philippines, Russia, South Africa, Taiwan, Thailand, Venezuela, and Vietnam (Deloitte 2007: 4, 5). In total, as of late 2007, forty-six countries now have corporate income tax regulations dealing with transfer pricing (Deloitte 2007). We can now clearly see an international transfer pricing regime, administered by national tax authorities, that regulates cross-border intra-firm transactions, as Eden (1998: ch. 2) first predicted.

The purpose of this chapter is to outline, for the reader, the complex issue of transfer pricing, as seen by MNE managers and by governments faced with the daunting task of taxing business profits. The chapter is organized as follows. First, we briefly discuss transfer pricing from the MNE's perspective and the problems that this raises for national governments. We then review the basic rules of international taxation as they apply to MNE profits. The specific rules and procedures that apply to transfer pricing, as practiced in the United States and recommended by the OECD, are then outlined. We conclude with a discussion of unresolved problems that are likely to plague transfer pricing over the next few years.

21.2 MOTIVATIONS FOR TRANSFER PRICING

A *transfer price* is the price charged in transactions between firms that are related, for example, trade between a parent company and its foreign subsidiary or between two foreign affiliates. MNEs normally set their transfer prices based on either production costs or market prices; surveys suggest that about two-thirds of transfer prices are cost based (Tang 1993, 1997).

There are both internal and external motivations for the MNE to establish transfer prices for intra-firm trade in goods, business services and/or intangibles, which have been well established in the literature. Many foreign affiliates are run as profit centers; as a result, the rewards of the top management team in these affiliates depend on their affiliate's profits. The setting of transfer pricing can therefore be internally driven, as a way to both motivate managers and monitor subsidiary performance. Externally, MNEs have to pay corporate income taxes on their domestic and foreign source income, necessitating that they set transfer prices for cross-border trade flows. Customs authorities also require transfer prices for intra-firm imports of parts, components, and finished goods, either for customs duties or rules of origin purposes.

Transfer price manipulation—as distinct from transfer pricing—is the over- or under-invoicing of related party transactions in order to avoid government regulations (e.g. under-invoicing to avoid paying *ad valorem* tariffs) or to exploit cross-border differences in these rates (for example, shifting deductible expenses to the high tax location and revenues to the low tax location in order to reduce overall corporate tax payments). It is not transfer pricing that is the problem; it is the potential for transfer price *manipulation* that governments fear and want to prevent through regulation. However, what one party sees as legitimate forms of price setting may be seen by the other as evasive and illegitimate manipulation.

Since 1997, every two years, Ernst & Young surveys tax and finance directors of major multinationals about their internal and external motivations for setting transfer pricing policies. Table 21.1 reports some recent results. In 1997, maximizing operating performance was the main priority for 45 per cent of respondents;

Table 21.1 Factors shaping MNE transfer pricing policies

Factors shaping MNE transfer pricing policies	Per cent of respondents who identify factor as:											
	Main priority			Important but not main priority			Not very important			Not important at all		
	1999		1997	1999		1997	1999		1997	1999		1997
	Parents	Subs		Parents	Subs		Parents	Subs		Parents	Subs	
<i>Internal motivations</i>												
Maximizing operating performance	40	42	45	33	32	29	19	14	22	8	8	4
Financial efficiencies	25	25	24	45	42	48	22	24	48	8	6	6
Performance incentives	12	15	11	27	26	27	39	37	44	22	18	18
<i>External (tax-related) motivations</i>												
Optimizing tax arrangements	23	23	25	45	51	51	25	16	20	7	7	4
Documentation in preparation for transfer pricing audit	35	52	25	38	29	48	20	14	21	7	1	6

Source: Ernst and Young (1999: 14; 1997: 10).

another 29 per cent identified operating performance as important but not the top priority. Financial efficiencies, another internal motivation, was the main priority for 24 per cent of respondents, and a second-level priority for 48 per cent. Two external motivations were addressed in the survey: optimizing tax arrangements (25 per cent top priority, 51 per cent second tier priority) and preparing transfer pricing documentation in preparation for a tax audit (25 per cent top priority, 48 per cent second tier). Performance incentives, another internal motivation, were ranked as the lowest motivation by the participants.

In 1999, Ernst & Young repeated the survey but split the respondents into parents and foreign subsidiaries. The noticeable change in the table is the rise in documentation as the main priority, up from 25 per cent to 35 per cent for parents and an astonishing 52 per cent for subsidiary respondents. As we show below, this change reflects the new emphasis, particularly in the United States, on contemporaneous documentation of the MNE's transfer pricing policies for tax purposes. The 'bottom line', as evidenced in this recent survey, is that multinationals continue to see transfer pricing policies as primarily driven by internal resource allocation issues, and not by tax minimization reasons. To the extent that taxes are driving transfer pricing policies, the motivations used to be equally split between optimizing tax arrangements and documenting transfer pricing policies; now documentation requirements have surpassed minimizing taxes as the primary external motivation for establishing transfer pricing policies within the multinational enterprise.

21.3 THE PROBLEM: HOW TO TAX MULTINATIONALS?

Multinational enterprises create particular problems for tax authorities that do not occur when taxing domestic firms. The MNE is an integrated business group consisting of several related affiliates located in different countries, under common control, with common goals, and sharing a common pool of resources. Governments are defined, and limited, by their borders; MNEs have a global reach. *Ipsa facto*, the MNE's activities cross national borders and create interjurisdictional issues for national tax authorities.

From the MNE's perspective, as the number of jurisdictions rises, the costs and risks of multiple levels of authority increase. The enterprise is faced with higher cross-border transactions costs, greater interaction costs with a wider variety and number of governments, and increased levels of political risks (Sundaram and Black 1992; Kostova and Zaheer 1999). As Vernon (1998: 38) notes:

where taxes are involved, multinationals have always been obliged to navigate through a sea of conflicting national claims. With every national tax code differing from the code of its neighbor, the multinationals have constantly been exposed to the risk that the same dollar of their global profit might be taxed by more than one tax authority.

From the government's perspective, the global reach of the multinational raises three types of taxation problems: *jurisdiction*, *allocation*, and *valuation*. The first issue, jurisdiction, asks which government has the right to tax the multinational's income, and if two governments both claim the same right to tax, should one government's claim have priority over the other's? What if the tax base arises in more than one country? Which government should have the right to tax this income base? Should tax relief be given by one of the governments in order to prevent double taxation of the MNE's income?

The global reach of MNEs raises additional jurisdictional issues since it gives multinational enterprises the ability to avoid the national reach of government regulations, engaging in practices that reduce their overall tax payments. Low tax jurisdictions, such as tax havens, provide inviting locations for MNEs, but at the same time create tax competition between nation-states. How can governments prevent MNEs from using these multiple jurisdictions to hide profits and reduce taxes on a worldwide basis? How can governments curtail destructive international tax competition among national tax authorities, preventing a 'race to the bottom'?

A second issue is allocational. Affiliates of the MNE share common overheads and resources. From the MNE's perspective, these resources should be allocated where they provide the greatest overall advantage to the MNE group. National trade and tax barriers distort this allocation and raise transactions and governance costs for the MNE. From the government's perspective, how should the costs of, and income from, these resources be allocated among jurisdictions? Common resources are a source of competitive advantage for the members of the MNE family, but they are also a source of interdependencies that make it difficult to disentangle the MNE's global income for tax purposes. Setting transfer prices for intragroup transactions in services and intangibles is therefore an activity prone to international disputes.

A third issue is valuation. The MNE's income and expenses must not only be allocated to one or more members of the MNE group, but they must also be valued. This directly leads us to the issue of transfer pricing: the valuation of intra-firm transfers. Because the MNE is an integrated entity, with the ability to exploit international differentials and generate integration economies not available to domestic firms, transfer prices are unlikely to be the same prices arm's-length parties would negotiate. The prices of traded tangibles, intangibles, and services within the various units of the enterprise are basically accounting or bookkeeping prices set for internal reasons. However, since MNE activities cross national borders, transfer prices must be provided to tax authorities and used to calculate both border taxes (tariffs, export taxes) and corporate income taxes. Therefore internal and external factors will influence the MNE's choice of transfer prices. The fear of tax authorities is that external factors will dominate and the MNE will set its transfer prices so as to avoid or evade taxes.

Lastly and more generally, the common goals and common control of the MNE group are also potential sources of conflict. The MNE group has an overarching goal, the maximization of global after-tax profits, which brings the individual units into immediate conflict with the geographically limited but overall broader economic,

social, and political goals of nation-states. 'There is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game.'² Overall control by the parent firm implies that key output, sales, trade, and pricing decisions are generally made outside national jurisdictions, creating potential conflicts between MNEs and host country governments concerned with eroding sovereignty (the MNE evading national regulations) and extraterritoriality (the MNE as Trojan horse for the home country government). At the same time, 'ownership' and 'control' are becoming increasingly fuzzy terms since non-equity alliances may involve *de facto* control (for example auto assemblers and their first tier suppliers) and the same opportunities to manipulate cross-border prices as traditional intra-firm transactions. Thus, the boundaries of the MNE for tax purposes are becoming increasingly fuzzy.

The basic problem for national tax authorities is that the MNE is an *integrated, complex network of related firms that spans across multiple tax jurisdictions but has externally fuzzy organizational boundaries*, much like a multiheaded ever-moving hydra. The integrated nature of the multinational enterprise makes it difficult to regulate MNEs at the domestic level alone. The characteristics of the MNE—common control, common goals, and common resources—complicate international allocation and valuation of the MNE revenues and expenses, and thus the taxation of its worldwide profits, creating interjurisdictional conflicts not only between MNEs and nation-states but also between home and host governments.

In any international tax situation, there are, in effect, three parties: the MNE and the two tax authorities. When one government taxes an MNE unit (parent, subsidiary, branch), it has implications for the tax base of the other country since, in any intra-firm transaction, a higher tax base in country A implies a lower base in country B. Thus, Stopford's (1994) model of triangular bargaining best applies to the conflicts between home and host countries over which country has the right to tax (the jurisdiction issue), what the tax base and tax rates should be (the allocation issue), and how the MNE's revenues and expenses should be priced (the valuation issue).

21.4 THE SOLUTION: CREATING AN INTERNATIONAL TAX REGIME

21.4.1 International Regimes

International regimes are sets of functional and behavioural relationships among national governments that have been established in response to problems at the international level in particular issue areas. For example, in situations where there

is no clear legal framework establishing property rights and liability, markets for information are imperfect, or there are incentives for governments or MNEs to behave opportunistically, setting up an international regime can improve global welfare by providing rules of behaviour, supplying information and formalizing dispute settlement mechanisms. Thus, international regimes can be useful for managing inter-dependencies among nations. Regimes embody principles, norms, rules, and procedures.

Regimes can be defined as sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actors' expectations converge in a given area of international relations. *Principles* are beliefs of fact, causation, and rectitude. *Norms* are standards of behaviour defined in terms of rights and obligations. *Rules* are specific prescriptions or proscriptions for action. *Decision-making procedures* are prevailing practices for making and implementing collective choice (Krasner 1983: 2; italics added).

21.4.2 The International Tax Regime

In the international tax area there are a variety of national tax policies, bilateral tax treaties (BTTs), and model treaties and guidelines developed by institutions such as the Organization for Economic Cooperation and Development (OECD), and the United Nations. International bodies of experts such as the OECD's Committee on Fiscal Affairs (CFA) and the International Fiscal Association (IFA) have played important roles in developing international policies and norms.

At the bilateral level, most OECD countries have negotiated bilateral tax treaties (BTTs) to define the tax base, set up transfer pricing rules, and arrange for dispute settlement procedures under so-called *competent authority* provisions. At the multilateral level, the CFA, made up of senior tax officials from the OECD's member countries, has played the major role in developing tax codes and guidelines for its members. These are not binding commitments, but most member countries have used the OECD codes and guidelines to set up their own tax systems. Within the CFA, the key policymaker country (not surprisingly since it is home to the largest number of MNEs) has been the United States as represented by the US Treasury and the Internal Revenue Service (IRS).

We argue that the combination of these government policies can be seen as constituting an *international tax regime*, albeit one that is at present primarily confined to OECD countries (Eden 1998: ch. 2). The regime reduces transactions costs associated with international capital and trade flows; resolves tax disputes between tax authorities and multinationals, and between home and host governments; and reduces the possibilities for opportunistic behavior by MNEs and nation-states by formalizing rules and dispute procedures. The Committee on Fiscal Affairs at the OECD has been the critical international organization developing international norms, rules, and procedures for taxing MNEs:

Since 1956 the OECD has sought to build up a set of internationally accepted 'rules of the game' which govern the ways in which Member countries tax profits arising from international transactions. The main instrument used to achieve an internationally consistent approach to the taxation relating to such international transactions has been the development of an OECD Model Tax Convention. . . . [Its] purpose is the avoidance of international double taxation and to assist tax authorities in counteracting tax evasion and avoidance.

(OECD 1993: 1)

The OECD has, since its 1963 model tax convention, endorsed the concept of the *separate entity* as the underlying basis for allocating taxing rights to business income between countries. The right to tax depends on the existence of a connection or *nexus* between the taxing jurisdiction and the business enterprise. The nexus differs under the source and residence principles.

Under the *source principle*, a government has the right to tax business profits if the firm has a permanent establishment (fixed place of business) in the country. Permanent establishments within a country are treated as separate legal entities from their parents. The tax authority has jurisdiction over the income and assets of this separate entity, earned or received within the country, up to its *water's edge*. Where MNEs are involved, affiliates are treated as separate legal entities and income is apportioned between them assuming intra-firm transactions take place at arm's length prices. The traditional tax on business profits is the corporate income tax (CIT). In addition, withholding taxes, at rates from 5–30 per cent, are levied on business income that leaves the country; for example, interest, dividends, rents, royalties, and management fees normally attract a withholding tax.

Under the *residence principle*, the definition of residency can vary between countries. In some countries (e.g. the United States), a business is resident in the jurisdiction where it is incorporated; in others (e.g. Canada, the United Kingdom, Australia), location of the 'seat of management' exercising *de facto* control over the entity determines residency. The residence country normally levies a corporate income tax on the enterprise's business profits, allowing the enterprise to deduct expenses incurred in the production of the income. Generally, the net income from all business units within a country, are consolidated for tax purposes. The residence country has the right to choose to tax businesses on either their domestic income only (exempting foreign source income from tax), on their worldwide income (taxing all income wherever earned), or some combination of the two. The most common method is to defer taxation of foreign source income until it is remitted from the MNE's foreign affiliates.³

Since both home and host countries have the right to tax business profits, double taxation of MNE income is a clear possibility. As a result, under the jurisdictional norms promoted by the OECD's Model Income Tax Convention, the 'first crack' (primary) right to tax business profits is given to the source country, with the residence country having the primary right to tax most other categories of income. The residence country is then obligated to eliminate double taxation of business profits by modifying its own tax rules so as to take account of source country taxation. The most

common method is to give a tax credit, against the home country corporate income tax, for foreign income taxes (including the withholding tax) paid on repatriated profits.

The tax boundaries established in OECD countries are therefore basically the same: each government taxes the worldwide income of its residents and the domestic source income of its non-residents. Many governments, including the United States, tax the worldwide income of their residents but allow tax deferral on foreign source income until it is repatriated. Once the income is repatriated, a foreign tax credit is granted for the corporate income taxes and withholding taxes paid in the host country, up to the level of the home country tax. A few governments (e.g. France) exempt foreign source income from tax, while others exempt certain categories of foreign source income while taxing others as earned (e.g. Canada exempts active business income but taxes passive income in tax havens on an accrual basis).

Most bilateral tax treaties are based on the OECD Model Tax Convention. A BTT clarifies which income and transactions can be taxed, the share of the tax base assigned to each country, and a method for settling tax disputes. One key purpose of a BTT is to determine the types and levels of withholding taxes levied by the source country on income outflows. Where two countries do not have a BTT, withholding rates tend to be high and there is no easy method for resolving interjurisdictional taxation disputes.

21.5 THE TAX TRANSFER PRICING REGIME

Nested within the international tax regime is the *international tax transfer pricing regime*, centered around the international norm of the arm's length standard (Eden 1998: ch. 2). Government cooperation in the transfer pricing area is based on national corporate income tax regulations and bilateral tax treaties. The OECD's Committee on Fiscal Affairs and the US Treasury have played the two key roles in developing the arm's length standard as the centerpiece of this regime.

21.5.1 The Arm's Length Standard

The solution that tax authorities in OECD countries have adopted to reduce the probability of transfer price manipulation is to develop specific transfer pricing regulations as part of the corporate income tax code. These regulations are based on the concept of the *arm's length standard* (ALS), which requires two related parties to set the same transfer price for an intra-firm transaction as two unrelated parties would have set if they had been engaged in the same or similar transaction under the same or similar circumstances. Under the arm's length standard, the associated enterprises

are treated as separate entities for tax purposes, rather than as parts of an integrated multinational enterprise. Each entity must price its related party transactions as if (i.e. under the hypothetical assumption that) the entities are at arm's length. The *arm's length price* is therefore the price two unrelated parties would reach through bargaining in a competitive market. The OECD guidelines recognize that it may be impossible to determine a single one arm's length price so an *arm's length range* of 'equally reliable' prices may be acceptable because 'transfer pricing is not an exact science' (OECD 1995: 1.45).

The arm's length standard asks the question: What price would the parties have negotiated if the entities had been unrelated? Since the firms *are* related, the answer to this question has to be hypothetical. The OECD and US Treasury argue that the best answer is a proxy calculated in one of two ways.

In the first method, the price set by one of the related parties in a comparable transaction under comparable circumstances with an unrelated party could be used as an estimate. Where the MNE either buys outside or sells outside, under comparable circumstances, the price negotiated with unrelated parties can be used as the arm's length price. That is, in the left hand graph in Figure 21.1, suppose A buys an intermediate good from its sister affiliate B, and also buys the same good from unrelated party C. Then the price that A pays to C is used as a proxy for the transfer price that A should pay to B in order to satisfy the arm's length standard. This arm's length price is called an *internal comparable*. Similarly, if A sells the same product to B and to C, the price charged to C can be used to proxy for the transfer price for B.

In the second method, the price negotiated by two other unrelated parties which were engaged in a comparable transaction under comparable circumstances is a proxy for the arm's length price in the transaction in question. In this case, the regulator looks for two other firms, unrelated and engaged in similar activities as the related

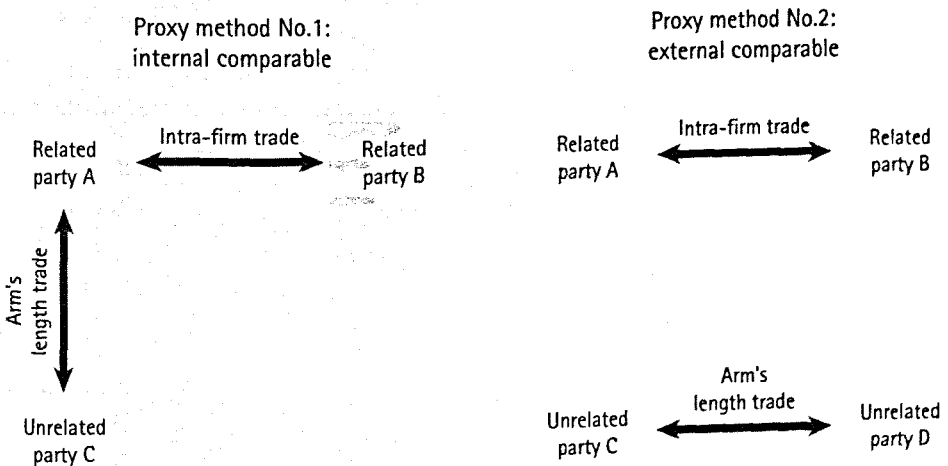


Fig. 21.1. The arm's length standard

parties in question, and then uses the price negotiated by the unrelated firms, adjusted if necessary for differences in product and functional characteristics, as the arm's length price. As Figure 21.1 shows, the arm's length price negotiated between firms C and D is used to proxy for the transfer price between the related firms A and B. This arm's length price is called an *external comparable*.

In summary, the fundamental principle underlying the tax rules on transfer pricing is that transfer prices should approximate the arm's length price which two unrelated parties would have chosen if the transaction had taken place in the external market. For example, the preamble to the 1994 IRS Section 482 regulations states this quite clearly (IRS 1994):

The purpose of section 482 is to ensure that taxpayers clearly reflect income attributable to controlled transactions, and to prevent the avoidance of taxes with respect to such transactions. Section 482 places a controlled taxpayer on a tax parity with an uncontrolled taxpayer by determining the true taxable income of the controlled taxpayer... The district director may allocate income, deductions, credits, allowances, basis, or any other item or element affecting taxable income. In determining the true taxable income of a controlled taxpayer, the standard to be applied in every case is that of a taxpayer dealing at arm's length with an uncontrolled taxpayer. A controlled transaction meets the arm's length standard if the results of the transaction are consistent with the results that would have been realized if uncontrolled taxpayers had engaged in the same transaction under the same circumstances (arm's length result).

The key to determining an arm's length price is *comparability* of the related party and independent transactions. Comparability means there should be no differences in the 'economically relevant characteristics' of the two situations that could materially affect the pricing method or that such differences can be taken into account (OECD 1995: 1.15). The economically relevant characteristics include:

characteristics of the property or services transferred, the functions performed by the parties (taking into account assets used and risks assumed), the contractual terms, the economic circumstances of the parties, and the business strategies pursued by the parties.

(OECD 1995: 1.17)

As we noted earlier, the OECD's 1995 transfer pricing guidelines have been adopted by all OECD members and many non-OECD countries. Thus, the arm's length standard has been widely adopted as the international norm for pricing cross-border intra-firm transactions. The currently acceptable transfer pricing methods within the OECD are outlined below.

21.5.2 Transfer Pricing Rules

Since the mid 1990s, there has been a growing uniformity in acceptable transfer pricing methods (the *rules* of the transfer pricing regime) across OECD countries. Led by the Internal Revenue Service, which published new section 482 regulations in 1994, and the OECD, which issued new transfer pricing guidelines for its member states a year later, these methods diffused first to Mexico and Canada, and more recently

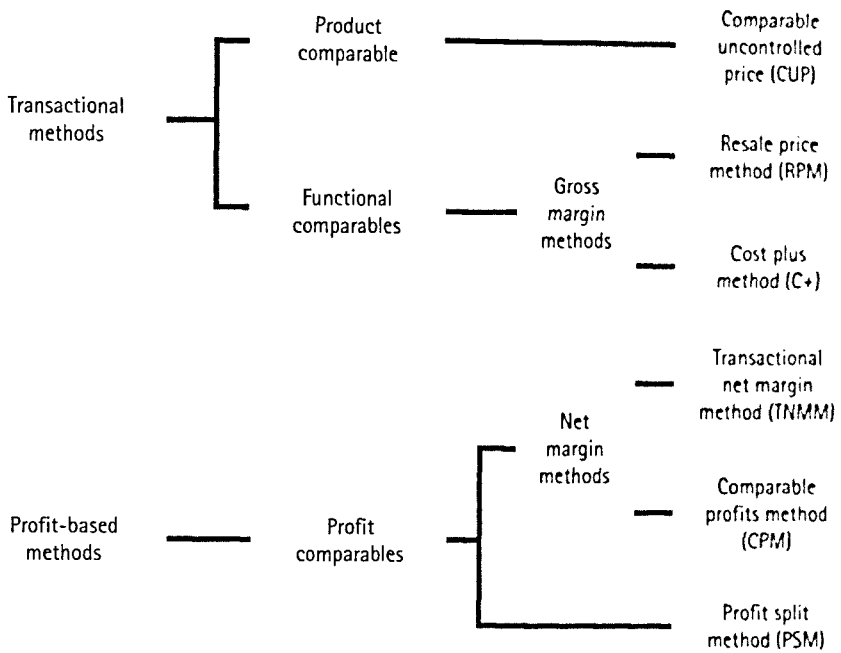


Fig. 21.2. Acceptable transfer pricing methods

to countries as geographically dispersed as New Zealand, the United Kingdom, and Venezuela. From 2000 to 2005 these methods are likely to be adopted and used by most tax authorities in the developed and emerging market economies. As the tax rules for pricing intra-firm transactions spread and become more similar across the globe, tax disputes might in theory be expected to decline. However, transfer pricing is a question of fact and circumstances. Which method to use and how to employ it will remain contentious issues, even as the understanding of the methods improves for all parties.

Figure 21.2 outlines the currently acceptable methods for pricing intra-firm transactions in goods, services, and intangibles.⁴ There are two main categories of methods: transactional and profit based. The old or 'traditional' methods are transactional, so-called because they focus on finding a price for a transaction. Within the transactional methods, are two groups: product comparables and functional comparables, so distinguished by the way each calculates the transfer price.

21.5.2.1 *Transaction-Based Methods*

In 1968, the US Internal Revenue Service issued its first set of transfer pricing regulations. The regulations specified five types of intra-firm transactions: loans, rentals, or sales of tangible property, transfer or use of intangible property, and performance of various business services. General rules were established for all five types to satisfy

the arm's length standard. In addition, for sales of tangible property (goods), three specific transfer pricing methods were developed: the comparable uncontrolled price method (CUP), the resale price method (RPM), and the cost plus method (C+).

The *comparable uncontrolled price* (CUP) is a product comparable method. Under CUP, the price of a transaction between two unrelated parties for the same product traded under the same circumstances is used as the transfer price. CUP looks for a comparable product to the transaction in question, either in terms of the same product being bought or sold by the MNE in a comparable transaction with an unrelated party, or the same or similar product being traded between two unrelated parties under the same or similar circumstances. The product so identified is called a *product comparable*. All the facts and circumstances that could materially affect the price must be considered, for example the characteristics of the product, the market location, the trade level of the firms, and the risks involved. Adjustments are made to the external price to more closely estimate the arm's length price.

Where a product comparable is not available, so that the CUP method cannot be used, an alternative method is to focus on one side of the transaction, either the manufacturer or the distributor, and to estimate the transfer price using a functional approach. Here there are two *functional comparable* methods: resale price (RPM) and cost plus (C+); both are also considered as *gross margin methods* for reasons outlined below.

Under the *resale price method* (RPM), the tax auditor looks for firms at similar trade levels that perform similar distribution functions (i.e. a functional comparable). The assumption behind RPM is that competition among distributors means that similar margins (returns) on sales are earned for similar functions. A distributor is likely to charge the same or a similar sales margin for carrying TV sets as for carrying washing machines or other white goods. Given a large number of distributors, averaging over these unrelated firms can be used to proxy for the margin that the distribution affiliate would have earned in an arm's length transaction. Subtracting this margin from the retail price (the price to the consumer, which is known), one can estimate the transfer price. The resale price method therefore 'backs into' the transfer price by subtracting a gross profit margin, derived from gross margins earned by comparable distributors engaged in comparable functions, from the known retail price to determine the transfer price. The method ensures that the buyer receives an arm's length return consistent with returns earned by similar firms engaged in similar transactions.

Since the gross profit margin for the distributor is determined in an arm's length manner, but nothing is done to ensure that the manufacturer's profit margin is consistent with margins earned by other manufacturers, the adjustment is only one-sided. Under RPM, having determined the buyer's arm's length margin, all excess profit on the transaction is assigned to the seller. Because RPM is a one-sided method, it tends to over-estimate the transfer price; giving all unallocated profits on the transaction to the upstream manufacturer. RPM is best used when the distributor adds relatively little value to the product so that the value of its functions is easier to estimate and intangibles are less likely to be missed or under-valued. In effect, this method assumes

the affiliate is a contract distributor, contracting out the distribution stage to the lowest bidder.

The other functional comparable method is the *cost plus method* (C+), where the gross mark-up that would be charged by unrelated firms performing the same function(s) as the related-party seller under the same circumstances is added to the standard cost of the related party to determine the transfer price. In C+, the tax auditor looks at the other side of the transaction: the manufacturer or supplier. The method starts with the costs of production, measured using recognized accounting principles,⁵ and then adds an appropriate mark-up over costs. The appropriate mark-up is estimated from those earned by similar manufacturers. The assumption is that in a competitive market the percentage mark-ups over cost that could be earned by other arm's length manufacturers would be roughly the same. Thus, this method is also a functional comparable like RPM.

As a one-sided method, the cost plus method focuses only on the profit mark-up of the seller and insists that the seller should earn only what arm's length sellers engaging in similar transactions would earn in a competitive market. Therefore C+ tends to underestimate the transfer price because it gives all unallocated profits from the transaction to the buyer, implicitly assuming the supplier is a contract manufacturer. Therefore, C+ works best when the producer is a simple manufacturer without complicated activities so that its costs and returns can be more easily estimated.

21.5.2.2 Profit-Based Methods

Until 1995, these three were the only acceptable transfer pricing methods within the OECD countries, with the exception of 'other methods'. Unfortunately, actual experience in the United States showed that both IRS auditors and the US tax courts relied more and more heavily in the 1980s on 'other methods' such as profit splits and profit ratio comparisons. The most serious problem was (and remains) the lack of arm's length comparables, making CUP, RPM, and C+ difficult to use in practice and necessitating the use of fourth methods. This was particularly true in the case of intangibles where external market prices were often non-existent. In addition, existing US tax law allowed American multinationals to transfer the ownership of intangibles generated from (tax deductible) R&D expenditures to offshore affiliates where the income from these intangibles could remain untaxed by the US government. These problems were aggravated when foreign MNEs were involved since foreign information was often not available. As a result, in the 1980s, transfer pricing regulation was an acrimonious area of US tax law with dozens of tax court cases, many dragging on for up to a decade and more through the court process.

In order to deal with these problems, the US Congress in 1986 added a sentence to section 482 requiring that transfers of intangibles be priced *commensurate with the income* (CWI) from the intangibles. For eight years, the Internal Revenue Service drafted a variety of regulations designed to integrate the CWI standard into the 482 regulations. The outcome, the 1994 section 482 regulations, applies the CWI standard to all intra-firm transactions. The new regulations require that MNEs select and apply

the 'best method', taking into account the facts and circumstances of the case, and the quality and quantity of available data. Taxpayers must prepare a functional analysis (an economic evaluation of the activities, responsibilities, resources, and risks of each of the related parties) and provide contemporaneous documentation of their transfer pricing policies. Periodic adjustments (re-evaluations) of intangible prices can be made by the IRS if transfer prices diverge from the CWI standard. In addition, two new profit-based methods were added to supplement the transactions methods: the comparable profits method (CPM) and the profit split method.

The *comparable profits method* (CPM) is a *profit-based method*, whereby the industry average net profit margin earned by comparable firms is used to 'back into' the transfer price. One of the two related firms is chosen as the tested party, usually the one with the simplest functions and for which the best data are available. Unrelated firms engaged in the same product(s) or business segment are selected as comparable firms, with adjustments to their balance sheets being made for differences in responsibilities, risks assumed, resource capabilities, and any other material differences relative to the tested party. A profit level indicator (e.g. return on assets, return on sales) is used to calculate a net profit margin for each of the uncontrolled firms. The net profit margin for the tested party is then compared to the inter-quartile range of the unrelated firms, and if the margin falls within the interquartile range, the transfer price is deemed to be inside the arm's length range. If the firm's net profit margin lies outside the inter-quartile range, the tax authority sets the margin at the median of the range, and then 'solves backwards' for the arm's length transfer price. All remaining profit on the transactions or line of business in question is assigned to the other related party. CPM is therefore a one-sided method since it focuses only on the net margins of the tested party. In addition, the method ensures that the tested party is as profitable as the median of the comparable unrelated firms.

A very different approach is taken by the *profit split method* (PSM). PSM assumes that the profit on an intra-firm transaction should be split between the two related parties based on their relative contributions to the transaction. Various ratios can be used to split the profits; the most commonly recommended ones are return on operating assets or return on sales. A second version of this method is the residual profit split, which first allocates an arm's length return to basic functions performed by each party, and then splits any residual profit between the two parties based on their shares of output, sales, or capital employed.

Both CPM and PSM were very controversial when first proposed by the Internal Revenue Service because the methods were based on profit comparables rather than product or functional comparability. The profit split was criticized for ignoring both external and internal comparables (the foundation of the arm's length standard) and for simply relying on a ratio (pulling a rabbit out of a hat) to allocate profits between the two affiliates.

The key criticism of CPM was that, in practice, the method would degenerate into simply finding the transfer price that ensured the tested party earned the average rate of return of other firms in the same industry. Given the widespread use of COMPUSTAT data, and its equivalents, it would be very easy to calculate average

rates of returns and back into meaningless transfer prices. For example, one transfer pricing expert commented that 'CPM is destined to be widely used because it is so simple to apply... As with alcohol, tobacco, and firearms, "widely used" ultimately may mean "widely abused", rather than "wisely used"' (Horst 1993: 1444).

In the early 1990s, the OECD's Committee on Fiscal Affairs (CFA), made up of senior tax officials from the OECD's member countries, first strongly criticized the proposed and temporary IRS transfer pricing regulations (OECD 1993), but then finally adopted similar versions of the same five methods in its 1995 guidelines. As a fig leaf to the arm's length standard, CPM was given the awkward name of *transactional net margin method* (TNMM) and governments were told to apply the method from the bottom up (focusing on comparable transactions) rather than from the top down (focusing on comparable firms). That is, TNMM calculates the industry average net profit margin earned by arm's length parties on comparable transactions and uses that net margin to 'back into' the transfer price.

In practice, there is little difference between CPM and TNMM. Culbertson (1995), who developed CPM while in the US Treasury, argues that they get to the same destination (the arm's length range) by different routes (comparability of firms for CPM, comparability of transactions for TNMM):

The OECD guidelines use a transactional emphasis as a short-cut to get to the same place that the US regulations reach via their lengthy comparability analysis. Accordingly, the final guidelines' emphasis on the transactional character of its TNM[M] method is fully consistent with the comparability-based CPM set forth in the US regulations.

(Culbertson 1995: 1344)

In effect, CPM starts by searching for comparable parties, and then works down to the most narrowly identifiable business activity that incorporates the intra-firm transaction. TNMM starts by searching for comparable transactions and scales up to a set of transactions for which data can be found. Culbertson also argues that CPM can trump the gross margin methods (resale price and cost plus) in cases where publicly available data are insufficiently detailed to allow the application of a gross margin method. He suggests three possible cases: where data are reported on a business segment basis, cost accounting adjustments are needed but the particular costs cannot be identified, or the firms perform different functions (Culbertson 1995: 1343).

Table 21.2 lists a variety of intra-firm transactions, ranging from sales of goods to technology sharing arrangements, the percentage of firms which see these transactions as vulnerable to government tax audits, and the percentage of firms applying different transfer pricing methods for each transaction category. The top four vulnerable transactions are: administrative/managerial charges (39 per cent); sales of finished goods (36 per cent); royalties (26 per cent); and technical services (25 per cent). The most cited transfer pricing methods are cost plus (cited by more than 60 per cent of all respondents for all nine transactions categories) and CUP (cited by more than 50 per cent for all categories). Resale price is cited by approximately 30 per cent of the respondents. The profit-based methods (CPM, TNMM, profit splits)

Table 21.2 Transfer pricing methods used by multinationals by type of transaction

Type of intra-firm transaction	Number of responses	Percent of respondents that see transaction as vulnerable	Percent of respondents using transfer pricing method									
			Transaction-based methods					Profit-based methods			Other methods	
			CUP	CUT	Resale price	Cost plus	Cost	CPM	TNMM	Profit split	Historic practice	Other
Sales of finished goods	363	36	52	11	31	60	12	17	7	11	20	12
Sales of raw materials	254	18	57	13	33	61	13	18	6	13	19	13
Administrative or managerial services	418	39	53	11	21	66	14	14	7	9	18	16
Technical services	352	25	55	12	25	64	15	15	8	9	17	16
Commissions for sales of goods	232	19	56	12	27	61	12	16	6	14	20	13
Technology cost sharing agreements	191	15	54	11	26	71	20	16	6	12	16	19
Royalties for intangibles	247	26	55	15	30	68	13	18	8	12	20	15
Inter-company financing	456	23	51	11	23	61	13	14	7	10	19	15
Others	52	—	61	13	15	65	15	15	—	10	17	19

Note: Multiple selections allowed.

Source: Ernst & Young (1999: 21, 28).

Table 21.3 Transfer pricing methods accepted in selected countries

	Transaction-based methods			Profit-based methods		
	CUP CUT	Resale price	Cost plus	CPM	TNMM	Profit split
Australia	yes	yes	yes	no	yes	yes
Belgium	yes	yes	yes	no	yes	yes
Brazil	yes	yes	yes	no	no	no
Canada	yes	yes	yes	no unless as TNMM	last resort	yes
China	yes	yes	yes	no	yes	deemed profit
Denmark	yes	yes	yes	no	yes	yes
France	yes	yes	yes	no	yes	yes
Germany	yes	yes	yes	no	last resort	last resort
Japan	yes	yes	yes	no	no	yes
Italy	yes	yes	yes	yes ? (profit comparisons)	yes	yes
Korea	yes	yes	yes	no	last resort	last resort
Mexico	yes	yes	yes	no	yes	yes
Netherlands	yes	yes	yes	no	yes	yes
New Zealand	yes	yes	yes	yes	yes	yes
South Africa	yes	yes	yes	no	yes	yes
Spain	yes	yes	yes	no	no	yes
United Kingdom	yes	yes	yes	last resort	last resort	last resort
United States	yes	yes	yes	yes	seen as same as CPM	yes
OECD guidelines	yes	yes	yes	no	last resort	last resort

Source: Based on Aitkinson and Tyrrall (1999: 232); and UNCTAD (1999: 33).

are cited significantly less often (15 per cent for CPM and PSM, about 7 per cent for TNMM). Overall, the Ernst and Young survey suggests that the transactional methods are used significantly more often than the profit-based methods in practice.

Partly, the lower reliance on profit-based methods stems from their lower acceptability by OECD governments. Table 21.3 summarizes the currently acceptable transfer pricing methods in selected countries. It is clear, for example, that the US Internal Revenue Service is an outlier in its support for the comparable profits method. What is also clear from the table is how the transactional and profit based methods are being widely adopted, not just by OECD countries, but more generally.

21.5.3 Dispute Settlement Procedures

Under the corporate income tax, governments normally tax the net income of firms located in their jurisdictions, minus any tax deductions or credits. Net income is defined as gross revenues (product sales to households and other firms, royalty income, license fees, etc.) minus cost of goods sold (factor costs, purchased materials), general expenses, and other allowable expenses. Where buyers and sellers are unrelated, governments take intermediate and final product prices as market-based (at arm's length) and accept the transactions as being determined in the market place. However, where the firms are related, governments insist that the MNE prove that its transfer prices are equivalent to those that would have been negotiated by unrelated parties engaged in comparable transactions, or the national tax authority will substitute its calculation of arm's length prices for the MNE's transfer prices.

At the national level, most bargaining games occur behind closed doors between 'large case' tax auditors and MNE tax departments. The negotiations take place over several years, from the date of the first tax audit through to the completion (win, lose) of enormously complicated tax court cases that can cost millions of dollars. Only at the last stage, if the negotiations end up in tax court, is the bargaining made public. As a result of the growing number and length of these cases, and the IRS's propensity to lose the cases in tax court, the procedures used by the IRS to handle transfer pricing disputes are also changing. A new *Advance Pricing Agreement* procedure was introduced in 1991 whereby a taxpayer and the IRS negotiate an agreed transfer pricing methodology that is binding on both parties for a specified time period, generally three years. In 1994, the Service and Apple Computer first used *binding arbitration* to settle their transfer pricing dispute rather than going to the tax courts; however, even though both parties were happy with the outcome, the method has not been used since. New *penalty regulations* for transfer pricing misvaluations were also added to the Internal Revenue Code in order to ensure MNE compliance with the new section 482 rules.

The traditional bilateral approach has been through *competent authority* provisions of bilateral tax treaties that bring the two tax authorities together to settle transfer pricing disputes. Given that most intra-firm trade takes place within the Triad, where tax rates are roughly similar, real disputes can arise over apportionment of the MNE's tax base between the two tax jurisdictions, not just between the MNE and the nation-state. Where tax rates are the same, the location of the tax base determines which country has the right to tax under the first crack principle and therefore which government will receive most or all of the tax revenues. Since the jurisdiction rules (i.e. which country has the right to tax which income) are seldom changed, transfer pricing policies are a second method by which national governments can reallocate taxable income in their favour. Double taxation is more likely when governments engage in confiscatory transfer pricing policies.

With the development of the global economy, it is estimated that over 90 per cent of current transfer pricing disputes concern two or more developed (and high-tax) countries in which an MNE conducts operations, each taking a different view of what the MNE's pricing policy on a

particular transaction should be. Each country is concerned with protecting its own share of tax take; tax avoidance, as such, is not the real issue.

(Pagan 1994: 163)

21.6 AN ALTERNATIVE APPROACH TO TAXING MNEs: FORMULARY APPORTIONMENT

The arm's length standard is based on the *separate accounting* or *separate entity approach*. The borders of a firm are defined according to national boundaries; this is known as the 'water's edge'. Domestic affiliates and foreign branches are consolidated with the parent firm for tax purposes, but foreign subsidiaries and other affiliates of the MNE are treated as separate firms. Income of the multinational is measured using separate accounting for the domestic and international units of the MNE. Since the parent's tax return is consolidated with its domestic affiliates and foreign branches, transfer prices for intra-firm transactions among these affiliated parts of the MNE are not required for tax purposes. However, intra-firm transactions between the parent and its foreign affiliates must be measured and accounted for.

The arm's length standard is not the only norm that could be used to guide the international tax transfer pricing regime, nor is the standard without its critics. A basic criticism is that a separate accounting approach to taxing MNEs is inappropriate because it is difficult to separate out the contribution each affiliate makes within an integrated MNE group. More specifically, the transactional methods are difficult to apply in practice and the profit-based methods are easily abused. As Vernon notes:

The underlying problem, of course, is that the national tax authorities are trying to place an exact figure on a concept that does not exist, namely, the 'true' profit that arises in each national taxing jurisdiction. In the real world, the profit allocated to each country by a multinational enterprise commonly is an artefact whose size is determined largely by precedent and by the debating skills of lawyers and accountants. . . . When round pegs are being shoved into square holes, both the pegs and the holes are bound to get heated in the process.

(Vernon 1998: 40-1)

The alternative would be to tax multinationals on a worldwide consolidated basis using a *global formulary method* (a.k.a. *unitary taxation*) for taxing MNE profits. Under a global formulary approach, each affiliate's share of certain factors (e.g. sales, employment, assets), as a percentage of the worldwide MNE amount of these factors (however weighted), would be multiplied by the MNE's total worldwide income to compute the tax to be paid in that jurisdiction. A global formulary approach requires three steps: (1) determining the boundaries of the MNE for tax purposes; (2) accurately estimating the MNE's global profits; and (3) establishing the formula

for allocating the global profits among the various national tax jurisdictions (OECD 1995: para 3.59).

Unitary taxation has been little used in practice. As Table 21.3 shows, most of the countries listed do not allow formulary approaches to transfer pricing. The US states and Canadian provinces use formulary methods to allocate sub-federal corporate tax revenues among themselves. A few US states, notably California, have attempted, mostly unsuccessfully, to tax MNEs in their jurisdiction on a *pro rata* share of the MNE's worldwide income. In the mid 1990s, the IRS signed several advance pricing agreements with international banks, using a formulary approach to allocate their income from global (24-hour) trading (see Eden (1998) for details).

Respected academics such as Ray Vernon (1985, 1998), Richard Bird (1986, 1988), Charles McLure (1984), and Stanley Langbein (1986) have been strongly supportive of formulary approaches. However, the OECD dislikes and has actively discouraged the use of global formulary methods on the grounds that they are arbitrary and do not satisfy the norm of the arm's length standard (OECD 1995: paras. 3.58–3.74).

21.7 TRANSFER PRICING: A BRIEF LITERATURE REVIEW

Scholarly and professional books on transfer pricing have been multiplying rapidly; see the attached note for a list of particularly useful books.⁶ Each of the Big Four accounting firms now also regularly publishes professional surveys and summaries of transfer pricing regulations and practices around the world. For a general discussion of transfer pricing resources see Eden and Smith (2001).

Scholarly journal articles on transfer pricing have also multiplied in recent years. The literature on transfer pricing has taken three separate paths over time. The first path, which I call the managerial approach, focuses on transfer pricing as a strategy for multinational enterprises. Authors writing in this area are typically management or accounting faculty. Readings that set up this topic include Cravens (1997), Elliott and Emmanuel (2000) and Cools (2003). These readings focus on the tension between internal management goals and external pressures from tax authorities.

From a managerial perspective, the core question is how to set up an efficient, yet fair, control framework within the MNE group. Eccles (1983) is the classic reading on this topic area. Transaction cost economics is the most common theoretical lens, especially in an agency framework where the MNE parent is the principal and the affiliate is the agent. The seminal readings are by Spicer (1988) and Colbert and Spicer (1995). A recent paper by Ghosh (2000) is a nice follow-up, focusing on complementary arrangements of organizational factors and how those affect negotiated prices between divisions of the MNE. Of the books listed above, the most relevant are Emmanuel and Mehafdi (1994), and Eden (1998).

The second approach to studying transfer pricing has been the *microeconomics approach*. The economic approach treats the setting of the transfer pricing as a supply-demand exercise that depends on elasticities, availability of outside substitutes and government regulations. Starting with Hirshleifer (1956, 1957), economists have developed ever more sophisticated partial equilibrium models to understanding transfer pricing. The most useful books focusing on the microeconomics approach are the edited books of readings by Rugman and Eden (1985), and Plasschaert (1993), Eden (1998), and Boos (2003). Empirical work on transfer pricing stretches back to the industry and countries studies in Rugman and Eden (1985); for a review of the literature up to 1997 see Eden (1998: ch. 7). More recent empirical work includes Swensson (2001), Clausing (2003), and Eden and Rodriguez (2004). A recent study of transfer pricing of offshored business services, focusing on call centers, can be found in Eden (2005).

The third approach to transfer pricing has been a *regulatory approach*, dominated by legal and accounting scholars. This approach focuses on the history of transfer pricing regulation, the development of an international tax transfer pricing regime, and analysis of specific regulations affecting transfer pricing. A particular concern of this approach is the various methods available for determining the best transfer pricing under the facts and circumstances. Good introductory readings on the development of the international transfer pricing regime can be found in Langbein (1986), Picciotto (1992) and Eden (1998: ch. 2). Theoretical explanations and case studies of the diffusion of the arm's length standard norm from the United States to Canada and Mexico appear in Eden, Dacin, and Wan (2001). The best analysis of transfer pricing methods is found in Eden (1998) and some of the books cited above.

In connection with the regulatory approach, there is a secondary literature linking transfer pricing to ethical issues and concerns over tax avoidance. Perhaps surprisingly, there is little in the academic literature on the ethics of transfer pricing; two exceptions are Hansen, Crosser, and Laufer (1992) and Mehafdi (2000). Transfer pricing manipulation and tax havens are conceptually distinct topics since price manipulations can occur for reasons other than arbitraging income tax differentials but and tax avoidance mechanisms do not need to involve transfer pricing. However, the two topics do overlap since tax havens can induce transfer price manipulation. For a brief introduction to the topic and the overlap see Palan (1998), McLure (2004), and Eden and Kudrle (2005).

21.8 WHERE DO WE GO FROM HERE?

As we move towards the second decade of the twenty-first century, there are three trends that will have major impacts on international taxation and the regulation of MNE transfer prices. The first driver is globalization. Globalization increases the

spread and mobility of multinational enterprises. Transnational strategies encourage the fragmentation of MNE value adding activities, with each plant distributed according to its highest value adding location. This means that national tax authorities are faced with a disarticulated MNE (a part of the whole) for tax purposes, where the local unit is heavily engaged in network-like complex forms with sister affiliates, subcontractors, and strategic alliance partners of intra-firm two-way flows of goods, services, and intangibles. This suggests that MNE-state disputes should increase in number and intensity, with more governments involved and more difficulty in assigning tax bases and determining transfer prices.

The second driver is regionalization. The growing number of preferential trading arrangements, and the deepening and broadening of existing arrangements such as the European Union and NAFTA, suggests that MNEs will be developing and strengthening their regional core networks. Thus, the need for regionally based tax systems becomes more acute, in order to avoid a growing number of bilateral disputes. One might expect increasing use of formulary apportionment models as a way to allocate tax bases at the regional level. Withholding tax rates are likely to be reduced to zero within regional trading areas. Financial and real intra-firm trade flows are likely to increase in number and complexity as a result.

The third driver is the Internet. The Internet creates the possibility to buy and sell globally without a nexus for tax purposes. It allows and encourages the development of supplier-buyer intranets that engage in intra-firm transactions in e-space. New industries, such as 24-hour global trading and outsourcing of business services, such as airline reservations, are created by the ability to move funds and intangibles around the world instantaneously. The taxation implications have only just begun to be understood (e.g. the US Treasury, Revenue Canada, and the OECD all are studying the e-commerce issue), and are particularly acute in the financial sector.

These three drivers have, at the present time, unclear implications for *global governance* in terms of deepening and broadening the international tax and tax transfer pricing regimes. Why and how is the regime likely to spread and deepen? As documented above, many non-OECD countries have adopted the arm's length standard (e.g. Venezuela, Brazil, Chile), suggesting that the geographic scope of the regime is broadening; is this likely to continue? As MNEs adopt more transnational network structures, will harmonization of national dispute settlement mechanisms (APAs, penalties, documentation requirements) occur? Will regionalization facilitate deepening within the regime, for example, could North America shift from three bilateral tax treaties to one trilateral tax treaty?

New types of transfer pricing and taxation problems are also caused by globalization and the Internet. As the knowledge content of MNE activity continues to rise, offshored intra-firm services and intangible transfers will displace physical transfers as the primary form of intra-firm trade. Historically, for intangible assets, royalty rates based on downstream sales were used to price these assets; now rapidly growing cost sharing arrangements among strategic alliances suggest that the traditional arm's length methods may become increasingly inappropriate.

Twenty-four hour global trading may be the bellwether industry here, just as the automotive industry has traditionally been the bellwether for other manufacturing industries. As MNEs adopt complex network structures based on mutual interdependence among their affiliates, will some form of formula apportionment be the only way to value intra-firm transactions and MNE group profits? The IRS global dealing regulations suggest this may be the case. In the case of offshored call centers, however, the appropriate transfer pricing methodology may still be the traditional arm's length standard methods (Eden 2005).

21.9 CONCLUSIONS

Taxing multinational enterprises has always been a difficult and complex task. Globalization is likely to make it more so. Governments have responded by developing a network of bilateral tax treaties, based on the OECD model tax convention, designed around the source and residence principles and the arm's length standard. This separate accounting framework worked reasonably well in the 'horse and buggy' days when multinationals were stand-alone replicas of their parents and most intra-firm transactions were in finished goods. As e-business spreads and more MNEs adopt transnational strategies and complex matrix structures, it will become increasingly difficult to apply separate accounting rules. The IRS has led the way by applying a formulary apportionment method to the global trading industry; perhaps this will be a bellwether for future approaches to taxing MNEs in the years ahead.

NOTES

1. See Hines (1999) for a detailed and thorough review of the empirical work on MNE responses to international taxation in terms of foreign direct investment (size and location) and tax avoidance (tax havens, transfer price manipulation, and fiscal manoeuvres). Hines concludes that MNEs do react to international tax differentials, both by shifting location decisions and by engaging in tax avoidance strategies.
2. Milton Friedman, as quoted in Vernon (1998: 131).
3. See Altshuler (2000) for a summary of the recent US debate over tax deferral.
4. There are some differences not discussed here, particularly in the US regulations. For example, for goods, a product comparable is called CUP (comparable uncontrolled price), for intangibles, a CUT (comparable uncontrolled transaction); CPM should only be used for pricing intangibles where all other methods fail, etc. The interested reader is referred to the actual regulations and guidelines for specific details.
5. In order to use C+, the cost basis of the related and unrelated parties must be the same. For example, do both parties use *actual cost* or *standard cost* (costs which have been standardized for cyclical fluctuations in production)? Are only *manufacturing costs* included or does the cost base include some portion of *operating costs* (i.e. selling, general and

administrative expenses, and R&D costs)? The larger the cost base (i.e. the more items put below the line and thus into the cost base), the smaller should be the profit mark-up, or gross margin, over costs. Functional comparability is key so the cost definitions must be the same.

6. Particularly useful books on the topic include Rugman and Eden (1985), Coopers and Lybrand (1993), Plasschaert (1993), Tang (1993, 1997, 2002), Emmanuel and Mehafti (1994), King (1994), Pagan and Wilkie (1995), Lowell and Governale (1997), Eden (1998), Lowell, Burge, and Briger (1998), Aitkinson and Tyrrall (1999), Boos (2003), Easson (1999), Feinschreiber (2001, 2004), Markham (2005), Cole (2006), and Levey and Wrappe (2007).

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