■ transfer pricing

Transfer pricing decisions arise when one division of a firm sells goods or services to another autonomous division within the same firm. The firm's best interest is served when it selects a transfer price that maximizes total firm profits, which are generated by the aggregate efforts of the firm's separate divisions. Selecting the ideal transfer price, however, requires the firm to consider many facets and implications of its decision, including costs, incentives, and the details of the policy environment.

Firms often organize themselves as multidivision entities to reap the benefits of decentralized decision making. For example, in addition to the firm's headquarters, which coordinates the firm's activities and sets the rules for its subsidiaries, the firm might create separate divisions for parts production, assembly, research and development, advertising, and distribution. Thus transfer prices must be set when components from the parts division are provided to the assembly division, or when the final goods from the assembly division are supplied to the firm's distribution arm.

Hirshleifer's (1956) pioneering work on transfer pricing demonstrated that when there is no separate market for intermediate inputs, the transfer price should be set to the marginal cost of the producing division. In contrast, if there is a perfectly competitive market for intermediate inputs, the transfer price should be set at the market price for the intermediates. Aside from these simple cases, however, the optimal transfer price depends on a number of economic fundamentals, including the nature of competition in intermediate and final good markets, the structure of firm costs, and whether there is demand or technical dependence between separate divisions of the firm. As a result, firms not only must ask what the optimum transfer price is, but also, as noted by Holmstrom and Tirole (1991), need to determine whether it is best to organize the firm vertically, placing the coordination of all price decisions at the top.

When a firm locates its divisions in different jurisdictions—either different countries or different fiscal entities (states, provinces, or prefectures) within a country—differences in jurisdictional tax rates may influence transfer prices; firms have an incentive to maximize firm profits by strategically manipulating transfer prices as a means of locating profits in low-tax countries or locations. For example, consider a firm that produces inputs in a low-tax country that are used for assembly in a high-tax country. This firm can reduce its tax payments if it increases the declared value of the parts it sells to its assembly division in the high-tax country, because the price manipulation increases revenue and profits in the low-tax country while it increases costs and reduces profits in the high-tax assembly country. Similarly if the country tax environment is reversed such that the corporate tax rate is higher in the country where parts are produced

and lower in the country where the firm does its assembly, the firm could reduce its tax burden by reducing the transfer price it declares on the parts it exports from the parts affiliate to the assembler in the low-tax country.

A full understanding of the incentives to manipulate transfer prices requires more information yet on the organization of the multinational and the firm's environment. For example, the simple case of transfer price manipulation suggests that a firm will reduce its current tax payment by the change in the declared value of its exports multiplied by the tax differential between the sending and receiving countries. Depending on the form of taxation in the firm's headquarters country, however, remaining taxes not paid in the current period may come due when income from a firm's overseas subsidiaries is repatriated to the firm's headquarters. Further, if the definition of taxable income differs across countries, the firm will have to evaluate the effect of its changed declaration on its worldwide tax payments. Finally, a firm's decision to engage in tax-driven transfer price manipulation may trigger other policy considerations. Along these lines, Horst (1971) describes how multinationals need to consider the effect of ad valorem tariffs, which provide a disincentive to increasing declared export prices and an incentive to underreporting of the export price. Further, when a horizontal multinational sets its transfer price, it may face further constraints on its choice of prices, since arbitrage conditions define the maximum degree of cross-country price differences that are sustainable.

Since tax authorities are aware that multinational firms may have strong financial incentives to manipulate their declared transfer prices to shift income from highly to more lightly taxed countries, most governments provide guidance on the setting of transfer prices for international transactions. For example, U.S. transfer price regulations instruct firms to use transfer prices for their internal transactions that are the same as the prices that would apply if the firm were conducting the sale at arm's length, as is the case when the firm sells the part or service to an unrelated party. Thus the ability of multinational firms to engage in tax-induced transfer price manipulation is limited when firms sell homogeneous goods or services. When firms do not have arm's length transactions to guide them in their choice of transfer prices, they are advised to use cost-plus or comparable profits as alternative methods for setting transfer prices. Although these guidelines prevent firms from declaring any arbitrary price, they nonetheless provide some latitude in price setting; the fact that many accounting firms have large divisions dedicated to transfer pricing attests to the complexity of these decisions, as well as the value associated with these choices.

Although transfer pricing decisions can occur in either a purely domestic or an international context, the nature of international investment makes transfer pricing a particularly salient issue. For example, due to international differences in comparative advantage, it often is attractive for firms to place their assembly facilities in low-wage, labor-abundant countries while they conduct more capital-intensive activities at home or in a capital-abundant country. Alternatively, in the case of horizontal investment, firms may decide to set up overseas production sites as a means of reducing variable transportation and tariff costs. In either case, firms that operate as multinationals are generally more productive than firms that are purely domestic, and it is the possession of intangible assets—designs, blueprints, trademarks, proprietary management systems—that enables firms that go multinational to expand across national borders successfully. As a result, the fact that intangible assets are generally present in and responsible for multinational firm activity implies that multinational firms will have more scope to manipulate transfer prices. At the same time, transfer pricing is not the only avenue for tax minimization, as multinational firms can reduce their worldwide payments through other means, such as their allocation of debt, timing of dividends, or—in the case of compensation for transferred intangible assets—use of royalty payments or licensing fees.

Finally, although there are many avenues for tax minimization by multinational firms, transfer price manipulation appears to be one that is actively pursued. Grubert and Mutti (1991) provide empirical

evidence of this from U.S. multinational firms, showing that variation in the location of reported profits is consistent with income-shifting incentives and that real investment activity and firm exports of multinational firms are influenced by international differences in corporate taxation. Similarly, Swenson (2001) and Clausing (2003) find evidence in U.S. trade data that variation in trade prices is consistent with transfer pricing motives.

See also intangible assets; multinational enterprises

FURTHER READING

Clausing, Kimberly A. 2003. "Tax-motivated Transfer Pricing and U.S. Intrafirm Trade Prices." *Journal of Public Economics* 87 (9): 2207–23. Empirical evidence that transfer prices respond to incentives.

Grubert, Harry, and John Mutti. 1991. "Taxes, Tariffs, and Transfer Pricing in Multinational Corporate Decision Making." *Review of Economics and Statistics* 73 (2): 285–93. Documents that multinational firm decisions are consistent with tax-minimization incentives.

Hirshleifer, Jack. 1956. "On the Economics of Transfer Pricing." *The Journal of Business* 29 (3): 172–84. Pioneering paper examining optimal transfer price decisions for firms.

Holmstrom, Bengt, and Jean Tirole. 1991. "Transfer Pricing and Organizational Form." *Journal of Law, Economics, and Organization* 7 (2): 201–28. Places transfer pricing decision in its larger context, which includes organizational form.

Horst, Thomas. 1971. "The Theory of the Multinational Firm: Optimal Behavior under Different Tariff and Tax Rates." *Journal of Political Economy* 79 (5): 1059–72. Theoretical analysis of optimal transfer price setting by firms.

Rugman, A. M., and Lorraine Eden, eds. 1985. *Multinationals and Transfer Pricing*. New York: St. Martin's Press. Thorough reference on issues related to firm transfer pricing decisions.

Swenson, Deborah L. 2001. "Tax Reforms and Evidence of Transfer Pricing." *National Tax Journal* 54 (1): 7–25. Provides empirical evidence that reported transfer prices appear to reflect incentives based on tariffs and taxes.

DEBORAH L. SWENSON