

Chapter 3

U.S. Tax Policy and Foreign Direct Investment: Incentives, Problems, and Reform

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INTRODUCTION

As multinational corporations play a larger role in the business activities of the global economy, interest in international aspects of capital income taxation has been stimulated as well. In the United States, debate has centered on the competitive position of U.S. firms in international product and capital markets. This concern is accompanied by complaints that U.S. international tax rules have become more complex and more distorting in the past several years, particularly since the passage of the Tax Reform Act of 1986. Discussions in Congress and the administration since 1992 indicate a willingness at least to consider significant reforms.¹ In Europe, increased liberalization of capital markets prompted European Commission discussions on the harmonization of corporate taxation. These policy developments around the world raise a deeper question of whether the current system of taxing international income is viable in a world of significant capital market integration and global commercial competition.

Academic researchers have expressed renewed interest in studying the determinants of capital formation and allocation, patterns of finance in multinational companies, international competition, and opportunities for income shifting and tax avoidance. This research brings together approaches used by specialists in public finance and international economics.² In this paper, I describe the objectives that guide my study of international tax rules and provide an introduction to U.S. tax law. In addition, I analyze empirical evidence on investment and financing incentives created by U.S. international tax rules, and address areas for reform.³

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OBJECTIVES

To frame a discussion of international tax reform (or, for that matter, any broad tax reform), clearly articulated objectives are necessary. While many are possible, this paper focuses on three: economic efficiency, competitiveness, and simplicity. Much of the debate over reform of international tax rules in the U.S. tax system stems from conflicts among these objectives.

Economic Efficiency

The federal government in the United States raises more than \$1 trillion annually. Absent reliance on lump-sum taxes, policymakers must choose among tax instruments (and definitions of the tax base) that distort decisions about saving or investment or work, thereby leading to a loss in economic efficiency. Hence, the framework for analyzing international tax rules—as with tax rules generally—must focus on how to structure a system with the least severe distortions, subject to raising revenue or to other policy concerns.

While economists' exploration of "optimal taxation" has not always produced simple rules to guide the policy debate, at least one clear statement has emerged since the pioneering work of Diamond and Mirrlees (1971): The tax system should attempt to preserve "production efficiency," even if it introduces other distortions.⁴ This means that all firms should face the same prices—for inputs (including, for our purposes, the cost of capital) and output. The reason to encourage production efficiency can be understood by considering its absence: Production could be reallocated to achieve a greater output for a given level of input.

In the domestic context, ideal tax systems consistent with production efficiency include broad-based income or consumption taxes. The term of *broad-based income tax* is used here to denote one with a Haig-Simons definition of income and one in which there is full integration of the individual and corporate income tax systems (see, for example, U.S. Department of the Treasury 1977). Under such a regime, there is a wedge between the cost of capital to businesses and the net rate of return received by individual savers, but the wedge does not vary across firms (so that production efficiency is maintained). A *broad-based consumption tax* goes a step further: Not only is the cost of capital equivalent across firms, but it equals the net rate of return to individual savers.

How can we think of production efficiency in a global economy in which capital is mobile across national boundaries? Here I focus on *worldwide* efficiency: To achieve global production efficiency, investments require the same (risk-adjusted) pretax rate of return, irrespective of the investment's location or the nationality of the owner or investor. This concept of production efficiency implies that worldwide output will be maximized for any given level of inputs, and is similar to arguments used to bolster the case for "free trade."

One way to achieve production efficiency in the international context is for all countries to adopt identical broad-based income or consumption taxes of the type

described above. This adoption is not realistic, of course, it is also not necessary to achieve production efficiency. With full integration of corporate and individual income taxes, a pure residence-based tax system, in which a country's residents are taxed on all capital income they receive, would do the trick. What would such a system look like? It would embody accrual taxation of the worldwide income of residents, offset with an unlimited credit for foreign taxes paid. In the real world, the temptation to tax capital owned by foreigners, and administering and monitoring problems with accrual taxation likely explain the absence of such a prototype from the set of tax systems we see in practice.

Could a pure source-based or territorial tax system achieve production efficiency? (Under such a system, each country would place a uniform tax on all capital income generated domestically, irrespective of the owners of the capital—that is, a flat-rate business tax with full integration of individual and corporate taxes.) Production efficiency could be achieved only if all countries choose the identical effective tax rate on capital income. This seems unlikely. In addition, as elaborated later, a territorial system places significant pressure on rules governing the allocation of income and expenses, rules at the heart of many of the current debates over international tax reform.

Competitiveness

Competitiveness is simply the ability of U.S.-headquartered firms to compete successfully with similarly situated foreign firms in international and domestic markets. This means that, whatever else they do, U.S. international tax rules should not place a U.S. business at a competitive disadvantage in a foreign market, nor should they favor or penalize foreign or domestic businesses operating in the U.S. market. If effective tax rates on capital income were identical across countries, objectives of efficiency and competitiveness would always be compatible. The two objectives may be in conflict. For example, U.S. firms operating in low-tax countries abroad may be required to pay a "residual" tax in the United States in the name of efficiency, a tax which may place them at a disadvantage in competing with foreign multinationals in that low-tax jurisdiction.

One recent line of inquiry suggests that the focus of U.S. tax policy on production efficiency is misplaced when applied to *multinational corporations* (see, for example, Frisch 1990; and Hufbauer 1992). According to this argument, if portfolio capital is perfectly mobile internationally, multinational firms do not play a crucial role as allocators of capital. That is, if foreign subsidiaries raise funds at the margin from selling debt and equity to owners of portfolio capital, rather than from parent-provided equity, concerns about efficiency should focus on *portfolio investment*.⁵ Moreover, if multinational enterprises exist to provide and coordinate "headquarters" services (for example, research and development or general management) for related groups of firms—and the location of these services generates spillovers in the home country—then concerns about the "competitiveness" of these firms in world markets should dominate tax policy debates.⁶ In practice, these arguments are associated with proposals to exempt active foreign-source income from U.S. taxation (this is further discussed later).

Simplicity

All else being equal, simple tax rules reduce compliance costs, facilitate tax administration, and limit the possibility of varying tax treatments of similarly situated firms. As such, a policy focus on "principled simplification" is likely to enhance both economic efficiency and competitiveness. The costs of compliance with international tax rules may pose serious efficiency and competitiveness concerns, and both business leaders and policymakers have voiced concern that the complexity of U.S. international rules increased after the passage of the Tax Reform Act of 1986.⁷

Conflicts among Objectives

Conflicts between policy objectives of efficiency and competitiveness have traditionally risen during debate over the appropriate norms for international tax policy. Growing out of models of international trade and capital income taxation, two principles are conventionally suggested as guides to the taxation of international investment:

Capital-Export Neutrality: *Investors* should pay equivalent taxes on capital income, regardless of the country in which that income is earned.

Capital-Import Neutrality: All *investments* within a country should face the same tax burden, regardless of the nationality of the investor.

As noted earlier, satisfying both principles at the same time is possible only if effective tax rates on capital income are identical across countries.⁸

The U.S. Treasury Department has generally favored the norm of capital-export neutrality,⁹ with a system that taxes the worldwide income of resident multinational firms and provides a tax credit for taxes on foreign-source income paid abroad.¹⁰ As elaborated later, concern over preservation of the U.S. tax base has led to complex rules, reducing the likelihood of achieving efficiency, competitiveness, and simplicity objectives.¹¹

U.S. INTERNATIONAL TAX RULES: THE INCENTIVES

Incentives in U.S. international tax rules are considered here in three parts: (1) basic rules for determining U.S. tax treatment of foreign-source income, (2) complications of those basic rules arising from provisions of the alternative minimum tax, and (3) rules relating to the allocation of expenses related to interest and research and development (R&D).¹²

The United States taxes individuals and whether earned in the United States or the only possible "territorial" base tax.

In addition to taxes to foreign individuals, the taxation of foreign taxes (and related possible situations) is a 30 percent tax rate since its U.S. source. The foreign tax credit is an equivalent U.S. tax. Instead, the foreign tax credit is limited to \$35,000 only when it is less than the U.S. tax. A firm has "excess foreign tax liability" on its foreign taxes paid are also decomposed into credits and limitations.

Deferral of U.S. taxes on the U.S. system is simply that U.S. income tax system is not subject to deferral is available for foreign country operations. Multinational operations, a generally tax-deferred receive "indirect" income taxes within the U.S. government to deduct foreign regulations.

Taxation of Foreign-Source Income: The Basics

The United States claims tax authority over all residents, meaning that American individuals and corporations must pay tax to the U.S. government on all their income, whether earned in the United States or abroad.¹³ As noted earlier, "residence" is not the only possible basis for tax authority; a number of countries tax their residents on a "territorial" basis, so that only income earned within the country's borders is subject to tax.

In addition to potential U.S. tax liabilities, American multinationals usually owe taxes to foreign governments on profits earned within their borders. To avoid double taxation of foreign-source income, U.S. tax law provides a foreign tax credit for income taxes (and related taxes) paid to foreign governments. For example, in the simplest possible situation, a U.S. corporation earning \$100 in a foreign country with a 10 percent tax rate (a foreign tax obligation of \$10) pays only \$25 to the U.S. government since its U.S. corporate tax obligation of \$35 (35 percent of \$100) is reduced to \$25 by the foreign tax credit of \$10. The foreign tax credit is, however, limited to the equivalent U.S. tax liability on that income. If the foreign tax rate were 50 percent instead, the firm pays \$50 to the foreign government, but its U.S. foreign tax credit is limited to \$35. Hence, a U.S. firm receives full tax credits for foreign tax payments paid only when it is in an "excess limit" position—that is, when its average foreign tax rate is less than the average tax imposed by the United States on foreign-source income. A firm has "excess credits" if its available foreign tax credits are greater than its U.S. tax liability on its foreign-source income. Since 1976, U.S. firms are required to calculate their foreign tax credits on a worldwide basis, so that all foreign income and foreign taxes paid are added together in the computation of the foreign tax credit limit. Income is also decomposed into different functional "baskets" in the calculation of applicable credits and limits.

Deferral of U.S. taxation of certain foreign earnings is another important feature of the U.S. system for taxing overseas income. This deferral is of two types. The first is simply that unrealized capital gains are usually not taxed, a general feature of most income tax systems. Second, earnings of foreign subsidiaries of U.S. corporations are not subject to U.S. taxation until repatriated to their parent corporations. This type of deferral is available only to foreign operations that are separately incorporated in foreign countries ("subsidiaries" of the parent) and not to consolidated ("branch") operations. Multinationals generally can choose the organizational form of overseas operations, a choice which can influence their tax obligations. U.S. parent firms are generally taxed on their subsidiaries' foreign income only when it is repatriated, and receive "indirect" foreign tax credits ("deemed-paid credits") for subsidiary foreign income taxes paid on income subsequently received as dividends. On the one hand, the U.S. government taxes branch profits as they are earned, just as it would profits earned within the United States. On the other hand, organizing as a branch offers the chance to deduct foreign branch losses from U.S. income and may involve more lenient foreign regulations.

It is possible for deferral to encourage firms facing low foreign tax rates to delay the repatriation of dividends.^{14,15} This incentive is present particularly when firms expect that future years offer a more favorable tax climate for repatriation (because, say, the domestic corporate income tax rate is expected to fall or because foreign income is expected to generate excess foreign tax credits to use in offsetting U.S. tax liability on repatriations). Available empirical evidence suggests that firms choose patterns of dividend repatriations to minimize tax liability (see Hines and Hubbard 1990; and Altshuler, Newlon, and Randolph forthcoming).

Dividends to the parent company are not the only possible form of repatriation.¹⁶ Interest paid to the parent to service debt capital contributions is generally deductible in the host country. In some cases, transfer pricing can be used by a subsidiary to shift income to the parent or to other subsidiaries of the parent having more favorable tax treatment. Royalty payments to the parent can serve a similar function. Foreign governments often impose withholding taxes (which are creditable against foreign tax liability of the parent) on dividend, interest, rent, and royalty payments from foreign subsidiaries to U.S. parents.

Alternative Minimum Tax

As it does in the domestic context, the alternative minimum tax (AMT) embodies incentives affecting investment and financial policy decisions of multinational firms.¹⁷ First, foreign tax credit calculations differ between the regular tax and the AMT.¹⁸ Second, relative investment incentives for regular tax and AMT firms differ from those in the domestic setting. The tax code often penalizes new domestic investment undertaken by an AMT firm relative to investment undertaken by a firm subject to the regular tax (see, for example, Lyon 1990; and Prakken 1994). A multinational firm, however, claims the same deductions for depreciation of foreign-use property under the AMT as under the regular tax.¹⁹ Therefore, the AMT can create a *relative* incentive to locate investment overseas: Incentives for domestic investment are reduced by the AMT, while incentives for foreign investment (financed by equity) are unchanged or even improved under the AMT²⁰ (see Lyon and Silverstein forthcoming). The AMT may also offer parent firms the opportunity to receive dividends from subsidiaries at a cost lower than that possible under the regular tax (see, again, Lyon and Silverstein forthcoming).

Allocation of Interest and R&D Expenses

Interest Allocation Rules

In the domestic context, interest expense is deductible against taxable income; corporations can carry back net operating losses for three years and, to avail themselves of deductibility, carry them forward for fifteen years. Determining interest deductions for multinational corporations is more complicated. The spirit of the U.S. rules for the allocation of interest deductions is to allow deductibility of interest against taxable

income in the United States only for interest expense generating income subject to taxation in the United States. While at one level this is intuitive, such an approach is inherently difficult to implement because of the fungibility of funds within a multinational firm.

The regulatory distinction between "domestic" and "foreign" interest expense is not merely academic, and can affect firms' costs of finance. When interest expense is determined to be foreign, it reduces foreign taxable income—but only for the purposes of U.S. taxation, since foreign governments do not as a rule allow U.S. firms to lower foreign taxable income because of interest expenses in the United States. As a result, a U.S. firm benefits from interest deductions determined to be "foreign" only if that firm is in an excess limit position for foreign tax credit purposes. This is because, for such firms, a portion of the foreign-source income is subject to residual tax; incremental interest expense allocated to foreign-source income simply reduces U.S. taxable income for the firm one for one. For firms with excess credits, the interest allocation rules can lead to a partial disallowance of interest deductions.

The Tax Reform Act of 1986 put forth a "one-taxpayer rule," in which the characteristics of all members of a controlled group determine interest allocation. (Prior to 1986, interest expenses were arrived at for each company individually within a controlled group.) The basic idea, again at one level intuitive, is that fungibility of funds implies that borrowing should be evaluated at the level of a controlled group. In practice, firms are obligated to allocate interest expense on the basis of the book values of domestic and foreign assets. As a consequence, firms with substantial foreign assets (relative to total assets) with excess foreign credits were unable to deduct a portion of their interest expense after 1986. Whether this denial raises firms' cost of capital depends on the cost at which firms can substitute equity for debt finance.

R&D Allocation Rules

Given the prominence often given to R&D intangible capital in explaining the economic functions of multinational corporations, it is not surprising that business, academic, and public policy attention has also been focused on the tax treatment of R&D. In the domestic context, corporate R&D expenses are treated favorably for tax purposes.²¹ As with interest expenses, U.S. multinationals are not generally allowed to deduct their entire U.S. expenses on R&D against domestic taxable income; such expenses are allocated between domestic and foreign-source income. The rules' intent is to preserve the favorable treatment of R&D only for expenditures related to production for domestic markets.

As with interest expenses, the allocation of R&D expenses between domestic and foreign incomes can affect the value of the deduction. R&D deductions allocated against foreign-source income are valued by a U.S. firm only if it is in an excess limit position for foreign tax credit purposes. The Treasury Department formalized rules for R&D expense allocation (§1.861-8) in 1977. Over the course of the 1980s and early 1990s, these rules were changed many times.²² Currently, 64 percent of R&D expenses incurred in the United States can be allocated against domestic income; the remaining 36 percent can be allocated on the basis of sales or income (with the exception that

allocation to foreign-source income based on the income method must not be less than 30 percent of the allocation under the sales method).

EMPIRICAL EVIDENCE ON EFFECTS OF TAX INCENTIVES

Having identified some key investment and financing incentives present in U.S. international tax rules, let us turn now to empirical evidence on the effects of those incentives on the cost of capital faced by U.S. multinational firms.

The Cost of Capital and Investment by Multinational Firms

Brief Review of the Literature

Existing empirical studies of determinants of foreign direct investment (FDI) reflect researchers' interest in either industrial organization or taxation. Industrial organization inquiries have generally ignored tax considerations and analyzed FDI as being governed by firms' desire to exploit the value of ownership-specific assets (such as valuable intangibles) or location-specific advantages (related to sourcing or marketing).²³ Empirical research has analyzed the roles played by ownership-specific and location-specific variables in determining FDI. Public finance inquiries have focused on the role of differential tax treatment as determining the source and location of FDI, holding constant nontax determinants.

In this vein, a significant body of empirical research has emphasized effects of taxation on the cost of capital for FDI into the United States. This literature has generally examined the simple relationship between capital flows and measures of after-tax rates of return or effective tax rates on capital income.

Following work by Hartman (1984, 1985), several studies have used annual aggregate data for inbound FDI financed by subsidiary earnings and parent company transfers of funds. Hartman's approach assumes that subsidiaries' dividend payouts are a residual in firm decisions. Payout ratios do not affect firms' required rate of return on equity invested, and permanent changes in home country tax rates do not affect dividend payouts or the cost of capital. In the context of FDI, these implications permit Hartman and others to ignore effects of (at least permanent changes in) home country tax parameters on FDI in "mature" subsidiaries (that is, those paying dividends to their parent firms).²⁴

Hartman estimates the effects of U.S. inbound FDI of changes in the after-tax rates of return received by foreign investors in U.S. inbound FDI and by investors in U.S. capital generally, with the intent of measuring impacts of shifts in returns to new FDI. He finds that the FDI-GNP ratio increases as after-tax rates of return rise and decreases as the relative tax rate on foreigners rises. These suggestive results indicate that taxes are an important determinant of FDI, and Hartman's study provoked many subsequent rounds of replication and refinement (see, for example, Boskin and Gale, 1987; Newlon, 1987; and Slemrod, 1990).

These studies are important advances on our understanding of the effects of taxation on FDI. A number of concerns arise, however. An obvious one relates to problems of inference about tax effects on firms' decisions using such highly aggregated data. A second concern is that nontax determinants of FDI are not modeled. Third, the "foreign direct investment" data supplied by the Bureau of Economic Analysis suffer two drawbacks, even accepting their level of aggregation: (1) they measure financial flows rather than new capital investment *per se*; and (2) they are based on periodic benchmark surveys, raising the possibility that FDI flows are more mismeasured the further the observation is from a benchmark year.

Modeling Effects of Tax Parameters on Firms' FDI

In a world of ideal data, assessing the impact of taxation on firms' cost of capital for FDI would be straightforward. Consider a U.S. parent firm deciding how much to invest in a particular country. Intuitively, neoclassical models of investment predict that the firm will invest until the value of additional dollar of capital equals the cost of investing.²⁵

Unfortunately, this benchmark approach is not particularly useful as a practical guide to estimate effects of taxation on the levels of firms' FDI. First, it is difficult to develop a proxy for the incremental value of investing from available data on financial market valuation even under the best of circumstances. For FDI, a further complication arises because location-specific effects on the value of incremental investment in the subsidiary cannot be captured by using available financial data at the parent-firm level, and subsidiary-specific financial market data are, of course, not observable.

To reduce these practical problems, Cummins and Hubbard (forthcoming) employ an empirical approach developed to estimate effects of after-tax returns to investing with fewer informational requirements than in conventional models. Nonetheless, it allows one still to ask: Given a change in a tax parameter, how does a subsidiaries' return to investing change, and how does FDI change?

Tax considerations can affect subsidiaries' new capital investment decisions through two channels.²⁶ First, host country corporate income tax rates, investment incentives, and depreciation rules affect the cost of capital for foreign investors. This channel has been the focus of empirical analysis of effects of tax policy on domestic investment.

A second channel through which tax policy affects FDI from countries with worldwide tax systems such as the United States is through variation over time and across firms in the "tax price" of subsidiaries dividend repatriations to their parent firms. Within the approach used by Cummins and Hubbard (forthcoming), subsidiary dividend decisions and the cost of capital are not affected by permanent changes in the tax price of repatriations, though temporary changes can affect both repatriations and FDI.²⁷

In this channel, there are two sources of variation in the tax price of dividend repatriations. The first reflects variation over time in host and home country statutory corporate income tax rates. The second reflects variation in foreign tax credit status (that is, excess credit or excess limit positions) both across firms and over time for a given firm. Parents in an excess limit position owe residual U.S. corporate tax if the U.S.

corporate tax rate exceeds the applicable foreign tax rate. Parents in an excess credit position owe no residual U.S. corporate tax.

Cummins and Hubbard (forthcoming) analyze effects of changes in pretax returns to investing and in the tax parameters described above on FDI by U.S. multinational firms. Using panel data on investment from 282 to 632 U.S. subsidiaries over the period from 1980 through 1991 in Canada, the United Kingdom, Germany, France, Australia, and Japan, they test the hypothesis that host and home country tax parameters should be included in the model, and estimate the responsiveness of subsidiary investment to pretax returns and tax parameters.²⁸

The results of these tests reject conclusively the simple notion that "taxes don't matter"—both host country and domestic tax parameters should be included in the correct specification of the subsidiary's investment model. The estimated responsiveness of firm-level FDI to the tax-adjusted cost of capital is statistically and economically significant: Each percentage-point increase in the cost of capital leads to a 1 to 2 percentage-point decrease in the subsidiary's annual rate of investment (annual investment divided by the beginning-of-year capital stock).²⁹

Some examples are instructive. As noted earlier, tax parameters can affect the cost of capital for FDI through host country and domestic channels. First, increases in the availability of investment incentives (investment tax credits or accelerated depreciation) in the host country reduce the cost of capital and stimulate FDI. Second, temporary changes in U.S. statutory corporate tax rates or parent firms' foreign tax credit positions affect the cost of capital and FDI. If, for example, a parent firm expects to move from an excess limit position to an excess credit position, its cost of capital rises relative to a parent firm with no change in foreign tax credit status if its investments are in high-tax jurisdictions, leading the firm to reduce its FDI.³⁰

Efficiency, Competitiveness, and Simplicity Concerns

Efficiency. The findings in Cummins and Hubbard (forthcoming) are consistent with the hypothesis that permanent changes in the tax price of subsidiary dividend repatriations do not affect the cost of capital for investment by dividend-paying subsidiaries. This result permits some observations about the extent to which the U.S. system of taxing multinationals' income corresponds to norms of capital-export neutrality or capital-import neutrality. Hartman (1985) and others have noted that, for dividend-paying subsidiaries, permanent changes in the home country (for our purposes, the United States) corporate tax rate should have no effect on FDI financed out of subsidiary retained earnings—a capital-import neutral result for these firms. This finding does not carry over precisely to the Cummins-Hubbard framework, since changes in the parent firm's foreign tax credit status also affect the tax price of repatriations.³¹ With expected changes in foreign tax credit status, capital-export neutrality, capital-import neutrality, or neither may hold. Similar examples can be constructed for "immature" subsidiaries, those financing initial investment using parent equity transfers. To summarize, the U.S. tax system creates potentially complex effects of tax parameters on overseas investment decisions, and those effects can vary

significantly across firms. It is difficult to reconcile such patterns with an economic efficiency goal.

Competitiveness. The above discussion suggests that the U.S. tax system can affect the cost of capital for and investment by U.S. multinational firms. An important concern, then, relates to competitiveness: If U.S. firms are subject to a residual U.S. tax on investments in low-tax foreign countries, will they not be at a disadvantage in competing with multinationals headquartered in other countries?³²

The answer is "perhaps." While it is true that the present system imposes a tax penalty on U.S. multinationals whose overseas operations are largely in low-tax countries, empirical studies of subsidiaries' dividend repatriations have shown that, at least prior to the Tax Reform Act of 1986, significant "cross-crediting" of "high tax" and "low tax" income occurred (see Hines and Hubbard 1990; Altshuler and Newlon 1993; and Altshuler, Newlon, and Randolph forthcoming). That is, firms with low-tax subsidiaries could blend repatriations from such subsidiaries with repatriations from high-tax subsidiaries. The Tax Reform Act of 1986 restricted the use of cross-crediting by increasing the number of separate limitation baskets. As a result, it is possible that the cost of capital faced by U.S. firms' subsidiaries operating in relatively low-tax jurisdictions rose after 1986.³³ Since the new limitation baskets apply to only about one-fourth of all foreign-source income (U.S. Department of the Treasury 1993), it is worth asking whether much revenue is, in fact, being protected at the cost of the more complex rules. Unfortunately, at least to my knowledge, there has been no micro data analysis of repatriation decisions using data after 1986. Such an inquiry would require an examination of corporate tax return data on the post-1986 period by the Joint Committee on Taxation or the Office of Tax Analysis.

In a separate exercise, Grubert and Mutti (1994) have estimated, using tax return data for 1990, that the average effective U.S. tax rate on active foreign income is approximately zero (though some individual firms, of course, pay residual U.S. tax).³⁴ This estimate reflects the ability of firms operating in both low-tax and high-tax jurisdictions to adopt repatriation strategies to minimize the residual tax.³⁵ In addition, Grubert and Mutti note that, in some cases, subsidiaries of U.S. firms repatriate low-taxed royalty and interest income along with more highly taxed dividend income. If the United States had a territorial (exemption) tax system, dividend income would be exempt in their estimate while worldwide taxation with a foreign tax credit would still apply to royalty income.

Simplicity. The U.S. Department of the Treasury's interim study of U.S. international tax rules identified "simplicity" as an important goal for reform. This emphasis does not seem misplaced. The Office of Tax Policy Research at the University of Michigan has been compiling information on the overall costs of tax compliance for large corporations. Blumenthal and Slemrod (1994) analyzed compliance costs for 365 firms, with an emphasis on studying costs associated with taxing foreign-source income. They report that 39 percent of the total compliance cost of (federal) taxes can be traced to foreign-source income. Since the average fractions of assets abroad (19.2 percent), sales abroad (21.3 percent), or employment abroad (16.6 percent) are less than 39

percent, foreign-source-income compliance costs associated with foreign-source income are about 8.5 percent of net U.S. revenue raised. The Blumenthal-Slemrod survey identifies foreign tax credit rules, expense allocation rules, and transfer pricing rules as being most burdensome.

Compliance burdens for U.S. multinational firms occur within the U.S. system of worldwide taxation. Recalling the Grubert-Mutti estimate, the United States arguably raises very little revenue from this system. Should we infer, then, that the United States should switch from a worldwide to a territorial tax system? Again, the answer is only "perhaps." While either system provides relief from double taxation, and a territorial system may in some ways be less expensive to administer, a move to a territorial system would significantly increase pressure on transfer pricing and allocation rules to address potential income shifting.³⁶ In addition, policymakers' desire to protect the tax base suggests a concern that a territorial system might lead to an expansion of tax-haven activity and erosion of the tax base.³⁷ To shed light on this concern, researchers (and the Treasury Department) might examine the experience of territorial systems in, for example, France or the Netherlands.

Complications from the Alternative Minimum Tax

Empirical evidence on incentive effects of the AMT is not abundant, though the significant stock of outstanding corporate AMT credits indicates the potential importance of those effects (see Gerardi, Milner, and Silverstein 1994). The incentive effects of the (AMT-related) international tax rules on domestic investment are ambiguous. On the one hand, recall that the AMT can in some cases create a relative incentive to invest abroad (rather than domestically) for firms subject to the AMT. The calculations reported in Lyon and Silverstein (forthcoming) document this relative incentive in the case of equity-financed investment.³⁸ On the other hand, AMT provisions may offer a window of opportunity for repatriating overseas earnings at a lower cost than that under the regular tax. To the extent that repatriated earnings are retained by U.S. parent firms, these incentives offer an ambiguous effect on overall domestic investment. Empirical analysis of the incentive effects of the AMT is an area in which additional work is needed.

Allocation of Interest and R&D Expenses

As noted earlier, features of the current rules for allocating expenses for interest and R&D in some cases can lead to a partial disallowance of deductions, frustrating the law's intention of deductibility and leading to over-taxation of economic income. The available empirical evidence on these effects is summarized below.

In the case of interest allocation rules, it is possible that firms in an excess credit position with significant foreign assets may not receive the complete benefit of the interest deduction. As a result, the introduction of allocation rules would raise the cost of capital for such firms to the extent that they could not easily substitute equity for debt finance.³⁹ A simple test would be to compare investment before and after 1986 for firms

in excess limit and excess credit positions, holding other determinants of investment constant. Using Compustat data on 203 firms, Froot and Hines (1994) control for industry effects and importance of foreign assets. They find that, over the 1986-1991 period, firms that could not fully deduct their U.S. interest expenses both borrowed less (on average, 4.2 percent less debt measured as a fraction of firm assets) and invested less in property, plant, and equipment (on average 3.5 percent less) than firms whose deductions were not affected by the interest allocation rules. In a careful analysis of thirteen large U.S. nonfinancial multinational firms, Altshuler and Mintz (1994) found that the interest allocation rules raised significantly the cost of debt finance for domestic and foreign investment by U.S. firms with excess foreign tax credits.

Allocation rules for R&D expenses raise similar concerns for firms with excess foreign tax credits. Hines (1993), analyzing longitudinal data on 116 U.S. multinational firms in the Compustat data, argues that the elasticity of domestic R&D spending with respect to the after-tax price of R&D is in the range of -1.2 to -1.6. While these very high estimates of responsiveness of R&D to tax policy are controversial,⁴⁰ it is worth noting that Hines's estimates imply a large increase in R&D performed in the United States should R&D expense be 100 percent deductible against U.S. taxes. Evaluation of such reforms depends, of course, on the revenue cost and the availability of other means of stimulating R&D investment.

INCREMENTAL REFORMS: EFFICIENCY, COMPETITIVENESS, AND SIMPLICITY QUESTIONS

Tax-induced differences in costs of funds across firms for similar investment projects are not the hallmark of an efficient tax system. Similarly, to the extent that our international tax rules do not permit full deductibility of expenses, U.S. firms are placed at a competitive disadvantage vis-à-vis firms headquartered elsewhere. Finally, even this cursory discussion of rules associated with expense allocation and the AMT makes it clear that sacrifices in economic efficiency and competitiveness in our current rules are not purchasing "simplicity."

What incremental reforms are suggested by these concerns? Let me put aside the question of the AMT, which is questionable tax policy warranting a more general discussion even in a strictly domestic context. With respect to interest allocation rules, the Tax Reform Act of 1986 applied a "water's edge fungibility" approach instead of the more economically appealing "worldwide fungibility" approach.⁴¹ In principle, worldwide fungibility could be implemented by combining domestic and foreign affiliates' interest expense and apportioning this combined amount to the income of the group by assets of domestic and foreign group members. In practice, this strategy is difficult to implement on account of deferral. Alternatively, the United States could employ a simple "netting rule": Interest would be allocated if the debt-asset ratio of the parent firm exceeded the debt-asset ratio of foreign subsidiaries (or, possibly, the debt-asset ratio of the parent firm and foreign affiliates on a consolidated basis).⁴² In this case, a U.S. parent firm would be permitted full deductibility of interest expense if its debt-asset ratio is no greater than that of its foreign subsidiaries. The usefulness of such a rule in mitigating the problems under current law depends on the ease with which multina-

tionals can lever assets in source countries. Another alternative would be a simple requirement that the U.S. parent have a specified minimum amount of equity relative to assets;⁴³ if more debt is used, a fraction of the interest expense would not be permitted.

It is also possible to apply a "worldwide fungibility" approach to the allocation of expenses for R&D. As with borrowing, under such an approach R&D expenses of foreign subsidiaries would be considered in the determination of whether to allocate some portion of U.S.-incurred R&D expense to foreign-source income. The case for such a policy change would be bolstered by empirical evidence supporting the notion that R&D within a multinational firm is done predominantly in locations in which related products are sold.

CONCLUSION AND ISSUES FOR GENERAL REFORM

The financing and investment incentives created by U.S. international tax rules are complex and, in some cases, difficult to measure. Against such a backdrop, it is not likely that simple general reforms will address the concerns of policymakers and the business community regarding efficiency, competitiveness, and simplicity. One productive way to organize the examination of reforms is to conduct it in two steps, emphasizing: incremental changes to reduce significant problems or anomalies under current law, and linking a discussion of "international tax reform" with a more general discussion of reform of capital taxation.⁴⁴

Toward the first end, it is possible to reduce violations of efficiency and competitiveness goals by modifying interest allocation rules and R&D allocation rules (as discussed earlier). Moreover, substantial simplification of foreign tax credit rules may be possible even in the context of the current worldwide tax system with deferral (see, for example, U.S. Department of the Treasury 1993). Finally, simplification generally may be facilitated by international coordination, since many rules are designed to limit shifting of expenses or income for the purpose of tax avoidance. The form of this coordination should reflect the relative responsiveness to variation in tax rates of real investment and reported income. To the extent that the responsiveness of reported income is greater than that of real investment, policymakers may wish to focus on harmonizing statutory corporate tax rates (while allowing investment incentives to vary across countries).

Issues of general tax reform should address more completely the adverse efficiency consequences of our current tax rules. Toward that end, the larger decision of whether the United States should move closer to a pure rigorously worldwide tax system (for example, by eliminating deferral) or to a territorial (exemption) system should, in my view, take place in the context of broader tax policy decisions. For example, to the extent that corporate income taxation is viewed as a backstop against income shifting (as in Gordon and MacKie-Mason forthcoming), a move to a territorial tax system may lead to an erosion of the U.S. domestic tax base (requiring offsets from other distorting taxes).

Nonetheless, broader tax reforms under current discussion suggest that a move to a territorial tax system should be taken seriously. Many reforms of business taxation, ranging from corporate tax integration to the adoption of consumption taxes, would be

consistent with a territorial approach to the taxation of foreign-source income. As an illustration, the Treasury Department's proposal in 1992 for corporate tax integration adopted a dividend exclusion prototype in which investors would not pay tax on dividends received (see U.S. Department of the Treasury 1992a, 1992b). Such a proposal might encourage examination of a modified exemption system, under which U.S. parent firms would exclude from taxable income dividends received from overseas subsidiaries.

In another example, the substitution a uniform flat-rate consumption tax for domestic capital income taxes would remove distortions in both the location and magnitude of corporate investment. For example, the "Saving-Exempt Income Tax" proposal of Senators Sam Nunn (D-GA) and Pete V. Domenici (R-NM) would replace existing business income taxes with a tax on sales less the cost of purchases from other businesses; that is, domestic investment would be expensed.^{45,46} Consistency with a territorial tax system arises because the proposal's intended tax base is consumption, not accrued income (as in the current system). Hence, the general desirability of a shift toward consumption taxes suggests the desirability of studying how a territorial tax system for the United States may be designed.

NOTES

1. In July 1992, the House Ways and Means Committee held hearings on a package of tax proposals affecting multinational firms (H.R. 5270, "The Foreign Income Tax Rationalization and Simplification Act of 1992"). In January 1993, the U.S. Department of the Treasury Office of Tax Policy released an interim report on reform of U.S. international tax rules (see U.S. Department of the Treasury 1993). See also Hufbauer (1992) and Hufbauer and van Rooij (1994).

2. See, for example, the papers in Razin and Slemrod (1990); Giovannini, Hubbard, and Slemrod (1993); and Feldstein, Hines, and Hubbard (forthcoming).

3. I do not address explicitly the question of whether incremental outbound foreign direct investment is "good" or "bad" for U.S. output or jobs. Economists have generally not taken seriously arguments that outbound foreign direct investment "destroys American jobs" (see, for example, Graham and Krugman 1991; Feldstein forthcoming; and Lipsey forthcoming).

4. Conditions required to justify this result include, among other things, the availability of a variety of tax instruments and the ability to tax away pure profits.

5. The substitutability of direct and portfolio capital is an empirical question. Portfolio and direct investment involve an important nontax difference since direct investment offers both ownership and control, as opposed to only ownership for portfolio investment. The empirical investigation of Gordon and Jun (1993) does not find tax factors to be the most prominent determinant of the mix between direct and portfolio investment.

While intuitive, the argument also relies on assumptions which, given currently available empirical evidence, are tenuous. First, foreign portfolio equity owned by U.S. shareholders was \$178 billion at the end of 1992, compared with a market value of direct investment of \$776 billion. (This calculation and the ones that follow are reported in Grubert and Mutti 1994.) Likewise, foreign investors held \$692 billion of direct investment versus \$300 billion of U.S. corporate stock. To put these numbers in perspective, they imply that, at the end of 1992, U.S. residents held 4 percent of their equity portfolio in foreign shares, while 6 percent of U.S. corporate equity was owned by foreigners. Nor is the United States anomalous in this regard. French and Poterba (1991) point out the lack of international equity portfolio

diversification in Japan, the United Kingdom, France, Germany, and Canada, as well as in the United States. More empirical study is needed to assess the relative roles of multinational firms' investment and portfolio investment in allocating capital for business investment.

6. The argument that high value-added "headquarters" investments (such as R&D) generate externalities for the headquarters country is not *per se* a justification for a territorial tax system (that is, to avoid placing a residual tax on multinational firms' investment income). To the extent that headquarters activities generate externalities, they should be subsidized directly and generally. If, for example, the present subsidy to R&D in the United States is "too low," it could be increased across the board. It is unlikely that changing the tax rate on multinational firms headquartered in the United States is the most efficient means of achieving the appropriate subsidy.

7. Proposals for simplification have been offered in H.R. 5270, "The Foreign Income Tax Rationalization and Simplification Act," and in U.S. Department of the Treasury (1993).

8. Economic analysis of the relative merits of norms of capital-export neutrality (CEN) and capital-import neutrality (CIN) has traditionally compared distortions in the *level* of saving within an economy and in the *allocation* of that saving among alternative investments at home and abroad. Implementing CIN by exempting active foreign-source income from taxation can promote worldwide economic efficiency if domestic savings are inefficiently low (though other capital tax instruments may also be used to achieve this objective). By contrast, CEN promotes worldwide efficiency in the allocation of savings. As such, CEN may be a better guiding principle when efficiency costs in the allocation of savings are large relative to costs of tax-induced distortions in the level of savings (see, for example, Horst 1980; and Giovannini 1989). Indeed, empirical evidence generally supports the proposition that the responsiveness of domestic saving to a change in the net return is less than the responsiveness of the allocation of investment to a change in the net return. Hence, CEN may offer better general guidance for international tax policy. Nevertheless, some compromise between CEN and CIN is both inevitable and unobjectionable given the presence of tax-induced distortions of both investment and saving decisions and the complexity of the modern multinational firm.

9. See, for example, the discussion in Hufbauer (1992).

10. In practice, the U.S. system departs significantly from CEN because, among other things, of the absence of accrual taxation of foreign-source income and limitations on the foreign tax credit.

11. For example, multinational enterprises often complain that policymakers' pursuit of CEN comes at the expense of U.S. firms' competitiveness, since, in some cases, U.S. firms may face a higher total tax burden on foreign-source income than foreign competitors.

12. This is, of course, not an exhaustive list, which would include an analysis of transfer pricing regulations, sales source rules, Foreign Sales Corporation rules, and other provisions.

13. For more detailed descriptions of systems for taxing income from foreign direct investments, see Ault and Bradford (1990); Frisch (1990); Hines and Hubbard (1990); U.S. Congress, Joint Committee on Taxation (1990, 1991); and U.S. Department of the Treasury (1993).

14. Deferral *per se* may not encourage firms to delay paying dividends from foreign subsidiaries, since the tax to the U.S. government must at some point be paid (see Hartman 1985; Altshuler and Fulghieri 1990; and Cummins and Hubbard forthcoming).

15. Congress enacted the Subpart F provisions in 1962 in an attempt to prevent indefinite deferral of U.S. tax liability on foreign-source income. These provisions apply to controlled foreign corporations—foreign corporations at least 50-percent owned by U.S. persons holding stakes of at least 10 percent each.

Subpart F provisions treat passive income and income invested in U.S. treatment as if it had been distributed to the U.S. parent company, thereby subjecting it to current taxation. Controlled foreign corporations that reinvest their earnings in active foreign businesses sidestep Subpart F rules and may continue to defer U.S. tax liability on those earnings. Further expansions of Subpart F coverage appeared in the Tax Reform Act of 1986 (see the discussion in U.S. Department of the Treasury 1993).

16. For a comparison of the tax treatment of alternative forms of repatriation, see Hines and Hubbard (1990).

17. It is potentially important to analyze the interaction of AMT and foreign tax rules. In 1990, 53 percent of the assets and 56 percent of the foreign-source income of corporations filing Form 1118 could be attributed to firms paying AMT.

18. The concepts of "worldwide income," "foreign income," and "U.S. tax liability" are calculated using AMT rules rather than regular tax rules. In addition, the combined use of AMT foreign tax credits and net operating loss deductions may not decrease tentative minimum tax by more than 90 percent. Such credits denied are treated like other excess foreign tax credits, and may be carried back (for two years) and forward (for five years) to offset tentative minimum tax.

19. Foreign investment receives slower depreciation allowances *absolutely* than domestic investment under both the regular tax and AMT systems. Firms subject to the AMT may nonetheless face a *relative* incentive to invest overseas.

20. Under *debt* finance, incentives for foreign and domestic investment may be curtailed by the AMT. This is because the after-tax cost of \$1.00 of interest expense increases from \$0.65 under the regular tax to \$0.80 under the AMT. Nonetheless, while the cost of all debt-financed investment is raised under the AMT, the cost of foreign investment relative to domestic investment is still lower for the AMT firm than for the regular tax firm (see Lyon and Silverstein forthcoming).

21. Such expenses are deductible for tax purposes, favorable tax treatment given that accumulated R&D is usually thought of as a capital good. Since 1981, the United States has also had a research and experimentation (R&E) tax credit. The Tax Reform Act of 1986 reduced the generosity of this tax credit to 20 percent for eligible incremental R&D expenses (that is, above a base equal to the average of the firm's prior three years' worth of spending on R&D). After 1986, the credit survived through a series of temporary extensions.

22. Significant modifications were made in the Economic Recovery Tax Act of 1981, the Tax Reform Act of 1986, the Technical and Miscellaneous Revenue Act of 1988, the Omnibus Budget Reconciliation Act of 1984, and subsequent legislative and administrative extensions. See Hines (1993) for a detailed discussion.

23. See, for example, the reviews of studies in Caves (1982).

24. This approach is more suitably applied to firm-level data. The underlying model suggests that a mature subsidiary's investment financed by retained earnings is unaffected by the home country tax rate. This suggestion is not equivalent to a claim that aggregate investment out of retained earnings will not be affected by the home country tax rate.

25. See, for example, Alworth (1988).

26. A different set of tax determinants is, in general, relevant for investment through acquisitions. See, for example, the discussion in Auerbach and Hassett (1993).

27. That is, Cummins and Hubbard's study works within a framework known as the "trapped equity" or "tax capitalization" view of corporate dividends. A simple example illustrates this view. Suppose that a parent firm capitalizes a wholly owned subsidiary with an initial transfer of equity capital. When the subsidiary has growth opportunities and desired investment exceeds internally generated funds, the parent transfers additional funds to it. For a mature subsidiary, equity is "trapped"—earnings exceed profitable investment opportunities, and the subsidiary repatriates the residual funds. Costly repatriation can be delayed so long as the subsidiary has active investment opportunities abroad, but once those are exhausted, the Subpart F rules prevent the use of passive investments to defer U.S. tax obligations. In this trapped equity view, subsidiary dividend payouts are unaffected by permanent changes in their tax price. While this view is controversial in the context of dividend payouts from a domestic firm to its shareholders (owing to potential information or corporate control problems), it is arguably less controversial in the application to dividends paid by majority—or wholly owned—subsidiaries to their parent firms.

28. The data set is constructed from the Compustat Geographic Segment file. (Geographic Segment disclosures are mandated by *Statement of Financial Accounting Standards No. 14—Financial Reporting of Segments in a Business Enterprise*, issued in 1976.) Both U.S.- and foreign-incorporated firms report sales, operating income, and fixed assets. Geographic regions are reported for seven years at a time. Cummins and Hubbard combine two seven-year panels to obtain a data set on outbound FDI by U.S. multinationals over the period extending from 1980 through 1991. While the number of subsidiaries reporting information varies from year to year (generally growing over the period), the study obtained information from 282 to 632 U.S. foreign subsidiaries.

29. These estimates are broadly consistent with those reported for firm-level business fixed investment in the United States (see Cummins, Hassett, and Hubbard 1994) and with those for firm-level domestic fixed investment in European countries (see Cummins, Harris, and Hassett forthcoming).

30. This assumes that the subsidiaries are repatriating dividends to the parent in current and future periods.

31. That is, Hartman's result holds in the case for which the parent's foreign tax credit position is not expected to change.

32. Calculations in OECD (1991) and Jun (forthcoming) suggest that, for equity-financed investments, U.S. firms often face a higher cost of capital for overseas investment than non-U.S. firms.

33. Since the passage of the Tax Reform Act of 1986, section 904(d) of the Internal Revenue Code specifies separate foreign tax credit limitations for eight types of income. Other types of income are subject to a common "general limitation."

34. The usual caution against interpreting the Grubert-Mutti calculation as a "revenue estimate" is in order. As I understand it, they assume no significant behavioral response by firms if the United States were to switch from a worldwide to a territorial tax system. This presumes, among other things, that firms would be unable to reclassify "royalties" as "dividends."

35. The Grubert-Mutti calculations do not incorporate effects of the AMT. As noted earlier, the impact of the AMT is difficult to gauge. On the one hand, if the firm has domestic losses and significant foreign income, it may be subject to the 90 percent limitation on the foreign tax credit. On the other hand, if the firm is subject to the AMT on account of domestic considerations, the residual tax rate is only 20 percent.

36. For empirical evidence on the significant potential for income shifting, see Grubert, Goodspeed, and Swenson (1993); Harris, Merck, Slemrod, and Yeung (1993); and Hines and Rice (1994).

37. Indeed, the territorial system ("modified exemption") prototype discussed in U.S. Department of the Treasury (1993) would exempt "high tax" active foreign-source income. The study noted the pressure

such a system would place on source and expense allocation rules, since classifying an expense as relating to exempt income would be tantamount to denying a deduction for the expense.

38. Lyon and Silverstein calculated the magnitude of the change in the price of foreign investment relative to domestic investment between AMT and regular tax firms under a set of assumptions. Consider the case of equity-financed investments by firms in excess limit status for foreign tax credit purposes. Firms expecting to be subject to the AMT for ten years face roughly equivalent effective tax rates for domestic- and foreign-use equipment, while regular tax firms face a significantly higher effective tax rate for foreign investment than for domestic investment. In the cases Lyon and Silverstein considered, foreign investment is treated less favorably than domestic investment for firms facing a given tax system; nonetheless, the AMT creates a relative incentive to locate investment abroad rather than in the United States.

39. For example, such firms could replace debt with preferred stock (behavior noted in Collins and Shackleford 1992).

40. See the discussion in Hall (1993).

41. Under a "water's edge" approach, debt of a U.S. parent is treated as if it supported foreign subsidiary investment to the same extent as domestic investment. Under a "worldwide fungibility" approach, a U.S. parent is allowed to take into account foreign subsidiaries' interest expense in apportioning its own interest expense.

42. Some netting rules are discussed in Hufbauer (1992) and in H.R. 5270 ("The Foreign Income Tax Rationalization and Simplification Act").

43. Altshuler and Mintz (1994) refer to such a concept as a "fat capitalization" rule.

44. Unfortunately, policymakers have not generally considered international tax reform in the context of general tax reform. For example, the Tax Reform Act of 1986 arguably used international tax rule changes to raise revenue, rather than to advance the general goals of reform. The Clinton administration's initial 1993 budget package likewise focused on revenue enhancement in the international tax area.

45. See descriptions in American Business Conference (1993) and Congressional Budget Office (1994). Such a tax is akin to a business transfer tax or subtraction-method value-added tax (see, for example, former Treasury Secretary Nicholas Brady's (1992) proposal for a business transfer tax.

46. Alternatively, in the case of a corporate cash flow tax, investment would be expensed and interest deductions would no longer be permitted. In both the saving-exempt income tax and cash flow tax prototypes, the elimination of interest deductions eliminates the need for interest allocation rules.

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