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THE IMPACT OF THE TAX REFORM ACT OF 1986 ON FOREIGN DIRECT  
INVESTMENT TO AND FROM THE UNITED STATES

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ABSTRACT

Since the passage of the Tax Reform Act of 1986, foreign direct investment (FDI) both into and from the United States has surged. Inward FDI reached an all-time high of \$58.4 billion in 1988, continuing a secular increase that began in the late 1970's. Outward FDI also reached an all-time high of \$44.5 billion in 1987 which, contrary to the case of inward FDI, represented a sharp turnaround from the situation of the early 1980's. Outward FDI in 1988, though, fell back to \$17.5 billion, approximately its level in 1985 and, after adjusting for capital gains and tax haven transactions, is lower as a fraction of GNP than it was in the late 1970's.

This paper addresses to what extent tax reform has been responsible for the surge in FDI, and how it has affected the mix of investment, its financing, and its timing. The link between tax policy and aggregate FDI is difficult to make, both because the net incentive effect of several new provisions is not clear and because it is impossible, with less than three years of post-TRA86 data, to sort out any tax effect from other influences on FDI. Several aspects of recent FDI performance are, however, consistent with the effect of TRA86 on incentives, including the strength of outward FDI to low-tax countries, and the increase in net transfers of debt abroad. For inward FDI, the predominance of Japan and U.K. investment, the relative decline of debt transfers, and the increased reported rate of return are consistent with changed tax incentives.

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## 1. Introduction

At first glance, reconciling the post-1986 behavior of foreign direct investment (FDI) to the Tax Reform Act of 1986 (TRA86) presents an unusual puzzle. On the one hand, changing the tax treatment of foreign direct investment, either absolutely or relative to domestic investment, was not a major theme of TRA86 or the tax reform movement in general. On the other hand, since the act's passage in 1986, foreign direct investment both into and from the United States has apparently surged. As Figure 1 shows, the standard measure of inward FDI reached an all-time high of \$58.4 billion in 1988, continuing a secular increase that began in the late 1970's. Outward FDI also reached an all-time high of \$44.2 billion in 1987 which, contrary to the case of inward FDI, represented a sharp turnaround from the situation of the early 1980's. Outward FDI in 1988, though, fell back to \$17.5 billion, which is approximately its level in 1985 and, after adjusting for capital gains and tax haven transactions, is lower as a fraction of GNP than it was in the late 1970's.

Was tax reform responsible for the surge in FDI, or is the timing of the two events purely a coincidence? Furthermore, has the mix of investment, its financing, and its timing been affected by the tax law change? These are the principal questions addressed by this paper. I conclude that it is impossible to establish a clear link between tax policy and the aggregate behavior of FDI, both because the a priori impact of the change is not clear and because it is impossible, with less than three years of post-TRA86 data, to sort out any tax effect from other influences on FDI. Several aspects of recent FDI performance are, however, consistent with the effect of TRA86 on incentives, including the strength of outward FDI to low-tax countries, and the increase in net transfers of debt abroad. For inward FDI, the predominance of investment from Japan and the

U.K., the relative decline of debt transfers, and the increased reported rate of return on investment are consistent with tax incentives.

To reach these conclusions, the paper proceeds as follows. Section 2 briefly reviews the U.S. tax treatment of FDI. Section 3 discusses the changes wrought by TRA86 and how they affected the incentives for the real and financial decisions of multinational firms. The evidence about FDI since 1986 is presented in Section 4, and compared to the predictions made in Section 3. Some concluding comments are offered in Section 5.

## **2. The Taxation of the Income from Foreign Direct Investment**

### **2.1 An Overview**

Each country in the world asserts the right to tax the income that is generated within its borders, including the income earned by foreign multinational corporations. Countries do, however, differ widely in the tax rate they apply, the definition of the tax base, and in the special incentives they offer for investment. Nevertheless, the first and quantitatively most important tax burden on FDI comes from the government of the country (known as the "host" country) where the investment is located.

Many countries, including the U.S., Japan, and the United Kingdom also assert the right to tax the worldwide income of its residents, including its resident corporations. As a rule, the income of foreign subsidiaries is recognized only upon repatriation of earnings through dividends, interest, or royalty payments. In order to avoid the potentially onerous burden of two layers of taxation, those countries that tax on a worldwide basis also offer a credit for income and withholding taxes paid to foreign governments. The total credit available in any given year is usually limited to the home country's tax liability on the foreign-source income, although credits earned in excess of the limitation may often be carried forward or backward to offset excess limitations for other years. Several other countries, including France and the Netherlands, operate a "territorial" system of taxing their resident corporations, under which foreign-source business income is completely exempt from home country taxation.<sup>1</sup>

This would be the end of the story if the geographical location of income was not a matter of dispute. In fact, even if all the information necessary to ascertain the location of income was costlessly available, the conceptual basis for locating income is controversial (Ault and Bradford, forthcoming). In reality corporations do not have the incentive to fully reveal all the information on which to base a determination of the geographical source of income. For any pattern of real investment decisions, a multinational has the incentive to shift the apparent source of income out of high-tax countries into low-tax countries. This can be accomplished through, for example, the pricing of intercompany transfers of goods and intangible assets, or doing borrowing through subsidiaries in high-tax countries. Note that this incentive applies regardless of whether the home country operates a territorial or worldwide system of taxation.

Much of the complexity of the taxation of foreign-source income arises from the attempt of countries to defend their revenue base against the fungibility of income tax bases. Complex rules cover standards for acceptable transfer pricing, allocation rules for interest expense and intangibles, and taxing on an accrual basis certain types of income. It is impossible to concisely summarize the variety of rules that countries employ to determine the location of income. In some countries the statutes are not as important as the outcomes of case-by-case negotiations between representatives of the multinationals and the countries involved. In other cases the source rules are governed by bilateral tax treaties. What is clear, however, is that the de facto rules that govern the sourcing of income are at least as important for understanding the effective taxation of foreign direct investment as the tax rates, depreciation rules, and tax credits.<sup>2</sup>

## **2.2 The U.S. System of Taxing the Income from Foreign Direct Investment**

### **2.2.1 Outward Investment**

The U.S. operates a worldwide system of taxation. Thus both domestic-source and foreign-source income of U.S. multinationals are subject to U.S. taxation. The income of foreign subsidiaries<sup>3</sup> is not, however, taxed as accrued but instead enters the tax base of the U.S. parent only upon repatriation of dividends, at which time it is "grossed up" by the average tax rate paid to

foreign governments. The grossed-up dividends, minus certain expenses of the multinational allocated to foreign-source income, enter into the taxable income of the parent. Foreign-source income of the parent also includes interest and royalty payments from subsidiaries and certain types of "passive" income on an accrual basis, plus the foreign-source income of foreign branch operations.

In general, income taxes paid by foreign affiliates to foreign governments can be credited against U.S. tax liability. This credit is, however, limited to the U.S. tax liability on the foreign-source income, which is approximately equal to the U.S. statutory corporation tax rate multiplied by the net foreign-source income of the subsidiary. Multinationals whose potentially creditable foreign taxes exceed the limitation on credits are said to be in an excess credit position. These excess credits may be carried forward for five years (or backward for two years) without interest to be used if and when the parent's potentially creditable taxes fall short of the limitation. If the potentially creditable taxes are less than the limit on credits to be taken in a given year, the corporation is said to be in an excess limitation (or deficit of credit) position. Distinguishing the excess credit and excess limitation situation is critically important, because the tax-related incentives for real and financial behavior are often quite different for a corporation depending on which situation it is in.

### **3. The Tax Reform Act of 1986 and the Changed Incentives for Foreign Direct Investment**

#### **3.1 Outward Investment**

##### **3.1.1 Tax Law Changes**

The three most significant aspects of TRA86 for outward investment, in order of importance, were as follows:

1. The reduction in the statutory corporate rate from 46% to 34%, and the resulting increase in the number of firms in an excess credit situation,

2. The change in the rules governing the sourcing of income and the allocation of expenses (most significantly interest) between domestic and foreign-source income, and

3. The tightening of the foreign tax credit limiting the averaging of different types of income.

### 3.1.1.1 The Reduced Statutory Corporate Tax Rate

The single most important aspect of TRA86 for outward FDI was the reduction in the statutory rate of corporation income tax from 46% to 34%. Many of the repercussions of the new law follow from this change.

To see this, a brief digression on the impact of TRA86 on domestic investment is required. It is well known that the net effect of the tax system on the incentive to invest depends not only on the statutory rate but also on, among other things, the schedule of depreciation allowances, the rate and scope of investment tax credits, the source of financing, and the rate of inflation. TRA86 eliminated the investment tax credits which previously applied to equipment and machinery, and provided generally less generous depreciation allowances, both of which tended to offset the tax rate reduction. Most analysts concluded that the net effect of these provisions was to slightly increase the effective corporate-level tax on new domestic investment, an important alternative to FDI.

An analysis of how these same changes affected the effective tax rate on FDI must proceed quite differently because, with certain exceptions, foreign-source income of foreign subsidiaries enters the parent's tax base only to the extent that dividends are repatriated. There is thus no calculation of foreign-source taxable income from which depreciation allowances are deducted and against which investment tax credits can be offset. The tax base is simply dividends received minus allocable deductions, grossed up by the average rate of foreign taxation (calculated using an earnings and profits measure of taxable income, which is not sensitive to legislated changes in the tax depreciation schedules used for domestically-located assets,<sup>4</sup> investment credits, etc.). To that base is applied the corporate statutory tax rate.

Thus, ignoring the source-of-income rules discussed below, the corporate tax changes of TRA86 reduced the statutory rate from 46% to 34% but did not broaden the tax base, resulting in an unambiguous reduction in the tax rate on income from FDI. Assuming that the taxes imposed by the foreign governments remained unchanged,<sup>5</sup> it follows that the amount of additional taxation imposed by the U.S. upon repatriation either stayed the same or declined. It stayed at zero for multinationals whose average<sup>6</sup> tax rate paid to foreign governments exceeds 46%. Any multinational subject to an average tax rate by foreign governments between 34% and 46% had formerly been paying taxes upon repatriation, but under the new rate would no longer be liable for any additional taxes. For firms paying less than a 34% average tax rate to foreign governments, the tax due upon repatriation would fall substantially, although not to zero.<sup>7</sup>

The other important implication of the reduction of the U.S. statutory rate from 46% to 34% is that a much higher fraction of U.S. multinationals are likely to be in an excess credit situation, because the average tax paid to foreign governments exceeds 34%.<sup>8</sup> For a firm in excess credit status, every additional dollar paid in tax to a foreign government generates a foreign tax credit that cannot be used immediately, and has some value to the multinational only if the firm will be in an excess limitation position either in the next five years (the carryforward limit) or had been in an excess limitation position in the previous two years (the carryback limit). Thus a U.S. multinational in an excess credit position is likely to be much more sensitive to differences in foreign effective tax rates than a firm in an excess limitation situation.<sup>9</sup> This increases the relative attractiveness of investment in a low-tax foreign country such as Ireland compared to a high-tax country such as West Germany.

### **3.1.1.2 New Source Rules**

A firm in excess credit status can reduce the present value of its tax burden to the extent it can increase the limit on foreign tax credits. This increases the importance of the rules determining the source, for U.S. tax purposes, of worldwide income. Holding worldwide income constant, if a dollar of income is shifted from domestic-source, to foreign-source, it increases the foreign tax



credit limitation by one dollar and allows 34¢ more of foreign taxes to be credited immediately against U.S. tax liability. Only to the extent that foreign governments enforce the same source rules will there be an offsetting increase in foreign tax liability.

One existing source rule that becomes more important applies to production for export. According to current regulations, between forty and fifty percent of the income from domestic U.S. production of export goods can effectively be allocated to foreign-source income. For a multinational in an excess credit position, this has the effect of reducing the effective tax rate on domestic investment for export by as much as a half. Thus, if a contemplated FDI is to produce goods for sale outside the U.S., the alternative of domestic U.S. production has become relatively tax favored for those firms which have shifted into excess credit status, in spite of the base broadening aspects of TRA86. This reasoning would not, though, apply to FDI designed to reexport to the U.S., because the alternative of domestic production for internal consumption does not benefit from the export source rule.

Interest expenses of the U.S. parent corporation must be allocated to either U.S. or foreign-source income. The general rule is to allocate on the basis of the book value of assets, so that interest expenses deductible from foreign-source income are equal to total interest payments multiplied by the fraction of worldwide assets represented by assets expected to generate foreign-source income. Although TRA86 did not significantly alter this allocation formula, it did add a "one-taxpayer" rule, under which corporations that are members of an affiliated group are consolidated for the purpose of allocating interest expenses between U.S. and foreign sources.<sup>10</sup> In the absence of this rule a multinational could load its debt into a U.S. subsidiary with no foreign-source income and have the interest expense be allocated entirely to U.S.-source income, thus maximizing foreign-source income and the limitation on foreign tax credits. With the one-taxpayer rule, a fraction of these interest payments has to be allocated to foreign-source income regardless of the legal structure of the multinational.

For multinationals in excess credit position that are forced to reallocate interest payments, this provision increases the average cost of capital of domestic or foreign investment to the extent

debt finance is used. It also increases the marginal cost of foreign investment, because foreign investment increases the amount of interest payments that must be allocated abroad, which decreases foreign-source income and therefore the amount of foreign taxes that are immediately creditable.<sup>11</sup> This provision is obviously most important for multinationals with a high debt-to-capital ratio.

### **3.1.1.3 Separate Baskets**

TRA86 also changed the operation of the foreign tax credit by creating separate ("basket") limitations for certain categories of income. Foreign taxes imposed on taxable income in a particular basket can only offset U.S. taxes due on that category of income. There are eight separate baskets, including passive income, high withholding tax interest, and financial services income. In some cases (e.g., passive income), the objective was to prevent fungible income from being earned in low-tax rate foreign jurisdictions and thus increasing the amount of available foreign tax credits that could offset taxes paid on other income to foreign governments. In other cases (e.g., high withholding tax interest), the objective was to prevent multinationals (often banks) in an excess limit position from paying effectively high withholding taxes (which, due to the excess limit, could be immediately credited against U.S. tax liability) in return for favorable pre-tax terms of exchange (i.e. higher than otherwise pre-tax interest rates on loans). These objectives share the common thread of limiting the revenue loss to the U.S. than can arise from manipulation of the foreign tax credit mechanism.

In general, the creation of separate foreign tax credit baskets increases the effective taxation of foreign-source income, because it makes it more difficult in certain cases to credit foreign income taxes against U.S. tax liability. In addition, the baskets can add significant complexity to the typical multinational's compliance procedure, and to this extent the provisions add a hidden tax burden to multinational operation.

### 3.1.2 The Effect on Outward FDI

The preceding discussion touched only on the most important provisions of TRA86 that affect the incentives of U.S. firms to undertake and finance FDI. Because some of the provisions have offsetting incentive effects, its impact on aggregate outward FDI is unclear on a priori grounds. Moreover, the net effect of the tax changes depends critically on firm characteristics such as its excess credit status (which in turn depends on such factors as the countries of operation and repatriation policy), its debt-capital ratio, and whether foreign production is for re-export to the U.S. or for sale abroad.

Before the actual impact of TRA86 could be discerned, Grubert and Mutti (1987) attempted a quantitative assessment of its impact on FDI using a two-country, multi-sectoral general equilibrium model. To quantify the changes in U.S. corporate taxation of foreign-source income, they relied on the revenue estimates that accompanied TRA86. Netting the tax increases on foreign income (due primarily to the new interest allocation rules and separate foreign tax credit limitations), estimated to be \$2.9 billion, against the reduction in U.S. tax on foreign corporate income due to the statutory rate reduction, estimated at \$3.2 billion, yielded a tax reduction on foreign-source income of 0.3 percentage points. Thus on net they judged that TRA86 provided a slight reduction in the tax on foreign-source income and a moderate increase in the corporate tax on domestic investment, and concluded that TRA86 would have a relatively small impact on capital flows and the trade balance. For the short run they forecast a capital outflow in response to lower after-tax returns in the U.S., and an accompanying decrease in the trade deficit. In the long run output in the import-competing sector was predicted to decline by between one and two percent due to the relatively large increase in that sector's capital costs, the tax incentives to exports, and the outflow of capital.

In a similar vein, Sinn (1988) argued that TRA86 would result in a net outflow of direct investment. As in the Grubert and Mutti analysis, this conclusion is based on the judgment that the base broadening aspects of corporate taxation slightly outweighed the reductions in the statutory

rate cut, and thus increased the effective rate of taxation on domestic U.S. investment. Sinn also argued that TRA86's changes in the individual-level taxation of capital income would reinforce this conclusion. The cuts in marginal tax rates, by raising the after-tax return on financial assets, and the increased effective tax rate on capital gains would combine to raise the required rate of return to U.S. investors, who hold claims on predominantly U.S.-located real capital.

Although the impact on aggregate FDI is unclear on a priori grounds, as mentioned above investment in high-tax countries such as Germany should decrease compared to investment in low-tax countries such as Ireland. This is because the increased prevalence of firms in an excess credit position implies that incremental foreign-source income from Germany will often no longer generate offsetting foreign credits.

TRA86 also has implications for the financial and accounting decisions of multinationals, holding constant their real investment decisions. The relatively low U.S. statutory rate makes it attractive to have interest deductions taken against subsidiaries' income subject to tax by foreign governments. A movement toward this financial structure, depending on how it is structured, could show up in the data as transfers of debt capital from U.S. parent to its foreign affiliates and an offsetting transfer of equity from the affiliate to the U.S. parent.<sup>12</sup>

More generally, the relatively low U.S. statutory rate provides multinationals with the incentive to reduce taxable income subject to foreign taxes, even if there is a corresponding increase in U.S. source income for U.S. tax purposes. There are a host of techniques multinationals can use to achieve this purpose, including receiving income from foreign subsidiaries via payments deductible from host country taxable income (e.g., interest, royalties, and service fees) and the pricing of intrafirm transfers of goods and services. To the extent that this happens we would expect foreign-source income to decrease, which could show up in the data as a decreased rate of return on foreign investment.<sup>13</sup>

Because of the gradual reduction of the corporate tax rate (from 46% in 1986 to 40% in 1987 to 34% in 1988 and subsequent years), many multinationals had an incentive to postpone dividend repatriations from 1986 and 1987 into 1988 and beyond. Thus the dividend payment rate

should be abnormally low in late 1986 and 1987, and abnormally high in 1988. This would increase measured undistributed earnings of foreign affiliates in 1986 and 1987 and reduce them in 1988.

Whether the rate of profit repatriation will be permanently affected is a distinct and interesting question. Lowering the U.S. corporation tax rate will generally reduce the amount of tax paid to the U.S. government upon repatriation. However, Hartman (1984) has persuasively argued that the amount of tax due upon repatriation should not affect a firm's choice of whether to repatriate or invest a dollar of its earnings, because the repatriation tax reduces equally both the return and the opportunity cost of investment. In other words, the repatriation tax reduces equally the parent's after-tax return from a dividend today and a dividend in the future, and thus does not affect the optimal timing of dividends. If, though, the current tax rate on repatriations is expected to increase over time, Hartman's reasoning would imply an incentive for current repatriations because the tax system reduces the after-tax return to investing earnings (and future repatriation) more than it reduces the opportunity cost (current repatriation).

## **3.2 Inward Investment**

### **3.2.1 Tax Law Changes**

Foreign corporations, and U.S. corporations controlled by a foreign corporation, that are engaged in a trade or business in the U.S. are subject to taxation according to rules that are roughly comparable to those that apply to U.S. corporations. Thus, the reduction of the statutory rate, elimination of the investment tax credit, and changes in depreciation schedules apply directly to foreign subsidiaries. The U.S. also imposes a "withholding" tax of 30 percent, modified by treaty to a much lower figure for many countries, on payments from corporations within the U.S. to foreign corporations. These withholding tax rates were not affected by TRA86.

TRA86 did introduce a new branch profits tax, which imposes a 30 percent tax (often reduced by treaty) on the repatriated profits and certain interest payments of a U.S. branch of a foreign corporation. This tax, which affects primarily financial institutions, was designed to

equalize the tax treatment of foreign corporations operating through a U.S. branch and those operating through a wholly owned domestic subsidiary.

### 3.2.2 The Effect on Inward FDI

The conclusion of many observers that TRA86 increased the effective rate of taxation on new corporate investment dominated the forecasts about inward FDI made by those few brave souls who offered a prediction before the actual impact could be discerned. Both Grubert and Mutti (1987) and Sinn (1988) based their conclusions that inward FDI would fall on this aspect of TRA86.

After observing the surge of inward FDI to the U.S. immediately after the passage of TRA86, Scholes and Wolfson (1989) offered an ingenious argument that the increase in the effective tax rate on domestically-located capital was a key element in the sharp increase of inward FDI. Their argument begins (as does the argument of Grubert-Mutti and Sinn) with the presumption that TRA86 increased the effective rate of taxation on domestically-located capital. Now consider a foreign firm resident in a country which taxes on the basis of worldwide income and offers a tax credit for income taxes paid to foreign governments. If the U.S. average tax rate is below the foreign statutory rate, and ignoring the benefits of deferral, the total effective tax rate on a U.S. investment will be unchanged by the increase in the U.S. effective tax rate. To put it another way, the increased U.S. taxation is offset by increased credits offered by the foreign government. If the total effective tax rate faced by foreigners stays unchanged, when the tax rate faced by U.S. investors increases, the relative tax rate of foreigners declines, causing a shift in ownership of U.S.-located assets to foreign corporations. Thus the counterintuitive prediction of this analysis is that increases in U.S. corporate taxation will increase foreign ownership of U.S.-located capital. The Scholes-Wolfson hypothesis bears further discussion because of its startling predictions, its ability to apparently explain some of the post-TRA86 data (discussed below), and because it offers a convenient organizing focus for thinking about the effect of U.S. tax law on inward FDI.

The analysis rests on two assumptions which are subject to some qualification. First, of the six principal countries exporting capital to the U.S., only two (Japan and the United Kingdom) operate a worldwide system with foreign tax credit. France and the Netherlands operate a territorial system, so that foreign-source income of their resident multinationals is untaxed by the home country. Although Canada and West Germany in theory have a worldwide system, by treaty with the U.S. repatriated dividends bear no further taxation. For multinationals in these latter four countries, the effective tax rate on FDI in the U.S. is no different than for U.S. companies, so that the analysis does not apply. Japan and the U.K. have, however, accounted for slightly more than half of the six countries' FDI in the U.S. in the past several years. Nevertheless, the assumption that the investing country operates a worldwide system of taxation does not apply universally. Furthermore, even for Japan and the U.K., TRA86 did not increase the tax rate on U.S. FDI only to the extent the multinationals are in an excess limitation position and are repatriating income that is subject to additional taxation in the home country. If most income is retained by the U.S. subsidiaries, then the U.S. tax rate is the relevant one for all investors and an increase does not reduce the relative tax rate faced by Japanese or U.K. investors.

Second, the Scholes-Wolfson hypothesis says that an increase in U.S. corporate taxation reduces the relative tax burden on foreign-owned investment, but certainly does not imply a decline in the absolute level of taxation. Thus the hypothesis suggests a change in the ownership pattern of existing capital, but is consistent with a decline in the rate of increase of foreign-owned capital due to the heavier absolute tax burden imposed by TRA86.

Some of the changed incentives for financial behavior that apply to U.S. multinationals also apply to foreign multinationals operating in the U.S. The relatively low U.S. statutory rate makes it attractive to shift taxable income to a U.S. jurisdiction, either by shifting debt out of U.S. corporations or via transfer pricing. There is no change, though, in the incentives for dividend repatriation.

#### 4. FDI Since TRA86

##### 4.1 Outward Investment

The usual measure of outward FDI surged immediately following the passage of TRA86. As Figure 2 shows, the flow of outward FDI reached an all-time high of \$44.5 billion in 1987, continuing a secular increase that began in 1983, and representing a sharp turnaround from the situation of the early 1980's. As recently as 1984, outward FDI was only \$2.8 billion, and it averaged less than \$1 billion for the 1982-4 period. In 1988, though, outward FDI fell from \$44.2 billion back down to \$17.5 billion, below both the 1985 and 1986 levels but still significantly higher than in the 1981-4 period.<sup>14</sup>

Figure 2 also shows that the 1987 increase in outward investment was almost entirely comprised of an increase in retained earnings, with net transfers of debt plus equity contributing very little to the total. Similarly, the 1988 drop was largely due to a decline in retained earnings. Furthermore, a substantial fraction of the 1987 increase and 1988 decrease in retained earnings can be ascribed to capital gains on foreign operations due to the depreciation of the dollar. As an illustration, between 1984 and 1987 the increase in the flow of reinvested earnings was \$24.6 billion and during the same period the capital appreciation component of foreign-source income went from a capital loss of \$8.4 billion to a capital gain of \$15.6 billion, a net increase of \$24.0 billion, or 97% of the total increase in retained earnings and 58% of the increase in the overall outward flow of FDI. The decline in retained earnings from \$35.7 billion to \$15.2 billion was largely due to the change in capital gains from \$15.6 billion to -\$0.1 billion. Figure 3, which shows outward FDI measured net of capital gains and losses, tells a somewhat different story about outward FDI in the 1980's, in particular a less dramatic rise from 1984 to 1988. However, still evident is a large increase in 1986 and 1987 and a decline in 1988 to slightly below the 1986 level.

One further adjustment to the outward FDI data should be made. As it stands now, it includes transactions between U.S. parent companies and Netherlands Antilles affiliates. Most of



these affiliates were established in the late 1970's and early 1980's to borrow funds in European capital markets and reloan them to their U.S. parents. Due to the U.S. - Netherlands Antilles tax treaty then in force, this arrangement allowed the avoidance of U.S. withholding taxes. Upon the elimination of the withholding tax in 1984, this tax advantage was ended. Thus the data show large debt inflows from the Netherlands Antilles until 1984 and large outflows thereafter, as the loans are repaid. Figure 3 shows the pattern of outward FDI after purging the data of transactions with the Netherlands Antilles (and capital gains). The upward trend of the 1980's looks smaller still, although 1987 still stands out as an all-time record, with 1988 falling back to the 1986 level.

All in all, the post-TRA86 performance of outward FDI has been strong relative to the early 1980's, but not high relative to the late 1970's. This general conclusion is corroborated by other data on the strength of foreign direct investment. Figure 4 shows the recent history of capital expenditures by majority-owned foreign affiliates of U.S. companies.<sup>15</sup> The figures for 1987 and earlier represent actual expenditures, while those for 1988 and 1989 represent planned expenditures from a Bureau of Economic Analysis survey taken in December 1988. Consistent with the FDI numbers discussed above, this data indicates a surge in capital expenditures after TRA86. In this case the surge is expected to begin in 1988 rather than in 1987. While 1987 investment was only 5.5% higher than 1986, planned 1989 expenditures are 47.5% higher than actual expenditures in 1986. The expected increase is widespread across industry group as well.<sup>16</sup>

In sum, two distinct sources of data indicate that outward FDI has been strong since the passage of TRA86. However, the 1988 FDI figure is substantially below the 1987 figure, and as a percentage of GNP it is below the FDI of the late 1970's. It is particularly difficult to detect the hand of TRA86 in this performance, since its net impact on the incentive to undertake FDI is ambiguous on theoretical grounds due to the offsetting incentive effects of several of its aspects. To detect TRA86's influence, it may be necessary to look at specific aspects of the post-TRA86 FDI performance.

#### 4.1.1 Geographical Distribution of FDI

Judging by the capital expenditures numbers, the planned increase in investment is broadly distributed across geographical areas. The overall increase between 1985 and 1989 is, however, higher for Europe and Japan (49.4% and 47.6%, respectively) compared to Canada and developing countries (19.1% and 15.7%, respectively). The strong European performance is no doubt partly stimulated by the planned dismantling of internal trade barriers, and fear of increased protectionism, in 1992.

Is there any evidence of a post-TRA86 shift toward investment in low-tax countries? Table 1 assembles some evidence to assess that question. European countries are divided into groups based on their effective tax rates on investment as calculated by Crooks, et al.(1988). The rate of growth of capital expenditures in low-tax countries (Belgium, Ireland, and Luxembourg) is notably higher than in high-tax countries (Denmark, France, Germany, Greece, Italy, the Netherlands, and Portugal).<sup>17</sup> This conclusion is robust to including as a low-tax country Spain, whose effective tax rate on new investment was assessed to be relatively high by Crooks et al., but is generally understood to be a low-tax location for investment. Of course the prospect of reduced internal trade barriers is an alternative explanation for the growing importance of the relative tax burdens imposed by host countries. With a reduction in barriers to trade, there is less need to locate production facilities in the same country as the final market.

#### 4.1.2 Financial and Accounting Responses

In situations where all governments agree on the source of income, the relative decline in the U.S. statutory rate gave multinationals (especially those in an excess credit situation) more incentive to have taxable income appear as U.S.-source income rather than foreign-source income. On the other hand, more U.S. multinationals are in an excess credit position, and in this situation an increase in foreign-source income for U.S. tax purposes only is advantageous, because it increases the amount of foreign tax credit that can be taken immediately. Thus the incentive to shift income between U.S. and foreign sources depends on the relative strength of these factors and

critically on the relationship between the income source rules of the U.S. and those of the host countries. Shifting of income can be accomplished through a great variety of financial and accounting transactions, the net effect of which would be to decrease net taxable income abroad and the reported rate of return on foreign assets.

Table 2 shows that there is evidence for one dimension of financial response, an increase in debt transfers from parent to foreign affiliate.<sup>18</sup> In the seven years since 1982 for which this data has been collected, until 1986 debt outflows had been substantially negative (except for a positive \$187 million in 1982). Since 1986 debt transfers have averaged nearly \$3 billion annually.<sup>19</sup> The evidence for complementary declines in equity transfers is more ambiguous, because although in 1988 equity transfers were at a seven-year low, in 1987 they were at their highest level since 1982. Note that subsidiary borrowing was made relatively more attractive not only by the reduced U.S. statutory rate, but also by the one-taxpayer rule for interest allocations of the parent corporation. Under that rule, the tax saving to a firm in an excess credit situation per dollar of U.S. interest expense is less than the U.S. statutory rate, because some of the interest must be allocated to foreign-source income, reducing the available amount of foreign tax credits. Before TRA86, the interest deduction was fully effective if it was taken by a subsidiary with no foreign-source income.

As Table 3 indicates, the rate of return on outward investment, calculated net of capital gains and transactions with Netherlands Antilles affiliates, shows no evidence of a post-TRA86 decline due to the incentive to shift income away from foreign taxable income now subject to relatively higher statutory tax rates. If anything, the trend is upward.

#### 4.1.3 Timing Issues

The Tax Reform Act of 1986 was passed by both houses of the legislature on September 25 and 27, 1986 and signed into law by President Reagan on October 22. That many of the basic features of TRA86 would become law was widely perceived by May of 1986, when the Senate

Finance Committee passed its tax bill, although some important details had yet to be decided by the conference committee.

Most details of the law were scheduled to take effect on January 1, 1987, although the cut in the corporate tax rate was phased in so that it was 40% in 1987 and 34% for 1988 and thereafter, and the investment tax credit was eliminated retroactively to January 1, 1986. The imminent change in the tax law provided corporations with the incentive to accelerate or decelerate decisions to attract more favorable tax treatment. Reflecting these incentives outward FDI behaved strikingly in the fourth quarter of 1986 and, to some extent, the first quarter of 1987.

The flow of net outward FDI was extraordinarily low in the fourth quarter of 1986, falling sharply to -\$1.1 billion from an average of a \$9.1 billion in the first three quarters and \$11.2 billion in the first quarter of 1987. Equity transfers were extraordinarily large in both directions, four times as large as in previous quarters, with decreases exceeding increases. Gross decreases in equity amounted to \$7.1 billion in 1986:4 alone, more than four times the rate of the first three quarters of 1986. Debt transfers moved from a substantial net outflow to a \$0.3 billion inflow. Dividend repatriations were also unusually high in 1986:4--\$10.0 billion, compared to an average of \$4.4 billion in the first three quarters of 1986 and an average of \$5.7 billion per quarter in 1987. There is some indication that the drop in net capital outflows in part reflected a timing change, because outflows in the first quarter of 1987 were higher than any other period in the six quarters from 1986:2 to 1987:3.

What could have accounted for the extraordinary drop in net outward capital flows? The extraordinarily high volume of equity transfers was undoubtedly largely due to the imminent repeal (as of January 1, 1987) of the General Utilities doctrine (under which a corporation could liquidate and avoid paying a corporate-level capital gains tax on the sale of its assets) and other changes that would increase the tax cost of mergers and acquisitions after TRA86. Thus, there was a tax incentive to accelerate a planned sale or reorganization into 1986:4.

The large volume of dividend repatriations in 1986:4 is an apparent puzzle in view of the argument made below that there is an incentive to postpone dividends from the high tax rate pre-

TRA86 years to subsequent years when the tax rate would be lower. Dividend repatriations in 1986:4 could have been designed to beat the TRA86 clock concerning separate baskets for the foreign tax credit. As of 1987, excess credits earned for foreign-source income in certain categories could no longer be averaged against other kinds of income. By repatriating this income in 1986, the excess credits could have been of more value to the firm.

There is strong evidence that U.S. multinationals reacted to the declining statutory corporate rate between 1986 and 1988 by postponing dividend repatriations. Total distributed earnings jumped from \$24.3 billion in 1987 to \$37.2 billion in 1988. As a fraction of earnings before capital gains or losses dividend payments rose from 57.4% to 70.8%.<sup>20</sup> The fact that the 1986 payout rate was even higher, at 69.9%, largely reflects the extraordinarily high distributions in the fourth quarter of that year.

#### 4.2 Inward Investment

As Figure 5 shows, foreign direct investment into the U.S. has surged since the passage of TRA86. Inward FDI totalled \$46.9 billion in 1987 and \$58.4 billion in 1988, compared to an average of only \$20.9 billion in the 1980-6 period. This statement needs less qualification than the earlier one about outward investment, because capital gains have not been as important and because intrafirm transactions with financial affiliates in the Netherlands Antilles are not an important issue. Also in contrast to outward investment, retained earnings have, with the exception of 1988, been negligible. Equity transfers dominate the new investment, comprising over two-thirds of the capital inflows in 1987-8.

This post-TRA86 surge is corroborated by the data on investment outlays for U.S. business enterprises acquired or established by foreign direct investors. This series differs from the equity transfer component of the FDI series because it excludes infusions (or reductions) of equity into existing affiliates and because it does not net out sales or liquidations of U.S. enterprises by foreign investors. As Figure 6 shows, this series was marked by large growth from 1985 to 1986 and again from 1987 to 1988, putting the 1988 total at \$65.0 billion, or six times the

1982-4 annual average. The total assets of U.S. businesses acquired or established also surged in 1986 and 1987, leveling off in 1988 to a level three times the 1984-5 average.

#### 4.2.1 Geographic Distribution

Table 4 breaks down inward FDI by country of origin. Shown are the flow of FDI as well as outlays for acquisition or establishment of U.S. business enterprises by nonbank U.S. affiliates of foreign corporations. For the former, investments are classified by the country of the foreign parent. For the latter, investments are classified by the country of "ultimate beneficial owner," which is that person, proceeding up a U.S. affiliate's ownership chain, beginning with and including the foreign parent, that is not owned more than 50 percent by another person.

Although most investing countries participated in the post-TRA86 surge in investment, the increase was dominated by investment from Japan and the United Kingdom. These two countries account for about three-quarters of the 1985-8 increase in FDI and outlays by foreigners for acquisition or establishment of U.S. business enterprises.<sup>21</sup>

The recent predominance of FDI from Japan and the United Kingdom is consistent with the Scholes-Wolfson hypothesis, because they are two countries that effectively operate a worldwide tax system with a foreign tax credit, and their resident multinationals may be relatively less affected by increases in the U.S. tax burden on investment. To some extent, the large rate of increase of FDI from Japan and the United Kingdom may simply reflect the worldwide increase in FDI from these countries.<sup>22</sup> Worldwide FDI from U.K. (measured in pounds) did increase by 149% between 1984 and 1988, but this large growth rate is still below the rate of increase in FDI located in the U.S. Worldwide FDI from Japan (measured in dollars) doubled between 1986 and 1988, though the share going to the U.S. did increase over this period. Although this pattern is consistent with the Scholes-Wolfson hypothesis, the qualifications that must accompany its applicability are so important that I believe it is too early to accept their tax story as the principal explanation for the recent importance of FDI from Japan and the U.K.

#### 4.2.2 Financial Responses

The decreased U.S. corporate tax rate should reduce the incentive of foreign multinationals to locate debt in the U.S., and more generally to induce them to have taxable income show up as U.S. source. Figure 5 shows that the former effect is indeed evident in 1988, when the ratio of equity transfers to debt transfers reached 3.5, the highest ratio since these data were tabulated in 1980.

Table 5 indicates that the rate of return on inward FDI did in fact increase substantially between 1986 and 1988. Since 1982 only 1984 shows a higher overall return, and for the manufacturing sector the 1988 rate of return is the highest since 1980. Although this evidence is consistent with the increased incentive of foreign multinationals to have income reported as U.S. source, the bottom row of Table 5 indicates that between 1986 and 1988 there was also an increase in the rate of return for domestic manufacturing as a whole. It is too early to know to what extent the increased rate of return on inward FDI merely reflects the increased profitability of all U.S. located firms.

#### 4.2.3 Timing

As was the case for outward investment, inward FDI in the fourth quarter of 1986 behaved differently than it had in the quarters before or after. Capital inflows, which averaged an annual rate of \$28.7 billion in the adjacent four quarters, totalled \$16.3 billion in 1986:4 alone. Compared to an average of the adjacent four quarters, both net debt and equity inflows were two and a half times higher. Not only were the net equity inflows unusually large, but so also were gross equity flows (both increases and decreases). Much of the extraordinary activity in the fourth quarter of 1986 was probably pulled forward from the first half of 1987, because capital inflows, and particularly equity inflows, were significantly lower in the first half compared to the second half of 1987. As discussed above in the case of outward investment, the extraordinary behavior of 1986:4 was no doubt largely due to the prospective post-TRA86 increase in the tax costs of mergers and

acquisitions, which accelerated sales and reorganizations planned for 1987, and perhaps beyond, into 1986.

## 5. Conclusions

There is no question that multinationals' decision-makers took notice of the Tax Reform Act of 1986. The extraordinary increase in the fourth quarter of 1986 of debt and equity flows as well as acquisitions was certainly due to the attempt to beat the January 1, 1987 expiration date of certain favorable tax provisions. A significant but unknown fraction of this extraordinary activity probably would otherwise have taken place in 1987 or 1988.

That TRA86 affected the timing of activity seems indisputable. But what of its permanent effect on FDI and its financing? This is, after all, a more interesting issue than the precise timing of investment. This is a more difficult question to answer, because with less than three years of post-TRA86 data it is impossible to distinguish the tax explanation from other competing hypotheses. For example, the strength of inward FDI may be due to the decline in foreigners' rate of taxation relative to U.S. corporations, but it may also be the lagged response to the cheap dollar that, according to Froot and Stein (1989), enriches foreigners and thereby lowers their cost of raising capital. Moreover, the theory does not offer a clear guide to expectations, since the various provisions often have offsetting incentive effects.

The impact of TRA86 may be more transparent when the patterns of FDI are examined more closely. Since TRA86, the growth rate of outward FDI (actual and planned) into low-tax countries has greatly exceeded the growth rate of FDI into high-tax countries, behavior which is consistent with expectations. Furthermore, the location of multinationals' debt finance has moved away from the U.S. to other countries, also as theory would predict. Observed trends in the rate of return to inward FDI are also consistent with tax incentives, although this is not clear in the case of outward FDI.

All of the analysis of this paper has been conditioned on an assumption that foreign tax systems do not change in response to TRA86. As John Whalley's paper for this conference makes



clear, this may not be entirely true. The cross-border fungibility of taxable income was undoubtedly a prime motivation for Canada's reduction in the statutory corporate tax rate. Other countries have also moved toward a lower-rate, lower-allowance system. Such parallel changes, and the prospect of further parallel changes, would dampen the magnitude of the economic responses discussed here. In this case the lasting effect of TRA86 will be the induced change in the international system of taxation as much as changed patterns of cross-border flows of capital.

Although the evidence is often consistent with the changes in incentives due to TRA86, it does not establish that TRA86 has caused behavior to change. Less than three years of evidence cannot support such a claim. The preliminary evidence is, though, in line with other research documenting multinationals' responses to taxation, both with respect to financial behavior (Hines and Hubbard, forthcoming) and real investment behavior (Slemrod, forthcoming).

Table 1

Capital Expenditures by Majority-Owned Foreign Affiliates of U.S. Companies,  
By Low-Tax and High-Tax Countries in Europe, 1984-1989 (\$ millions)

	1984	1985	1986	1987	1988	1989	% Increase 1985-9
Low-Tax	767	778	1054	1160	1417	1672	114.9
Low-Tax Plus Spain	1234	1193	1505	1793	2253	2653	122.4
High-Tax	6836	7187	8385	7928	9306	10424	45.0

Low-tax European countries: Belgium, Ireland, Luxembourg

High-tax countries: Denmark, France, Germany, Greece, Italy, Netherlands, Portugal

Source: Survey of Current Business, various issues.

Table 2

Debt and Equity Outflows, Net of Transactions with the Netherlands Antilles,  
1982-1988 (\$ millions)

	1982	1983	1984	1985	1986	1987	1988
Debt	187	-6127	-3118	-2881	3628	2428	2818
Equity	5535	3492	365	-1350	-195	5020	-2944

Source: Survey of Current Business, various issues.

Table 3

Rate of Return on Outward Foreign Investment, 1981-88

	1981	1982	1983	1984	1985	1986	1987	1988
	10.2	11.5	7.8	14.4	12.8	12.6	13.0	15.2

Source: Author's calculation using figures from Survey of Current Business, various issues.  
Rate of return calculated excluding capital gains and transactions with Netherlands Antilles affiliates.

Table 4

FDI Inflows and Outlays for Acquisition or Establishment of a U.S. Business Enterprise by Country of Origin, 1983-1988 (\$ millions)

Foreign Direct Investment Inflows						
	1983	1984	1985	1986	1987	1988
France	-201	774	30	1017	2471	962
Germany	1007	1291	2292	1982	3150	2306
Japan	1653	4374	3794	7268	7504	17838
Netherlands	2778	3520	2776	4374	8293	4766
United Kingdom	3727	6882	4665	10827	22444	18774
Total	11946	25359	19022	34091	46894	58435

Outlays for Acquisition or Establishment of a U.S. Business Enterprise (\$ millions)

	1983	1984	1985	1986	1987	1988
France	295	330	754	2491	2044	3753
Germany	584	685	2270	1351	4664	1375
Japan	392	1806	1152	5416	7006	14166
Netherlands	492	562	771	4700	391	1937
United Kingdom	2366	3714	6732	8572	15142	21520
Total	8091	15197	23106	39177	40310	65019

Source: Survey of Current Business, various issues.

Table 5

## Rate of Return on Inward FDI and Domestic Manufacturing, 1977-1988

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
All FDI	8.7	10.9	12.7	15.6	9.4	2.6	4.3	6.1	3.5	2.7	3.9	5.6
Manufacturing	6.8	7.4	8.1	11.0	3.4	0.0	1.8	4.9	0.4	0.1	4.6	6.6
Petroieum	13.4	17.3	22.7	29.6	22.3	13.8	9.2	12.8	8.0	1.1	7.3	8.3
Wholesale trade	a	a	a	a	a	0.1	5.8	11.6	9.0	4.7	5.6	5.8
Other	a	a	a	a	a	1.9	4.2	2.4	2.0	4.6	1.3	3.6
All Domestic Manufacturing	14.2	15.0	16.4	13.9	13.6	9.2	10.6	12.5	10.1	9.5	12.8	16.4

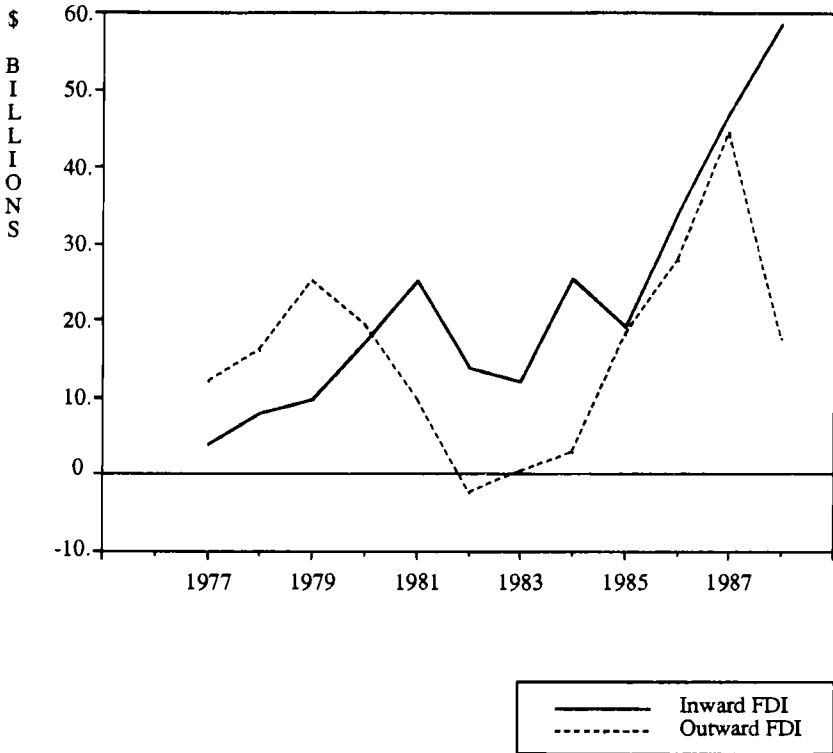
<sup>a</sup>Industry classification is not comparable to later years.

Source: For FDI, Survey of Current Business, various issues..

For domestic manufacturing, Economic Report of the President, 1989, Table B-91

(1988 number is an average over the first three quarters)

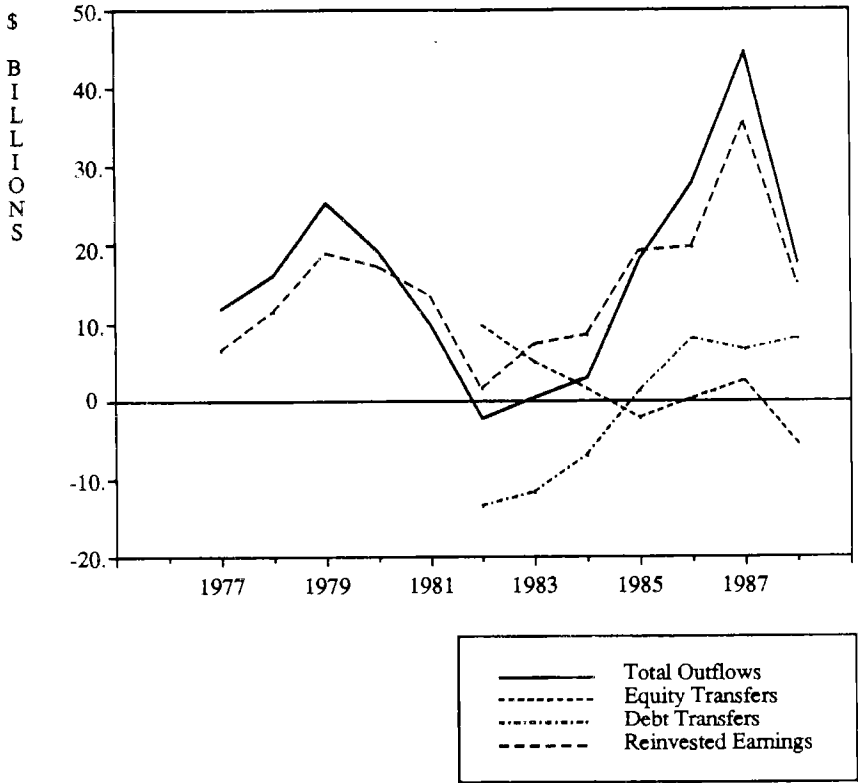
Figure 1  
Inward and Outward Foreign Direct Investment, 1977-1988



Source: Survey of Current Business, various issues.

Figure 2

Outward Foreign Direct Investment, by Source of Funds, 1977-1988

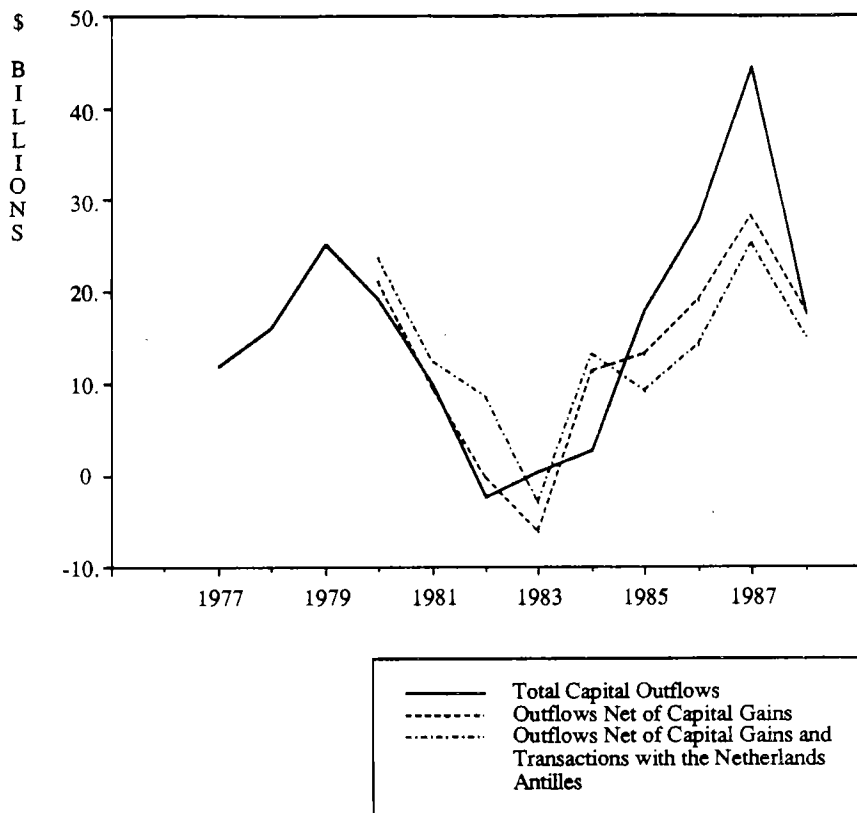


Note: Breakdown of transfers of funds into debt and equity is available only from 1982 on.

Source: Survey of Current Business, various issues.

Figure 3

Outward Foreign Direct Investment, Adjusted for Capital Gains and  
Transactions with the Netherlands Antilles

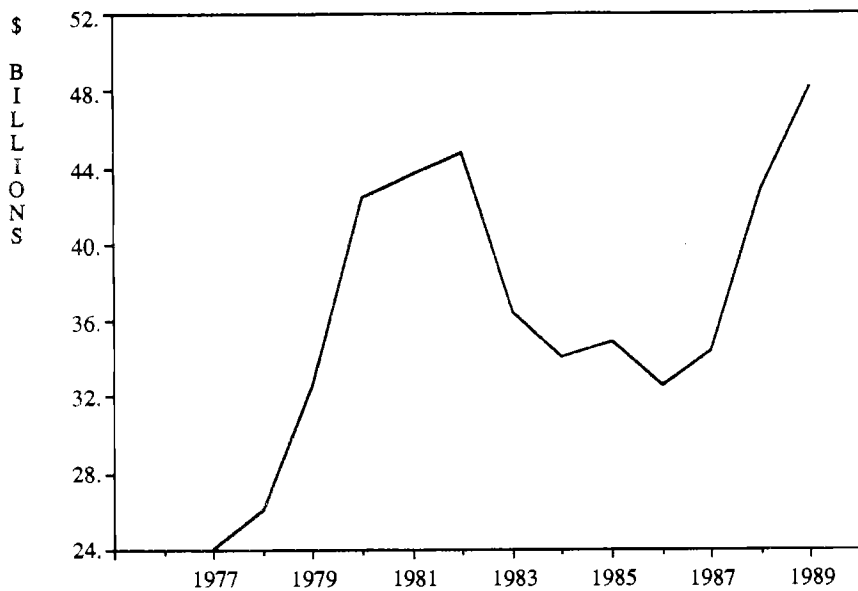


Source: Survey of Current Business, various issues.

Note: Capital gains are not available separately before 1980.

Figure 4

Capital Expenditures by Majority-Owned Foreign Affiliates of U.S. Companies, 1977-1989

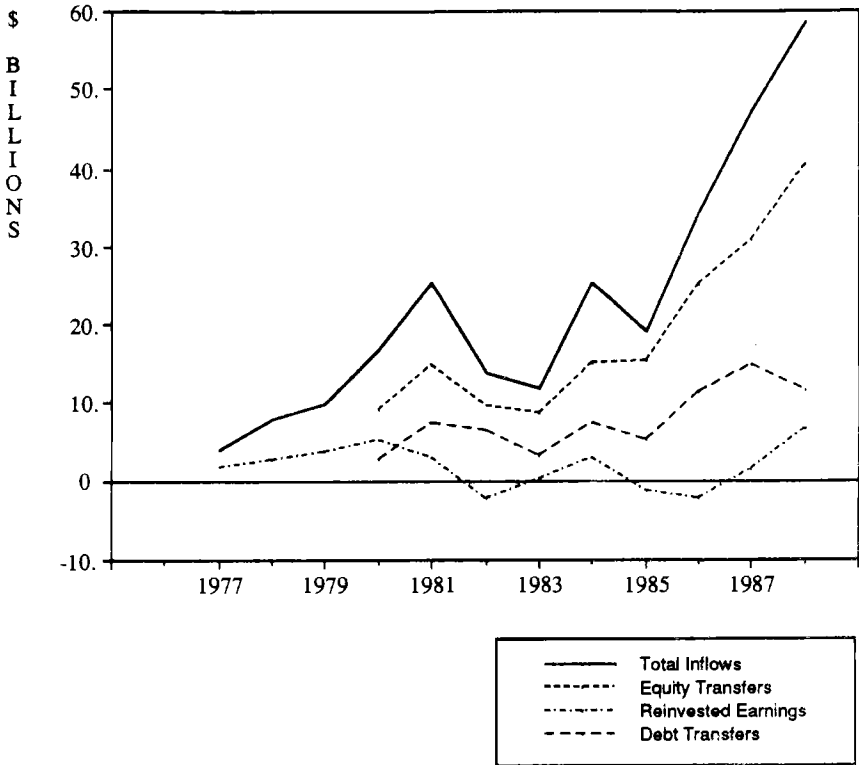


Source: Survey of Current Business, various issues.



Figure 5

Inward Foreign Direct Investment, by Source of Funds, 1980-88

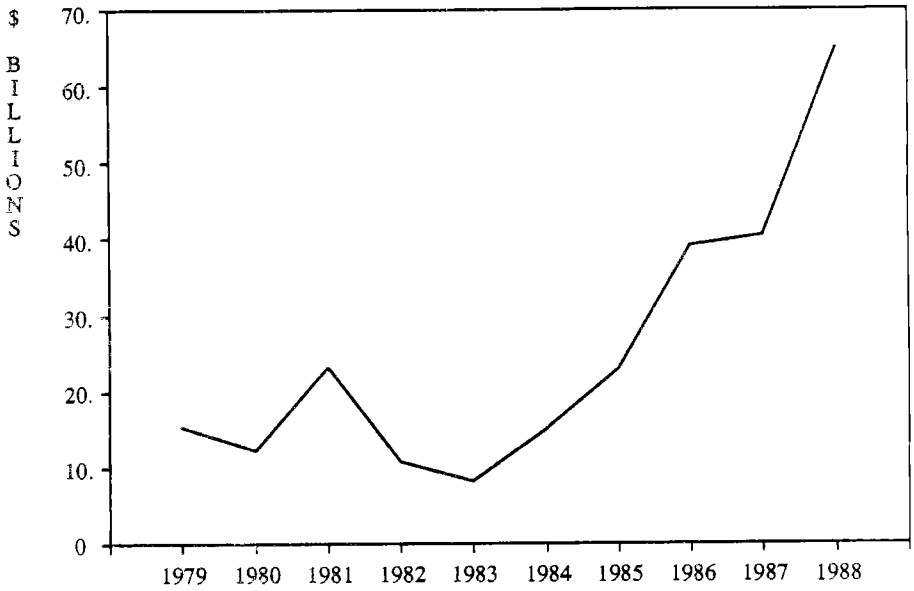


Note: Breakdown of transfers of funds into debt and equity is available only from 1980 on.

Source: Survey of Current Business, various issues.

Figure 6

Outlays for Acquisition of Establishment of a U.S. Business Enterprise, 1979-1988

Source: Survey of Current Business, various issues.

## FOOTNOTES

- <sup>1</sup>By statute, Canada and West Germany have a worldwide system of taxation. However, their tax treaties with the U.S. provide that repatriated dividends are generally subject to no further tax liability.
- <sup>2</sup>See Slemrod (1989) for a framework for measuring the effective tax rate on a foreign direct investment by a multinational firm.
- <sup>3</sup>The income of foreign branches of U.S. corporations is taxed as accrued. Partly for tax reasons, most foreign activity of U.S. corporations is carried out by subsidiaries rather than branches.
- <sup>4</sup>The depreciation rules used in the calculation of earnings and profits do, however, change. For example, since 1980 the depreciation rules that apply to property used overseas have been made less generous. These schedules have tax implications because they affect the calculation of tax deemed paid by subsidiaries to foreign governments and the amount of foreign tax credit available, for any given amount of dividends remitted.
- <sup>5</sup>Since the passage of TRA86, many other countries have enacted tax reforms which share some of the corporate-rate-reducing, base-broadening aspects of TRA86. To the extent that TRA86 caused these reforms (or increased their likelihood), the host country effective tax rate was influenced by the U.S. tax reform. The analysis that follows holds constant the foreign tax system.
- <sup>6</sup>The average tax rate paid to foreign governments is subject to a degree of control by the multinational via its repatriation policy. By repatriating income primarily from high-tax countries, the average tax rate on its foreign-source income is high and less likely to attract additional U.S. tax liability.
- <sup>7</sup>Hartman (1984) has argued that, regardless of the excess credit status of the U.S. parent, the level of repatriation tax is irrelevant for the incentive to undertake FDI financed by earnings of the foreign subsidiary. This is because the repatriation tax reduces equally both the return to investment and the opportunity cost of investment (reduced dividends). This argument would not apply to the infusion of new equity capital from the parent. See Jun (1989) for a critique of this view.
- <sup>8</sup>Grubert and Mutti (1987) quote U.S. Treasury estimates that the fraction of manufacturing multinationals (weighted by worldwide income) in excess credit would increase from 20% to 69%. Goodspeed and Frisch (1989), using updated corporate tax return information, estimate that the fraction of foreign-source income subject to excess credits would rise from 50% to 78%, and from 32% to 82% in manufacturing. These calculations, however, consider only the change in statutory rate and do not consider changes in the allocation rules or the separate baskets, discussed below. In addition, neither analysis considers changes, perhaps induced by the U.S. reform, in other countries' tax rates. Perhaps most importantly, the analyses do not take into account any behavioral response of the multinationals.
- <sup>9</sup>Of course, Hartman's argument implies that, for investment financed by retained earnings, only the host country's tax rate matters even for firms in an excess limitation position, so that no post-TRA86 increased sensitivity to host country tax rates should be observed.

- <sup>10</sup> The one-taxpayer rule already effectively applied to the allocation of expenses on research and development.
- <sup>11</sup> This analysis presumes that the interest allocation rules of foreign governments have not changed.
- <sup>12</sup> This would happen if the parent loaned money to its affiliate, which in turn declared an equivalent dividend to its parent or returned equity capital to the parent. It would not appear this way if the change was effected by parallel transactions with a bank, i.e. a simultaneous bank loan to the affiliate and a repayment of principal by the parent company. In this case no change in foreign direct investment would be indicated by the data.
- <sup>13</sup> Grubert and Mutti (1989a) discovered this phenomenon in a cross-sectional analysis, observing a highly significant negative relationship between the reported after-tax rate of profit for U.S. multinationals' subsidiaries and the host country's statutory corporate tax rate. This observation is consistent with the successful shifting of taxable income from high-tax countries to low-tax countries. By analogy, a reduction in the U.S. statutory rate relative to foreign rates would be associated with a decline in the rate of return on foreign-source income.
- <sup>14</sup> Note that the measure of FDI used in Figure 2 is equal to net transfers of funds (debt and equity) from the parent to foreign affiliates plus earnings retained by the affiliates. Thus it is a financial flow rather than a real investment concept. For example, an investment of a foreign subsidiary that is financed by funds raised by the subsidiary from third parties would not be counted as FDI.
- <sup>15</sup> For affiliates other than those engaged in natural resource exploration and development, capital expenditures include all expenditures made to acquire, add to, or improve properties, plant, and equipment. For affiliates engaged in natural resource exploration and development, capital expenditures also include the full amount of exploration and development expenditures (whether capitalized or expensed). Capital expenditures are on a gross basis; sales and other dispositions of assets are not netted against them.
- <sup>16</sup> The difference in timing could be due to the accumulation of funds in 1987 in anticipation of capital expenditures to take place beginning in 1988.
- <sup>17</sup> The United Kingdom is included in neither the low-tax nor high-tax group because, according to Crooks *et al.*, its effective tax rate lies between the two groups and because the U.K. corporate tax system was undergoing rapid and fundamental changes over this period.
- <sup>18</sup> The relatively low U.S. statutory rate gives an incentive to have debt held by the foreign subsidiary (in a high-tax country) compared to the U.S. parent, as long as the foreign government allows the subsidiary's interest deductions. Such a shift need not be accomplished by increased parent-to-subsidary lending, but also by increased subsidiary borrowing from third parties. However, the interest allocation rules of TRA86 favored parent-to-subsidary lending for firms in an excess credit position. This is because the interest receipts of the parent are considered foreign-source income but only a fraction of the parent's interest expenses would be deducted against foreign-source income, thus increasing net foreign-source income the the limit on the amount of foreign taxes that can be credited. This tax benefit in many cases more

than offset the withholding tax on interest paid by the subsidiary. The IRS has proposed a regulation which, by requiring interest payments of the parent to be netted against interest received from subsidiaries before being subject to the allocation rules, would eliminate the advantage of parent-to-subsidary lending.

<sup>19</sup>Note that these figures are all net of transactions with Netherlands Antilles affiliates.

<sup>20</sup>The change looks even more striking if dividends are expressed as a fraction of earnings including capital gains or losses, increasing from 41.5% in 1987 to 71.0% in 1988.

To some extent tax-induced changes in the timing of dividend repatriations may not be reflected in the data. For example, subpart F rules treat certain kinds of income of subsidiaries as if they were remitted dividends, even if no dividends are actually paid (and therefore no withholding taxes are due to the foreign government).

<sup>21</sup>The increase in United Kingdom activity would appear even larger if the measure of FDI was the change in a country's FDI position, which differs from capital inflows by including valuation adjustments that arise, for example, due to the transfer in ownership of a FDI from one owner to another. In 1988, a large holding in Shell Oil was transferred from a Dutch holding company to the British parent.

<sup>22</sup>The impact of the U.S. tax system on investment from the U.K. is especially difficult to sort out because during this period there were major changes in the structure of U.K. corporate taxes. In the 1984 budget the corporate rate was reduced from 52% to 35% by 1987 and generous depreciation allowances were also phased out.

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