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Tax Policy and the Efficiency of U.S. Direct Investment Abroad

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TAX POLICY AND THE EFFICIENCY OF U.S. DIRECT INVESTMENT ABROAD

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Deferral of U.S. taxes on foreign source income is commonly characterized as a subsidy to foreign investment, as reflected in its inclusion among "tax expenditures" and occasional calls for its repeal. This paper analyzes the extent to which tax deferral and other policies inefficiently subsidize U.S. direct investment abroad. Investments are dynamically inefficient if they consistently generate less in returns to investors than they absorb in new investment funds. From 1982–2010, repatriated earnings from foreign affiliates exceeded net capital investments by $1.1 trillion in 2010 dollars, and from 1950–2010, repatriated earnings and net interest from foreign affiliates exceeded net equity investments and loans by $2.1 trillion in 2010 dollars. By either measure, cash flows received from abroad exceeded 160 percent of net investments, implying that foreign investment over these periods was dynamically efficient.

Keywords: international taxation, dynamic efficiency, deferral

JEL Codes: H25, H21, D92

I. INTRODUCTION

Thoughtful observers wrestle with the question of whether the U.S. system of worldwide taxation, including its deferral of the taxation of unrepatriated foreign income, provision of foreign tax credits, and other features, inefficiently subsidizes direct investment abroad. To some, the answer is clearly yes. The notion that aspects of current U.S. tax policy implicitly subsidize foreign investment has been enshrined by including deferral of U.S. taxes on the list of tax expenditures, thereby implying that deferral

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constitutes a significant deviation from normal tax practice.[1] And the possibility that proposals to replace the current U.S. worldwide tax system with a territorial tax might in the process generate greater U.S. tax revenue adds credibility to the interpretation of the current worldwide tax system as a subsidy to foreign investment.

If the current U.S. tax system inefficiently subsidizes foreign investment, then U.S. firms can be expected to invest significant resources abroad, substituting foreign economic activity for domestic consumption, thus impairing the efficiency of resource allocation. Musgrave (1963), Horst (1980), and others analyze models in which foreign tax credits and deferral of home country taxes on unrepatriated income represent inefficient subsidies from the standpoint of home countries. However, deferral, the foreign tax credit, and other features of the U.S. taxation of foreign income are by no means universally regarded as inefficient subsidies; indeed, capital ownership considerations generally imply that the United States currently imposes an inefficiently high tax burden on foreign investment, as argued by Desai and Hines (2003, 2004). While this disagreement is framed by welfare considerations, there have been few, if any, direct empirical tests of the extent to which foreign investment is inefficiently subsidized.

This paper provides one such test by comparing direct investment abroad with repatriated investment returns over the last 60 years. This is a simple cash flow comparison of the difference between direct investment funds that leave the United States and direct investment returns that are received in the United States. This method of evaluating investment performance is implied by the theory of dynamic efficiency: a dynamically efficient investment profile cannot be improved upon by reducing investment levels. If foreign investment consistently absorbs more resources than it returns, then it is dynamically inefficient, whereas if the opposite is true — if foreign investment generates net cash flow surpluses — then it is dynamically efficient.

The evidence indicates that repatriated returns attributable to U.S. direct investment abroad exceed new foreign investments by significant margins. From 1982–2010, the repatriated earnings from the foreign affiliates of U.S. companies exceeded net capital investments abroad by their U.S. parent companies by $1.1 trillion in 2010 dollars. Data for a broader category of investments and investment returns are available for a significantly longer time period, and these data reveal a similar imbalance between investments and their returns: between 1950–2010, repatriated earnings and net interest from foreign affiliates exceeded net equity investments and loans by U.S. parent companies by $2.1 trillion in 2010 dollars. Both measures indicate that cash flows received from abroad exceeded 160 percent of net investments, implying that foreign investment over these periods was dynamically efficient.

The application of dynamic efficiency to investigate the presence of subsidies to investment abroad is complicated by several factors, which are discussed in detail

[1] According to the Joint Committee on Taxation (2011), deferral of active income of controlled foreign corporations is the largest corporate tax expenditure, estimated at $70.6 billion over the period 2010–2014. The rising importance of deferral is demonstrated by the fact that the corresponding estimates were $5.7 billion for 1995–1999, $19.8 billion for 2000–2004, and $25.8 billion for 2005–2009.

below. The most obvious complication is that the theory of dynamic efficiency was developed for economies on balanced growth paths, whereas in recent decades, foreign economies and U.S. direct investment abroad have grown more rapidly than has the U.S. economy. These growth rate differentials encourage U.S. firms to reinvest foreign earnings, a process that depresses repatriations and makes it all the more striking that aggregate repatriated earnings far exceed direct investments abroad.

A second concern in analyzing these data is that high U.S. tax rates encourage firms to reallocate taxable income from the United States to low-tax foreign jurisdictions. If there is extensive reclassification of domestic earnings as foreign income, then high reported rates of return to foreign investment can be misleading, possibly suggesting that investment is efficient even though it is not. The use of repatriations as a measure of foreign investment returns, however, attenuates this concern in evaluating the dynamic efficiency of direct investment abroad. Taxpayers generally have incentives to reallocate taxable income from the United States to foreign locations only if they anticipate deferring repatriation of that income; immediately repatriated foreign income is subject to U.S. taxation, which removes the benefit of low foreign tax rates. In addition, taxpayers do not have incentives to defer repatriating if they expect to earn the low rates of return associated with dynamically inefficient investment. Consequently, the cash flow measure of foreign investment offers an efficiency test that is robust to potential income reallocation, since there is little if any incentive for a U.S. firm to reallocate income from the United States to a foreign country only to repatriate that income immediately, and firms will defer repatriation only if foreign investment is dynamically efficient.

Section II of the paper reviews the theory of dynamic efficiency, applies the theory to foreign investment, and considers the potential effect of U.S. tax provisions on the dynamic efficiency of U.S. direct investment abroad. Section III evaluates evidence of investment returns and levels of U.S. direct investment abroad since 1950. Section IV is the conclusion.

II. THE DYNAMIC EFFICIENCY OF FOREIGN INVESTMENT

This section reviews the meaning of dynamic efficiency in a growing economy and applies this concept to foreign investment. The analysis identifies the circumstances under which a country that provides foreign tax credits while taxing only repatriated foreign income will encourage dynamically inefficient levels of foreign investment.

A. Dynamic Efficiency

The normative theory of appropriate saving and investment rates was first developed in the context of closed economies, for which saving and investment are by definition equal. Since the early work of Phelps (1961), Allais (1962), Robinson (1962), Swan (1964), Koopmans (1965), and Cass (1965), it has been clear that it is possible for a growing economy to save too much and therefore also to invest too much. In a simple economy with a growing population and no technological change, the Golden Rule

capital stock level is that at which the marginal product of capital, net of depreciation, equals the rate of population growth. Equivalently, the capital stock in such an economy is associated with a saving rate that equals the share of capital in national income. Maintaining the economy's capital stock at the Golden Rule level maximizes steady state consumption. An economy with a capital stock exceeding the Golden Rule level has a marginal product of capital that is less than the population growth rate, and is said to be dynamically inefficient. If an economy is dynamically inefficient, then there is overinvestment in the quite powerful sense that there exists a feasible reform that would increase consumption in every time period, as elaborated by Phelps (1965).

A clear example of a dynamically inefficient economy is one in which there is positive annual population growth but investment levels are so great that capital accumulates to the point that the net marginal product of capital equals zero (the gross marginal product of capital equals the capital depreciation rate). In such an economy there is no economic cost to reducing the size of the steady state capital stock, since marginal units of capital are unproductive; as a result, it is possible to increase consumption in the first period without reducing consumption in any subsequent period. In more general settings, dynamically inefficient economies populated with representative agents born in each period are Pareto inefficient, since intertemporal reallocations can provide all generations with higher levels of utility. If an economy is dynamically efficient, then any feasible intertemporal reform entails utility losses for some cohorts, which is the sense in which dynamically efficient economies are Pareto efficient.

Diamond (1965) — generalizing the work of Samuelson (1958) — notes that a perfectly competitive economy with overlapping generations can produce dynamically inefficient outcomes due to the infinite nature of time and the inability of future generations to trade with present generations; Cass (1972) offers a more general characterization of dynamically inefficient economies. Taxes and other government policies that influence returns to saving and investing have the potential to discourage consumption to the extent that economies become dynamically inefficient.

While dynamic inefficiency is evidently feasible, it has not been simple to resolve the question of whether economies in practice are dynamically inefficient. Mapping the theory of dynamic efficiency to an empirical test must meet the demanding data requirements of determining whether an economy's saving rate exceeds — or is less than — its share of capital income; or alternatively, whether the true marginal product of capital exceeds — or is less than — the population growth rate. Abel et al. (1989) propose a different test based on investment cash flows. They show that, for a competitive economy characterized by constant returns to scale, whether or not investment in every year exceeds total returns to capital investment is also a valid criterion for assessing dynamic efficiency. Specifically, if new investment levels exceed investment returns, then an economy is dynamically inefficient, whereas if investment returns exceed new investment levels, then an economy is dynamically efficient. This cash flow criterion is equivalent to the other empirical tests of dynamic efficiency, so an economy in which new investment levels regularly exceed investment returns is also an economy in which the marginal product of capital is less than the population growth rate.

Intuitively, the cash flow criterion corresponds to whether investment is a sink or a source of funds: an economy in which investment continually absorbs more resources than it returns is dynamically inefficient, whereas an economy in which investment regularly generates more returns than it absorbs is dynamically efficient. Abel et al. (1989) offer evidence that gross profits from capital investment significantly exceeded gross investment levels every year for the U.S. economy from 1929–1985 and other G-7 economies from 1960–1984; furthermore, the same was true, to an even greater extent, of the U.S. nonfinancial corporate sector for every year from 1953–1985. Whether due to tax, regulatory, monetary, or other policies, or simply the practical operation of markets, it appears that western economies did not invest to dynamically inefficient levels over these time periods.

B. Dynamically Efficient Foreign Investment

It is possible to evaluate the dynamic efficiency of a country's foreign investment by using a cash flow measure that is analogous to the measure developed by Abel et al. (1989) for a closed economy. As applied to foreign investments, this measure is the difference between funds invested abroad and returns from those investments: if the difference is positive, then foreign investment is dynamically inefficient, whereas if the difference is negative, foreign investment is dynamically efficient. Were the data to imply that U.S. direct investment abroad is dynamically inefficient, it would follow that the United States could increase domestic consumption in every period by reducing foreign investment.

A simple illustration helps to clarify the sense in which dynamic inefficiency implies the possibility of increasing domestic resources by reducing foreign investment. Suppose that foreign investment grows at rate g, and let r denote the rate of return earned by investments abroad after payment of foreign taxes. For illustrative purposes assume that foreign earnings are immediately repatriated to the home country. If $g > r$, then the economy invests more money abroad every year than it receives in return, which by both the rate of return and cash flow criteria implies that foreign investment is dynamically inefficient.

Dynamic inefficiency, as represented by $g > r$, implies that it is possible to increase domestic consumption in the first period without reducing domestic consumption in any subsequent period. How could this be arranged? Intuitively, domestic investors might reduce their foreign investment at the start of the first period by $1, which frees $1 for domestic consumption. Reduced foreign investment is not costless of course, since yearend foreign earnings thereby decline by r, which then threatens to reduce domestic resources newly available at yearend — except that the induced shortfall in repatriated foreign profits can be made up by further drawing down foreign investment by r, thereby leaving the flow of yearend domestic resources unchanged. By the second period, foreign investment will have fallen by $(1 + r)$, thereby reducing yearend period two foreign returns by $r(1 + r)$, and requiring that much additional foreign disinvestment in order to maintain the flow of domestic resources at the same level as it was prior

to the drawdown of foreign investment in the first period. This process can continue indefinitely, assuming that there remain sufficient foreign assets to be drawn down. The $1 reduction in foreign investment in the first period, coupled with compensating subsequent drawdowns of foreign investment, entails a foreign capital stock that is $(1 + r)^n$ smaller by the end of period n.

If $g > r$, then the stock of foreign assets grows at a rate faster than the contemplated drawdown. Letting S_0 denote the initial stock of foreign assets, the stock by the end of period n will equal $S_0[(1 + g)^n - (1 + r)^n]$, which increases with n as long as $g > r$. Consequently, despite the growing annual reduction in foreign assets, there will always be sufficient foreign funds to finance the drawdowns; put differently, the shortfall in foreign funds diminishes over time compared to the growing size of the foreign capital stock, ultimately shrinking to an arbitrarily small percentage of it. Hence dynamic inefficiency implies that it is feasible to increase domestic consumption in the first period without reducing domestic consumption in any subsequent period. Since such a reform can be repeated, dynamic inefficiency implies that greater domestic consumption is feasible in every period by reducing foreign investment. By extension, such a Pareto superior reallocation is infeasible if $g \leq r$.

C. Taxation and the Dynamic Efficiency of Foreign Investment

Under what circumstances would the deferral of home country taxation of foreign income, together with the foreign tax credit and other tax provisions, create sufficiently strong incentives that foreign investment becomes dynamically inefficient? To address this question, it is useful first to identify the investment impact of tax deferral and foreign tax credits, and second to consider foreign investment in a system with deferral, foreign tax credits, and other potential investment subsidies, the last of which are grouped together and denoted by s. Firms subject to home country taxation of repatriated profits have incentives to delay repatriation, and instead reinvest profits abroad, if foreign after-tax rates of return are sufficiently great — and there is ample evidence, including Desai, Foley, and Hines (2001), that affiliates in countries with low foreign tax rates are more likely than others to defer repatriating foreign profits. Hartman (1985) notes that a firm with a subsidiary in a low tax foreign country whose after-foreign-tax rate of return exceeds the domestic discount rate has an incentive to reinvest profits abroad; otherwise the firm does better to repatriate its profits, incur the domestic tax charge, and deploy the remaining funds domestically.

The Hartman result comes from the observation that dividends received from foreign subsidiaries (D) are first grossed up to account for the associated pre-tax foreign profits, and then subject to home country taxation net of foreign tax credits, assuming that the domestic tax rate exceeds the foreign tax rate. A dividend of D is therefore subject to home country tax of $\tau D/(1 - \tau^*)$, in which τ is the domestic tax rate and τ^* the foreign tax rate; the firm is also entitled to claim a foreign tax credit of $\tau^* D/(1 - \tau^*)$, as a result of which the net tax obligation is $D(\tau - \tau^*)/(1 - \tau^*)$, and the firm's after-tax dividend is

equal to $D - D(\tau - \tau^*)/(1 - \tau^*)$, or $D(1 - \tau)/(1 - \tau^*)$. As Hartman notes, the repatriation-and-reinvestment plan that maximizes the present value of $D(1 - \tau)/(1 - \tau^*)$ also maximizes the present value of D, so repatriation taxes do not influence repatriation patterns, since in the absence of repatriation taxes the firm would choose a pattern of repatriations that likewise maximizes the present value of D. Repatriation taxes reduce the value of foreign investments from the standpoint of the parent company, and thereby reduce the return to initial investment, but need not influence repatriation patterns during the time that foreign investments are financed by retained earnings abroad.

The Hartman result can serve as the basis of a broader consideration of how foreign tax credits, deferral, and additional domestic subsidies might together result in dynamically inefficient foreign investment. Consider the case where a multinational firm makes an equity-financed overseas investment that lasts for n years, producing annual returns of $r = \rho(1 - \tau^*)$, where ρ is the pretax foreign rate of return, τ^* is the foreign tax rate, and r is therefore the after-foreign-tax foreign rate of return. The foreign tax rate is assumed to be lower than the domestic tax rate. The foreign affiliate reinvests its profits every year, and at the end of n years the marginal product of capital falls, reducing the incentive to reinvest abroad and prompting the firm to repatriate its foreign profits together with its initial investment. A firm investing \$1 initially will have accumulated $(1 + r)^n$ by the end of n years, of which, upon repatriation, all but \$1 will be taxable by the home country. The home country imposes a tax at rate τ on repatriated foreign profits, grossed up to include the creditable foreign taxes available on these profits, so the after-tax funds available to the domestic parent company at the end of n years is:

$$(1) \quad \frac{(1-\tau)}{(1-\tau^*)}\left[(1+r)^n - 1\right] + 1 = \frac{(1-\tau)}{(1-\tau^*)}(1+r)^n + \frac{(\tau-\tau^*)}{(1-\tau^*)}.$$

It is useful to consider a home country tax system that provides deferral and foreign tax credits, and has other features that subsidize foreign investment at rate s and thereby effectively reduce the cost of a \$1 foreign investment to $(1 - s)$. The firm's alternative to foreign investment is to invest the same $\$(1 - s)$ domestically, earning an annual after-tax return of δ, which by the end of n years is $(1 - s)(1 + \delta)^n$. Equating foreign and domestic returns produces

$$(2) \quad (1+r)^n = (1+\delta)^n \frac{(1-s)(1-\tau^*)}{(1-\tau)} - \frac{(\tau-\tau^*)}{(1-\tau)}.$$

Foreign investment is dynamically inefficient if $g > r$, where g is the growth rate of the economy and therefore also the growth rate of foreign investment on a balanced growth path; this condition is equivalent to $(1 + g)^n > (1 + r)^n$, which from (2) implies that

$$(3) \quad (1+g)^n > (1+\delta)^n \frac{(1-s)(1-\tau^*)}{(1-\tau)} - \frac{(\tau-\tau^*)}{(1-\tau)}.$$

This equation identifies the conditions under which deferral and the foreign tax credit can together support dynamically inefficient foreign investment levels even in the absence of policies that reduce the cost of foreign investment by s. Setting $s = 0$, (3) implies

$$(4) \quad \left(\frac{1+g}{1+\delta}\right)^n > 1+\frac{(\tau-\tau^*)}{(1-\tau)}\left[1-\frac{1}{(1+\delta)^n}\right].$$

Since $\tau > \tau^*$ by assumption, (4) implies that $g > \delta$ is a necessary condition for dynamically inefficient foreign investment. As the investment period (n) lengthens, the extent to which g must exceed δ in order to support dynamically inefficient investment levels declines, reflecting that as the benefits of tax deferral increase firms are willing to undertake more marginal foreign investments. Regardless of the length of time over which home country taxes are deferred, however, foreign investment will not be dynamically inefficient unless the growth rate of the economy exceeds the domestic opportunity cost of funds.

The potential availability of policies that reduce the cost of foreign investment by s broadens the range of cases in which foreign investment can be dynamically inefficient. What value of s is sufficient to satisfy (3) and therefore support dynamically inefficient foreign investment levels? This requires

$$(5) \quad s > 1-\frac{(\tau-\tau^*)}{(1-\tau^*)(1+\delta)^n}-\left(\frac{1+g}{1+\delta}\right)^n\frac{(1-\tau)}{(1-\tau^*)}.$$

In using (5) to identify the magnitude of the required s, it is helpful to start by considering the case where the growth rate of the economy equals the firm's opportunity cost of foreign investment; then $g = \delta$, and (5) simplifies to

$$(6) \quad s > \frac{(\tau-\tau^*)}{(1-\tau^*)}\left[1-\frac{1}{(1+\delta)^n}\right].$$

This case can be further simplified to a setting of very short-lived investments ($n = 1$). In this case, a very small $s, \left[\frac{\delta}{(1-\delta)}\frac{(\tau-\tau^*)}{(1-\tau^*)}\right]$, is sufficient to encourage dynamically inefficient investment levels. As the discount rate that firms use to evaluate foreign investments is just equal to the economy's growth rate, firms will undertake investments that are just at the margin of being dynamically inefficient even in the absence of an explicit subsidy. Starting from this knife-edged point, any value of s that more than offsets the home country tax on one-period returns is all that is required to support dynamically inefficient investment.

As the investment period lengthens, the s necessary to encourage dynamically inefficient investment grows; in the limit as n becomes very large, the required s equals the

domestic tax burden on a dollar of repatriated foreign profits, $(\tau - \tau^*)/(1 - \tau^*)$. Almost all of the cash flows received from a long-lived foreign investment are ultimately subject to home country taxation; said another way, the present value of the firm's savings from the nontaxation of the portion of returns constituting return of paid-in equity diminishes over time to insignificance. Since the dollar originally invested abroad is therefore effectively taxed as a dividend, it is necessary for s to exceed the home country tax rate on foreign source dividends in order to induce dynamically inefficient investment. To the degree that deferral of home country taxation encourages firms to avoid repatriation and lengthen foreign investment periods — as many studies, including Desai, Foley, and Hines (2001), seem to indicate — then policies that reduce the cost of foreign investment by larger amounts are necessary to support dynamically inefficient investment levels.

Departing from the case where $g = \delta$ further illustrates the efficiency consequences of different levels of s. Inspection of (5) indicates that higher values of δ increase the s necessary to support dynamically inefficient investment, whereas higher rates of g reduce it. When $\delta > g$, firms have high opportunity costs of funds that discourage dynamically inefficient investment. This condition appears to be empirically salient, as there is ample evidence that the opportunity cost of funds for the U.S. corporate sector exceeded the growth rate of the U.S. economy during the postwar period. For example, Fama and French (1999) calculate annual after-tax inflation-adjusted investment returns earned by U.S. corporations from 1950–1996, reporting values that range between 6.0 and 7.8 percent, depending on the estimation method. By contrast, the U.S. national income and product accounts indicate that inflation-adjusted (chain weighted) U.S. GDP grew at a compound annual rate of 3.4 percent between the same years.[2] Consequently, significant tax subsidies would have been necessary to encourage dynamically inefficient foreign investment over this period.

What form might such tax subsidies take? Some studies, including Grubert and Mutti (2001), Grubert (2001), and Gravelle (2009), argue that the foreign tax credit, deferral, expense allocation, and source of income rules effectively subsidize U.S. direct investment abroad. For example, the ability of taxpayers to treat some or all of U.S. export income as having foreign source, thereby making it untaxed for taxpayers who otherwise have excess foreign tax credits, and a similar treatment for royalty income for exploitation of U.S.-owned intangible property in foreign counties, is sometimes characterized as a subsidy for the foreign operations that generate the excess foreign tax credits. In addition, U.S. taxpayers are entitled to claim U.S. tax deductions for some U.S. expenses that contribute to the production of foreign income that is lightly taxed by the United States, and some argue that this too effectively subsidizes foreign income production.

It is certainly the case that the United States has many tax provisions that influence effective tax burdens on foreign income, though it should be noted that Desai and

[2] See U.S. Bureau of Economic Analysis, National Income and Product Accounts, http://www.bea.gov/national/nipaweb/index.asp.

Hines (2004) offer evidence of significant U.S. tax burdens — in the neighborhood of $50 billion annually — on U.S. direct investment abroad. The empirical exercise of evaluating cash flows presented below effectively considers the cumulative effect of all tax and other policies that influence levels of direct investment abroad. Evidence of dynamic inefficiency would suggest that deferral, the foreign tax credit, and various other tax provisions combine to support inefficiently high foreign investment levels.

D. Dynamic Efficiency and Asset Ownership

Foreign investment is dynamically inefficient if it generates a sufficiently low rate of return that the economy would be able to have greater resources available for domestic consumption every year by reducing its foreign investment level. It is important that dynamic efficiency is defined in terms of consumption possibilities, as this criterion can differ significantly from the efficiency measure that comes from the exercise of comparing home country returns to one dollar of foreign investment with home country returns to one dollar of domestic investment. The latter comparison is the basis of the capital export neutrality analysis, as elaborated by Musgrave (1963) and Horst (1980), which implicitly assumes that the cost of foreign investment is that the invested resources are thereby made unavailable to the domestic economy.

The reality is that most foreign direct investment takes the form of acquisitions of existing companies, and the impact of foreign investment largely takes the form of changing the ownership of capital assets, as noted by Desai and Hines (2003). For example, greater direct investment abroad by U.S. parent companies can be associated with greater foreign direct investment in the United States, since potential U.S. targets or other investment opportunities not chosen by U.S. investors who instead commit their funds abroad may as a consequence be capitalized upon by foreign firms. In such a setting, tax-induced changes to levels of direct investment abroad need not affect the size of the U.S. capital stock, but instead will influence the identity of who owns capital within and without the United States, and thereby also affect rates of return to those investments. Furthermore, even for U.S. firms investing abroad, the evidence offered by Desai, Foley, and Hines (2009) and others suggests that greater foreign investment levels are associated with expanded domestic investments.

The cash flow analysis used to evaluate the dynamic efficiency of foreign investment applies with equal force to cases of shifting capital ownership. From the standpoint of the United States, the after-tax rate of return to domestic ownership of capital assets is the alternative to foreign investment returns, and this is the discount rate that firms use to evaluate investments. Abel et al. (1989) report evidence that the U.S. corporate sector is dynamically efficient, implying that the discount rates used by U.S. firms to value their investments produces investment levels that support dynamically efficient capital stocks. Consequently, foreign investments that appear dynamically efficient from a cash flow standpoint are also efficient compared to the alternative of changing ownership.

III. TESTING THE DYNAMIC EFFICIENCY OF U.S. DIRECT INVESTMENT ABROAD

Data on U.S. direct investment abroad are available to measure the extent that foreign investment is a net sink or source of U.S. funds, corresponding to the Abel et al. (1989) metric of dynamic efficiency as applied to foreign investment. These data are based on annual surveys of U.S. multinational companies.[3] The implication of the Abel et al. (1989) analysis is that, if foreign investment generates returns that exceed the resources it absorbs, then investment is dynamically efficient; otherwise, it is not.

A. Evidence on U.S. Firms Investing Abroad

Column 1 of Table 1 presents annual information for repatriated earnings of foreign affiliates owned at least 10 percent by U.S. persons, the 10 percent ownership criterion corresponding to the threshold for direct investment. All of the entries in Table 1 are in current dollars. The reporting of repatriated earnings differs according to the organizational form of foreign affiliates. Repatriated earnings include dividend repatriations from foreign subsidiaries plus all earnings of unincorporated (branch) affiliates. Figures for repatriated earnings make no adjustment for withholding taxes imposed by foreign governments on cross-border flows. Data for repatriated earnings are available at an annual frequency starting only in 1982, so Table 1 presents data for 1982–2010; the 2010 figure is preliminary.

Column 2 of Table 1 presents annual U.S. net equity investments in foreign affiliates owned at least 10 percent by U.S. persons; they are called equity outflows. Equity capital outflows occur when a U.S. parent increases its equity investment in one of its existing foreign affiliates or makes a new equity investment in a foreign business enterprise, either by acquiring an existing foreign business or by establishing a new one. Equity capital outflows are reduced when a U.S. parent reduces its equity interest in an existing affiliate.[4] Equity outflows do not include the reinvested earnings of incorporated affiliates, but they do include the reinvested earnings of branch affiliates; these earnings are treated in the statistics as though they were repatriated to the U.S. parent company and then invested anew in the foreign operations. Branches make up only a small fraction of all affiliates.

Column 3 of Table 1 presents the difference between distributed earnings and equity outflows. In 22 of these 29 years the difference is positive, reflecting that distributed earnings exceeded equity outflows, or that the United States received greater returns than it invested abroad. Not surprisingly, the years when the difference is negative are those

[3] See U.S. Bureau of Economic Analysis, http://www.bea.gov/iTable/index_MNC.cfm.

[4] As an illustration, if a U.S. firm invests $100 in a Spanish affiliate in year one, and sells the affiliate to a German acquirer for $300 cash in year eight, then the United States has a capital outflow of $100 in year one and a negative capital outflow of $300 in year eight.

Table 1

U.S. Direct Investment Abroad: Measures of Earnings and Investment
($Millions, Current Year U.S. Dollars)

Year	Distributed Earnings (1)	Equity Outflows (2)	Difference (3) = (1) – (2)
1982	23,058	9,708	13,350
1983	18,628	7,249	11,379
1984	18,687	2,394	16,293
1985	19,780	–1,672	21,452
1986	26,077	1,147	24,930
1987	25,264	4,868	20,396
1988	41,744	–6,662	48,406
1989	43,257	6,395	36,862
1990	36,553	8,739	27,814
1991	33,945	17,682	16,263
1992	34,441	14,647	19,794
1993	28,847	24,565	4,282
1994	44,032	33,659	10,373
1995	38,891	40,484	–1,593
1996	45,623	27,532	18,091
1997	55,196	40,792	14,404
1998	56,742	72,447	–15,705
1999	62,536	98,929	–36,393
2000	52,863	78,040	–25,177
2001	53,234	60,942	–7,708
2002	54,600	42,707	11,893
2003	59,460	35,484	23,976
2004	81,555	133,277	–51,722
2005	298,712	61,937	236,775
2006	101,686	48,970	52,716
2007	132,833	200,850	–68,017
2008	155,414	145,531	9,883
2009	99,393	18,439	80,954
2010/p	104,403	46,741	57,662

Notes: This table displays measures of annual earnings and investment for U.S. Direct Investment Abroad. See Appendix Table A1 for definitions of each measure. Data for 2010 are preliminary.

in which U.S. direct investment abroad shows particular strength, such as the period at the end of the 1990s. The amounts by which equity outflows exceed distributed earnings in the seven years in which this difference is positive tend to be rather modest compared to the amounts by which distributed earnings exceed equity outflows in other years. It is possible to calculate the net present value of the differences over the 1982–2010 period, measured in 2010 dollars using nominal U.S. GDP as the relevant deflator. This calculation implicitly takes the growth rate of U.S. GDP to be the discount factor, which is consistent with the theory that underlies the dynamic efficiency calculations of Abel et al. (1989). By this measure, U.S. parent companies received $2.951 trillion of distributed earnings from their foreign affiliates over 1982–2010, and had only $1.817 of net equity outflows, for a difference of $1.134 trillion. The distributed earnings of the foreign operations of U.S. companies were 162 percent of net equity outflows over this period, producing a sizeable net surplus.

Panel A of Figure 1 depicts cumulative discounted distributed earnings and equity outflows over the 1982–2010 period. The solid locus in the figure represents the cumulative sum of distributed earnings scaled by the ratio of nominal 2010 U.S. GDP to nominal U.S. GDP at the time of earnings distribution, and the dotted locus represents the cumulative sum of scaled equity outflows. It is clear from the figure that the difference between cumulative distributed earnings and cumulative equity outflows is positive in every year and generally growing over time.

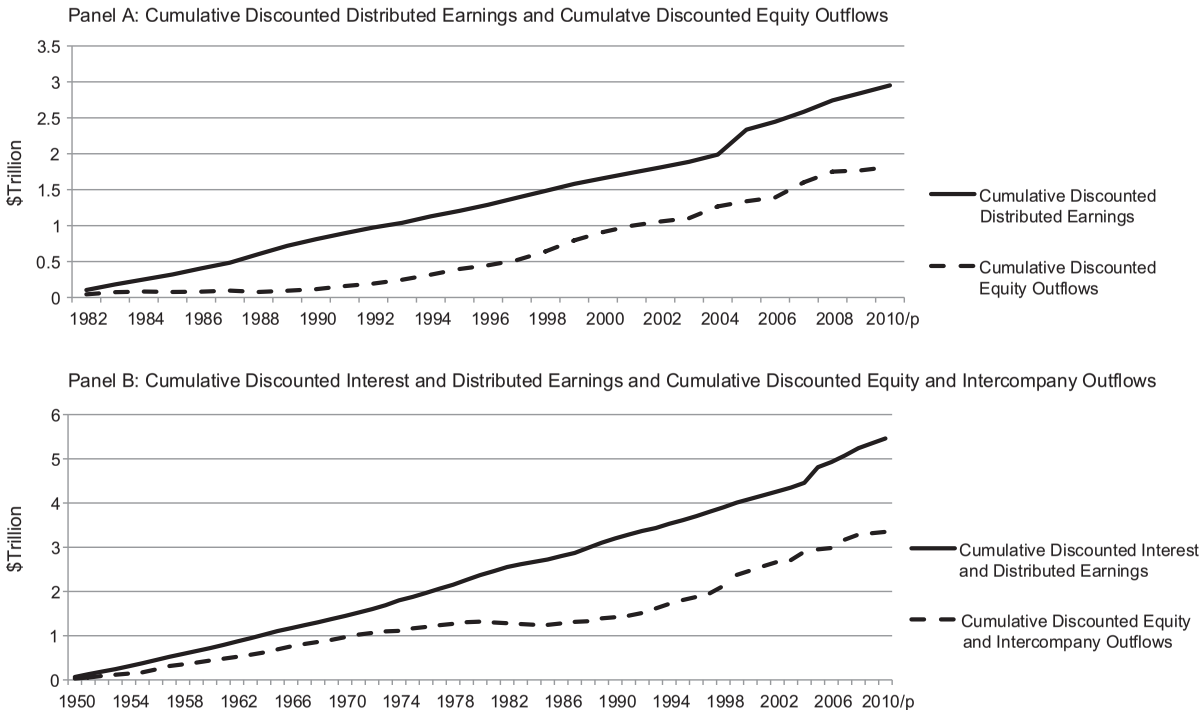
Data identifying distributed earnings and net equity outflows are not available annually prior to 1982; however, other measures of earnings and investment are available. Column 1 of Table 2 presents the sum of net interest receipts and distributed earnings received from foreign affiliates owned at least 10 percent by U.S. persons for each year starting in 1950. Distributed earnings are defined in the same way as in the calculation underlying column 1 of Table 1. Net interest receipts equal the difference between interest received by U.S. parent companies from their foreign affiliates and interest paid by U.S. parent companies to their foreign affiliates. In practice, U.S. parent companies receive considerably more interest from their foreign affiliates than they pay, which is why the entries in column 1 of Table 2 for 1982–2010 regularly exceed the corresponding entries in column 1 of Table 1.

Column 2 of Table 2 presents the sum of net equity investments and other intercompany outflows to foreign affiliates owned at least 10 percent by U.S. persons for each year from 1950–2010. Net equity investments are defined in the same way as in the calculation underlying column 2 of Table 1. Other intercompany outflows are annual differences in net intercompany indebtedness between parent companies and their foreign affiliates. Thus, for example, if a U.S. parent company loans its foreign affiliate $100, then other intercompany outflows increases by $100, and if a foreign affiliate loans its U.S. parent company $25, other intercompany outflows declines by $25.

Column 3 of Table 2 presents differences between the sum of distributed earnings and net interest receipts and the sum of equity investments and other intercompany outflows. In 49 of these 61 years the difference is positive, reflecting that the United

Figure 1

U.S. Direct Investment Abroad: Measures of Cumulative Discounted Earnings and Cumulative Discounted Investment



Note: This figure presents cumulative discounted measures of earnings and investment for U.S. direct investment abroad. Annual measures are discounted by the ratio of 2010 U.S. GDP to current year U.S. GDP, and then measures are cumulated across prior years. See Appendix Table A1 for definintions.

Table 2

U.S. Direct Investment Abroad: Alternative Measures of Earnings and Investment
($Millions, Current Year U.S. Dollars)

Year	Interest and Distributed Earnings (1)	Equity and Intercompany Outflows (2)	Difference (3) = (1) – (2)
1950	1,294	621	673
1951	1,492	508	984
1952	1,420	852	568
1953	1,442	735	707
1954	1,725	667	1,058
1955	1,912	823	1,089
1956	2,171	1,951	220
1957	2,249	2,442	–193
1958	2,121	1,181	940
1959	2,206	1,372	834
1960	2,355	1,675	680
1961	2,768	1,599	1,169
1962	3,044	1,654	1,390
1963	3,129	1,976	1,153
1964	3,674	2,328	1,346
1965	3,963	3,468	495
1966	3,467	3,625	–158
1967	3,847	3,050	797
1968	4,152	2,855	1,297
1969	4,819	3,130	1,689
1970	4,992	4,413	579
1971	5,983	4,441	1,542
1972	6,416	3,214	3,202
1973	8,384	3,195	5,189
1974	11,379	1,275	10,104
1975	8,547	6,196	2,351
1976	11,303	4,253	7,050
1977	13,277	5,497	7,780
1978	14,115	4,713	9,402
1979	19,219	6,258	12,961
1980	20,129	2,205	17,924
1981	19,013	–3,912	22,925
1982	21,185	–3,729	24,914
1983	15,067	–4,155	19,222

Table 2 (continued)

U.S. Direct Investment Abroad: Alternative Measures of Earnings and Investment
($Millions, Current Year U.S. Dollars)

Year	Interest and Distributed Earnings (1)	Equity and Intercompany Outflows (2)	Difference (3) = (1) – (2)
1984	14,357	–4,562	18,919
1985	15,706	–777	16,483
1986	22,915	9,972	12,943
1987	22,954	11,700	11,254
1988	40,443	4,525	35,918
1989	43,442	24,908	18,534
1990	38,335	9,546	28,789
1991	35,199	14,369	20,830
1992	35,625	26,353	9,272
1993	30,528	47,233	–16,705
1994	46,338	49,164	–2,826
1995	41,350	44,840	–3,490
1996	47,814	37,193	10,621
1997	57,311	46,791	10,520
1998	59,802	98,482	–38,680
1999	67,377	160,685	–93,308
2000	58,235	65,608	–7,373
2001	58,881	72,566	–13,685
2002	60,320	69,190	–8,870
2003	65,729	28,875	36,854
2004	87,698	153,316	–65,618
2005	304,854	46,551	258,303
2006	107,474	27,580	79,894
2007	140,229	183,511	–43,282
2008	163,703	111,619	52,084
2009	106,175	28,781	77,394
2010/p	110,169	29,753	80,416

Notes: This table displays measures of annual earnings and investment for U.S. Direct Investment Abroad. See Appendix Table A1 for definitions of each measure. Data for 2010 are preliminary.

States received greater returns in dividends and interest than it invested abroad in the form of equity and debt. This series for 1982–2010 resembles the pattern in column 3 of Table 1, reflecting the relative size of the equity components of investments and returns compared to the debt components. The amounts by which equity and debt outflows exceed distributed earnings and net interest in the 12 years in which this difference is positive tend to be of modest magnitude compared to the amounts by which equity and debt returns exceed equity and debt outflows in other years. The present value of dividends and interest received from foreign affiliates over 1950–2010, taking the growth rate of U.S. GDP to be the discount rate, was $5.461 trillion, whereas the present value of equity and debt outflows was $3.347 trillion, for a difference of $2.114 trillion. This is a significant surplus: returns from debt and equity investments over this period were 163 percent of net debt and equity investments, a ratio of returns to investment that is very similar to that for just the equity component of investment over 1982–2010. Panel B of Figure 1 depicts cumulative returns and investments from 1950–2010, using the same scaling as in the figure in Panel A. As is evident from this figure, total investment returns consistently exceed total investment levels.

B. Interpreting The Evidence

The evidence indicates that U.S. parent companies received considerably more from their foreign affiliates in investment returns than the affiliates absorbed in investment resources, thereby suggesting that U.S. direct investment abroad is dynamically efficient. There are, however, some considerations that may complicate the evaluation of this evidence. The first is that the analysis of dynamic efficiency is typically conducted by considering balanced growth paths. The foreign investment profile of the United States, and that of most other capital exporting nations, may not correspond to steady state growth, since foreign investment has expanded rapidly in recent decades, a consequence not only of globalization but also of foreign economic growth rates that exceed the U.S. rate. Equity and other intercompany outflows averaged 0.2114 percent of U.S. GDP over the 1950–1959 decade, but averaged 0.7623 percent of U.S. GDP over the 2000–2009 decade. Since foreign investment rose significantly as a fraction of the U.S. economy, even a highly efficient foreign investment sector might absorb resources as firms reinvest their substantial profits abroad rather than immediately repatriating them to the United States. The relatively rapid growth of foreign economies therefore biases the cash flow test in favor of finding that foreign investment is dynamically inefficient, a consideration that strengthens the inference that the foreign investment sector is dynamically efficient.

A second important consideration is that the available data reflect reported earnings and investment levels, which include any tax-motivated adjustment of these items. One possibility is that the rate of return to foreign investment is overstated by U.S. firms that adjust the location of taxable income in order to report greater foreign profits at the

expense of domestic profits.[5] The concern is that, as a result of this adjustment, foreign investment that is otherwise of limited profitability, and possibly even dynamically inefficient, could appear to be dynamically efficient.

Careful consideration of taxpayer incentives suggests that relocation of taxable income by U.S. taxpayers is unlikely to undermine the cash flow test of dynamic efficiency. Firms with lightly taxed foreign profits do not have incentives to relocate taxable income from the United States to a low-tax foreign location if the foreign profits are to be immediately repatriated to the United States, since they will then be subject to U.S. taxation;[6] furthermore, such income relocation is typically costly. Hence firms have incentives to relocate taxable income out of the United States and into low-tax foreign locations only when they also have incentives to defer repatriation — which, as Hartman notes, requires that the after-foreign-tax foreign rate of return exceed the domestic discount rate. Furthermore, as the discussion of the Fama and French (1999) evidence indicates, the domestic discount rate exceeds the growth rate of the economy; thus, firms have incentives to relocate taxable income out of the United States only when their foreign rates of return exceed the growth rate of the economy.

This reasoning implies that tax-motivated income reallocation inflates measured returns to foreign investment only if foreign investment is dynamically efficient, which makes it possible to use measured returns to test for dynamic efficiency. If U.S. direct investment abroad is dynamically inefficient, then true foreign rates of return are low and firms do not have incentives to defer repatriation; nor do firms have incentives to reallocate taxable income from the United States to low-tax foreign locations, which implies that measured foreign returns are accurate representations. If instead U.S. direct investment abroad is dynamically efficient, then foreign rates of return are high and firms may have incentives to reallocate taxable income from the United States, as a result of which measured cash flows could overstate the profitability of foreign investment. But

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[5] There is ample evidence that reported rates of return to U.S. investment are higher in low-tax foreign locations than in high-tax foreign locations (e.g., Grubert and Mutti, 1991; Hines and Rice, 1994; Desai, Foley, and Hines, 2003; Clausing, 2009), which, together with the relatively high U.S. corporate tax rate, raises the possibility that the reported profitability of U.S. direct investment abroad includes the effect of tax-motivated reallocation of taxable income.

[6] There are some firms with excess foreign tax credits that would benefit from relocating taxable income from the United States to low-tax foreign locations, even if U.S. taxation of the foreign income would not be deferred, since such firms would benefit from increasing their foreign tax credit limits and thereby deploying some of their excess foreign tax credits to offset U.S. tax liabilities on the relocated income. Since the U.S. tax rate significantly exceeds foreign tax rates, this is an uncommon situation; furthermore, U.S. firms have excess foreign tax credits only when their foreign tax rates exceed the U.S. tax rate, a scenario that does not usually raise concerns that there might be inefficiently high levels of foreign investment, or that large amounts of taxable income are allocated outside of the United States for tax purposes. It is nevertheless the case that some U.S. firms with excess foreign tax credits benefit from reallocating U.S. income to low-tax foreign jurisdictions, and the aggregate data reflect, in part, their behavior.

since this possibility arises only when foreign investment is dynamically efficient, the use of reported foreign returns does not produce a misleading test of dynamic efficiency.

Another consideration that arises in interpreting the evidence is that the data reflect actual investment returns rather than the expected risk-adjusted returns envisioned by the theory of dynamic efficiency. Consequently, foreign exchange gains and losses are included in reported returns, as is any risk premium associated with foreign exchange exposure. It is not clear to what extent U.S. firms were exposed to foreign exchange risk over the postwar period, and whether in practice they experienced gains or losses from currency movements. The magnitude of the risk premium is a function of the degree to which exposure to currency risks is priced, a topic of considerable debate; as exchange rates are prices, it is commonly assumed that there is no systematic risk associated with bearing currency risk, and consequently such risk is not priced to generate returns — though models with unequal hedging demands can give rise to currency risk premia and the evidence on uncovered interest parity is consistent with there being a return to holding currencies. U.S. firms investing abroad also face business and political risks that are reflected in the valuation of these investments and in efforts by the firms to hedge these risks, as considered by, among others, Desai, Foley, and Hines (2008). As with currency risks, it is difficult to know the extent to which realized returns reflect the outcomes of risky business investments and the risk premia associated with them. As long as realized returns do not differ systematically from expected returns to foreign investment, then the mere existence of risk does not undermine the use of reported returns to evaluate dynamic efficiency; it is hard to conceive of scenarios under which riskiness alone would account for the large reported differences between foreign investment levels and foreign investment returns.

Finally, the analysis treats repatriated income as the only U.S. return to its direct investment abroad. If foreign and domestic activities are complementary within firms, as the evidence offered by Desai, Foley, and Hines (2009) suggests, then some of the return to foreign investment may appear in enhanced returns to domestic activity, which is not captured by repatriations.

C. Foreign Direct Investment in the United States

There is nothing intrinsic to the process of foreign direct investment that makes its outcome dynamically efficient. To illustrate this point, it is instructive to compare the evidence of investment returns and investment levels for U.S. direct investment abroad to parallel evidence for foreign direct investment in the United States. Table 3 presents data on distributed earnings and net equity outflows for foreign investors in the United States; cumulative earnings and outflows (discounted by U.S. GDP growth rates) are depicted in Panel A of Figure 2. This pattern is clearly distinguishable from that for U.S. direct investment abroad, as net equity outflows exceed cumulative earnings every year. A very similar pattern appears in Table 4 using the broader investment and return concepts employed in Table 2 for U.S. direct investment abroad that include returns

Table 3

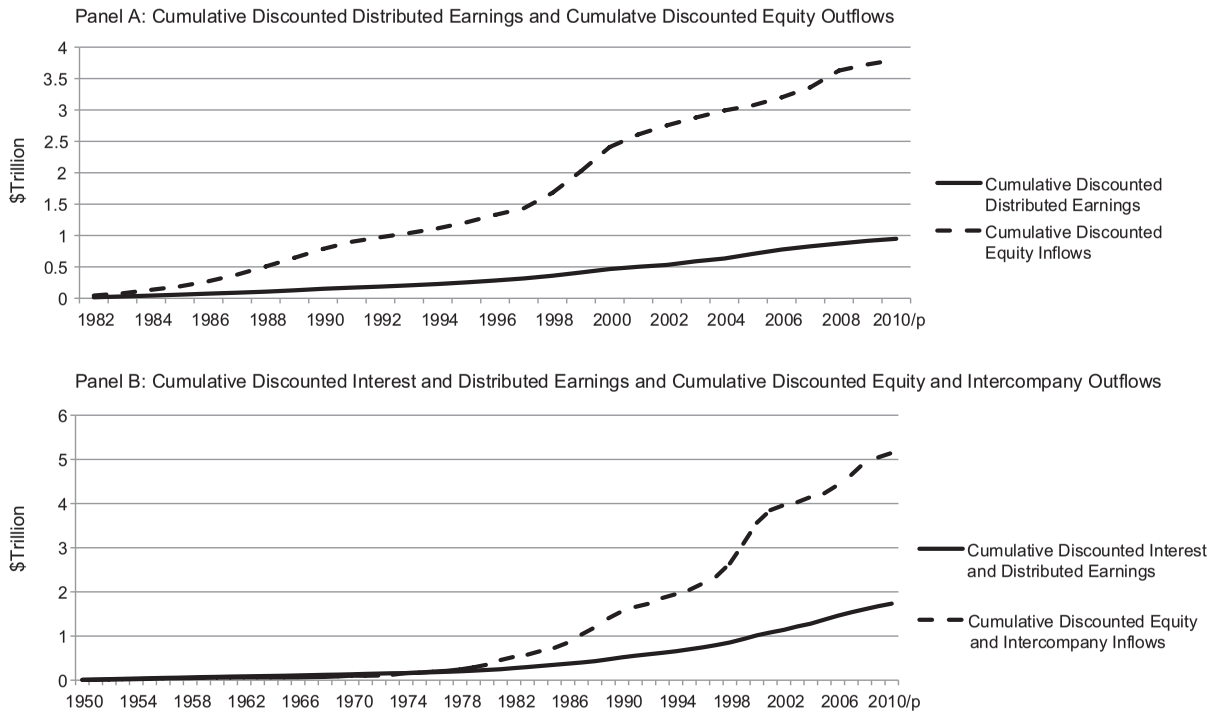
Foreign Direct Investment in the United States:
Measures of Earnings and Investment
($Million, Current Year U.S. Dollars)

Year	Distributed Earnings (1)	Equity Inflows (2)	Difference (3) = (1) – (2)
1982	3,486	9,723	–6,237
1983	3,344	8,699	–5,355
1984	3,508	15,044	–11,536
1985	4,574	15,214	–10,640
1986	4,700	25,086	–20,386
1987	4,785	34,319	–29,534
1988	6,113	45,046	–38,933
1989	7,958	51,776	–43,818
1990	9,367	56,239	–46,872
1991	7,601	45,811	–38,210
1992	7,036	31,635	–24,599
1993	8,874	29,674	–20,800
1994	10,272	37,210	–26,938
1995	13,757	47,890	–34,133
1996	15,487	63,734	–48,247
1997	18,801	59,498	–40,697
1998	25,214	147,091	–121,877
1999	33,906	221,562	–187,656
2000	37,274	259,641	–222,367
2001	25,410	140,901	–115,491
2002	21,191	105,343	–84,152
2003	43,257	93,420	–50,163
2004	36,287	92,905	–56,618
2005	64,395	70,725	–6,330
2006	63,230	115,027	–51,797
2007	49,280	152,807	–103,527
2008	43,047	261,583	–218,536
2009	40,230	94,762	–54,532
2010/p	33,306	76,855	–43,549

Notes: This table displays measures of annual earnings and investment for U.S. Foreign Direct Investment. See Appendix Table A1 for definitions of each measure. Data for 2010 are preliminary.

Figure 2

Foreign Direct Investment in the U.S.: Measures of Cumulative Discounted Earnings and Cumulative Discounted Investment



Note: This figure presents cumulative discounted measures of earnings and investment for foreign direct investment in the United States. Annual measures are discounted by the ratio of 2010 US GDP to current year US GDP, and then measures are cumulated across prior years. See Appendix Table A1 for definintions.

Table 4

Foreign Direct Investment in the United States:
Alternative Measures of Earnings and Investment
($Million, Current Year U.S. Dollars)

Year	Interest and Distributed Earnings (1)	Equity and Intercompany Inflows (2)	Difference (3) = (1) – (2)
1950	169	80	89
1951	186	90	96
1952	181	131	50
1953	195	158	37
1954	176	124	52
1955	180	197	–17
1956	177	232	–55
1957	187	155	32
1958	213	98	115
1959	219	238	–19
1960	220	141	79
1961	194	73	121
1962	185	132	53
1963	223	–5	228
1964	202	–5	207
1965	298	57	241
1966	371	86	285
1967	381	251	130
1968	388	319	69
1969	417	832	–415
1970	441	1,030	–589
1971	621	–175	796
1972	715	380	335
1973	699	1,890	–1,191
1974	266	3,695	–3,429
1975	1,046	1,414	–368
1976	1,451	2,687	–1,236
1977	1,248	2,142	–894
1978	1,628	5,313	–3,685
1979	2,402	7,921	–5,519
1980	3,303	11,740	–8,437
1981	3,694	22,250	–18,556
1982	5,651	16,171	–10,520
1983	5,606	11,858	–6,252

Table 4 (continued)

Foreign Direct Investment in the United States:
Alternative Measures of Earnings and Investment
($Million, Current Year U.S. Dollars)

Year	Interest and Distributed Earnings (1)	Equity and Intercompany Inflows (2)	Difference (3) = (1) – (2)
1984	6,438	22,462	–16,024
1985	7,603	20,400	–12,797
1986	7,820	36,384	–28,564
1987	8,209	59,002	–50,793
1988	11,023	56,608	–45,585
1989	15,171	76,400	–61,229
1990	17,534	62,578	–45,044
1991	16,046	41,483	–25,437
1992	13,800	31,433	–17,633
1993	15,005	58,424	–43,419
1994	17,268	41,237	–23,969
1995	21,893	49,351	–27,458
1996	24,586	77,996	–53,410
1997	27,983	90,634	–62,651
1998	35,576	176,203	–140,627
1999	49,309	285,316	–236,007
2000	57,171	321,536	–264,365
2001	46,634	200,870	–154,236
2002	41,660	82,788	–41,128
2003	59,464	49,463	10,001
2004	50,225	96,437	–46,212
2005	79,599	70,905	8,694
2006	81,654	174,035	–92,381
2007	73,955	216,031	–142,076
2008	68,545	281,342	–212,797
2009	65,525	106,222	–40,697
2010/p	57,964	101,326	–43,362

Notes: This table displays measures of annual earnings and investment for U.S. Foreign Direct Investment. See Appendix Table A1 for definitions of each measure. Data for 2010 are preliminary.

to intercompany loans; these cumulative returns and investment levels are depicted in Panel B of Figure 2.

The evidence for foreign direct investment in the United States serves as a reminder that the method of comparing investment returns and new investment levels need not generate the conclusion that investment is dynamically efficient, since foreign direct investment in the United States appears not to be dynamically efficient. A number of studies, including Obstfeld and Rogoff (2005), Gourinchas and Rey (2007), Habib (2010), and Gourinchas, Rey, and Govillot (2010), measure and attempt to explain the low rate of return that foreign investors earn on portfolio as well as direct investment in the United States, describing the apparent anomaly as an "exorbitant privilege" attributable to the market power of the United States in world capital markets. Other potential explanations include the possibility that foreign governments effectively subsidize investment in the United States, or that foreign investment returns in the United States are systematically understated.

IV. CONCLUSION

U.S. direct investment abroad generates sizeable positive cash flows measured net of new outflows — not quite every year, but in most years, that in the aggregate exceed $1 trillion for equity investments from 1982–2010 and $2 trillion for equity and debt investments from 1950–2010. These large net cash flows imply that U.S. foreign investment is dynamically efficient, so reduced investment today entails fewer income flows from abroad in the future. Consequently, concerns that U.S. tax policies provide subsidies that lead to dynamically inefficient foreign investment levels appear to be misplaced.

The finding that direct investment abroad is dynamically efficient should not be interpreted either as an endorsement of current U.S. tax policy or a claim that current policy is efficient in all respects. The impact, and appropriate design, of the taxation of foreign income has undergone a reevaluation in recent years, with new considerations and previously unidentified distortions taking on great significance. From the standpoint of a capital-exporting country in a growing world economy, the consequences of too much or too little foreign investment are potentially quite large, reflecting the costs either of allocating resources to foreign investments generating small returns or the foregone opportunity to earn significant annual positive cash flows that might then be redeployed. Further consideration of the impact of tax policies on the structure, conduct, and performance of foreign investment are likely to raise other issues, and with them, tests of other aspects of efficiency.

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Appendix Table A1

Definitions

Type of Investment	Data item	Definition
U.S. Direct Investment Abroad	Distributed Earnings	For incorporated foreign affiliates, distributed earnings are dividends on common and preferred stock held by U.S. parents. Distributions can be paid out of current or past earnings, and earnings are U.S. parents' shares in the net income of their foreign affiliates after provision for foreign income taxes and excluding capital gains or losses. For unicorporated affiliates, distributed earnings equal U.S. parents' shares in the net income of their foreign affiliates after provision for foreign income taxes, excluding capital gains or losses. Withholding taxes are not considered.
	Interest	Interest measures interest paid by the foreign affiliate to the U.S. parent on loans made to the affiliate by the parent net of interest received by the foreign affiliate from the U.S. parent group. U.S. and foreign withholding taxes and not considered.
	Equity Outflows	Equity outflows measure increases in equity capital outflows net of decreases in equity capital outflows. Increases in equity capital outflows occur when a U.S. parent increases its equity investment in one of its existing foreign affiliates or makes a new equity investment in a foreign business enterprise, either by acquiring an existing foreign business or by establishing a new one. Decreases in equity capital outflows occur when a U.S. parent reduces its equity interest in an existing affiliate.
	Equity and Other Intercompany Outflows	Equity and other intercompany outflows include equity outflows and intercompany debt outflows. Intercompany debt flows consist of the increase in foreign affiliates' net intercompany debt to U.S. parent groups.

Appendix Table A1 (continued)

Definitions

Type of Investment	Data item	Definition
Foreign Direct Investment in the United States	Distributed Earnings	For incorporated U.S. affiliates, distributed earnings are dividends on common and preferred stock held by foreign parents. Distributions can be paid out of current or past earnings, and earnings are foreign parents' shares in the net income of their U.S. affiliates after provision for foreign income taxes and excluding capital gains or losses. For unicorporated affiliates, distributed earnings equal foreign parents' shares in the net income of their U.S. affiliates after provision for foreign income taxes, excluding capital gains or losses. Withholding taxes are not considered.
	Interest	Interest measures interest paid by the U.S. affiliate to the foreign parent on loans made to the affiliate by the parent net of interest received by the U.S. affiliate from the foreign parent group. U.S. and foreign withholding taxes and not considered.
	Equity Inflows	Equity inflows measure increases in equity capital inflows net of decreases in equity capital inflows. Increases in equity capital inflows occur when a foreign parent increases its equity investment in one of its existing U.S. affiliates or makes a new equity investment in a foreign business enterprise, either by acquiring an existing foreign business or by establishing a new one. Decreases in equity capital inflows occur when a foreign parent reduces its equity interest in an existing U.S. affiliate.
	Equity and Other Intercompany Inflows	Equity and other intercompany inflows include equity inflows and intercompany debt inflows. Intercompany debt flows consist of the increase in U.S. affiliates' net intercompany debt to foreign parent groups.