

## Securing Jobs or the New Protectionism?

By Mihir A. Desai

Mihir A. Desai (mdesai@hbs.edu) is the Mizuho Financial Group Professor of Finance at Harvard Business School.

Tax policy toward American multinational firms appears to be approaching a crossroads. The presumed linkages between domestic employment conditions and the growth of foreign operations by American firms have led to calls for increased taxation on foreign operations — the so-called “end to tax breaks for companies that ship our jobs overseas.” At the same time, the tax regime employed by the United States is being abandoned by the two remaining large capital exporters — the United Kingdom and Japan — that maintained similar regimes. The conundrum facing policymakers is how to reconcile mounting pressures for increased tax burdens on foreign activity with the increasing exceptionalism of American policy. This report addresses those questions by analyzing the available evidence on two related claims: that the current U.S. policy of deferring taxation of foreign profits represents a subsidy to American firms, and that activity abroad by multinational firms represents the displacement of activity that would have otherwise been undertaken at home. Those two tempting claims are found to have

limited, if any, systematic support. Instead, modern welfare norms that capture the nature of multinational firm activity recommend a move toward not taxing the foreign activities of American firms, rather than taxing them more heavily. Similarly, most of the empirical evidence suggests that foreign activity is a complement, rather than a substitute, for domestic activity. Much as the formulation of trade policy requires resisting the tempting logic of protectionism, the appropriate taxation of multinational firms requires a similar fortitude.

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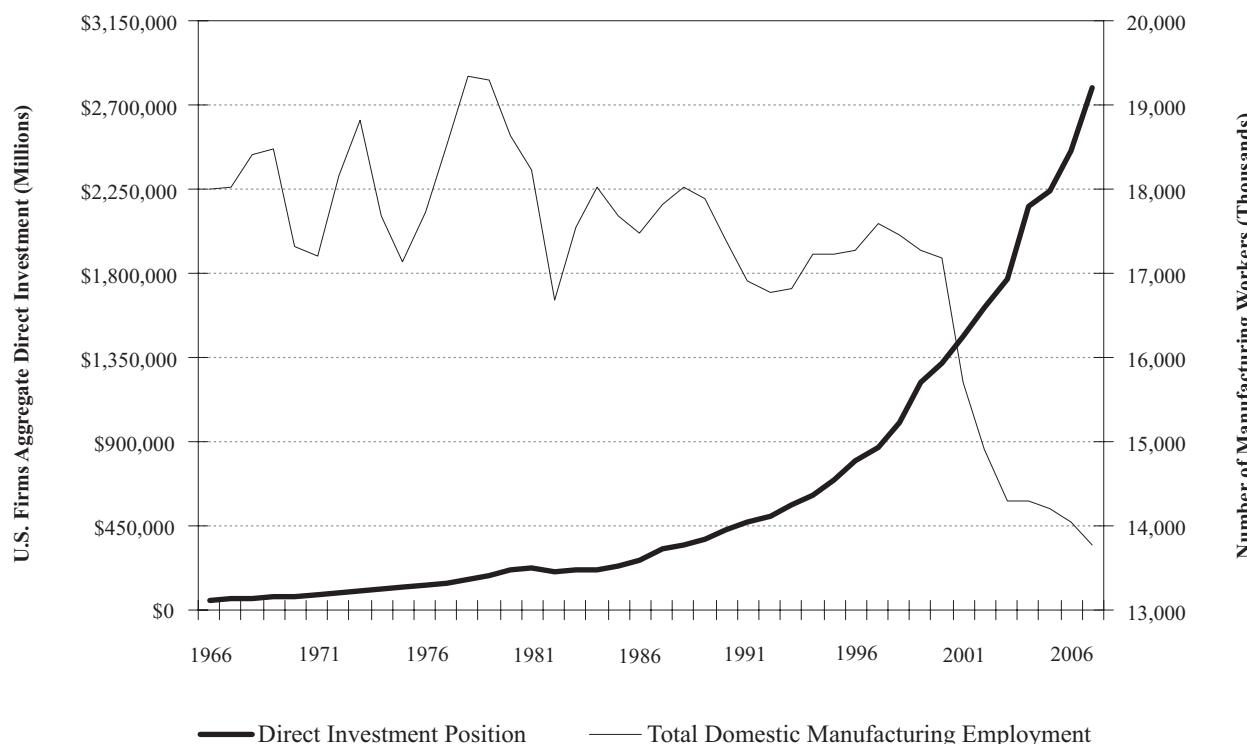
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### I. Introduction

The last two decades have witnessed two significant economic developments that are often linked in the popular imagination: the rapid increase of the foreign activities of American multinational firms and rising

levels of economic insecurity, particularly among workers in certain sectors. The underlying trends of concern are summarized in Figure 1. First, the value of the claims held by U.S. multinational firms abroad is depicted by the direct investment position line that reached nearly \$3 trillion by 2007. Notably, the direct investment position has more than tripled since 1997. The rise in the net income abroad of U.S. multinationals is even more dramatic, reaching \$350 billion in 2007. At the same time, domestic employment in manufacturing has undergone an equally dramatic set of changes with employment declining in a rapid fashion, particularly after 1997, just as U.S. multinational firms were rapidly increasing their foreign activities. It is unsurprising that those phenomena have become linked in the popular imagination such that foreign activity would appear to be displacing domestic activity.

One consequence of this linkage is the deep skepticism of Americans toward outbound foreign direct investment (FDI). As noted in Scheve and Slaughter (2006, p. 224), “a consistent plurality to a majority [of Americans] think

**Figure 1. Direct Investment Position and Domestic Manufacturing Employment, 1966-2007**

*Note:* The horizontal axis charts years, from 1966 until 2006. The left vertical axis measures the aggregate direct investment position of U.S. firms for that year, in millions of dollars. Data is measured on a historical cost basis, and comes from the Bureau of Economic Analysis's section on international economic accounts. Before 2006, this data is measured net of withholding taxes, while data for 2006 and 2007 is measured gross of withholding taxes. The right vertical axis measures the aggregate number of workers employed domestically in manufacturing jobs that year, in thousands of workers. Data comes from the Bureau of Labor Statistics.

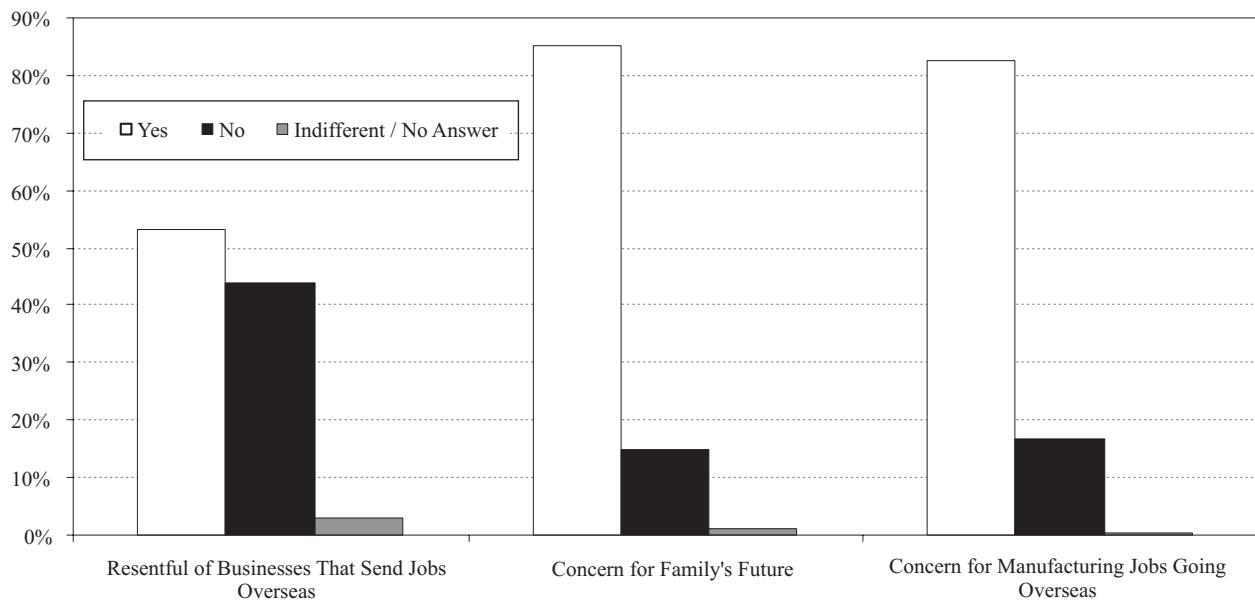
that FDI in both directions eliminates jobs . . . with the prominent concern that outward FDI entails U.S. firms 'exporting' jobs outside the country. Over two-thirds of Americans think that 'companies sending jobs overseas' is a 'major reason' for 'why the economy is not doing better than it is.'<sup>1</sup> While this summary relates to polling results from the late 1990s, more recent polling on this question, displayed in Figure 2a, suggests that those feelings have heightened. Figure 2b also suggests that the populace is unhappy with historic policies in this area and expect that ready solutions are available to them through policymaking. Unsurprisingly, policymakers have begun to respond to those trends and perceptions by arguing for penalties on foreign activities or for subsidies for domestic activity by American firms. Finally, dramatic estimates of future "potential job losses" created by further international engagement by American firms have only amplified those sentiments.<sup>1</sup> Increasingly, the overseas activities of multinational firms have become a source of concern for domestic employment in a manner that parallels historic attitudes toward trade.

The presumed linkages among those phenomena have led many to call for a reconsideration of the appropriate policy response to the rising level of global engagement by American multinational firms. The tax treatment of foreign investment has received particular attention. The current system of taxing the foreign activities of American firms — a worldwide regime with limited foreign tax credits and deferral until profits are repatriated — is often characterized as providing a subsidy for firms to invest abroad, deepening the impression that those policies deserve reconsideration. To many, increasing the tax burden on outbound investment by American multinational firms offers the promise of alleviating domestic employment losses and insecurity while also raising considerable revenue. This sentiment is typically manifest in the powerful political formulation of "ending tax breaks for corporations that ship our jobs overseas."<sup>2</sup>

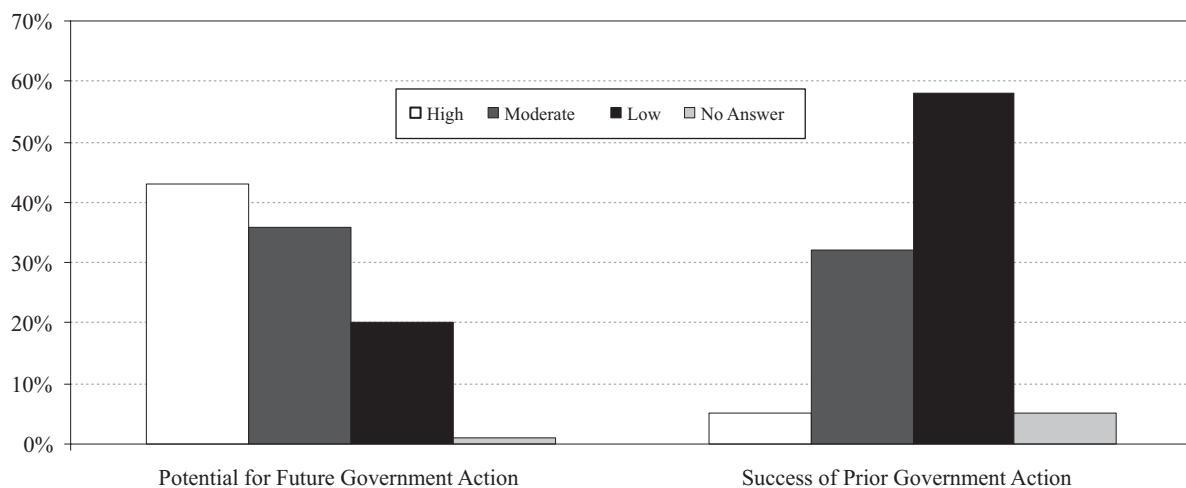
*(Text continued on p. 318.)*

<sup>1</sup>See, e.g., Blinder (2006).

<sup>2</sup>See Obama (2009).

**Figure 2a. Public Perception of Overseas Employment**

*Note:* Each category on the horizontal axis represents a different and independent poll. "Resentful of Businesses that Send Jobs Overseas" refers to a Harris Interactive phone poll conducted in 2004 of 772 national adults. Respondents were told, "Are you resentful of businesses that send jobs overseas?" Categories on the graph are the same as response categories for the poll. "Concern for Family's Future" refers to a Penn, Schoen & Berland Associates phone poll conducted in 2008 of 2,008 national likely voters. Respondents were told, "Thinking of you and your family's economic security, how worried are you about each of the following?...Outsourcing of American jobs to other countries." "Yes" is defined here as "Very worried / fairly worried / somewhat worried," and "No" is defined here as "Not at all worried." "Concern for Manufacturing Jobs Going Overseas" refers to a Gallup phone poll conducted in 2008 of 2,020 national likely voters. Respondents were told, "Please tell me whether you are worried or not worried about each of the following. How about -- U.S. manufacturing jobs going overseas?" "Yes" is defined here as "Worried," while "No" is defined here as "Not Worried."

**Figure 2b. Public Perception of Government Response to Jobs Going Overseas**

*Note:* Each category on the horizontal axis represents a different and independent poll. "Potential for Future Government Action" refers to a Public Agenda Foundation phone poll conducted in 2008 of 1,006 national adults. Respondents were told, "Is the following something our government can do a lot about, something about, or not much about?...Preventing jobs from going overseas." "High" is defined as "A lot," "Moderate" is defined as "Something," and "Low" is defined as "Not much." "Success of Prior Government Action" refers to a Public Agenda Foundation phone poll conducted in 2008 of 1,006 national adults. Respondents were told, "What grade would you give the United States when it comes to achieving the following goals?...Protecting American jobs from moving overseas." "High" is defined as "A," "Moderate" is defined as "B / C," and "Low" is defined as "D / F."

Given that those causal linkages are becoming cemented in the popular imagination, it is useful to investigate the merits of those claims. Evaluating those claims and formulating an appropriate policy response requires an exploration of two related questions. First, from a theoretical perspective, it is critical that the economic determinants of outbound investment decisions be understood. Alternative characterizations of the nature of those investment decisions lead to distinct policy prescriptions. Second, from an empirical perspective, it is important to synthesize what is known about the relationship between domestic and foreign activities. Any empirical effort must begin by looking beneath those aggregate trends and by attempting to address the thorny question of causality.

Sections II and III of this report address those two questions by reviewing extant theoretical and empirical work. Fortunately, recent advances on both questions illuminate the validity of alternative perspectives on the appropriate tax policy toward multinational firms. Section IV of the report reviews the recent American experience in more detail to further address the validity of these linkages. Section V concludes with some implications for how policy prescriptions can be informed by this research.

## II. Why Do Firms Invest Abroad?

Discussions of the appropriate tax policy for multinational firms often neglect the motivations of firms for investing abroad. Without an understanding of those motivations, it is impossible to articulate meaningful policy responses, much as it would be meaningless to consider the merits of income taxes versus consumption taxes without understanding labor-leisure and intertemporal trade-offs. Research on the motivations of multinational firms extends back to the 1950s and has resulted in three distinct waves of thinking, each yielding a distinct set of policy prescriptions. Indeed, a given policy prescription can be evaluated by the degree to which it corresponds to a credible explanation of a firm's motivations.

### A. Arbitrage

First, and most influentially for policy purposes, firms can be understood to be arbitraging rate of return differentials across countries. This arbitrageur view of multinational firms interprets FDI decisions as being motivated by the prospect of a higher pretax return abroad and the resultant capital flows as eliminating any return discrepancies. The arbitrageur view also implicitly views multinational firms as being the vehicle through which capital is transferred from one country to another. Unsurprisingly, this view was dominant in the immediate postwar era, during which the central problem appeared to be how a social planner/superpower might optimally design rules to assure that its capital would arrive in the appropriate destination.

The arbitrageur view has clear implications for the optimal design of tax policies toward FDI. Worldwide welfare is maximized by making sure that these arbitrageurs allocate capital around the world in a way they would have in the absence of taxes, to ensure that aggregate worldwide returns are maximized. As formu-

lated in Musgrave (1969) into the welfare norm known as capital export neutrality (CEN), this requires the granting of unlimited foreign tax credits to ensure that firms face the same tax rate — the home rate — wherever they invest. If a more parochial approach is desired such that only national welfare is maximized, the only change required is an alternative treatment of foreign taxes paid (via a deduction rather than a credit) as taxes paid to foreign governments are unimportant for national welfare.

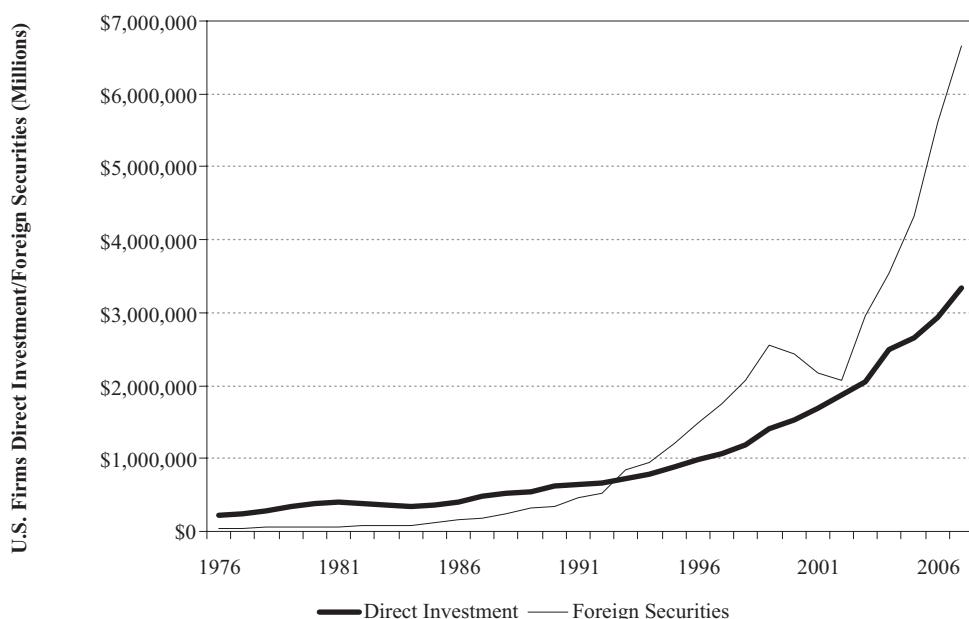
The arbitrageur view has proven remarkably influential and resilient in the policymaking domain. The patchwork of American tax policy toward foreign income may seem incomprehensible but can be best understood as a set of real-world accommodations to the prescriptions embodied by the arbitrageur view. First, unlimited foreign tax credits can lead to undesirable incentives for foreign governments, leading to the limitation of foreign tax credits to the U.S. statutory rate. The tax burden created by this limitation is offset by the benefits of deferral until earnings are repatriated. Finally, some fraction of expenses incurred domestically must be allocated abroad to prevent an undue incentive to invest abroad beyond the merits of the pretax return.<sup>3</sup>

The arbitrageur view and the policy prescriptions that emerge from it remain the dominant paradigm for understanding foreign activity by American firms. The primacy of the arbitrageur view in the policy domain is perhaps best exemplified by the common characterization of the exemption of foreign income as a "subsidy" to investing abroad. If firms are arbitrageurs, exemption of foreign income provides them an incentive to invest beyond a point merited by pretax returns. Similarly, under the arbitrage view, deferral of taxation until foreign profits are repatriated also represents a "subsidy" to investing abroad. Finally, the arbitrage view also provides the foundation for linking increased investment abroad with decreased domestic investment. If firms are arbitraging returns around the world, then, by definition, capital invested abroad represents capital that is not being invested domestically.

Before assessing the relevance of the arbitrage view, it is useful to note how distinct Musgrave's simple tax policy prescriptions are from those of other analysts who also employed the arbitrage view. In international trade theory, a rich line of inquiry developed simultaneously with Musgrave's work that emphasized just how difficult it was to arrive at definitive policy prescriptions on taxing capital outflows. Specifically, Kemp (1966), initially, and Jones (1967), most extensively, clarified that it is incorrect to separately analyze taxes on capital flows that are arbitraging rate of return differentials from trade policy more generally given various interactions. In this line of work, results are highly variable, but it is worth noting that situations arise in which either taxing or

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<sup>3</sup>This rationalization of U.S. policy may be overly generous to the current policy. Indeed, it is hard to find a rationale for source-based taxation in the optimal tax literature, and CEN is best understood as a tool to evaluate policy conditioned on the existence of source-based taxation.

**Figure 3. The Evolution of Foreign Exposures for American Investors, 1976-2007**

*Note:* The horizontal axis charts years, from 1976 until 2007. The vertical axis measures the aggregate level of direct investment or foreign securities held by all U.S. firms for that year, in millions of dollars. Data comes from the Bureau of Economic Analysis's section on international economic accounts, and all data except 2007 have been revised. Direct investment is measured on a current cost basis. Foreign securities are comprised of both foreign bonds and foreign corporate stocks. Neither direct investment nor foreign securities includes miscellaneous U.S. claims on unaffiliated foreigners, nor does it include miscellaneous claims by U.S. banks.

subsidizing capital outflows is welfare enhancing, depending on the relative capital intensity of a country and the degree of economic specialization in countries. As such, the arbitrage view and the policy prescriptions that emerge from it are not nearly as clear as the Musgrave perspective suggests.

While the influence of the arbitrageur view has lasted for decades in the policy domain, it prevailed for a very short period among scholars of multinational firms. Dissatisfaction with the arbitrage view sprang from two primary sources.<sup>4</sup> First, it does not appear that firms respond to rate of return differentials. Indeed, the "Lucas paradox" outlined in Lucas (1990) is that capital of all types does not seem to flow where rates of return would appear to be high. More specifically, patterns of multinational firm activity would suggest that firms are particularly uninterested in rate of return differentials, as firms from developed countries mostly invest in other developed countries, between which rate of return differentials are thought to be small, rather than in developing countries. Similarly, the dominant form of multinational activity is the acquisition of existing assets, and most multinational firm activity is in high-technology sectors.<sup>5</sup> Those patterns do not support the notion that rate of return differentials are motivating firm investment. Sec-

ond, the arbitrage view has a limited role for firms. Firms exist only to channel capital abroad in this view. There is nothing that distinguishes multinational firms from other investors, and, as such, this would seem to abstract from some critical differences between investors and firms. Most importantly, firms have begun changing their national identity for various purposes — decentering themselves from any one particular country — in a way that is not imagined by the proponents of the arbitrage view.<sup>6</sup>

The policy prescriptions that emerge from the arbitrage view also have the undesirable feature of describing little, if any, of real-world policies outside of the United States. Within the arbitrage view, nations interested in pursuing their own interests should employ worldwide regimes with deductions for foreign taxes paid, a system that is not found anywhere in the world. Instead, the dominant approach to taxing foreign income around the world now appears to be exemption of foreign-source income, which is a policy prescription that the arbitrage view specifically argues against. For those reasons, the arbitrage view of multinational firm activity, despite its policy influence in the United States, does not correspond to a modern understanding of firm activity or to the policy approaches of countries other than the United States.

<sup>4</sup>See Gordon and Hines (2002) and Hines (2008) for fuller discussions of the limitations of the Musgrave framework.

<sup>5</sup>See Navaretti et al. (2004) for a discussion of those patterns.

<sup>6</sup>See Desai (2009) for a discussion of those changes to the national identity of firms.

Finally, as described above, the arbitrage view presumes that firms serve to channel capital from home to abroad, and the presumption of displaced domestic activity rests on this idea as well. It is useful to conclude this section with a review of the changing forms of foreign investment by Americans, as shown in Figure 3. Until 1992, multinational firms were the primary means of international investment by Americans, often by a large margin. More recently, direct holdings of foreign securities have become the dominant means of gaining foreign exposure, now by a fair margin. As such, the arbitrage view of multinational firm investing may have accurately characterized a dominant motivation for these investments through the 1980s. With significantly decreased barriers to foreign portfolio investment, however, this characterization of firm investment decision-making appears to be considerably more tenuous. Said another way, it is hard to know why multinational firms would serve as a dominant means of arbitraging rates of return when so many alternative instruments now exist to accomplish that arbitrage more efficiently.

### B. Firm-Specific Advantages<sup>7</sup>

The dominant view of scholars who study multinational firms is that firms invest abroad to exploit a firm-specific advantage. In contrast to the arbitrage view, those scholars view FDI as arising from differential capabilities and, consequently, productivity among firms and the extension of intangible assets across borders. This opinion squares well with the empirical patterns of FDI, which include the fact that considerable FDI happens between rich countries and that much of what we consider FDI are transfers of control and ownership and need not involve transfers of net savings.

This emphasis on transfers of ownership and the productivity differences that drive ownership patterns yields distinctive optimality conditions from the traditional ones articulated above. In addition, this characterization of FDI as arising from differential productivity and resulting changes in ownership also raises the possibility that outbound FDI need not be associated with less investment domestically. Indeed, it is conceivable that outbound FDI is associated with additional investment at home by the multinational or with additional investment by foreign firms in the United States. Under this view, in short, multinational firms are not engaged in the reallocation of the capital stock as much as they are engaged in the reallocation of ownership and control of existing capital stocks.

This emphasis on ownership suggests that tax rules should be evaluated by the degree to which they ensure that the identities of capital owners are unaffected by tax rate differences, thereby permitting the market to allocate ownership rights to where they are most productive. This perspective yields the welfare benchmarks of capital ownership neutrality (CON) and national ownership neutrality (NON). CON demands that tax rules do not distort ownership patterns and can be achieved with exemption, as the owner with the highest reservation

price (and greatest productivity) owns the asset. More generally, CON can be consistent with foreign tax credit systems because, again, those systems allow, under certain conditions, that owners with higher productivity levels own the appropriate assets. With so few countries employing worldwide regimes today, those conditions are likely not to be operative, and CON is consistent with a move to exemption in today's environment.

Finally, NON suggests, much as is evident in practice in the world, that countries designing tax rules in their own narrow interest will exempt foreign income. Those recommendations arise in a world where only ownership claims are being distorted by tax incentives, as outbound FDI is either associated with a commensurate rise in domestic investment or by inbound FDI. When both capital stocks and ownership claims are affected by tax rules, the CON/NON framework provides intermediate recommendations.

The CON/NON framework places productivity differences among multinational owners and the transfers of control induced by tax rules front and center in analyzing the efficiency of tax rules. The relevance of such a framework depends on the degree to which those differences matter relative to the actual transfers of net saving emphasized in the CEN framework. That scholars who study multinationals have dismissed the view of FDI as transfers of net savings as "neither satisfying theoretically nor confirmed empirically" suggests that employing welfare frameworks that rely exclusively on such notions is incomplete at best.<sup>8</sup> That the incorporation of those scholars' considerations yields rules that are actually employed further suggests the importance of these alternative frameworks.

Finally, it should be noted that the CON/NON framework undercuts the idea that deferral in a foreign tax credit system or the move to exemption is an inappropriate subsidy to foreign activity. Rather, the CON/NON framework suggests that current American tax policy is punitive relative to a welfare-maximizing policy, and that preservation of deferral or the transition to exemption represents movement toward a more enlightened policy.

### C. Systematic Variability in Productivity

While the previous wave of scholarship on multinational firms emphasized firm-specific advantages and the possibility of heterogeneity in productivity, a more recent wave emphasizes that the variability in productivity is systematic and linked to the foreign exposure of firms. Productivity across firms within relatively narrow industry classifications has been shown to vary by remarkable degrees. Bernard et al. (2003) show that one standard deviation from mean levels of industry productivity can mean a 75 percent change in productivity. Those differences have now been shown to be related to international exposure. Bernard et al. (2006) show that exporting firms are 14 percent more productive than nonexporters. Those effects precede the exporting decisions, suggesting that causality does not run the other way. Similarly, Tomiura (2007) and Helpman et al. (2004) show that multinational

<sup>7</sup>This section draws on Desai and Hines (2003, 2004).

<sup>8</sup>See Caves (1996).

firms are more productive than nonmultinational exporters by a similar margin. Moreover, Yeaple (2008) shows that those productivity differences are also present within multinational firms and that productivity varies systematically with how large a firm's foreign operations are.

This fairly strict "hierarchy" of productivity is now well established and corresponds to models with reasonable assumptions (Melitz (2003) and Bernard et al. (2003)). This literature also has implications for barriers to trade. In Bernard (2006), it is shown that trade liberalizations reallocate production across firms toward more productive firms, raising aggregate productivity and welfare. In short, this literature suggests that policies can reallocate production across firms and have important welfare consequences in the process.

The applications of this logic to the debate on the taxation of multinational firms can be summarized here via analogy to other costs present in those models, though it has yet to be worked out fully.<sup>9</sup> Taxes on foreign profits of firms limit the number of firms that do FDI, and production is reallocated away from the most productive firms as weaker firms survive in the home market given the tax (entry is reduced because of the tax also). Overall welfare is reduced at home given the lowered competition among firms. Abroad, foreign firms now enter the home market with their highest productivity firms. Taken together, the tax on the foreign operations of firms of one country reduces the welfare in that country by making competition among firms softer and by reallocating production away from the most productive firms.<sup>10</sup>

This new evidence on the systematic link between firm productivity and foreign exposure provides a new dimension to the consequences of taxing multinational firms. While the firm-specific advantages view identifies the loss of productivity from reallocating ownership, this new evidence makes it clear that the losses will be large given the variability in productivity. Also, this perspective suggests that changing the nature of competition among firms creates other welfare consequences that ripple through to consumers. This brief sketch suggests that further explorations of the application of those models to the question of taxing foreign profits would be highly profitable.<sup>11</sup>

### III. Is Foreign Activity Lost Domestic Activity?

As with the theoretical work, empirical work on the relationship between foreign and domestic activity began by taking a macro approach that studied the correlations of outflows of FDI and domestic investment. Feldstein (1995) analyzes decade-long averages of aggregate FDI and domestic investment in OECD economies, reporting evidence that direct investment abroad reduces domestic

<sup>9</sup>Many thanks to Stephen Yeaple for his help in clarifying this.

<sup>10</sup>See Chor (forthcoming) and Demidova and Rodriguez-Clare (2007) for a similar analysis but of subsidies for FDI.

<sup>11</sup>Davies and Eckel (2009) provide one such effort that emphasizes tax competition, but they do not specifically consider the effects of taxing overseas profits.

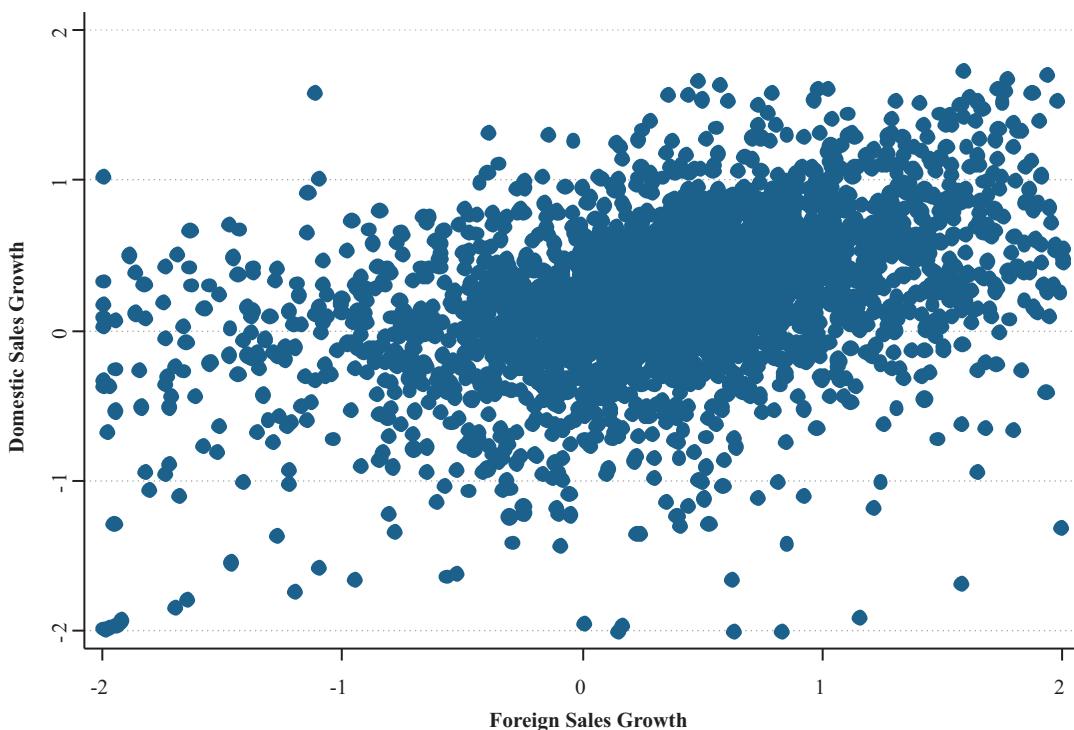
investment levels. Devereux and Freeman (1995) come to a different conclusion in their study of bilateral flows of aggregate investment funds among seven OECD countries, finding no evidence of tax-induced substitution between domestic and foreign investment, and Desai, Foley, and Hines (2005) report time series evidence that foreign and domestic investment are positively correlated in the United States. Unsurprisingly, work investigating the level of capital flows comes to mixed results, and more recent work has emphasized firm-level analyses.

Firm-level analysis holds considerable promise but must grapple with thorny identification issues. Simple comparisons of domestic and multinational firms or of the domestic and foreign operations of a given multinational firm face varied problems. Specifically, domestic and multinational firms may differ in unobservable ways, and the domestic and foreign operations of a given multinational firm are likely responding to common factors. Empirical work in this area has attempted to address these difficulties by aggregating firm-level data to the industry level, applying state-of-the-art matching methods for comparing domestic and multinational firms, and by instrumenting for plausibly exogenous changes to the foreign operations of multinational firms.

Arndt, Buch, and Schnitzer (2007) employ detailed firm-level data from Germany to study if investment levels are complementary at the industry level. Arndt et al. argue that multinational firms are characterized by linkages to other firms so that the relevant analysis must incorporate these linkages — accordingly, they aggregate their firm-level data to the industry level. Their conclusion is that outbound FDI has a positive effect on the domestic capital stock, both for capital owned by domestic firms and for inward FDI. Interestingly, those results are strongest for industries in which multinational firms are dominant and for those in which FDI is motivated by seeking market access. For industries in which cost considerations may dominate in motivating FDI, they find no relationship at the industry level.

Across Europe, firm-level studies have found a positive association of foreign expansions and domestic employment, using fairly rigorous matching procedures to identify the effect of going abroad. Castellani and Navaretti (2003), Hijzen et al. (2006), and Kleinert and Toubal (2009) all find no negative effects on employment domestically of the decision by Italian, French, and German firms, respectively, to initiate production abroad. Indeed, all papers report that the decision to become multinational has a significant and positive effect on productivity and on employment. Egger and Pfaffermayr (2003) identify some possible channels for this by demonstrating that, for Austrian firms, investing abroad has a positive impact on investment in intangible assets and on research and development. European work has also shed light on the degree to which investments in developing versus developed countries have distinctive effects. Castellani et al. (2006), using French and Italian data, find no evidence of distinctive effects of locating production abroad in developing or developed markets.

The fear of job loss stemming from offshoring has been christened "kudoka" in Japan. Ando and Kimura (2007)

**Figure 4. Domestic and Foreign Sales Growth of Multinational Firms, 1982-2004**

*Note:* The vertical and horizontal axes of the figure measure growth rates of domestic sales and foreign sales. Growth rates are defined as ratios of changes in sales to the average of beginning and ending period values. Each observation is a single multinational firm between two benchmark years (the benchmark years consisting of 1982, 1989, 1994, 1999, and 2004).

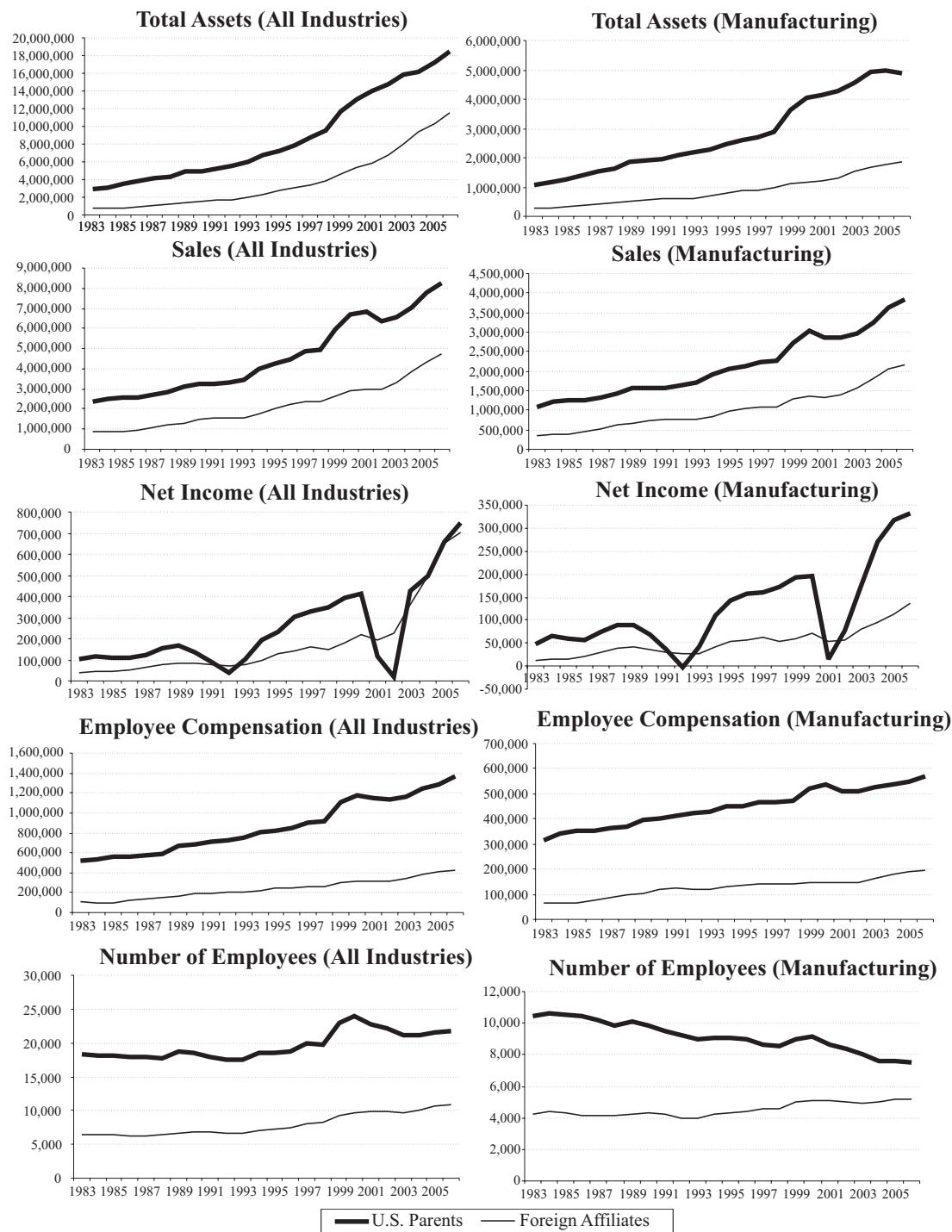
suggest that the domestic employment losses that generate those concerns have not been driven by firms that expand abroad. They report that Japanese firms increasing their overseas activity increase domestic employment at rates that are 3 percent to 8 percent greater than comparable purely domestic firms. Those effects are most pronounced in manufacturing industries and are accompanied by significant relative increases in intrafirm trade as firms expand abroad.

In contrast to other studies, Desai, Foley, and Hines (2009) employ an instrumental variables approach, as opposed to matching procedures, to study the effects of the foreign operations of American manufacturing firms on their domestic operations. The simple correlation of changes in foreign and domestic activity is evident from Figure 4, which is taken from the study. This figure presents a scatter plot of foreign and domestic sales growth rates for multinational firms in the sample. The upward-sloping relationship between foreign and domestic sales growth in Figure 4 suggests a positive correlation between growth rates of foreign and domestic economic activity. Given the possibility of unobserved variables that drive both foreign and domestic growth, a suitable instrument that influences foreign operations holds only the promise of identifying this effect more cleanly. Instrumenting for changes in foreign operations

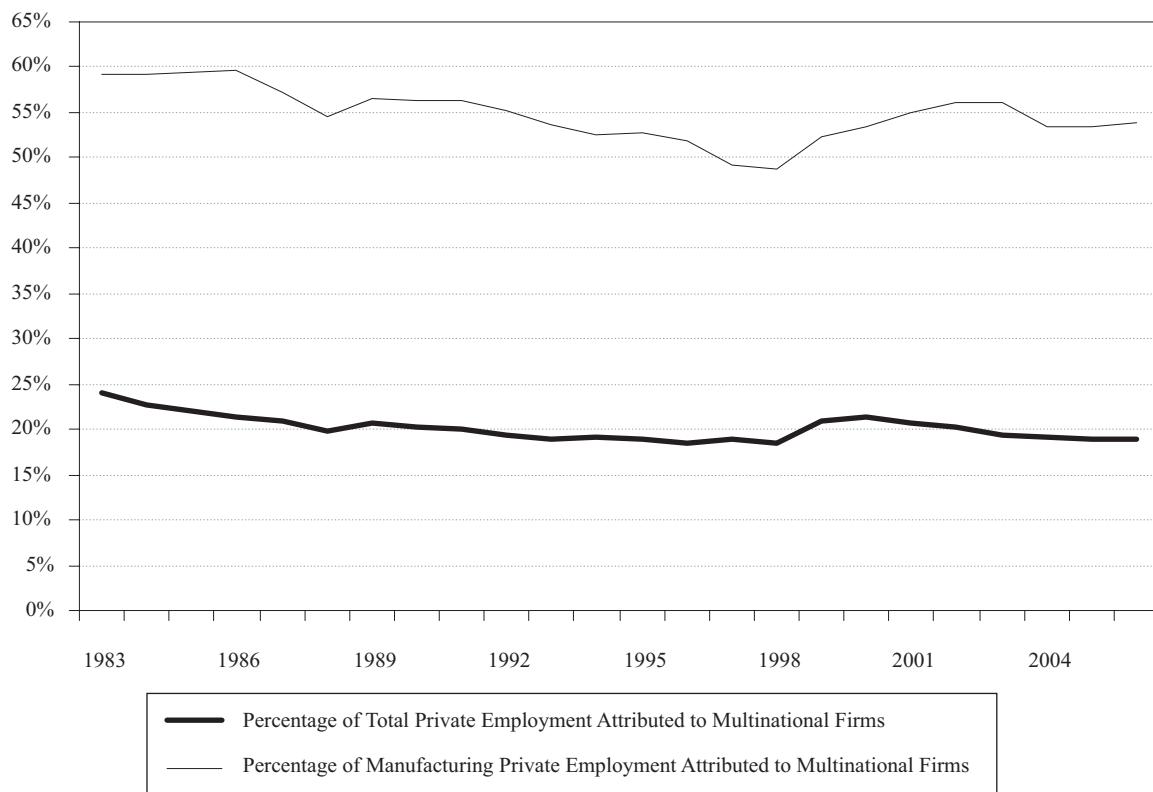
with GDP growth rates of the foreign countries in which they invest provides estimates that indicate that 10 percent greater foreign investment is associated with 2.6 percent greater domestic investment, and 10 percent greater foreign employee compensation is associated with 3.7 percent greater domestic employee compensation.

Several studies do find some negative effects of out-bound FDI on source countries. In particular, Brainard and Riker (1997, 2001), Becker and Muendler (2006), Simpson (2008), and Harrison and McMillan (2008) all report similar results. Those results are characterized by two features that are exemplified by the Harrison and McMillan paper. First, they attempt to discriminate on the basis of the motivation for multinational firm expansions between horizontal FDI (firms producing the same good in different locations) and vertical FDI (firms that locate different aspects of production in different locations). Harrison and McMillan (2008) use firm-level data from the United States and identify, as do those other studies, complementarity in vertical FDI and substitutability in horizontal FDI. Second, the substitutability

*(Text continued on p. 324.)*

**Figure 5. Domestic and Foreign Growth of Multinational Firms, 1983-2006**

Note: The horizontal axis charts years, from 1983 until 2006. The vertical axis measures the aggregate levels of total assets, sales, net income, employee compensation, and number of employees for U.S. multinationals for the respective year. All measurements are in millions of dollars, except number of employees, which is measured in thousands of employees. Data come from the Bureau of Economic Analysis's section on international economic accounts. Data for U.S. parents refers to operations conducted by U.S. multinational firms that take place within the boundaries of the United States, while data for foreign affiliates refers to operations conducted by U.S. multinational firms and their affiliates outside of the United States.

**Figure 6. Multinational Employment: All Industries and Manufacturing, 1983-2006**

*Note:* The horizontal axis charts years, from 1983 until 2006. The vertical axis measures the percentage of total private employment or manufacturing private employment provided by multinational firms. Data on multinational firm employment comes from the Bureau of Economic Analysis's section on international economic accounts. Data on total private and total manufacturing employment comes from the Bureau of Labor Statistics.

effects for horizontal FDI are, in the Harrison and McMillan paper and in others, "very small," with very large wage differences in host countries contributing to minimal employment effects at home. Nonetheless, those studies do find some evidence of substitutability in horizontal FDI. In assessing the importance of those results, it is useful to note that the relative importance of vertical FDI appears to have been underestimated by a fair margin (see Alfaro and Charlton (forthcoming)) and is now thought to dominate horizontal FDI as the primary form of FDI.<sup>12</sup>

Taken together, it is hard to find systematic evidence of significant negative effects of the overseas activities of firms on domestic investment or employment. Indeed, the emerging consensus is that the average effect is positive, although it may mask some underlying heterogeneity. Given the dramatic growth in foreign operations by multinational firms over the last 15 years and the similarly marked changes in employment structures in many countries during this period, the inability to find

any systematic evidence using firm-level evidence suggests that other factors — for example, falling prices of investment goods or trade patterns — have driven the employment changes that are so worrisome.

This evidence also informs the debate over which welfare norm — CEN or CON — is more applicable for evaluating tax policy. The absence of systematic evidence on substitutability undercuts the arbitrage view of multinational firms when capital is invested in one of two locations, as well as the tax policy prescriptions that emerge from it. Similarly, this evidence somewhat affirms the notion embedded in CON — that it is appropriate to emphasize productivity differences rather than capital movements in evaluating tax policy.

#### IV. The Recent U.S. Experience

While the econometric, firm-based evidence described above is compelling to some, the aggregate picture depicting the dramatic decline in manufacturing employment in a period coincident with rapid growth abroad by American firms still may motivate skepticism of foreign activity and the policy prescription that taxes on foreign activity should be increased. Accordingly, it is worth examining this recent experience to determine if such a link points to further exploration.

<sup>12</sup>See Hanson, et al. (2001, 2005); Yeaple (2003); and Bernard, et al. (2006) for the importance of vertical FDI relative to horizontal FDI.

The two panels of Figure 5 describe the evolution of several measures of domestic (U.S. parents) and foreign (affiliates) activity for all U.S. multinational firms and the subset of those engaged in manufacturing from 1982 to 2006. Several impressions emerge from those descriptive figures. For the panel analyzing all industries, the sales and assets measures indicate comparable growth trajectories for domestic and foreign operations. For net income, the picture is more mixed, with domestic net income appearing much more volatile than foreign income and foreign income growing particularly strongly in the last five years. In contrast, employee compensation appears to have grown more rapidly domestically than abroad. Finally, and most importantly for many, employment domestically and abroad follows similar trends, but domestic employment declines in the early 2000s before retaining its upward trend after 2002.

The panel depicting those patterns for the manufacturing industries is similar in many respects but is sharply different for employment. The bottom right frame of Figure 5 seems to manifest precisely the concern over substitution between domestic and foreign employment. Specifically, domestic manufacturing employment drops through much of the last 25 years, and particularly so during the early 2000s, while foreign manufacturing employment by American firms steadily rises throughout the period. This evidence is what underlies the sentiment that current tax policy on foreign activities may be unduly generous given the loss of jobs domestically and the growth abroad.

That interpretation ignores the performance of multinational firms relative to purely domestic firms. For a fuller appreciation of the role of multinational firms in the domestic economy, it is useful to consider the share of employment that is accounted for by the domestic operations of U.S. multinational firms. Figure 6 provides two ratios: the ratio of domestic employment of all U.S. multinational firms to total private employment in the United States, and the ratio of domestic employment by U.S. multinational manufacturing firms to total domestic manufacturing employment. For all industries, this ratio declines from the early 1980s to the early 1990s and then levels off for much of the remaining period at around 20 percent.

For the manufacturing series in Figure 6, a similar decline characterizes the initial half of the sample. The "shake-out" in manufacturing employment in the late 1990s and early 2000s that is visible in Figure 1, however, has been accompanied by a fairly significant *increase* in the relative share of multinational firms in the domestic employment base from 49 percent in 1998 to 56 percent in 2003 before declining to 54 percent in 2006. In light of the theories discussed above, the rapid decline of manufacturing employment in the late 1990s and early 2000s might well be best understood as marking the exit of purely domestic, low-productivity players rather than the displacement of domestic activity abroad by multinational firms. Scratching slightly below the surface of Figure 1 suggests a dynamic that is quite different from the inference made by most.

Finally, another way to illuminate those concerns is to try and understand the relative use of skilled labor domestically and abroad as this may indicate how

American multinational firms trade off wage differentials in their investment decisions. Figure 7 analyzes the degree to which skilled labor is disproportionately used domestically or abroad by industry. Unfortunately, a limited time series is available for this figure, limiting any inference on how this ratio has changed over time. Figure 7 is notable for several reasons. First, it is striking that across all industries, the share of skilled labor employed domestically and abroad is roughly the same. Second, there does not appear to be any significant, systematic change from 2004 to 2006 in the use of skilled labor at home or abroad. Finally, there is heterogeneity across industries with some industries — including manufacturing — featuring higher ratios of skilled labor domestically than abroad. Even those differences, however, appear relatively small. If the concern is that some types of jobs are being exported overseas, one might expect a considerably more significant difference and a more worrisome trend than is apparent in Figure 7.

Those descriptive figures are far from decisive. For those skeptical of the econometric evidence presented in Section III, however, it is useful to note that some simple and pervasive expectations are not manifest in the aggregate data. Growth on many dimensions at home and abroad is comparable for multinational firms and is more rapid at home on some dimensions. Within manufacturing employment, the apparent trends that are worrisome should properly be interpreted as the outperformance (regarding employment) of multinational firms relative to domestic firms in response, presumably, to significant changes in the global market and to changed prices in production goods. Finally, the skill composition of employment abroad is not altogether different from the skill composition of employment domestically. Neither descriptive nor sophisticated econometric evidence supports the idea of foreign activity motivated by, or having the effect of, substituting for domestic activity.

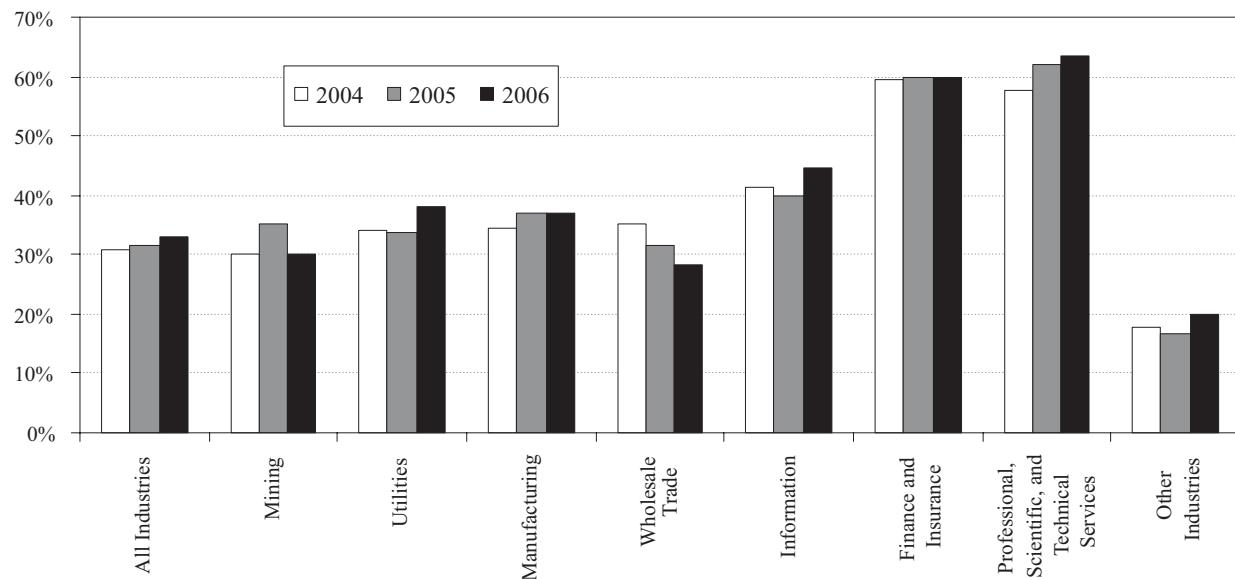
## V. Tax Policy Implications

Tax policy toward multinational firms would appear to be approaching a crossroads. The presumed linkages between domestic employment conditions and the growth of foreign operations by American firms have led to calls for increased taxation on foreign operations. This could take the form of a repeal of deferral or a move to a formula apportionment system. At the same time, the current regime employed by the United States is being abandoned by the two remaining large capital exporters — the United Kingdom and Japan — that had maintained similar regimes.<sup>13</sup> As such, American tax policy appears increasingly more onerous relative to policies employed by other countries. The conundrum facing policymakers is how to reconcile mounting pressures for increased tax burdens on foreign activity with the increasing exceptionalism of American policy.

(Text continued on p. 327.)

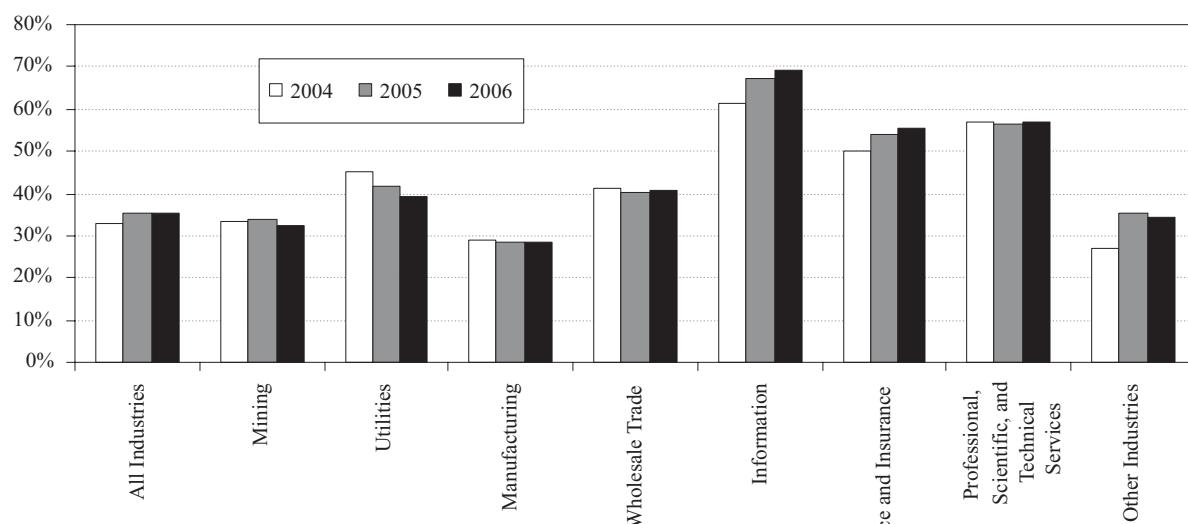
<sup>13</sup>See Her Majesty's Revenue and Customs (2008) and PricewaterhouseCoopers (2008) for a discussion of changes afoot in the United Kingdom and Japan, respectively.

**Figure 7a. Percentage of Skilled Employees in Domestic Operations of U.S. Multinationals, 2004-2006**



*Note:* The horizontal axis charts industry classifications, as defined by the Bureau of Economic Analysis. The vertical axis measures the percentage of total domestic employment by U.S. multinationals occupied by those in managerial, technical, or professional roles. Observations are made by industry, and by year, from 2004 through 2006. Data come from the Bureau of Economic Analysis's section on international economic accounts.

**Figure 7b. Percentage of Skilled Employees in Foreign Operations of Majority-Owned Foreign Affiliates, 2004-2006**



*Note:* The horizontal axis charts industry classifications, as defined by the Bureau of Economic Analysis. The vertical axis measures the percentage of total foreign employment by majority-owned foreign affiliates occupied by those in managerial, technical, or professional roles. Majority-owned foreign affiliates are defined as foreign companies in which 50 percent or more of ownership is held by U.S. multinationals. Observations are made by industry, and by year, from 2004 through 2006. Data comes from the Bureau of Economic Analysis's section on international economic accounts.

The resolution of this conundrum may lie in a reconceptualization of what multinational firms do. The recommendation of increased tax burdens on foreign activity corresponds exclusively to the notion of firms as arbitrageurs. While this view had merits when the United States was the largest capital exporter in the world and when alternative instruments for worldwide arbitrage were limited, it increasingly appears out of step with modern theories of firm behavior. Similarly, it appears that there is little systematic evidence to support the depiction of the relationship between foreign and domestic activity that naturally grows out of the arbitrage view — that foreign activity by multinational firms displaces domestic economic activity. The resonant experience of the manufacturing shakeout of the last decade also does not support the idea of displacement.

The abandonment of the arbitrage view for a firm-specific advantages view allows for an easy understanding of the empirical evidence that foreign activity is complementary to domestic activity. Similarly, a firm-specific advantages view, along with an appreciation for the correlation between productivity levels and foreign engagement, can help explain why the recent manufacturing shakeout featured an increase in the relative importance of American multinational firms in the U.S. economy. Finally, the firm-specific advantages view, as embodied by the NON norm, also explains why countries, in their own interest, have abandoned worldwide tax regimes and opted for an exemption approach toward taxing foreign activity.

The required reconceptualization for policymakers is one that couples the prospects of American firms abroad with their prospects at home — a view that springs naturally from the firm-specific advantages view. While such a formulation resists the easy logic of substitutability between foreign and domestic operations of multinationals, it appears to be the formulation that many countries, including the United Kingdom and Canada,<sup>14</sup> have relied on in revising their policies and has the added virtue of having considerable empirical support. Much as the formulation of trade policy requires resisting the tempting logic of protectionism, decisions on the appropriate taxation of multinational firms require a similar fortitude.

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<sup>14</sup>See Advisory Panel (2008) and HMRC (2008) for explicit statements along those lines.

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