

Foreign Entry into U.S. Manufacturing by Takeovers and the Creation of New Firms

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Abstract

Using U.S. Bureau of Economic Analysis data for individual foreign acquisitions of U.S. firms and new foreign establishments in the United States from 1988 to 2006, we find that both acquisitions and new establishments tend to be in industries in which the investing country has a comparative advantage in exporting. New establishments tend also to be in industries of U.S. comparative disadvantage in exporting. The superior of foreign acquirers and foreigners establishing new firms to the world average seems to be located in low, medium and high industries, and the inferiority of U.S. firms to the world average only in low-tech industries.

The United States became a magnet for international direct investment flows starting in the late 1980s. The inflow reached its peak in 2000, declined sharply, and then rose again. Most foreign direct investment inflow in the U.S. has been characterized by acquisitions of U.S. firms by foreign owners (see Graph 1).¹ Establishments of new U.S. businesses by foreign firms and investors are less common but remain an important part of foreign direct investment.

The purpose of our paper is to learn whether these investments from abroad are likely to have improved the efficiency of the U.S. economy. To this end, it analyzes a data set on all foreign takeovers of existing U.S. firms and establishments of new foreign-owned firms in the United States from 1988 to 2006, collected by the Bureau of Economic Analysis of the U.S. Department of Commerce. For both acquisitions and new establishments, the firms are classified by 3-digit SIC, by industry and country of location of the ultimate beneficial owner abroad.² For acquisitions, the data include the acquirer's expenditure, and the target firm's net income, employment, assets, and sales before acquisition. The data should be complete, including many small firms and firms not publicly traded, in contrast to data from private companies. Since we have very little information on the individual foreign parent firms, we associate the revealed comparative advantage of their countries of origin with the efficiency of the investors, and the revealed comparative advantage of the United States with the efficiency of the target firms and of rival U.S. firms to newly established foreign-owned firms.

¹ Most outlays by foreign direct investors were to acquired existing businesses. In 2008 acquisitions accounted for 93% of investments.

² In 1998 the BEA adopted the NAICS classification system. We converted all NAICS industries to 3-Digit SICs using a concordance provided by the BEA.

Foreign Direct Investment, Comparative Advantage and R&D

Much of the literature on foreign takeovers and other investment inflows has concentrated on the impact of exchange rate movements and, to a smaller extent, stock price movements, on their size and timing (Udomkerdmongkol, Morrissey, and Gorg (2009), Froot and Stein (1991), Klein and Rosengren (1994), Blonigen (2001), Guo and Trivedi (2002)). There is also an extensive literature on the characteristics of firms acquired by foreign investors (Fukao, Ito, Hyeog Ug and Takizawa (2006); Gonzalez and Vasconcellos (1998), Harris and Ravenscraft (1991), Bertrand, Hakkala and Norbäck (2007), Swenson (1993)). However, there is a more limited literature on the efficiency of foreign investment and the differences between the two forms of cross-border investments in the U.S.

The literature on the relationship between takeovers and comparative advantage is more limited. Nachum, Dunning and Jones (2000) found some degree of connection between UK outward FDI and export based relative comparative advantage from 1950 to 1970 but this relationship becomes positive from the 1970s to mid 1990s. Brakman, Garretsen and Van Marrewijk (2005) find a positive relationship between revealed comparative advantage and mergers and acquisition using the Global Mergers and Acquisitions database of Thomson Financial Securities Data for 5 countries and 20 industries (2-digit SIC) from 1980 to 2004.

The main theoretical analysis of this issue is that of Neary (2004), who uses a model of oligopoly in general equilibrium to explain mergers. The motivation for mergers is cost efficiency, when free trade is opened up, and provided the cost differential between the two participating firms is sufficiently large, the gain to a takeover is strictly positive. International differences in technology generate incentives for bilateral mergers in which low-cost firms

located in one country acquire high-cost firms located in the other. The implication is that cross-border mergers serve as instruments of comparative advantage.

Nocke and Yeaple (2004a and 2004b) use the data for U.S. firms' investment abroad that correspond to our data on inward investment. They interpret the creation of new business entities as representing "greenfield" investment, involving the building of new production capacity, in the foreign country by the U.S. investor, although the BEA discourages this interpretation. We think of these investments as deploying the intangible assets of the investing firm in a new location. By either interpretation, a new investment allows the investing firm to deploy its intangible corporate assets to take advantage of factor price differences.

Acquisitions, in the Nocke and Yeaple analysis, are motivated by heterogeneous and complementary assets, factor prices, and entrepreneurial abilities. In equilibrium, "greenfield" investment is always in one direction, from high-cost to low-cost country, while acquisitions are always two-way. Two predictions are that (1) firms engaging in "greenfield" FDI are more efficient than those engaging in cross-border acquisitions, and (2) as factor price differences become smaller, almost all FDI takes the form of cross-border acquisitions. Their proxies for the efficiency of acquiring firms are size and value added per worker, although the latter could also represent not efficiency but the level of tangible and intangible capital per worker.

Our paper analyzes a data set on all foreign takeovers and establishments of new firms in the U.S. from the Bureau of Economic Analysis.³ This is the universe of foreign takeovers and establishments of new firms in the U.S. for the period 1988 to 2006 with detailed information on 3-digit SIC industries of the target and new firms, and the country of the ultimate beneficiary of the acquiring firm. If foreign acquirers tend to be efficient, low cost, firms, as in Neary (2004),

³ These are confidential data collected by the Bureau of the Census for the Bureau of Economic Analysis in response to a federal law that requires the collection of information on foreign firms.

we expect that their superior efficiency will be reflected in the industries from which they come, which should be industries in which their countries of origin have revealed comparative advantages. The acquisitions should tend to be in industries in which U.S. firms are not particularly efficient, a fact that should be represented in our data by export comparative disadvantage on the part of the United States. If acquisitions are motivated by heterogeneous and complementary assets, cost differences and entrepreneurial abilities while new establishments are motivated mostly by factor prices (Nocke and Yeaple, 2004a and 2004b) comparative advantage should be more important in explaining foreign investments in new establishments than in explaining foreign takeovers.

In order to judge the importance of new investments and takeovers to the U.S. industry involved, we measure their effects by the ratios of assets of new U.S. firms and firms taken over to the total value of assets of U.S. firms in the industry.

Definitions of New Establishments and Takeovers

Outlays for additions to the universe of foreign- owned firms in the United States consist of those for new establishments and those for acquisitions of existing firms. An establishment takes place if "...the foreign parent or its existing U.S. affiliate creates a new legal entity that is organized and begins operating as a new U.S. business enterprise or directly purchases U.S. real estate." An acquisition takes place if "...the foreign parent or its existing U.S. affiliate obtains a voting equity interest of 10 per cent or more in an existing U.S. business enterprise and continues to operate it as a separate legal entity or purchases a business segment or operating unit of an existing U.S. business and organizes it as a new separate legal entity. A U.S. business is also categorized as 'acquired' if an existing U.S. affiliate purchases a U.S. business, a segment of a

U.S. business, or an operating unit of a U.S. business and merges it into its own operations” (Howenstine and Troia, 2000, pp. 58-59). The foreign acquisitions have far exceeded the new establishments. Our data show that, between 1988 and 2006, outlays for acquisitions accounted for approximately 83% to 93% of outlays for acquisitions and new establishments.

Data and Methodology

We use panel data on assets acquired through foreign direct investment, by industry and country of origin (UBO), from the Bureau of Economic Analysis BE-13 survey of new and acquired foreign establishments in the U.S. from 1988 to 2006⁴. By federal law, all foreign entities acquiring or establishing U.S. firms must notify the U.S. government and complete the survey. These data for individual firms are not publicly available since they are confidential and confidentiality problems have limited the publication even of detailed country and industry data. For this reason, they have not been previously used to analyze foreign direct investments in the U.S.

Both takeovers and new establishments are extremely volatile, especially when they are subdivided by industry and country of origin. This makes the estimations rather difficult. The data set includes 50 industries and eleven of the most important investing countries, Australia, Canada, France, Germany, Italy, Ireland, Japan, Netherlands, Sweden, Switzerland and the United Kingdom. These countries accounted for approximately 80% of the value of acquisitions.

These investment data were then matched with the U.S. Internal Revenue Survey Statistics of Income for Corporations, representing complete coverage of U.S. corporations. We have also added data by industry and country on exports and tariffs and country level data on

growth rates, exchange rates, interest rates and stock market prices, to absorb some of the influence of changes over time, although we do not analyze the effects of these variables here. We assume that investing companies' firm-specific advantages are associated with their countries' comparative advantages in trade. We identify these with the "revealed" export comparative advantage of each investing country. That is measured by the share of an industry in a country's exports relative to its share in world exports.

While investment outlays might reflect the market for control of assets, they do not reflect the size of the impact on host countries, since a given outlay could purchase control of various amounts of assets, depending on how leveraged the target firms were or became. To study the host-country impact in the United States, we use the assets of acquired and established firms in comparison to industry total assets. To allow for the possibility that capital markets are segmented by country, interest rates in home and host countries are included in the equations.

We estimate the following equation:

$$\frac{AA_{ijt}}{TA_{it}} = \alpha + \beta_1 ForCompAdv_{ijt} + \beta_2 USCompAdv_{it} + \beta_3 Prof_{it} + \beta_4 SalesGr_{it} + \beta_5 FGDPGr_{jt} + \beta_6 FStock_j + \beta_7 FInt_{jt} + \beta_8 FrEx_{jt} + \beta_9 Tariff_{ijt} + Ind_i + Cntry_j + \varepsilon_{ijt} \quad (1)$$

AA_{ijt} is the assets acquired by foreign entities from country j in industry i and year t , TA_{it} is the total U.S. corporate assets in industry i and year t . The variables $ForCompAdv_{ijt}$ and $USCompAdv_{it}$ are defined respectively as comparative advantage of foreign country j making the investments in industry i and year t and U.S. comparative advantage in industry i and year t respectively. $Prof_{it}$ is the average profitability of US corporations (net income after taxes/assets) in industry i and year t , $SalesGr_{it}$ is the average growth rate of sales in industry i and year t . The

⁴ The title of the survey is Internal Report on a Foreign Person's Direct or Indirect Acquisitions, establishment or purchase of the operating assets, of a U.S. Business Enterprise, Including Real Estate. It is both mandatory and confidential information.

variables $FGDPGr_{jt}$, $FStock_{jt}$, $FInt_{jt}$, $FrEx_{jt}$ are defined as foreign country j GDP growth, stock price, interest rate, and the price of US \$ in terms of the foreign currency in year t . We have also included 49 industry dummies, Ind_i and 10 country dummies, $Cntry_j$. The excluded industry is general industry machinery and the excluded county dummy is United Kingdom.

For the later part of the analysis, industries were classified by their level of Research and Development (R&D): low, medium and high. This classification is based on: The classification is based on ratios of R&D funded by U.S. parent firms of affiliates abroad to their sales. (See Appendix 1 for a list of all industries and an explanation of the methodology used to make the classifications.)

The country dummy variables are introduced as a crude way to take account of the very different sizes of the potential investing countries, as well as of country differences in the extent of involvement in U.S. financial markets. There are a number of possible explanations for the industry dummy variables. They could reflect the comparative advantages of the United States, with U.S. comparative advantage deterring takeovers. Another possibility is that they might be unrelated to any country's comparative advantage but reflect worldwide movements toward consolidation of some industries into larger units.⁵

When a given country does not make a US acquisition in a given industry, the number of assets acquired is assigned to be zero. The same is done for new establishments. All regressions are estimated using OLS with robust/White standard errors. Tobit results are most reliable given the large number of zeros in the data

⁵ In that case, firms in country A are buying firms in country B at the same time as firms in country B are buying firms in country A.

Results

Across all industries, there is strong evidence that takeovers tend to be most important in U.S. industries in which the foreign acquirer has some degree of export comparative advantage, presumably reflecting more efficient or lower cost production (see Table 1). Coefficients are significant at the 5% level both in the OLS and Tobit Regressions. The addition of industry dummy variables to the equation reduces the foreign comparative advantage coefficient and makes it statistically insignificant. The coefficient for U.S. comparative advantage is negative, and significant in OLS regressions but significant only at the 10% level in the Tobit regressions.

New establishments of foreign firms are significantly associated with the comparative advantage of the home countries of the foreign firms. The coefficients are significant in both the OLS and Tobit regressions (see Table 2). The stronger significance of foreign comparative advantage in the equations for new establishments does not support the expectations and results of Nocke and Yeaple for U.S. outward FDI. As in the case of acquisitions the coefficient for U.S. comparative advantage is negative, and significant in OLS regressions but significant only at the 10% level in the Tobit regressions.

Comparative advantage may be a more important factor in foreign direct investment decisions when firms have firm-specific assets. Investors in this case would be able to better exploit these firm-specific assets due to their expertise and complementary knowledge. Blonigen (2001), for example, found that the exchange rate is significantly related to foreign direct investment when targeted firms have firm-specific assets. To investigate this possibility we divided the data set by research and development (R&D) intensity. High R&D industries are more likely to have firm specific assets as exemplified by the existence of patent rights and/or firm specific knowledge. We grouped industries into low, medium and high level of R&D using

data on research and development performed by and funded by U.S. Parents (see Appendix 2 for the classification of industries) and introduced interaction terms between the comparative advantage terms and the R&D intensity classes.

In the case of acquired establishments (see Table 3), we find UBO comparative advantage to be a positive and consistently statistically significant influence in all groups, low, medium and high R&D group in the tobit regressions. OLS regressions had insignificant coefficients. The coefficients for U.S. comparative advantage are insignificant.

For new establishments (see Table 4) there is a significant positive relationship of foreign comparative advantage, in all R&D groups, low, medium and high. U. S. comparative advantage is negatively and significantly related to the establishment of new foreign firms only in the Low R&D group.

Conclusions

Our analysis suggests that both the acquisition of U.S. firms and the establishment of new ones by foreign firms promote the efficiency of U.S. manufacturing. We judge that from the characteristics of the source country industries and of the U.S. industries they enter. The acquirers and establishers of U.S. firms target industries in which the foreign countries have export comparative advantages. In the case of new establishments, these tend to be industries in which the United States shows export comparative disadvantages.

The division into low-, medium-, and high-tech industries is revealing about the nature of possible efficiency gains to the United States from foreign takeovers and new entries. The superior of foreign acquirers and foreigners establishing new firms to the world average seems to be in industries with different levels of R&D, and the inferiority of U.S. firms to the world average, in low-tech industries. The takeovers and new establishments should have advanced U.S. efficiency, or productivity.

Inflows of direct investment into the United States occur mainly in industries in which the United States is not an international leader. And they tend to originate in countries that are leaders in those industries. Both facts suggest that foreign takeovers of existing U.S. firms and the establishment of new foreign-owned firms tend to put U.S. establishments and U.S. assets in the hands of more skillful owners.

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Data Definitions and Sources

The aggregate data on takeovers are from U.S. Department of Commerce (1989, 1993, 2000a, and 2000b). These are based on the data recorded in the BEA's survey form BE-13, and the original returns from that survey are the basis for the analysis by country and industry.

U.S. and other country (UBO) growth in GDP are taken from U.S. Department of Commerce (1998, 1999, and 2000) and from the World Bank's 1999 World Development Indicators CD-ROM and the World Bank web site.

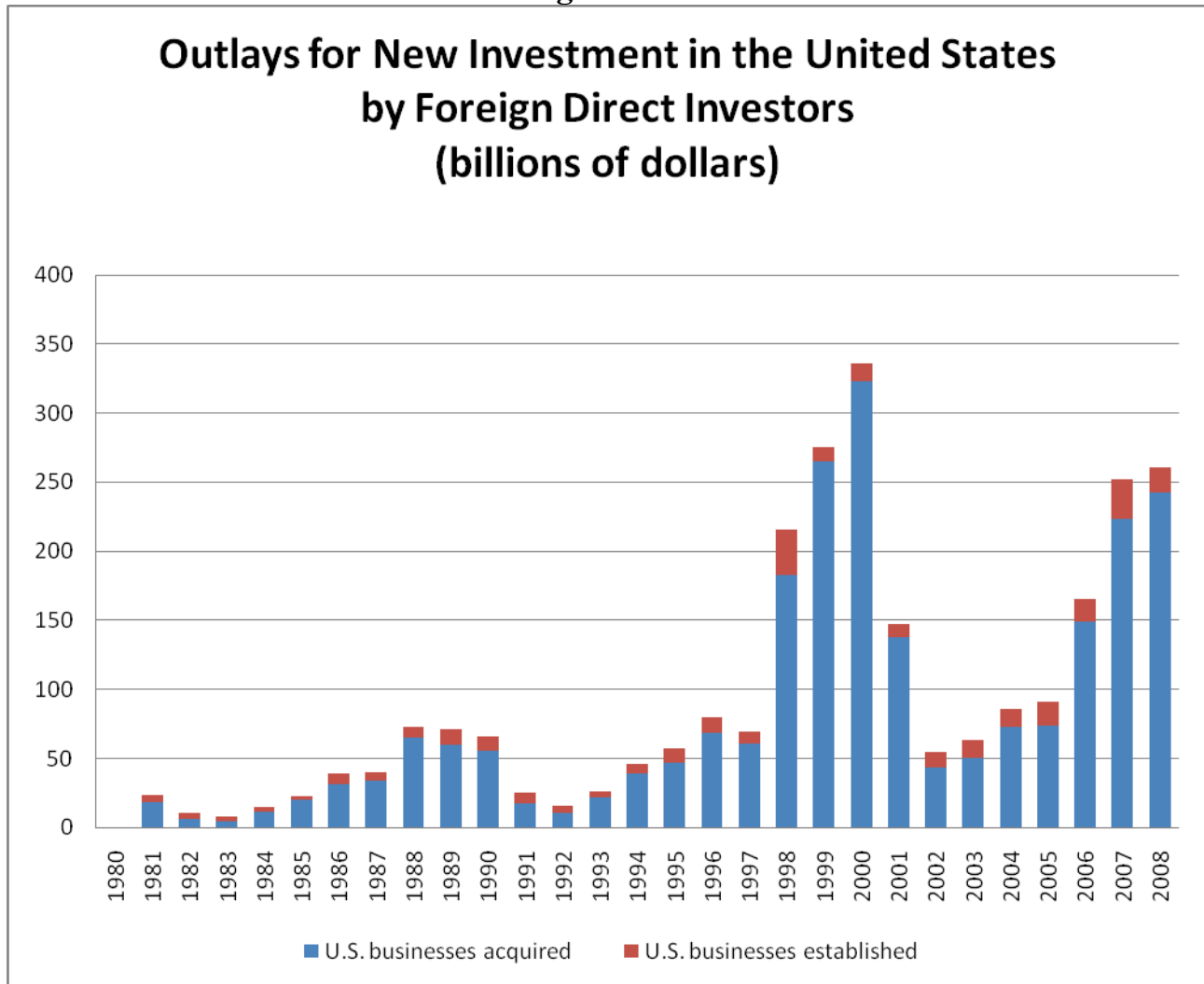
Business profitability in the aggregate for each country is Operating surplus of corporate and quasi-corporate enterprises as per cent of gross product of such enterprises, and is from OECD National Accounts, Vol. II.

Share prices, interest rates, nominal exchange rates, and the U.S. real effective exchange rate are from the IMF International Financial Statistics CD-ROM, lines reu, rf or rh, 60p, and 62.

U.S. corporate assets and profits, by industry, are from the U.S. Internal Revenue Service Statistics of Income Corporations.

Comparative advantage is calculated from the NBER World Trade Data Base (Feenstra, Bowen, and Lipsey, 1997), updated from later versions of the Statistics Canada World Trade Data Base.

Figure 1



Source: Bureau of Economic Analysis

Table 1: Determinants of Foreign Entry: Acquisitions – 1988-2006

Dependent Variable: Assets Acquired/Total Assets in the Industry

	(1)	(2)	(3)	(4)
	OLS	OLS	Tobit	Tobit
UBO Comparative Advantage	.0150 * (.0077)	.0129 * (.0067)	.2003 ** (.0390)	.2190 ** (.0485)
US Comparative Advantage	-.0187 (.0155)	-.1865 (.1433)	.3693 ** (.0632)	-.4563 (.4244)
Industry Profitability		.0009 (.0092)		.0168 * (.0325)
Industry Sales Growth		-.0012 ** (.0005)		-.0016 (.0025)
UBO GDP Growth		.0064 * (.0064)		.0557 * (.0286)
UBO Stock Price		.0013 * (.0007)		.0102 ** (.0025)
UBO Interest Rate		.0094 (.0111)		.0781 (.0529)
UBO Exchange Rate		-.00003 (.00004)		.00006 (.00027)
Country Dummies	No	Yes	No	Yes
Industry Dummies	No	Yes	No	Yes
Year Dummies	No	Yes	No	Yes
Number of Observations	9152	9152	9152	9152
Adj R-squared	.00	.01	.01	.09

White Standard Errors are estimated. * Significant at the 10% Level, ** Significant at the 5% Level.

Table 2: Determinants of Foreign Entry: New Establishments – 1988-2006							
Dependent Variable: Assets of New Foreign Establishments/Total Assets in the Industry							
	(1)	(2)	(3)	(4)			
	OLS	OLS	Tobit	Tobit			
UBO Comparative Advantage	.0022 ** (.0007)	.0021 ** (.0008)	.0397 ** (.0091)	.0458 ** (.0107)			**
US Comparative Advantage	-.0009 (.0007)	-.0087 ** (.0028)	.0304 ** (.0118)	-.0897 (.0528)			*
Industry Profitability		.0003 (.0005)		.0057 (.0070)			
Industry Sales Growth		-.00002 (.00003)		-.0013 (.0009)			
UBO GDP Growth		.0007 (.0007)		-.0047 (.0069)			
UBO Stock Price		.0002 ** (.0001)		.0017 (.0005)			**
UBO Interest Rate		.0006 (.0012)		.0047 (.0136)			
UBO Exchange Rate		-.000002 (.000003)		.000005 (.000062)			
Country Dummies	No	Yes	No	Yes			
Industry Dummies	No	Yes	No	Yes			
Year Dummies	No	Yes	No	Yes			
Number of Observations	9152	9152	9152	9152			
Adj R-squared	.001	.02	.01	.27			

White Standard Errors are estimated. * Significant at the 10% Level, ** Significant at the 5% Level.

Table 3: Determinants of Foreign Entry by Level of R& D: Acquisitions, 1988-2006

Dependent Variable: Assets Acquired/Total Assets in the Industry

	(1) OLS	(2) OLS	(3) Tobit	(4) Tobit
UBO Comparative Advantage x Low R&D	.0209 (.0141)	.0191 * (.0116)	.1454 ** (.0505)	.2428 ** (.0659)
UBO Comparative Advantage x Medium R&D	.0072 (.0121)	.0068 (.0113)	.1788 ** (.0531)	.1932 ** (.0673)
UBO Comparative Advantage x High R&D	.0118 (.0075)	.0071 (.0085)	.2654 ** (.0538)	.2056 ** (.0554)
US Comparative Advantage x Low R&D	-.0154 (.0179)	-.2911 (.2083)	-.0529 (.0753)	-1.1390 * (.6396)
US Comparative Advantage x Medium R&D	-.0047 (.0291)	.0702 (.0911)	.2635 ** (.0903)	.4381 (.3524)
US Comparative Advantage x High R&D	-.0181 (.0138)	-.0446 (.0669)	.3923 ** (.0705)	.0186 (.2695)
Industry Profitability		-.0019 (.0094)		.0088 (.0331)
Industry Sales Growth		-.0009 * (.0006)		-.0006 (.0025)
UBO GDP Growth		.0064 (.0064)		.0570 ** (.0288)
UBO Stock Price		.0013 * (.0007)		.0102 ** (.0025)
UBO Interest Rate		.0094 (.0111)		.0793 (.0530)
UBO Exchange Rate		-.00003 (.00004)		.00005 (.00027)
Country Dummies	No	Yes	No	Yes
Industry Dummies	No	Yes	No	Yes
Year Dummies	No	Yes	No	Yes
Number of Observations	9152	9152	9152	9152
Adj R-squared	.00	.01	.01	.09

Numbers in Parentheses are Standard Errors. * Significant at the 10% Level, ** Significant at the 5% Level.

Table 4: Determinants of Foreign Entry by Industry's Level of R&D and Country: New Establishments– 1988-2006

Dependent Variable: Assets Acquired/Total Assets in the Industry

	(1) OLS	(2) OLS	(3) Tobit	(4) Tobit
UBO Comparative Advantage x Low R&D	.00002 (.00041)	.0013 ** (.0005)	.0005 (.0098)	.0402 ** (.0128)
UBO Comparative Advantage x Medium R&D	.0053 ** (.0023)	.0047 ** (.0022)	.0523 ** (.0154)	.0773 ** (.0217)
UBO Comparative Advantage x High R&D	.0030 * (.0018)	.0011 (.0016)	.0664 ** (.0146)	.0290 ** (.0127)
US Comparative Advantage x Low R&D	-.0006 (.0013)	-.0091 ** (.0039)	.0015 (.0168)	-.1675 ** (.0843)
US Comparative Advantage x Medium R&D	-.0041 ** (.0014)	-.0134 * (.0079)	-.0241 (.0110)	-.0392 (.0953)
US Comparative Advantage x High R&D	-.0019 * (.0010)	-.0056 (.0041)	.0126 (.0127)	-.0009 (.0794)
Industry Profitability		.0003 (.0005)		.0049 (.0069)
Industry Sales Growth		-.00002 (.00003)		-.0013 * (.00008)
UBO GDP Growth		.0007 (.0007)		-.0047 (.0069)
UBO Stock Price		.0002 ** (.0001)		.0018 ** (.0005)
UBO Interest Rate		.0005 (.0012)		.0047 (.0136)
UBO Exchange Rate		-.000002 (.000003)		-.000007 (.000062)
Country Dummies	No	Yes	No	Yes
Industry Dummies	No	Yes	No	Yes
Year Dummies	No	Yes	No	Yes
Number of Observations	9152	9152	9152	9152
Adj R-squared	.00	.09	.02	.27

Numbers in Parentheses are Standard Errors., * Significant at the 10% Level, ** Significant at the 5% Level.

**Appendix 1
R&D Classification**

We used the BEA U.S. Direct Investment Abroad Survey for 1994 to classified industries as low, medium and high R&D. This survey has data on research and development funded by US parents by industry of US parent. The ranking based on both performed R&D and funded R&D was similar. In the analysis, the classification is based on performed R&D. Those classified as high R&D had the largest ratio of performed R&D relative to sales. Those classified as low R&D had the lowest value of performed R&D relative to sales. The number of industries in each group is approximately the same.

A. Low R&D

Code	Name
201	Meat Products
202	Dairy Products
203	Preserved fruits and vegetables
204	Grain mill products
205	Bakery Products
208	Beverages
209	Other food and kindred products
210	Tobacco products
220	Textile mill products
230	Apparel and other textile products
240	Lumber and wood products
250	Furniture and fixtures
271 & 272 & 275	Newspapers and Miscellaneous Publishing and Commercial printing and services
291 & 292 & 299	Integrated petroleum refining and extraction and Petroleum refining without extraction and Petroleum and coal products
310	Leather and leather products
331	Primary metal industries, ferrous
341	Metal cans, forging, and stampings
342	Cutlery, hardware, and screw products
343	Heating equipment, plumbing fixtures, and structural metal products
349	Metal services; ordinances; and fabricated metal products, n.e.c.
363	Household appliances
390	Miscellaneous manufacturing industries

**Appendix 2:
R&D Classification (continued)**

<u>B. Medium R&D</u>	
Code	Name
262	Pulp, paper, and board mills
265	Other paper and allied products
284	Soap cleaners and toilet goods
305	Rubber products
308	Miscellaneous plastics products
321	Glass products
329	Stone, clay, concrete, gypsum, and other nonmetallic mineral products
335	Primary metal industries, nonferrous
352	Farm and garden machinery
353	Construction, mining and materials handling machinery
354	Metalworking machinery
355	Special industry machinery
351	Engines and turbines
356	General industrial machinery
358 &	Refrigeration and service industry machinery and
359	Industrial and commercial machinery, n.e.c.
<u>C. High R&D</u>	
Code	Name
283	Drugs
281 & 287 & 289	Industrial chemicals and synthetics and Agricultural chemicals and Chemical products n.e.c.
357	Computer and office equipment
366	Household audio and video, and communications equipment
367	Electronic components and accessories
369	Electrical machinery n.e.c
371	Motor vehicles and equipment
379	Other transportation equipment
381	Measuring, scientific, and optical instruments
384	Medical instruments and supplies and ophthalmic goods
386	Photographic equipment and supplies