

Factors Driving U.S. Foreign Direct Investment

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Abstract

The objective of this study was to analyze the country-specific attributes that either motivate or deter United States foreign direct investment (FDI) in a nation. A review of the literature on foreign direct investment revealed specific location attributes that tend to motivate direct investment in a particular location. In order to measure the impact of each of these attributes on foreign direct investment I created a database including each key attribute as a variable and measuring it across countries over a period of twenty-five years (1982-2006). The database contains 54 countries; the primary regions include Western Europe, Eastern Europe, South-East Asia, the Middle East, Latin America, Africa, and North America as well as a group of “Other” developed nations. I performed an OLS regression analysis of the countries and variables and their affect on U.S. FDI flows. Unfortunately, I found GDP to be the only significant pull factor for U.S. foreign direct investment which indicates that large market size is a major investment determinant for multinational corporations. Other research on an industry-specific basis is necessary to gain a more in-depth analysis of specific variables.

Literature on Foreign Direct Investment

Scholars and academics have studied the motivation for firms to extend production to international markets and engage in foreign direct investment (FDI) since the mid-1900s. Interest in the subject intensified with the burst of foreign investment in the 1970s, and remains a subject of close scrutiny as the volume of FDI continues to increase. Corresponding with the liberalization of many economies, since 1987, the volume of FDI has grown over 20% annually (WIR 2001). “U.S.-owned assets abroad increased \$3,258.7 billion in 2006 to \$17,640.0 billion in 2007 (BEA, 2008).”

The IMF defines foreign direct investment as “the acquisition of at least ten percent of the ordinary shares or voting power in a public or private enterprise by nonresident investors. Direct investment involves a lasting interest in the management of an enterprise and includes reinvestment of profits.” Anything less than ten percent ownership is considered portfolio investment.

The pioneering study on FDI can be attributed to Stephen Hymer (1960), in which he described FDI as asset transfer by the formation of subsidiaries or affiliates abroad, without loss of control.

A firm becomes a multinational enterprise (MNE) when it services foreign markets, but possesses ownership-advantages (some intangible asset such as knowledge, technology, or managerial know-how) that serve as a barrier to entry to other firms. In this form of international business, the benefits must outweigh the disadvantages and costs of operating in unfamiliar territory, otherwise the firm should consider exporting or licensing as alternatives (Batra and Ramachandran, 1980; Caves, 1974; J. H. Dunning, 1980; Hirsch, 1976).

By definition, the primary objective of the multinational enterprise (MNE) is the optimum allocation of the firm's resources on a worldwide basis, which will generate the highest return on investment or maximize the managerial power of the firm (Robinson, 1972).

“For the multinational enterprise, entry by trade and investment is becoming essential to effective market access, as corporations seek to capture economies of scale and scope, customize products to satisfy consumer tastes, generate sophisticated high-quality inter-and intra- corporate networks and strive to gain access to knowledge, both technology and tacit which may be accessible only on-site (Ostry, 1998).”

A review of the literature on FDI emphasizes three main questions raised by the myriad of researchers studying this topic: the “how,” “why,” and “where” of foreign direct investment. While this study attempts to answer the “where” question, I will briefly address the “how” and “why” of FDI as they tie into the analysis of “where” FDI is directed. Generally, the answer to “how” have firms been able to maximize profits by investing abroad, rather than competing in their home countries, is in the MNE strategy of integration. An increasingly beneficial strategy is that of regional integration which entails encompassing countries with differential labour markets. By locating labor-intensive stages of production in countries with cheaper labor, firms can take advantage of significant reductions in cost.

“Firms that serve just one regional market, as well as those that serve several of the regional goods and services markets of the world through horizontally integrated FDI, are able to complement this with vertically integrated FDI in quality-differentiated labour markets (Buckley and Ghauri, 2004, p. 83).” The ability of MNEs to strategically separate their activities allows

them to seek locations that are optimal for each specialized segment. This has led to a manufacturing and service boom in China and India (Buckley and Ghauri, 2004).

There are several studies that focus on the “why” question: the firm’s decision to engage in foreign direct investment rather than exporting or licensing. The choice the firm makes depends on the degree of influence the firm will have over demand for its product by being present in the foreign market (Buckley and Dunning, 1976). Firms often test out a foreign location through exportation and then, if satisfied with the conditions of that arrangement, they switch to foreign investment (Hirsch, 1976; Hisey and Caves, 1985).

Although FDI is a riskier strategy than the other methods of international business, it allows the firm to maintain control which, in the case of licensing or exporting, would be handed over to other firms. Due to the inherently risky nature of direct investment, the costs associated with this strategy are high. Risks include exchange rate fluctuations, excessive inflation, increasing oil prices, unstable and corrupt governments, difficulties with trade unions, unfavorable government regulations, and poor enforcement of property rights protection. There must be certain incentives or benefits that are enticing enough and profitable enough to motivate firms to invest in these uncertain environments.

John Dunning’s Eclectic Paradigm

There are several theories on the factors and advantages that motivate firms to invest abroad. For the purpose of this study, I will review John Dunning’s eclectic paradigm which proposes that multinational enterprises’ (MNEs) investment decisions are determined by the OLI triad: ownership, location, and internalization. The “O” stands for the firm’s ownership

advantage that it maintains through its possession of some asset that host country firms do not possess. The “L” signifies the location advantages: the characteristics of a host country which the firm utilizes in its production processes or attributes that create favorable conditions for the production of the firm’s product. Internalization advantages, represented by the “I,” come from oligopolistic control of this asset or multiple assets in foreign locations (Dunning, 1980, 1998). The ideal environment for the MNE is a market with host country location advantages complementary to the MNE’s ownership and internalization advantages (Caves, 1971; Li and Resnick 2003).

Different industries have different ownership and internalization advantages which lead them to seek different location-specific attributes to facilitate these advantages. Therefore, firms seeking different qualities will make different types of investments. Dunning classifies these investments as efficiency-seeking, market-seeking, resource-seeking, or strategic asset-seeking investments. There are specific location characteristics ideal to each method of investment (Dunning 1973, 1980, 1998).

Location-specific Factors

Once the firm has established that it possess ownership and internalization advantages, it must determine which country has the most suitable location-advantages. This leads into the examination of the “where” question concerning the location that a firm chooses to accommodate its ownership and internalization advantages. Our study focuses primarily on the combinations of location-specific advantages that motivate foreign direct investment. There are a myriad of factors that are either accommodating or detrimental towards a firm’s ownership and

internalization advantages and the degree to which each country holds a combination of these factors will determine whether or not a firm chooses to invest there.

Governance Infrastructure

Firms are concerned about making and expropriating profits, and to achieve this end there needs to be an “effective, impartial, and transparent legal system” to ensure property rights protection; stable and credible public institutions; and “government policies that favor free and open markets (Globerman and Shapiro, 2003, pp. 20,21).”

Form of Government

The host country form of government greatly determines the governance infrastructure of a country. Conventional wisdom suggests a tendency of MNEs to invest in authoritarian regimes because they face less popular pressure and tend to repress labor unions to drive down wages. Jensen tested this notion in his study (2003) which used a cross-sectional regression to estimate the effects of economic conditions, policy decisions, and democratic political institutions in the 1980s on the level of FDI inflows in the 1990s. It found that democratic political institutions are associated with higher levels of FDI flows into a country. It also found that even when other economic and political factors are controlled, democratic governments attract as much as seventy percent more FDI as a percentage of GDP than authoritarian governments (Jensen, 2003).

Democratic institutions also tend to have greater credibility which is important for investors since FDI is “relatively illiquid ex post” and investments are left subject to the whims of the central government in matters of policy: such as tax rates, tariff rates, depreciations

schedules, etc. Inherent in democratic political institutions is a system of checks and balances provided by veto players who make policy reversal more difficult, increasing democratic governments' credibility in international agreements (Jensen 2003, p. 594). Property rights protection is also stronger in developing countries with increasing democracy, which is extremely valuable to MNEs, especially in the technology industries (Li and Resnick, 2003).

Other studies on the effect of government form on FDI found that Social Democratic governments have a positive effect on direct investment outflow implying that firms will “respond to the more regulative stance of left governments with globalization (Alderson, 2004, p.105).”

Government Policies

To attract investment, favorable government policies and regulations are essential, and as previously mentioned, one of the main concerns of MNEs (especially in the technology industry) is property rights protection. In developed economies, patent, trademark, and copyright laws protect intellectual property rights of MNEs. This is not the case in developing countries where property rights abuse is rampant due to poor enforcement of property rights laws (Helpman, 1993). Solid regulation of property rights law may determine whether strategic asset-seeking firms will invest in a certain location (Dunning, 1998).

Other government policies, like those involving investment incentives (such as accelerated depreciation, grants, or subsidized land) also affect whether a country is deemed a suitable host (Li and Resnick, 2003). Investment incentives are primarily the concern of resource-seeking and efficiency-seeking FDI (Dunning, 1998). Developing countries tend to

offer incentives in order to raise their appeal to investors and compete with developed countries for MNE investment.

Up to fifty-one types of incentives offered by host country governments have been identified. A study by Robert J. Rolfe et al. found that companies' top five incentives were: no restrictions on other intercompany payments, no controls on dividend remittances, import duty concessions, guarantees against expropriation, and tax holidays. Six of the top ten incentives related to income taxes or foreign exchange restrictions, revealing that those are of great importance to investors when choosing a host country.

The incentives rated as the top two involved foreign exchange and reinforce early findings that the main concern of U.S. investors is repatriation of profits. Incentives differ depending on the country, product, and they change on a year to year basis (Rolfe, Ricks, Pointer and McCarthy, 1993), so it is imperative that countries implementing incentives to entice investors are aware of the incentive preferences of the industries they wish to attract.

Tax policies also have an effect on FDI as evidenced by a Shang-Jin Wei's study (2000) which determined that an increase in the tax rate on MNEs reduces the level of inward FDI. U.S. MNEs generally avoid countries with higher income taxes on U.S. affiliates (Cooke, 1997). Another study by Batra and Ramachandran (1980, p. 289) found that "an income tax on MNEs by any country drives their capital out and lowers their rate of return on capital stock and possibly on their specific factors, such as technology, managerial know-how, marketing techniques, etc."

Government restrictions on FDI are a major impediment to resource-seeking and strategic asset-seeking FDI because they influence the ease/difficulty with which such assets can be

acquired by foreign firms and may deter them from investing in a host country with excessive, burdensome regulation (Dunning, 1998). Governments, especially those of developing countries looking to attract investors, should work to create policies that are investor-friendly. Providing incentives such as tax holidays help to alleviate cost concerns of the MNEs.

Proposition 1. MNE's investment in a developing country will depend on whether that country adopts investor-friendly policies.

Legal System

Even if the government enacts investor-friendly policies and laws regarding things such as property rights, the policies are obsolete if the legal system fails to uphold and regulate them. According to a study by Globerman and Shapiro (2003), countries that receive no U.S. FDI are typically countries that have weak governance structures and are often countries whose legal systems are not rooted in English common law. It has been argued that countries whose commercial legal systems originated in English common law provide better protection to shareholders and creditors as well as better property rights protection and less market regulation (Globerman and Shapiro, 2003).

Globerman and Shapiro (2003) used the University of Ottawa Law's Legal Classification system in their study on governance infrastructure and its effects on FDI. This system classifies legal systems based on their roots in either common or civil law or a mix of common law and religious (usually Muslim) law or civil and religious law. They found that, typically, countries with pure common law systems receive more U.S. FDI than do those with legal systems originating in civil or mixed law.

Proposition 2. MNE's will tend to invest in countries with legal systems rooted in common law.

Government Corruption

Government corruption is a major impediment to FDI, and as the frequency of contact between more corrupt countries and less corrupt countries has increased, corruption has become a major concern of foreign investors. Some foreign investors avoid locating production facilities and subsidiaries in locations with corrupt governments because it goes against their moral codes and it can create "operational inefficiencies." Investors don't always avoid corrupt countries, however, as is evidenced by large flows of direct investment into China, Brazil, Thailand, and Mexico; countries which have perceived high levels of corruption (Habib and Zurawicki, 2002, p.291).

Mixing corruption with FDI can be expensive; not only does it raise costs, but corrupt governments could provide preferential treatment to some firms as well as create bottlenecks and increase uncertainty. Studies have found that government corruption has a negative relationship with the level of FDI. A study by Shang-Jin Wei (2000) on FDI data in the early 1990s that incorporated 12 source countries to 45 host countries, found that an increase in the corruption level from that of Singapore to that of Mexico would have the same negative effect on inward FDI as increasing the income tax rate by eighteen percent. He also found that political stability and corruption are negatively correlated.

There is no open or equal market access for all firms in a corrupt economy; price and quality lose their importance, and because bribes to country officials have no market value, costs of goods rise (compared to a competitive market). It is difficult to eradicate corruption because

there are always a few companies who will use it to their advantage rather than level the playing field. Most companies are corruption averse, however, and one study found that when firms believe that the government is taking steps to reduce corruption, FDI increases (Habib and Zurawicki, 2002).

Proposition 3. MNEs will tend to invest more in countries with low levels of government corruption.

Political Stability

Political stability is another influential factor in the decision to invest abroad. Host countries with a higher degree of political stability attract more inward FDI (Wei 2000). Where there are lower levels of political risk, MNEs will invest via FDI, but in areas characterized by high political risk, MNEs may avoid entering the market and may turn to other forms of international business instead (Jensen 2003).

A study by Habib and Zurawicki (2002) measured political stability by Political Risk Services Inc.'s Political Risk Index (2000) which assigns a number on a scale from 0 to 100 to each country with 100 being the most stable. They found political stability to have a significant, positive effect on FDI.

For countries currently in the process of privatization, it can be extremely harmful if the government remains too involved in firm affairs. Such actions compromise the authority of the courts (when enforcing contracts), and they diminish government credibility, sending a negative signal to MNEs and possibly deterring them from investing in those countries (De Castro and Uhlenbruck, 1997).

In countries with low government credibility, MNEs may prefer acquisitions with companies in related industries, where knowledge and assets are more easily managed and firms may be less vulnerable to changes in product, market or regulatory conditions (Hissey and Caves, 1985).

Proposition 4. Political stability will have a positive effect on foreign direct investment.

Lower Production Costs

Governance infrastructure is a major concern for MNEs, but in the profit maximization business, firms are looking to reduce production costs. Low costs are so important that firms began investing in less developed countries simply to take advantage of the cheaper labor.

Lower labor and capital costs can be major determinants of location choice in the investment decision. In order to maximize profits, production will be located where costs are the lowest: this depends on the availability and cost of inputs, the efficiency at which these are turned into outputs, and the costs of moving from production to marketing. Production costs are particularly influential on the investment decision of efficiency-seeking firms (Dunning, 1973, 1998).

Since MNEs sell their products worldwide at the market price, marginal productivity of labor may not vary from one country to another. However, MNEs gain a competitive advantage by exploiting the imperfect market wage in certain countries when it is lower than the value of marginal product (Park, 2000).

MNEs are willing to overlook certain other characteristics in order to lower costs. Sethi et al. (2003) found that the current trend of FDI flows is to regions with lower market attractiveness in order to take advantage of low wages. So despite the fact that Western Europe has more desirable markets, the low costs of production in less developed Asian countries make them more attractive investment locations.

Barrell and Pain (1996) found a positive relationship between the level of U.S. unit labor costs relative to those abroad and the level of outward FDI. They also found a positive relationship between relative capital costs and outward FDI which suggests that increasing production costs will motivate firms to invest abroad. This is evidenced by the large number of U.S. firms locating production facilities in low wage countries such as Mexico, Korea, Taiwan, Brazil, China and India.

Proposition 5. Efficiency-seeking firms will tend to invest in countries providing lower-cost labor in order to take advantage of lower costs of production.

Human Infrastructure

Understanding the skills of the local work force and how they are likely to evolve is essential to firm success, making human infrastructure an important factor determining whether an MNE (especially one engaged in market-seeking FDI) invests in a specific location (Wells, 1998). Union density is positively correlated with direct investment outflow indicating that, since the 1980s, firms have grown more sensitive to union density in the home country (Alderson, 2004).

American firms (which are largely non-unionized) are not accustomed to hindrances in adjusting the size of their labor force, so some may prefer to invest in countries with lower union density. The amount of union penetration in a country is negatively correlated with U.S. FDI. Restrictive government legislation determining layoffs and extension of collective bargaining agreements has strong negative correlation with FDI (Schoenberger, 1990).

Skilled labor is another positive quality desired in host countries. Higher levels of labor force education have been linked to higher growth rates, and by that effect, to higher levels of FDI. A study on industrial and labor relations and their affect on FDI found that average years of education are positively associated with FDI (Cooke, 1997).

The increased role of host country governments in upgrading human resources through educational and training programs is a major motivator for firms engaged in efficiency-seeking FDI (Cooke, 1997). Globerman and Shapiro (2003) found that investments in human capital and the general quality of life are likely to attract more FDI although these relationships may also be linked to good governance. Therefore, governments should be concerned with promoting education in their labor force and attempt to employ less rigid labor regulations in order to attract investment.

Proposition 6. U.S. MNE's will invest in countries with strong human infrastructure characterized by higher levels of education and less rigid labor regulations.

Market Size and Economic Growth

An investment decision also requires the consideration of factors such as market size and economic growth. A large market and a growing economy are important because firms want to produce at an efficient level of output. These are generally factors that concern companies engaging in market seeking FDI (see Caves, 1971; Dunning, 1973, 1998; Habib and Zurawicki, 2002; Li and Resnick, 2003). Globerman and Shapiro (2003) found market size to be statistically the most important predictor of whether a country will receive FDI (as well as the amount it receives).

Market size is important because a large market allows the firm to maintain lower marginal costs of production through integration and economies of scale. “The existence of scale economies makes it likely that a firm producing and selling in numerous sub-markets will hold a larger share in the average market than the typical competing firm operating in a single market; a seller is unlikely to expand production in a second region while scale economies remain to be exploited in the first (Caves, 1971, p. 14).”

There are also fixed costs associated with FDI which are easier to deal with when spread over a larger volume of output. The larger the market, the greater the reduction in the marginal costs of producing abroad and the more likely the firm will invest in that location rather than resort to exportation (Buckley and Dunning, 1976).

Conventional theory suggests that countries with high economic growth rates and expanding markets will attract more FDI. However, recent studies have found that countries with higher economic growth actually tend to attract less FDI. Several explanations ensue including a “scaling effect” that occurs when a country is growing at a rate higher than the growth in FDI

which leads to a decrease in FDI as a percentage of GDP (Jensen, 2003). Another explanation Jensen suggests is that business cycles that left several industrialized countries in recession in the 1980s could be the cause of this result.

Proposition 7. MNEs will invest in countries with large and growing markets.

Exchange Rate Fluctuations

Currency instability, exchange controls, and the development of local capital markets are also important determinants of FDI (Wells, 1998). Short-term exchange rate variability increases the share of production activity that is located abroad. In a study done by Goldberg and Kolstad (1995), exchange rate variability had a positive and statistically significant effect on FDI shares, and it found that real exchange rate variability increased the share of total U.S. investment located in Canada and in Japan.

According to most theoretical arguments, domestic currency depreciation is expected to decrease source country FDI investments abroad, and that greater devaluation of currencies against the U.S. dollar is associated with greater FDI outflows (Cooke, 1997). The real depreciations raise the relative price of foreign production inputs or increase the relative competitiveness of foreign competitors vying for the same location (Cooke, 1997; Goldberg and Kolstad, 1995; Klein *et al*, 2002). An increase in the wealth of foreign firms relative to domestic firms through depreciation in the value of the domestic currency, would allow MNEs an advantage over host country firms (Klein *et al*, 2002).

Proposition 8. Exchange rate variability will have a positive effect on U.S. FDI.

Technological and Entrepreneurial Atmosphere

The technological innovativeness and capabilities of the domestic firm or firms already investing in a certain location also influences the location decision of an MNE. Research and development (the intensity of which is positively related to FDI outflow) and skill intensity (also positively related to FDI outflow) are valuable location-specific attributes (Alderson, 2004; Dunning 1980, 1998).

Firms involved in market-seeking, efficiency-seeking, and strategic asset-seeking FDI all prefer to locate closest to users in knowledge-intensive sectors of the market. Ideal locations offer opportunities for the exchange of localized knowledge and ideas, as well as opportunities for new projects by investing firms; basically, an entrepreneurial environment. U.S. affiliates tend to be more concentrated in faster-growing, export-oriented industries; they are attracted to technologically advanced industries and to those with above average advertising and capital (Dunning, 1973).

Proposition 9. Market-seeking, efficiency-seeking and strategic asset-seeking investments will depend on the technological capabilities of a country as characterized by research and development intensity and innovativeness (patent applications/grants).

Geographical and Cultural Proximity

The geographical and cultural proximities of countries also influence FDI, although their importance is waning. “Culture - the way of looking at the world, the values, the traditions and institutions that interact to establish allocational priorities – is a function of a people’s unique

history, geography and demographic-ethnic mix, which is another way of describing a people's shared experience (Robinson 1972, p.69).”

Cultural Proximity

Traditionally, firms preferred to invest in countries with similar cultures because there was no learning curve associated with such locations. Similarities in language, legal structure, and geographic proximity can explain the dominance of the U.K. and Canada as traditional U.S. targets (Green and Meyer, 1997).

Studies have found that the cultural distance between countries affects FDI flows: the greater the cultural distance between two countries, the lower the amount of FDI from the home country to the host country. Geert-Hofstede created four cultural dimensions to measure cultural distance: the Power Distance Index, Individualism, Masculinity, and Uncertainty Avoidance Index (Hofstede, 2001).

The Power Distance Index measures the degree to which members of organizations or institutions accept that there is an unequal distribution of power. “It suggests that a society's level of inequality is endorsed by the followers as much as by the leaders (Hofstede, 2001).”

The Individual Index is a measure of the degree to which individuals are “integrated” into groups. Individualist countries have an every-man-for-himself mentality whereas collectivist societies value strong, cohesive groups (Hofstede, 2001).

The level of Masculinity of a nation refers to gender roles in that country. Women in feminine countries have the same “caring values” as men, but in masculine countries there is a

gap between men's and women's values; women are more assertive and competitive, but not to the same degree as men (Hofstede, 2001).

Finally, the Uncertainty Avoidance Index refers to "a society's tolerance for uncertainty and ambiguity; It indicates to what extent a culture programs its members to feel either uncomfortable or comfortable in unstructured situations." Through strict rules and regulations uncertainty avoiding cultures try to minimize the possibility of unstructured situations. They tend to be averse to people with different beliefs or opinions. Uncertainty accepting cultures are more accepting of opinions different than their own and are not averse to diversity (Hofstede, 2001).

If what studies have found holds true, I would expect that greater differences between the U.S. and the host country in the different measures would indicate lower FDI flows into host countries because it would indicate a greater cultural distance between the U.S. and the host countries. However, Sethi et al. utilized this measure in their study on trends in FDI, and they found that cultural proximity to the U.S. is not as important to MNEs as it was in the past (Sethi et al, 2003).

Firms' standpoints regarding cultural disparities are changing, and firms are now investing in locations with vastly different cultures, so this variable may no longer be as important in the investment decision. Strategic asset-seeking firms value access to different cultures, institutions and systems, and different consumer demands and preferences which they can tailor their products to satisfy. There is a growing geographical dispersion of knowledge-based assets and these firms want to harness such assets from foreign locations.

Proposition 10. Psychic/cultural distance historically affected MNE investment decisions, but is becoming less important in their location decision.

Geographical Proximity

Geographical proximity is important in terms of transportation costs to the firm. Sometimes firms invest in foreign markets because transportation costs by exportation are too high due to either the “physical nature” of the good (e.g. high bulk items or on-site services), or due to government policies relating to tariff rates, import restrictions, or market access impediments (Jensen, 2003). High transportation costs can lead market-seeking firms to switch to exportation rather than FDI (Habib and Zurawicki, 2002).

With the price of oil skyrocketing, some firms are retreating back to the U.S. rather than investing abroad. Global retailers are cutting the amount of sourcing from China and India and are instead sourcing from developed countries due to increased transportation costs. Higher Chinese manufacturing costs, inflated by a rising currency and local inflation, are costing the companies that originally invested there to take advantage of formerly low costs. With these new developments, it is possible that geographical distance may become a more important consideration for MNEs than it was in the 1990s.

Proposition 11. Geographical proximity, a traditional determinant of FDI that lost influence throughout the 1980s and 1990s, may once again play an important role in attracting FDI in the near future.

Presence of Natural Resources

Natural resources are a major draw to MNEs, specifically ones that engage in resource-seeking FDI. Not only is the price and quality of natural resources important, but the availability

of local opportunities for upgrading the quality of resource inputs and the processing and transportation of their outputs are also important. Ideally, a host country would also have local partners available to promote knowledge and/or capital-intensive resource exploitation in conjunction with the MNE (Dunning, 1998).

“Natural resources are exogenous economic factors that may help a country attract higher levels of FDI that are independent of political institutions and government policies (Jensen, 2003).”

In a working paper by Sachs and Warner (1995) on natural resources and their effect on economic growth, they created a Natural Resource Dependence variable which is measured as natural resource exports as a percentage of GDP. Jensen’s study (2003) incorporated this variable and his results revealed that countries with higher levels of natural resources also attract higher levels of FDI flows.

Proposition 12. The presence of natural resources in a country will have a positive effect on the amount of investment in that country.

Presence of Rival Firms

The presence of rival firms in a location is also a factor that motivates investment in a particular country. According to the “bandwagon effect” or “oligopolistic reaction,” firms in an oligopolistic industry in the home country tend to follow each other’s movements and invest in similar countries as their rivals (Ito and Rose, 2002).

Also, a greater volume of MNEs in a location serves as a signal to other investors unfamiliar with that territory and induces more firms to invest or locate affiliates in that area (Hirsch, 1976). The presence and competitiveness of rival firms is a major investment motivation for market-seeking firms (Dunning, 1998). Often, when a firm is a first-mover in investing or establishing a production site in a country, its rivals can counter the threats to their market positions by following it to that country (Caves 1996). So, one way to avoid the risk of a sudden shift in power is to carefully observe and then match the worldwide movements of the competition (Ito and Rose, 2002).

Proposition 13. MNEs will tend to invest in countries where rival firms are present.

Classifying Countries as Developed or Developing

Another way to view the location characteristics of a country is through the categorization of countries as developed or developing. Generally, the two classifications carry with them a certain combination of location-specific attributes.

Countries can be classified as developed or less developed based on several measures. A study done by George Dellaportas (1983) used seven discriminatory variables the most important being literacy ratio, GDP, infant mortality rate and the annual percentage rate of natural population increase. He found that the higher the national educational and economic standards (higher literacy ratio and GDP), and the better the health and demographic conditions (lower infant mortality rate and annual percentage rate of natural population increase), the more a nation is expected to be developed. In another study analyzing investment flows to developed, developing, and former communist countries used standard classification technique and defined

developed countries as the OECD member countries, extracted former communist countries and then deemed all other nations to be developing (De Castro and Uhlenbruck, 1997).

Another method of distinguishing between developed and less developed countries is to differentiate by income. A study by Hong Y. Park (2000) separated countries by their per capita income. He defined low-income countries as those with a per capita annual income below \$5000, middle-income countries had between \$5000 and \$10000, and high-income countries were above \$10000.

All of the latter classifications use measures of wealth, quality of life, and population size which in another light are location-specific attributes of countries. The focus of this study is to examine the different combinations of location-specific attributes in developed and developing countries that distinguish one type from the other. Over time, the preference of MNEs to locate in one type or the other has changed and will continue to evolve as globalization progresses.

Attributes of Developed Countries

Traditionally, MNE's preferred to invest in developed countries such as Western Europe because of their stable governments, solid infrastructure, high GNPs, and skilled labor.

Developed countries are likely to present higher degrees of credibility to prospective acquirers because of their "form of transactional governance emphasizing markets, economic concerns and efficiency (De Castro and Uhlenbruck, 1997, p.130)."

Generally, firms in the U.S. tend to seek high quality supplies, so they frequently target Japan, Germany, UK, Canada, and France for their good quality ratings despite their relatively

higher cost ratings. They target high-income countries despite a high direct cost, for the relatively low transaction costs due to high quality and on-time delivery of supplies (Park, 2000).

The most industrialized/developed countries are slightly more likely to be a buying home country than a target host country; the exception in this case being that the U.S. is three times more likely to be a buyer than a target investment country. From 1971 to 1985, the targets most frequently chosen by U.S. buyers were: Canada, U.K., West Germany, France, and Brazil (Green and Meyer, 1997).

For firms in the manufacturing industry, the choice to continue investments in Western Europe has a lot to do with reputation: the ability to supply on demand, offer a high level of consistency and flexibility, and cultivate a sense of security for clients. Demands for close coordination are generally greater when there are high levels of competition in non-standardized and dynamic markets (Schoenberger, 1990).

The decision to produce in Western Europe is primarily a decision involving cost and benefits tradeoffs. Wage rates, labor relations and regulation of labor markets in Western Europe can be costly. As discussed earlier, Americans prefer to have flexibility in determining the size of their labor force. Labor force reductions in Western Europe are a costly, time-consuming and difficult process because firms there are more likely to be unionized than U.S. firms.

According to the product cycle model, an increase in competition and standardized production would cause MNEs to move to secondary locations for production and then export output back to major markets (Schoenberger, 1990; Vernon, 1966). Due to the relatively high costs of labor and capital compared to less developed countries, the investment strategy in

Western Europe is concerned less with cost-minimization and more with establishing and maintaining market share and maximizing profits.

Overall, to remain competitive in developed countries, a firm need not be the lowest-cost producer, but rather have superior product performance, quality and service. Firms operating in high-cost markets adopt the strategy of product differentiation and maintaining higher quality rather than focusing on being the lowest cost producers in the market (Schoenberger, 1990).

While the latter strategy may work for some firms, there has been a tendency in the last decade for firms to pursue the low-cost production strategy instead. So there has been a general shift in investment flows to developing countries.

Proposition 14. MNE investments initially flow to countries that provide the best mix of traditional FDI determinants (those of developed countries).

Attributes of Developing Countries

Historically, due to poor infrastructure, less skilled labor, and political turmoil, less developed countries tended to be disadvantaged compared to developed nations as host countries for FDI (De Castro and Uhlenbruck, 1997). Over the last decade, MNEs tended to invest in developing countries when they were in unskilled-labor intensive industries or in the process of extracting resources from that country (Helpman, 1993).

Recent FDI in developing nations has been motivated by the availability and price of skilled labor, large and growing markets, the presence of rivals, the institutional framework of the host country, government policies, government incentives, and the advantages of lower labor

costs, human infrastructure, and the price of natural resources. Also, the build-up of intense competition from rivals in the original, developed host countries is causing MNEs to make efficiency-seeking investments into low-wage countries to reduce costs (Dunning, 1998; Sethi *et al*, 2003).

Developing countries are also those with emerging markets, and are a major attraction to MNEs looking to expand. Recently, a large number of governments, especially in Asia, have liberalized their economies in order to attract FDI. This is in part due to the clustering affect of FDI that was discussed earlier (Hirsch, 1976). The density of rivals generates intense competition which drives MNE's to seek out new FDI locations and so they relocate to countries and regions that are liberalizing their economies and improving infrastructure.

There is a balance between developing countries attempting to attract investors but at the same time pursuing national priorities that may conflict with the MNEs priorities. Less developed countries also tend to trust state owned businesses over private enterprises with national objectives more-so than developed countries. They tend to be more averse to entrance by an MNE from a developed country due to their historical exploitation of the less developed countries (Robinson, 1972).

Foreign investors require the use of local resources such as labor and the expenditure of personal income, but less developed countries are typically unwilling to tolerate unlimited presence by the investors who could make decisions that contradict the priorities of the host country. For firms investing in developing countries, it is critical that the firm avoids the perception that it is disturbing national priorities or risk heightening the level of political risk that could lead to a loss of control or loss of profit (Robinson 1972).

Governments in less-developed and former communist countries often seek foreign acquirers to attract capital and technological and management skill (De Castro and Uhlenbruck, 1997), and because former communist countries require more extensive privatization, and because they are creating market economies and their capital markets are new, they will be more likely to involve foreign investors in their deals.

So MNE investment in a region will depend on their adoption of investor-friendly liberalization practices. Host countries and governments may need to upgrade or improve their physical and human infrastructure to attract and facilitate foreign investors (Dunning, 1998). As a result, developing countries have relaxed restrictions on FDI and they have employed new development strategies involving the dismantling of controls on imports as well as changes in currency regimes.

“The need to attract FDI pressures governments to provide a climate more hospitable to foreign corporations – potentially altering patterns of domestic economic policy and possibly even challenging the de facto sovereignty of the nation-state and the capacity for democratic governance (Jensen 2003).”

Because developing countries are disadvantaged in certain areas there is a trade-off to be made to obtain the low-costs of production that are associated with developing countries. Therefore I would expect a different combination of location-specific attributes in developing countries than developed countries that make them desirable investment locations.

Proposition 15. The optimal mix of FDI determinants for low-wage, developing countries will differ from the optimal mix for developed countries which were the historical FDI locations.

Dynamics of Location-specific Factors

The location-specific attributes of a country are not constant, they are dynamic. The myriad of location-specific factors that originally motivate a firm to invest in a country could change, causing that firm to move its investments elsewhere. According to a study by Deepak Sethi et al. (2003), such factors prompting this action include: increased competitive intensity at the original location, cost-cutting requirements, or pressure to enter new markets to remain competitive with rivals.

A rise in FDI in the second half of the 1980s involved all the leading countries of the OECD instead of mainly the U.S. (as was the case in the earlier post-war period). It wasn't until the early 1990s that non-OECD countries (primarily East Asia) emerged as important home and host countries (Ostry, 1998).

Sethi et al. (2003) found that what facilitated the movement of MNEs from investment in developed Western Europe to developing East Asia was a wage gap that led to lower costs of production. Also, since the 1970s, firms have begun to face intensifying competition that has compromised their monopoly status. This growing competition in major foreign markets is pushing MNEs to move production to secondary locations in order to take advantage of low-cost, more compliant labor (Schoenberger, 1990).

The fact that there is still a significant wage level difference between Western Europe and Asia, and the fact that the accelerating economic development in Asia still hasn't narrowed this wage gap, has led MNEs to continue to invest in that region (Sethi *et al*, 2003). However, just as firms moved from Western Europe to Asia when location factors were no longer advantageous,

the rapid changes occurring in Asia may lead to a similar readjustment in MNE location. Which poses the question: where is the next major FDI host location?

Figure 1 (includes Chart 1 and Chart 2) shows the U.S. outward direct investment position for 2007 and the U.S. direct investment position on a historical cost basis for 1983-2007.

Figure 1

Chart 2. Outward Direct Investment Position by Host Country at Yearend 2007

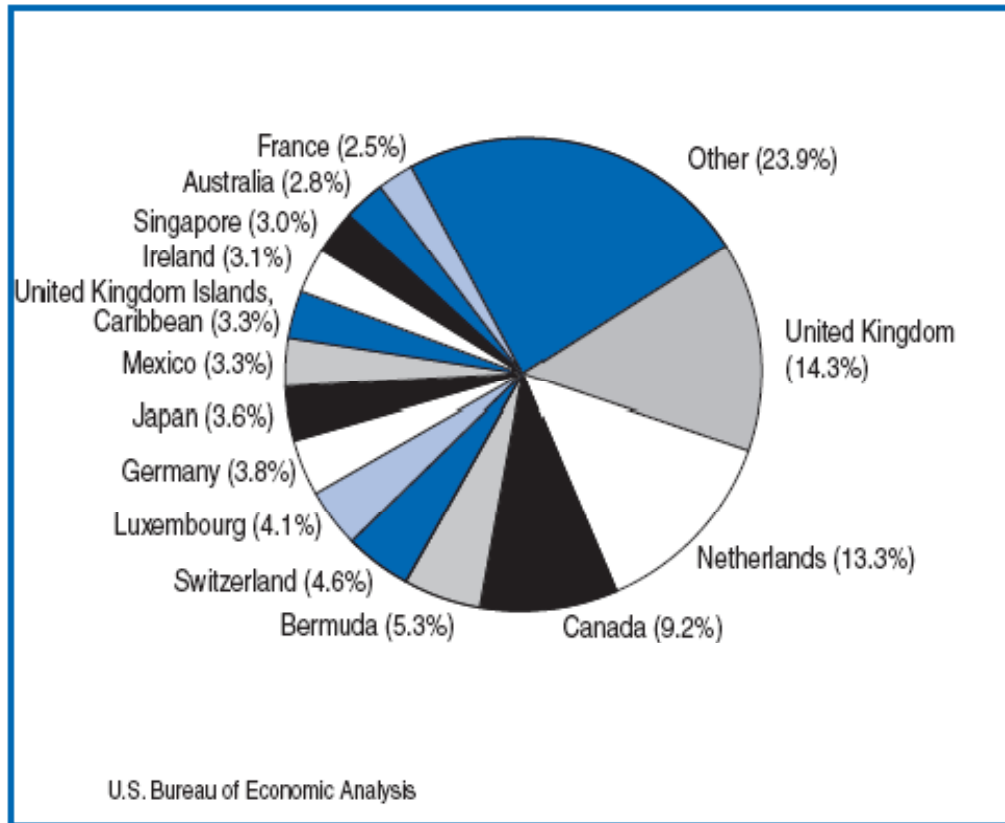
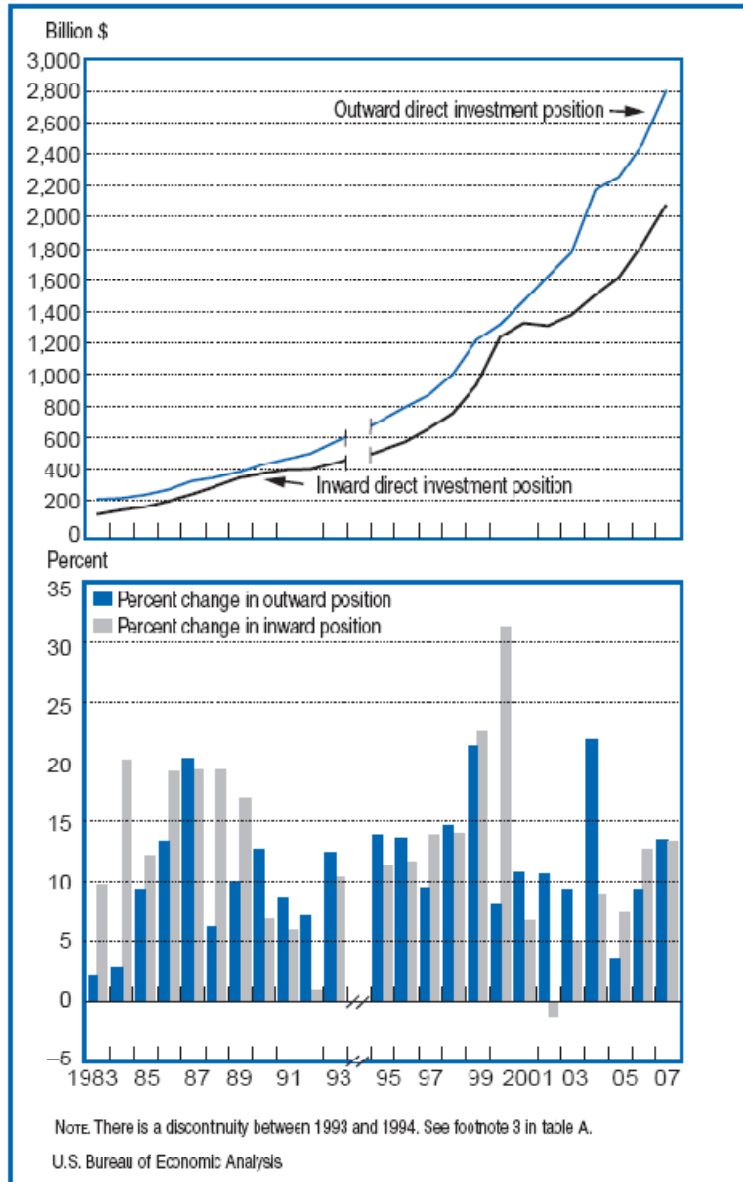


Chart 1. Direct Investment Positions on a Historical-Cost Basis, 1983–2007



Methodology

After reviewing the background literature, I compiled a number of factors that motivate foreign direct investment in a specific location. I wanted to examine trends in FDI flows and how they are once again changing as the conditions in current investment hot spots have become less

ideal and more and more developing countries are manipulating their location-specific advantages to attract investors. I attempted to semi-replicate the research by Sethi et al. but extended the research to include a cross-country analysis instead of regional analysis that included more variables to ascertain to a greater depth what factors are becoming most influential in MNE location decisions.

I created a database containing 54 countries, all of which are recipients of U.S. FDI, and incorporated data on 34 variables over the period (1982-2006). I chose countries based on the availability of data for each of the variables over the time period. This test involved a cross-sectional ordinary least squares (OLS) regression for the 54 countries. The variables included in the database are discussed below:

Dependent Variables

U.S. FDI Stocks and Flows. The first dependent variable is the U.S. investment position abroad on a historical cost basis. This is a measure of U.S. stocks in host countries, which I called US_FDI_stocks. I used this to analyze the patterns of U.S. investment over the past twenty-five years to compare past U.S. investment preferences with current preferences. To do this I also included U.S. Capital Outflows (US_FDI_flows) data on U.S. FDI flows abroad. I wanted to look at the traditional FDI location choices and the movements of FDI over the years which could help determine current U.S. investment preferences to assist firms and policy makers in making investment decisions or creating policies to attract investors.

Independent Variables

Market Size. Across studies on FDI, host country size has been found statistically significant, so I included a variable of GDP at market prices in current millions of U.S. dollars (GDP_3). A large market is a major pull factor for FDI because it allows for economies of scale. Host country size, as measured by GDP, was expected to have a positive effect on FDI.

Infrastructure. I also included the variable GDP per capita, PPP (GDP_1) as a measure of wealth and consumer demand, as well as a measure of physical infrastructure; which, as discussed in the literature, is considered an important determinant of FDI because increased values of human capital and physical infrastructure should be positively related, on average, to inward FDI (Mody and Srinivasan, 1998). Also, a high GDP per capita reflects the host country's potential for high consumption (Habib and Zurawicki, 2002). A country's physical and human infrastructure was expected to have a positive effect on FDI.

Economic Growth. I included a variable of GDP annual rate of growth (GDP_2) as a measure of which economies are growing the fastest which may help determine up-and-coming host countries. Emerging markets are a major attraction to MNEs because they can establish a first-mover advantage in those locations, so I expected high growth rates to promote an increase in U.S. FDI. Therefore, economic growth was expected to have a positive effect on U.S. FDI.

Population. Demographic indicators like total population (Tot_Pop) were included because in previous studies, a large population was found to have a positive relationship with FDI; so I expected to see a trend of U.S. FDI flows directed towards countries with larger populations. This is due to the fact that a larger population indicates a larger market which

reiterates the above statement that large market size attracts FDI. So a positive relationship between population and U.S. FDI was expected.

Natural Resources. I also included a Natural Resource Dependence Variable to account for the fact that certain firms choose host countries solely on their possession of some unique natural resource. The U.S. covets resources like oil, coal, lumber, iron, etc. so countries that possess significant quantities of these resources may better attract U.S. FDI.

I used the measure created by Sachs and Warner (1995) which quantifies a country's dependence on natural resources by natural resource exports as a percentage of GDP. Resource-based exports are defined as agriculture, minerals and fuels. Natural resources (Nat_Res_Dep) were expected to have a positive effect on U.S. FDI.

Size of Labor Force. I included a variable for total labor force because labor-intensive industries desire a large labor force to take advantage of low costs of labor. The size of the labor force was expected to have a positive effect on U.S. FDI.

Unemployment. I also included a variable measuring the total unemployment percentage (Tot_Unemp) which was expected to attract FDI because with high unemployment there is a larger quantity of labor available at a lower price. High unemployment should have a positive effect on resource-seeking FDI because in those circumstances, workers value their current job higher and accept lower wages in order to keep that job (Habib and Zurawicki, 2002). Total unemployment (Tot_Unemp) was expected to have a positive effect on U.S. FDI.

Labor Costs. I included a variable for hourly compensation costs (Comp_Cost) acquired from the bureau of economic analysis (BLS) because many labor-intensive industries look to

invest in locations with lower costs of labor in order for them to maximize profits. A negative relationship between compensation costs and US FDI flows into a host country was expected.

Labor Skill. A skilled, educated labor force is also important, so I included data on gross percent enrollment in primary (Prim_Ed), secondary (Sec_Ed), and tertiary education (Terc_Ed). This variable is especially relevant in the high-technology industries because they covet an innovative, intelligent workforce. Therefore higher gross education enrollment rates were expected to have a positive effect on U.S. FDI.

Cultural Distance. The cultural distance between the home and host countries is a variable that is becoming less important as FDI increases, but is still a location variable and based on previous studies should be a deterrent of U.S. FDI. I included a variable for cultural distance based on Geert Hofstede's cultural dimensions described in the literature section. Greater cultural differences in the home and host country were expected to have a negative effect on FDI.

R&D Intensity. From the literature, I expected MNEs to locate in an innovative and R&D intensive atmosphere, so I included two variables to describe the technological innovativeness of a country. I included data on patent applications (patent_apps) to assess technological capabilities of the countries. R&D intensity was expected to have a positive effect on U.S. FDI.

Investment Incentives. For selected developing countries I included dummy variables for investment incentives. The country received a 1 if it offers a specific incentive and a 0 if it does not offer that incentive. The incentives included are: tax holiday, reduced tax rate, investment allowance/ tax credit, duty/VAT exemption or reduction, R&D allowance, and deduction for

qualified expenses. This variable is included to test whether countries that offer investment incentives are more desirable investment locations than countries that do not offer incentives.

Index of Economic Freedom. I also included the Index of Economic Freedom (IEF_Tot), created by the Wall Street Journal and the Heritage Foundation, which is a composite measure of ten individual freedoms that are averaged into the total score. The ten freedoms are based on a scale from 0 to 100 where 100 signifies maximum freedom; so the higher the score on the scale, the greater the country's freedom.

A score of 100 signifies an economic environment or set of policies that is most conducive to economic freedom. The ten component freedoms are: Business Freedom, Trade Freedom, Fiscal Freedom, Government Size, Monetary Freedom, Investment Freedom, Financial Freedom, Property rights, Freedom from Corruption, and Labor Freedom. This index measures the entrepreneurial abilities of a country because economic freedom "is the key to creating an environment that allows a virtuous cycle of entrepreneurship, innovation, and sustained economic growth and development to flourish (The Heritage Foundation (THF), p. 2)." Higher IEF scores were expected to be positively associated with U.S. FDI flows.

Business Freedom (IEF_1) measures "the ability to create, operate, and close an enterprise quickly and easily. Burdensome, redundant regulatory rules are the most harmful barriers to business freedom (The Heritage Foundation (THF), p. 40)." Greater business freedom was expected to have a positive effect on U.S. FDI.

Trade Freedom (IEF_2) is a "composite measure of the absence of tariff and non-tariff barriers that affect imports and exports of goods and services (The Heritage Foundation (THF), p. 40)." I included this measure because the second component of trade freedom includes non-tariff barriers such as quotas and bureaucratic delays which are significant obstacles to trade. For

this measure, the higher the score, the lower the tariff rate. Trade Freedom was expected to have a positive effect on U.S. FDI.

Fiscal Freedom (IEF_3) is the third sub-index of the IEF which is “is a measure of the burden of government from the revenue side. It includes both the tax burden in terms of the top tax rate on income (individual and corporate separately) and the overall amount of tax revenue as a portion of gross domestic product (The Heritage Foundation (THF), p. 40).” Fiscal Freedom was expected to have a positive effect on U.S. FDI.

The component measuring Government Size (IEF_4) is defined as “all government expenditures, including consumption and transfers. Ideally the state will provide only true public goods with an absolute minimum of expenditure (The Heritage Foundation (THF), p. 40).” Government size was expected to have a positive effect on U.S. FDI.

Monetary Freedom (IEF_5) is a combination of a measure of “price stability with an assessment of price controls. Both inflation and price controls distort market activity. Price stability without microeconomic intervention is the ideal state for the free market (The Heritage Foundation (THF), pp. 40, 41).” Monetary Freedom was expected to have a positive effect on U.S. FDI.

Investment Freedom (IEF_6) is “an assessment of the free flow of capital, especially foreign capital (The Heritage Foundation (THF), p. 41).” Countries with scores of 80 points or higher “impose few or no restrictions on foreign investment, which promotes economic expansion and enhances overall economic freedom (The Heritage Foundation (THF), p.3).” Investment Freedom was expected to have a positive effect on U.S. FDI.

Financial Freedom (IEF_7) “measures banking security as well as independence from government control. State ownership of banks and other financial institutions such as insurer and

capital markets is an inefficient burden, and political favoritism has no place in a free capital market (The Heritage Foundation (THF), p. 41).” I expected that greater government control of financial institutions would be associated with lower amounts of U.S. FDI, so Fiscal Freedom was expected to have a positive effect on U.S. FDI.

As previous literature reiterated, property rights protection is extremely important to U.S. investors. The Property Rights (IEF_8) component is an assessment of the ability of individuals to accumulate private property secured by laws that are fully enforced by the state. A higher score in the Property Rights component of the IEF should be associated with greater U.S. FDI. Therefore, Property Rights was expected to have a positive effect on U.S. FDI.

Freedom from Corruption (IEF_9) is “based on quantitative data that assess the perception of corruption in the business environment, including levels of governmental legal, judicial, and administrative corruption (The Heritage Foundation (THF), p. 41).” It is especially important to corruption-averse U.S. investors and greater corruption was expected to be associated with less FDI, so Freedom from Corruption was expected to have a positive effect on U.S. FDI.

The final component of the IEF, Labor Freedom (IEF_10), is a composite measure of the ability of workers and businesses to interact without restriction by the state. “Labor market flexibility is essential to enhancing employment opportunities and overall productivity growth. The rigidity of hiring and firing a worker creates a risk aversion for companies that would otherwise employ more people and grow (The Heritage Foundation (THF), p. 41).” U.S. firms are used to a flexible labor environment, so greater rigidity is expected to be associated with lower U.S. FDI. So Labor Freedom was expected to be positively associated with U.S. FDI.

Legal System. I also included a variable that accounts for the legal system because studies have found that countries with legal systems rooted in English common law generally receive more U.S. FDI. I use the University of Ottawa's Legal Classification System to measure the legal system's affect on U.S. FDI. Countries with common law roots were expected to attract more U.S. FDI.

Region. I included dummy variables for each of the regions. There is a dummy variable for Western Europe, Eastern Europe, Africa, Asia, Latin America, North America, and "other" developed countries. For each variable, the country received a 1 if it is located within the specified region and a 0 if it is not.

Level of Development. I also included dummy variables for developing and developed countries to determine where the majority of current U.S. FDI is directed as opposed to the historical trends in FDI. If a country is developed I gave it a 1 and if not it received a 0. Developing countries were expected to receive more of the recent FDI whereas developed countries would have received the majority of investment in the early half of the time period.

Models and Analyses

The original intent of this study was to perform OLS regressions to determine trends in FDI. I planned to semi-replicate Sethi et al.'s 2003 study and run several regression models based on the information in the database. As an extension of that study, I added countries and variables and extended the time-period for which I have information.

The empirical tests I planned to perform included several multiple OLS regression models. Model 1 had the U.S. FDI stock in the countries as the dependent variable. I planned to include observations for 1982-1983 to establish the U.S.'s historical investment position before the period I wish to analyze. Therefore, the coefficients of the independent variables should have signified the historical determinants of U.S. FDI.

Model 2's dependent variable would have been the annual U.S. FDI flows in the countries over the 24-year period. FDI stock would not be included in this model so it would depict the cumulative effect of the volume of FDI flows without controlling for the annual FDI stock position. The coefficients in this model should have depicted the determinants of US FDI flows during this time period.

For Model 3, the dependent variable would have been annual US FDI flows into respective countries as the dependent variable with FDI stocks included as a control variable. The coefficients in this model would depict the determinants of US FDI flows during the allotted time period while controlling for FDI stock. Changes in the determinants of US FDI flows would be revealed by comparing the coefficients of Models 1 and 2, with Model 3.

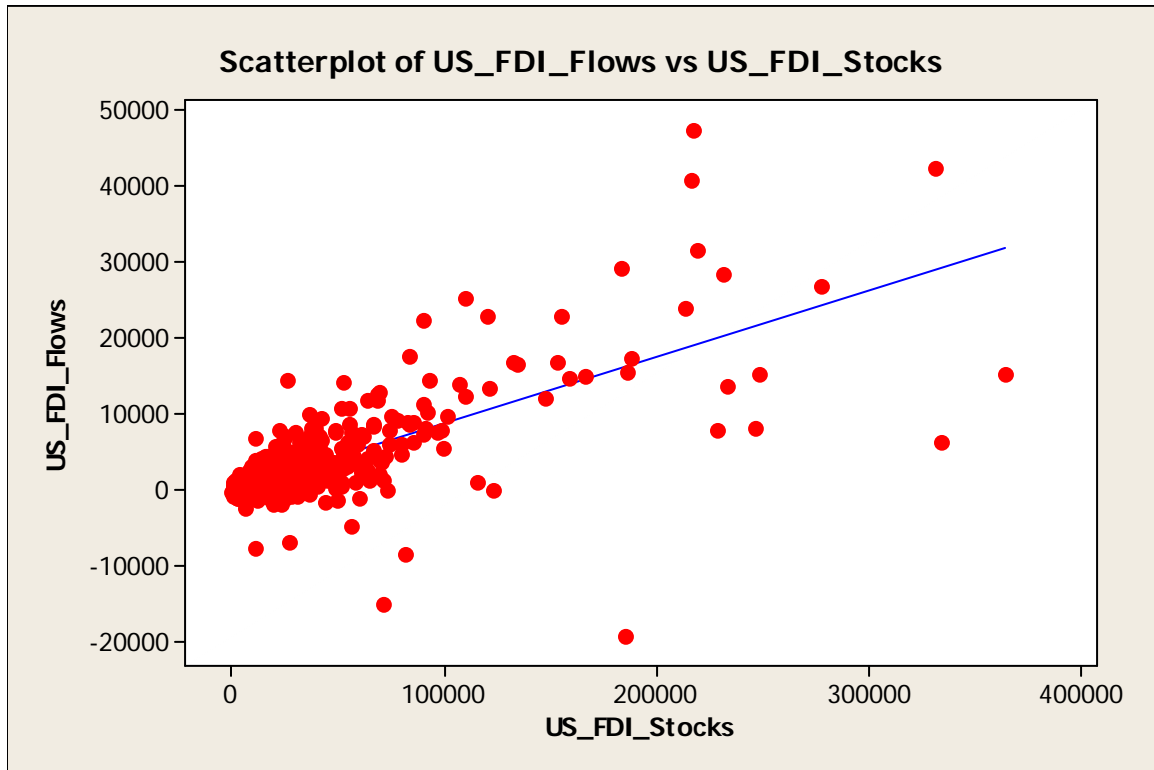
For certain variables there was a limited time period of data. Those were to be excluded from models 1-3. I wanted to run a separate model (Model 4) with a shorter time frame 1995-2006 to accommodate for the variables Natural Resource Dependence, Education (Primary-Tertiary), the Index of Economic Freedom variables, Labor Regulations.

See the Appendix for a list of the variables included in the database and a short description of each.

Results

Unfortunately the results of the statistical analysis were inconclusive. I began by creating scatter-plots of U.S. FDI flows versus each consecutive variable to check for relationships between the individual variables before running the OLS regressions. However, I found that the only graphs demonstrating definite linear relationships were the graphs of U.S. FDI flows versus GDP_2 and U.S. FDI flows versus U.S. FDI stock. These supported the propositions and demonstrated the expected results based on previous literature.

GDP_2, the annual rate of growth, had a positive effect on flows of foreign direct investment. This reiterates the fact that multinationals prefer to invest in large, growing markets where MNEs will have high enough demand for their product to function efficiently and operate in economies of scale. This supports previous literature which also produced similar results demonstrating the positive relationship between FDI and GDP or market size. The strong linear relationship between FDI flows and stocks (See Figure 2) was also expected because where a company has stocks it will have an inflow of capital to that location to facilitate production there.

Figure 2

The fact that the scatter-plots of the other variables demonstrated no linear relationship between the variables and U.S. FDI flows forced me to alter the original study design. I ran a stepwise linear regression for the entire time period which included all variables except the IEF variables, natural resource dependence, and education (and U.S. FDI stocks as a control variable). Again, GDP_2 and U.S. FDI stocks appeared to be the only variables that had a significant effect on FDI flows (See Figure 3). Even when both variables were included in the model, they only explained 51.12% of the variation in U.S. FDI flows, so they were significant but clearly not the only cause of trends in FDI.

Figure 3**Stepwise Regression: US_FDI_Flows versus US_FDI_Stocks, GDP_1, ...**

Alpha-to-Enter: 0.05 Alpha-to-Remove: 0.05

Response is US_FDI_Flows on 10 predictors, with N = 305

Step	1	2
Constant	420.4	-385.6
US_FDI_Stocks	0.0850	0.0862
T-Value	17.80	18.00
P-Value	0.000	0.000
GDP_2		236
T-Value		2.00
P-Value		0.047
S	4968	4944
R-Sq	51.12	51.76
R-Sq(adj)	50.96	51.44
Mallows Cp	1.6	-0.3

I ran another stepwise regression (see figure 4), this time I excluded US_FDI_stocks. The significant variables in this model were Com_Law, GDP_3 and GDP_1. The explanation power was significantly lower this time (24.16 with all variables included) indicating that the first model better explained the variation in FDI flows. However, it reiterated the fact that market size (as indicated by the GDP variables) is an important pull factor in the U.S. MNE investment decision. Also, Common Law had a positive effect on U.S. FDI flows in this model, supporting previous studies' findings that countries rooted in English Common Law tend to draw more U.S. FDI. Again, I want to caution the reader that the explanation power is too low to make this an ideal model for predicting trends in U.S. FDI flows.

Figure 4

Stepwise Regression: US_FDI_Flows versus GDP_1, GDP_2, ...

Alpha-to-Enter: 0.05 Alpha-to-Remove: 0.05

Response is US_FDI_Flows on 11 predictors, with N = 440

Step	1	2	3
Constant	2091.0	1055.0	-199.7
Com_Law	7310	7212	6521
T-Value	9.16	9.39	8.24
P-Value	0.000	0.000	0.000
GDP_3		0.00181	0.00161
T-Value		5.97	5.24
P-Value		0.000	0.000
GDP_1			0.079
T-Value			3.17
P-Value			0.002
S	5621	5411	5356
R-Sq	16.08	22.41	24.16
R-Sq(adj)	15.89	22.05	23.63

In an effort to analyze current trends in U.S. FDI flows I ran two separate stepwise regressions for the data from 2006 only. The first model in this set of regressions included all of the variables and the second used only the IEF variables.

In the first model, none of the variables were significant, so there was no model generated. In the IEF-only model only one variable was statistically significant and that was IEF_6: Investment Freedom. Basically, countries that allow easy access to investors and promote investor-friendly policies will attract greater amounts of U.S. FDI (see Figure 5). However this variable only explained 18.98 percent of the variation in U.S. FDI flows, so it clearly doesn't have a very large impact on the direction of FDI flows from the U.S.

Figure 5**Stepwise Regression: US_FDI_Flows versus IEF_tot, IEF_1, ...**

Alpha-to-Enter: 0.05 Alpha-to-Remove: 0.05

Response is US_FDI_Flows on 11 predictors, with N = 52
N(cases with missing observations) = 3 N(all cases) = 55

Step	1
Constant	-4408
IEF_6	136
T-Value	3.42
P-Value	0.001
S	6004
R-Sq	18.98
R-Sq(adj)	17.35

In an attempt to verify if, within regions, there were certain variables that were more successful in attracting FDI, I created scatter-plots and ran stepwise regressions for Western European countries, Asian countries, and Latin American countries including all variables except IEF, Natural Resource Dependence, and Education. Again the only variables of note were U.S. FDI stocks, GDP_1, and GDP_3. I then ran separate regressions within each region comparing only the IEF variables with U.S. FDI flows. This produced some semi-interesting results.

In the regression for Western Europe:, IEF_1, IEF_7, and IEF_tot were all significant (see Figure 6). This indicates that overall Economic Freedom, Business Freedom and Financial Freedom are important factors for businesses investing in the Western European countries. The significance of Business Freedom indicates that MNEs investing in a more developed region prefer to open and operate their business without burdensome regulations imposed by foreign governments. Financial Freedom was significant which suggests that financial stability is of

higher importance and that government control of banks and financial institutions (which lead to a lower IEF score) would be detrimental to businesses because of political favoritism or tight regulations.

Overall Freedom was also a significant factor. This could indicate that businesses investing in developed nations want an entrepreneurial atmosphere with a stable government that promotes policies that are investor friendly and a strong legal system upholding those policies. These MNEs also value a stable, independent financial system and a solid infrastructure. However, it is important to bear in mind that the explanation power for this model was rather low (24.27), so clearly these variables, while significant, were not explaining much of the variation in U.S. FDI flows to Western European nations.

Figure 6

Western Europe				
Stepwise Regression: US_FDI_Flows versus IEF_tot, IEF_1, ...				
Alpha-to-Enter: 0.05 Alpha-to-Remove: 0.05				
Response is US_FDI_Flows on 10 predictors, with N = 173 N(cases with missing observations) = 7 N(all cases) = 180				
Step	1	2	3	4
Constant	-35932	-43167	-34787	-27491
IEF_tot	592	470	204	
T-Value	6.38	4.54	1.41	
P-Value	0.000	0.000	0.160	
IEF_1		209	227	272
T-Value		2.53	2.78	3.60
P-Value		0.012	0.006	0.000
IEF_7			126	175
T-Value			2.59	5.09
P-Value			0.010	0.000
S	7607	7490	7367	7388
R-Sq	19.25	22.18	25.15	24.27
R-Sq(adj)	18.77	21.26	23.82	23.38
Mallows Cp	10.9	6.3	1.7	1.7

When I ran the regression for Asian countries (see Figure 7), I found that the significant Freedoms were IEF_9, IEF_6, and IEF_5. The explanation power was higher in this model (41.66 when all variables were included in the regression) but still not high enough to put too much stock in the effects of these Freedoms on U.S. FDI flows. Countries looking to invest in the Asian region tend to factor in the level of Monetary Freedom, Investment Freedom and Freedom from Corruption. The nations in this region are developing, so the importance of Freedom from Corruption seems intuitive. Developing nations tend to have more corrupt governments, so businesses are going to locate where government corruption is less embedded in society.

The significance of Monetary Freedom is relevant because in developing countries there is more concern about currency and price stability. Businesses will be more willing to invest in places where there is confidence in the currency. Investment Freedom is intuitively a positive determinant of U.S. FDI flows because businesses are going to invest in countries where they have easy market entry with few barriers by government policies or debilitating regulations.

Figure 7**Asia****Stepwise Regression: US_FDI_Flows versus IEF_tot, IEF_1, ...**

Alpha-to-Enter: 0.05 Alpha-to-Remove: 0.05

Response is US_FDI_Flows on 10 predictors, with N = 136
N(cases with missing observations) = 8 N(all cases) = 144

Step	1	2	3
Constant	-351.8	-803.0	-3415.3
IEF_9	34.9	27.8	19.4
T-Value	8.87	5.48	3.18
P-Value	0.000	0.000	0.002
IEF_6		13.2	14.8
T-Value		2.17	2.45
P-Value		0.032	0.015
IEF_5			37
T-Value			2.38
P-Value			0.019
S	1110	1095	1076
R-Sq	37.01	39.15	41.66
R-Sq(adj)	36.54	38.24	40.33
Mallows Cp	5.0	2.4	-1.1

In the regression for Latin America (see Figure 8), the significant freedoms were IEF_2, IEF_5, and IEF_9. This implies that Trade Freedom, Monetary Freedom, and Freedom from Corruption are the most important factors to MNEs investing in this region. An interesting aspect of these results was that unlike in the regression model for Asian countries, Monetary Freedom had a negative coefficient implying that Latin American countries with greater Monetary Freedom will draw less U.S. FDI. This is probably due to the volatile nature of Latin American currencies like the Argentinean Peso. Business owners in Argentina tend to convert their Pesos to Dollars as soon as possible and that money then flows out of the country. The coefficient for Monetary Freedom in Asia was positive because unlike in Latin America, business owners have

confidence in the currency and reinvest it into the businesses there rather than sending it out of the country.

Freedom for Corruption is important in Latin American countries, especially since corrupt governments are commonplace. Businesses are going to lean more towards locations with less corrupt and more stable, dependable governments. Again the explanation power in this regression was relatively low (35.26) so most of the variation in U.S. FDI flows was not explained by the level of Trade Freedom, Monetary Freedom, or Freedom from Corruption.

Figure 8

Latin America			
Stepwise Regression: US_FDI_Flows versus IEF_tot, IEF_1, ...			
Alpha-to-Enter: 0.05 Alpha-to-Remove: 0.05			
Response is US_FDI_Flows on 10 predictors, with N = 72			
Step	1	2	3
Constant	-10831	-9198	-11085
IEF_2	203	223	231
T-Value	4.35	5.01	5.30
P-Value	0.000	0.000	0.000
IEF_5		-44	-54
T-Value		-3.09	-3.69
P-Value		0.003	0.000
IEF_9			63
T-Value			2.14
P-Value			0.036
S	2648	2499	2437
R-Sq	21.30	30.88	35.26
R-Sq(adj)	20.17	28.88	32.41

Conclusions and Implications for Future Research

The purpose of this study was to analyze trends in U.S. foreign direct investment over a period of 26 years. It was a cross-country study that involved several independent variables that, based on past literature, were expected to either deter or attract U.S. FDI. The results of the statistical analyses were inconclusive.

The most important finding was that market size remains the strongest determinant of U.S. foreign direct investment abroad. It is a major pull factor for MNEs because in a large, growing market there is high demand for the firm's product and MNEs are able to take advantage of economies of scale and operate more efficiently. This is also the ideal characteristic of an investment location desired for cutting costs and increasing profits, the goals of any MNE.

The finding that Common Law had a positive effect on U.S. FDI flows reiterated previous studies' findings that countries rooted in English Common Law tend to attract more U.S. FDI. This is due to the familiarity of U.S. business with this form of legal system. Legal systems rooted in English Common Law tend to provide better regulation of property rights protection which is a major concern of most MNEs when deciding whether to invest in a country. While this relationship supports the findings of other studies, the author wants to caution the reader on the low explanation power for the regression.

The results from the region-based regressions against the Index of Economic Freedom variables could provide some insight into the direction of U.S. FDI flows within certain regions. The Western European nations, which tend to be more developed than the Latin American and

Asian countries, draw more FDI flows when they received high total Freedom scores, high Business Freedom scores, and high Financial Freedom scores.

A comparison of the developing regions of Latin America and Asia showed some similarities characteristic of developing countries as well as differences specific to each region. Investors in Latin American countries direct their capital towards regions with high scores in Trade Freedom, Monetary Freedom, and Freedom from Corruption, whereas MNEs investing in Asian countries prefer high scores in Monetary Freedom, Investment Freedom and Freedom from Corruption. The opposing signs of the coefficients for Monetary Freedom in Latin America and Asia could reveal differences in investor confidence in the countries' currencies leading MNEs to choose to reinvest in their businesses in the country (as in the case of Asian nations) or convert the money to dollars and remove it from the country as soon as possible (as is the case in Latin America).

The insignificance of the other variables included in the study can be evaluated in two ways. One possible explanation is that there just wasn't enough variability in the data to show any effect on FDI and that the time period for which data was available was simply too limited. The other option is to conclude that perhaps some of these variables are no longer important in the modern MNE's investment decision. One could suggest that with the increased globalization, the U.S. has become exposed to different cultures and is no longer ignorant to different customs and values. What historically were considered strange and different territories are now familiar and companies are more comfortable operating in those regions. This could imply that variables like cultural distance are simply not significant factors in the current investment decision (see Appendix 2 for a list of variables that fit in one or the other of these two groups).

Overall, the results of this study supported previous literature in terms of the effect of GDP and market size/economic growth on U.S. FDI flows. A large and growing market remains a critical location-specific attribute that is a key component in the modern investment decision. While the other variables were insignificant, it is important to keep in mind that while some may no longer be a factor in the investment decision, others may be due to the broad nature of the data. More industry-specific research is required to analyze the effects of variables such as unemployment, R&D, education, and labor costs due to their variability in importance in different industries. As globalization continues to spread, greater amounts of data for longer periods of time will be available allowing for a more in-depth, detailed analysis in the combinations of factors influencing foreign direct investment.

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Appendix 1

Variable	Description	Source
US_FDI_flows	Total U.S. capital flows into (or out of) host country	BEA
US_FDI_stocks	Total U.S. FDI stocks in host country (historical position)	BEA
GDP_1	GDP per capita PPP (current international \$)	World Bank
GDP_2	GDP annual rate of growth	UNdata
GDP_3	GDP at market prices in current millions of USD	UNdata
Tot_Pop	Total population	World Bank
Tot_Unemp	Total Unemployment (% of total labor force)	World Bank
Comp_Cost	Index of hourly compensation costs	BLS
Patent_apps	Patent Applications	UNdata
IEF_Tot	Index of Economic Freedom composite	WHF & WSJ
IEF_1	Business Freedom	WHF & WSJ
IEF_2	Trade Freedom	WHF & WSJ
IEF_3	Fiscal Freedom	WHF & WSJ
IEF_4	Government Size	WHF & WSJ
IEF_5	Monetary Freedom	WHF & WSJ
IEF_6	Investment Freedom	WHF & WSJ
IEF_7	Financial Freedom	WHF & WSJ
IEF_8	Property Rights	WHF & WSJ
IEF_9	Freedom from Corruption	WHF & WSJ
IEF_10	Labor Freedom	WHF & WSJ
Prim_Ed	Gross enrollment (%) Primary Education	World Bank
Sec_Ed	Gross enrollment (%) Secondary Education	World Bank
Terc_Ed	Gross enrollment (%) Tertiary Education	World Bank

Nat_Res_Dep	Natural Resource Dependence	Sachs and Warner (1995)
Legal_Syst	Legal System	University of Ottawa
Tot_Labour	Total Labour	World Bank
Region	Dummy Variable (1 = in region, 0 = not in region)	
Tax_Hol	Tax Holiday	UNCTAD
Red_TaxRate	Reduced Tax Rate	UNCTAD
Invest_TaxCred	Investment Allowance/ Tax Credit	UNCTAD
Duty_VATexemp	Duty/VAT exemption/ reduction	UNCTAD
R&D_Allow	R&D Allowance	UNCTAD
Deduction	Deduction for Qualified Expenses	UNCTAD
Development	Dummy Variable (1 = developed, 0 developing)	

Appendix 2

Possible variables no longer important to the investment decision:

- Cultural distance
- Total Labour
- Total Population

Variables requiring more data and industry-specific analysis:

- Education
- Natural Resource Dependence
- Patent Applications
- Unemployment
- Compensation Costs
- Investment Incentives

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