

The Political Economy of United States Foreign Direct Investment in Developing Countries: An Empirical Analysis

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This paper presents an empirical analysis of United States foreign direct investment in developing countries. The results show that both economic and political variables have a statistically significant effect on U.S. direct investment in developing countries over countries and over time.

INTRODUCTION

A nation has three priorities in designing its foreign policy according to Karl Deutsch (1978). First, the country seeks to preserve its security and independence. Second, it pursues and protects its economic interests, especially those of powerful domestic interest groups. Finally, the nation attempts to spread its ideology. In his argument in support of the state-centered system, Krasner (1978) echoes Deutsch's first priority when he suggests that government officials protect and promote broad national security interests and thus develop a distinctive and autonomous set of preferences.

Trade embargoes and the granting or revocation of most favored nation status are two examples of the use of economic policies as instruments of foreign policy. Another example is the use of military and economic aid to achieve foreign policy goals. According to Guess (1986), many observers note the link between foreign aid and foreign policy, and "foreign aid is evaluated by the success of vague foreign policy doctrines such as 'containment' or 'frontiersmanship'."

Another instance of the use of economics as an instrument of foreign policy involves multinational corporations abroad. Bergsten, Horst, and Moran (1978, p. 324) discuss a neomercantilist interpretation of the relation between U.S. foreign direct investment (FDI) and American interests, where "the government uses the activities of business abroad to advance the interests of the state." Multinational corporations are vehicles that promote the free enterprise ideology of the western bloc and demonstrate its superiority over communism. Several authors discuss the linkages between United States' foreign direct investment abroad and United States' foreign policy.¹

The simultaneous effects of politics and economics upon foreign direct investment are obvious according to Schneider and Frey (1985), yet empirical investigations of this joint influence are insufficient. This insufficiency is due in part to the small number of

¹ For a discussion of U.S. foreign direct investment and American foreign policy, see Kudrle (1991), Spero (1990), Gilpin (1987), Rodriguez (1987), Baron (1983), Brennglass (1983), Krasner (1978), DeWitt (1977), Kindleberger (1974), Williams (1967), and Whitman (1965).

studies that incorporate both economic and political determinants of foreign direct investment. In addition, Schneider and Frey argue that the theoretical basis of these works is vague and the estimation methods awkward and difficult to interpret.

The empirical analysis of U.S. foreign direct investment presented here addresses the insufficiency noted by Schneider and Frey (1985) by incorporating independent variables designed to represent economic and political influences upon foreign direct investment. This study adds to the previous research because it analyzes U.S. foreign direct investment in developing countries instead of total foreign direct investment. A review of past studies provides a basis for the selection of the independent variables, which, in turn, provides a stronger basis for the empirical analysis. Some independent variables are included to represent a neomercantilist view of foreign direct investment. Combined cross-section, time series data for the years 1978 through 1986 show that both political and economic variables influence flows of U.S. foreign direct investment to 54 developing countries.

THE STATE AND AMERICAN FOREIGN DIRECT INVESTMENT ABROAD

The most important role a government plays in encouraging foreign direct investment is participation in loan and risk-sharing agencies, according to Whitman (1967). These agencies find investment opportunities and make them known to potential private sector investors. The government may control investment activities by using its own selective criteria to determine whether it will assist any given investor.

In his study of the Overseas Private Investment Corporation (OPIC, a risk-sharing government agency), Brennglass (1983, p. 261) concludes that "(OPIC) has always been immediately connected with U.S. foreign policy." OPIC is a government-administered program to guarantee American investors abroad against losses from political risks in host countries. Before 1970 several foreign aid agencies (some in the Department of State) administered this program. The enabling legislation provides for the Secretary of State to oversee OPIC's operations. By examining each application for insurance on a case by case basis, OPIC can encourage or discourage foreign direct investment to a particular country. It can channel investment to countries in which the State Department has a specific foreign policy interest.

DeWitt (1977) devotes a chapter to the relationships between the Inter-American Development Bank (IDB) and American foreign policy. According to DeWitt, economic integration was a fundamental part of United States' foreign policy in Latin America in the 1960s and 1970s. During the 1960s one condition of IDB loan assistance was its relationship to economic integration. DeWitt (1977, p. 53) cites a U.S. government official who, when asked about IDB loans in 1967, stated that "naturally the United States would offer to give greater assistance to those countries which advance toward greater integration with their neighbors." One way that the IDB encouraged U.S. foreign direct investment to Latin America was through the development of infrastructure. According to DeWitt (1977, p. 66), in testimony before the Senate Subcommittee on Foreign Operations and Related Agencies in 1975, John Porges, the executive director of the IDB, stated that "the infrastructure we (the IDB) have helped build in the underdeveloped countries has been a requisite for U.S. foreign investment ..." In addition, the IDB worked with Atlantic Community Group for the Development of Latin America (ADELA) to encourage U.S.

foreign direct investment flows to that area. At that time ADELA was a private organization financed by large American corporations that was designed to generate investment opportunities for U.S. businesses. An example of the ties between the IDB and ADELA is the \$10 million loan made by the IDB to ADELA in 1968 to finance small to medium range projects.

DeWitt (1977) also points to the development of pro-foreign direct investment infrastructure projects by the U.S. Export-Import Bank (Ex-Im) and the resulting link between Ex-Im and American foreign direct investment abroad. He cites a study published by Ex-Im (Hawthorne, 1953), which states that "the bank has often served as an instrument of U.S. foreign policy." Rodriguez (1987, pp. 136-137) also finds evidence to tie Ex-Im to American foreign direct investment, especially regarding the relationship between U.S. capital goods exports and U.S. foreign direct investment abroad. That is, by financing the exportation of American capital goods, Ex-Im encourages U.S. multinationals to go abroad. Baron (1983) cites several instances of Ex-Im activities tied to U.S. foreign policy interests. Rodriguez (1987) also discusses transactions that the bank financed because of political initiatives. For example, between 1962 and 1973 Ex-Im granted several loans to such countries as Saudi Arabia, Israel, and Iran at the request of the Department of Defense. These loans generally supported the sale of U.S. military hardware to these countries.

The foregoing discussion of three risk-sharing agencies, although by no means exhaustive, illustrates that ties between the U.S. government and foreign direct investment are both direct and indirect. The most direct influence exists via OPIC, through which the State Department can influence the decision to insure foreign direct investment and thus affect the foreign investment decisions of private U.S. businesses. Indirect influence exists via Ex-Im and IDB.

EMPIRICAL STUDIES OF FOREIGN DIRECT INVESTMENT: A REVIEW OF THE LITERATURE

Many economic studies of foreign direct investment focus on the characteristics of the firm in making its decision to invest abroad. (See the review by Agarwal (1980).) Others use characteristics of host countries as independent variables, e.g., Scaperlanda and Mauer (1969), Goldberg (1972), Lunn (1980), and Scaperlanda and Balough (1983). Their studies of U.S. foreign direct investment flows to Europe include such independent variables as market size and growth of market size in host countries, levels of protectionism in host countries, and capital control programs of the U.S.

According to Aharoni (1966, p. 44), a first step in the foreign direct investment process is estimating the market size of the host country. Because much foreign direct investment moves into a host country to be near its market, a larger market attracts more foreign direct investment, *ceteris paribus*. The four studies cited above use GNP and/or the growth of GNP as a measure of current or potential market size. In addition, Scaperlanda and Balough (1983) include the predicted value of sales of foreign affiliates of U.S. manufacturing foreign investors as a measure of market size. Market size has a significant, positive effect upon foreign direct investment in all four studies.

Previous studies include an independent variable designed to measure the effects of protectionism in the host country. This variable captures the importance of what Bhag-

wati, Dinopoulos, and Wong (1992, p. 3) refer to as "the classical, conventional case of tariff-induced direct foreign investment," also known as *tariff-jumping investment*. That is, firms engage in direct foreign investment in the host country to avoid facing protectionism as exporters. The proxy variables that measure protectionism in the Scaperlanda and Mauer (1969), Goldberg (1972), and Lunn (1980) studies involve the use of ratios including U.S. exports to the European Community (E.C.), world exports to the E.C., and intra-E.C. trade. The protectionism variable in Scaperlanda and Balough (1983:384) is a set of dummy variables designed to represent the gradual reduction in industrial tariffs within the European Community. Scaperlanda and Mauer (1969) and Goldberg (1972) find little support for the protectionism variable, while Scaperlanda and Balough (1983) and Lunn (1980) find it to be significant.

In their study of total foreign direct investment in seventy developing countries for 1966-1970, Root and Ahmed (1979) use discriminant analysis to analyze the determinants of foreign direct investment in developing countries. They find per capita GNP, the growth rate of GDP, the degree of economic integration, extent of urbanization, and development of infrastructure in host countries to be significant economic variables influencing the inflow of foreign direct investment. The only significant political variable is the number of regular, constitutional changes in government leadership, a proxy for political stability within the host country. Root and Ahmed base their choice of economic and political variables on a list of variables found in previous studies.

Schneider and Frey (1985) use ordinary least squares regression analysis on data from 54 developing countries for 1976, 1979, and 1980 to test their political-economic model of total foreign direct investment. They find real GNP per capita, the growth of real GNP, rate of inflation, balance of payments deficit, wage costs, and the educational level in host countries to be statistically significant economic variables. Statistically significant political variables are internal political stability, foreign aid received from communist countries, foreign aid received from western countries, and multilateral aid received. They give little theoretical justification for the inclusion of the foreign aid variables, except to say that "the amount of aid may therefore also be taken as an indicator of the host country's dependence on either the Communist or the Western bloc" (p. 166).

Green and Cunningham (1975) use data from 25 developing and industrialized countries in 1965 to test a model of U.S. foreign direct investment abroad. Using simple correlation analysis and stepwise regression, they find GNP, population, and rate of return to be statistically significant determinants of total U.S. foreign direct investment, while only GNP is significant for U.S. manufacturing investment abroad.

THE EMPIRICAL ANALYSIS

Our empirical analysis of foreign direct investment includes many of the same economic variables as the studies reviewed in the previous section. In addition to economic factors, U.S. foreign policy considerations affect U.S. foreign direct investment, and the government has several means to encourage or discourage foreign investment abroad, both in the aggregate and to certain countries or regions of the world. Therefore, this study includes independent variables designed to measure the influence of both economic and

political factors. In the empirical analysis, the dependent variable is the positive change in the U.S. direct investment position abroad.²

Per capita gross national product (GNP) of host country j is a measure of market size. As mentioned above, some measure of market size is a commonly used explanatory variable in empirical studies of foreign direct investment. According to Root and Ahmed (1979, p. 758), per capita income figures are superior to total income figures for developing countries because total GNP simply may reflect population size. The expected sign of the market size variable is positive.

Distance is the shortest navigable distance between the major port of host country j and the U.S. port city of New York, New Orleans, or San Francisco (whichever is closest). For host countries with ports, this distance is a direct measure from a Department of the Navy publication entitled *Distances Between Ports*. For landlocked countries, distance is the sum of the distance to the nearest port plus the distance from this port to the capital city of the landlocked country. One may expect distance between host and home country to have a negative effect upon foreign direct investment due to the increased transport cost of capital goods and employees. Alternatively, the distance variable may be negative if foreign direct investment is a substitute for international trade and distance deters trade between nations. Agarwal (1980) mentions distance as a deterrent to foreign direct investment, although few studies include it as an independent variable.

A skilled, productive labor force is attractive for foreign direct investment. This study uses the education level in the host country, as measured by the percentage of age group enrolled in secondary schools, as a measurement of the productivity of the labor force. The expected sign of this variable is positive.

Labor costs are the total earnings of labor as a percentage of value added in host country j . Schneider and Frey (1985, p. 162) cite a survey by Dunning (1973) in which entrepreneurs name low labor costs as an important factor affecting the foreign direct investment decision. Lower wages (other things equal, including labor productivity) will make foreign investment more profitable. The expected sign of this variable is negative.

The official value of the host country's currency against the dollar, measured by units of the host country's currency per dollar, is a proxy for the relationship between international trade and foreign direct investment. Cushman (1985) discusses the relationship between the level of exchange rates and foreign direct investment. If trade and foreign investment are substitutes, then a U.S. firm may sell abroad goods in country j either produced within the U.S. or produced in host country j . In this case, a low value of country j 's currency will make U.S. goods expensive in host country j , thus discouraging trade and encouraging U.S. foreign direct investment to country j . Therefore, the expected sign of the exchange rate variable is negative. On the other hand, if the goods produced by U.S. subsidiaries abroad use imported inputs, then a low value of host country j 's cur-

² According to the U.S. Department of Commerce, the U.S. direct investment position abroad is equal to U.S. parent companies' equity in, and net outstanding loans to, their foreign affiliates. To be considered direct investment (as opposed to portfolio investment), a single person must own at least 10 percent of the voting securities (or equivalent) of a foreign business enterprise. A person is broadly defined to include individuals, corporations, partnerships, associations, trusts, government agencies, etc. In this study only positive changes in the foreign direct investment position are included. Negative changes may be due to the repayment of loans by the foreign affiliate and/or the sale of the foreign affiliate to a non-American investor. This analysis is not designed to investigate the factors that cause negative changes in FDI.

rency will discourage U.S. foreign direct investment in country j . In this case, the sign of the exchange rate variable would be positive.

The remaining variables measure the effect of political variables on foreign direct investment. Economic and military aid, represent American foreign policy interest in host country j .³ Because the U.S. gives at least some economic aid for altruistic reasons, military aid is a better indicator of American national security interests in country j . The expected sign of both variables is positive.

OPIC assistance is the total amount of insurance plus loans granted by the Overseas Private Investment Corporation to U.S. companies investing in country j . Because the stated purpose of OPIC is to encourage U.S. foreign direct investment in friendly host countries, the amount of OPIC assistance given to country j is an indicator of the degree of j 's friendliness toward the U.S. In this context, *friendliness* means how closely country j follows the United States in international organizations and decisions. Friendliness is not a measure of the degree of democracy or freedom in country j . The expected sign of the OPIC variable is positive.

The foreign registrants variable measures the number of foreign agents registered with the United States Justice Department from host country j . According to Peter Levine, counsel to the United States Senate Subcommittee on Oversight of Government Management, a foreign agent is "any person who contacts a government agency or official on behalf of a foreign government or political party, a non-citizen outside the United States, or a company organized under foreign laws or having its principal place of business in a foreign country" (U.S. Senate, 1991). In many instances, foreign registrants are foreign lobbyists. According to Root and Ahmed (1979), most developing countries seek capital and technology from the industrialized countries. Therefore, one might expect the agents from developing countries to lobby for U.S. foreign direct investment. Kegley and Witkopf (1987, p. 278) note that in 1985 registered agents of foreign countries and firms spent over three times as much as domestic lobbyists. The expected sign of this variable is positive.

A dummy variable captures the United States' special interest in the western hemisphere, which has been obvious since the Monroe Doctrine. The variable has a value of one for Central American, South American, and Caribbean countries and a value of zero for all other countries. Because countries in the western hemisphere may receive more U.S. foreign direct investment, *ceteris paribus*, the expected sign of this variable is positive.

This analysis estimates the following equation, where all dollar amounts are measured in current U.S. dollars. Most of the independent variables have a lag of one year to reflect the time lag involved in decision making of the investor. That is, an investor will use information from a prior period ($t - 1$) in making his/her decision concerning investment in time period t . A time lag of one year assumes well-informed investors that can make changes in investment decisions in a relatively short period of time. The OPIC variable does not have a lag because OPIC assistance granted in year t affects foreign direct investment in the year t :

³ See, for example, Sewell and Contee (1991), Spero (1990), Guess (1987), Dudley and Montmarquette (1975), White (1974), Griffin and Enos (1970), Nelson (1968), and O'Leary (1967).

$$\begin{aligned} \ln \text{FOREIGN INVESTMENT}_{uj,t} = & b_0 + b_1 \ln \text{PER CAPITA GNP}_{j,t-1} + b_2 \ln \text{DISTANCE}_{uj} \\ & + b_3 \ln \text{EDUCATION}_{j,t-1} + b_4 \ln \text{LABOR COSTS}_{j,t-1} + \\ & b_5 \ln \text{MILITARY AID}_{uj,t-1} + b_6 \ln \text{ECONOMIC AID}_{uj,t-1} \\ & + b_7 \ln \text{OPIC ASSISTANCE}_{uj,t} + \\ & b_8 \ln \text{FOREIGN REGISTRANTS}_{ju,t-1} + \\ & b_9 \ln \text{EXCHANGE RATE}_{j,t-1} + \\ & b_{10} \text{WESTERN HEMISPHERE} \end{aligned}$$

The gravity model of international economic relations is the basis for the empirical analysis. According to Archer (1976, p. 29), gravity models originate in the physical sciences where "two bodies attract each other in proportion to the product of their masses and inversely by the square of the distance between them." Ferber's and Verdoorn's (1962, pp. 85-86) assertion that "interactions in economic life are often of geometric rather than of arithmetic form" is the basis for the use of gravity models in economics. The double logarithmic form of estimation ($\ln$ = natural logarithm) reflects this multiplicative relationship. Anderson (1979), Bergstrand (1985), and Summary (1989) use gravity models in the study of international economic relations. All gravity models include some measure of income and distance as independent variables. Other independent variables measure factors that either enhance or reduce economic interaction between countries.

EMPIRICAL RESULTS

Table 1 contains the results of ordinary least squares (OLS) regression analysis applied to combined cross-section, time series data from 54 developing countries in Latin America, Africa, and Asia from 1978 through 1986. Data availability is the basis for the selection of this time period. Data for U.S. foreign direct investment abroad are available for only a few countries prior to 1978. Data for labor costs and education are available for only a few countries after 1986. Appendix 1 contains the list of countries. Use of combined cross-section, time series data allows examination of the influence of economic and political factors upon U.S. foreign direct investment across countries and over time, rather than simple examination of selected countries on a case study basis. Combined cross section, time series data also allow larger numbers of observations.⁴

According to the F-ratio, the null hypothesis of $b_1 = b_2 = \dots b_{10} = 0$ is rejected at the .001 level, and the overall regression is significant. We assume that the error terms are independent over time, with a normal distribution, a mean of zero, and a common variance.

⁴ A potential problem with the use of combined cross section, time series data is the assumption that the intercept term is constant across countries and over time. This assumption may be tested using the covariance model, as outlined by Pindyck and Rubinfeld (1991, p. 224-226). An OLS regression analysis was done including T-1 + N-1 dummy variables. An F-statistic was computed from the error sum of squares of the original regression and the regression using dummy variables. The F-statistic of 0.52 indicates that the null hypothesis of a constant intercept cannot be rejected at the .001 level.

Table 1-The Determinants of Changes in U.S. Foreign Direct Investment Position

Independent Variable	Coefficient	Standardized Coefficient
Intercept	3.134** (2.129)	
GNP per capita in host country, current U.S. dollars	0.494** (2.958)	0.242
Distance between U.S. and host country, nautical miles	-0.001 (-1.147)	-0.089
Education level in host country, percent of age group enrolled in secondary schools	0.286 (1.449)	0.103
Labor costs in host country, wage costs as percent of total value added	-1.406** (-4.890)	-0.258
U.S. military aid to host country, current U.S. dollars	0.055 (1.411)	0.096
U.S. economic aid to host country, current U.S. dollars	-0.012 (-0.270)	-0.020
OPIC assistance to host country, current U.S. dollars	0.011 (0.685)	0.040
Number of foreign registrants of host country	0.587** (4.895)	0.295
Exchange rate, units of host country's currency per U.S. dollar	-0.062* (-1.921)	-0.097
Latin American dummy variable	-0.002 (-0.005)	-0.001
Adjusted R ²	0.440**	
F-ratio	(22.714)	

N = 276

Dependent variable: positive change in U.S. direct investment position, current U.S. dollars

** Significant at .01 level, two-tailed test

* Significant at .05 level, two-tailed test

Numbers in parenthesis below coefficients are t-ratios

Data sources:

Foreign direct investment—U.S. Department of Commerce, Bureau of Economic Analysis, *U.S. Direct Investment Abroad, 1977-81* and computer printout from Commerce Department for 1982-1985 data;Foreign registrants—U.S. Department of Justice, *Report of the Attorney General to the Congress of the United States on the Administration of the Foreign Agents Registration Act, 1978 through 1985*;Military aid and economic aid—Agency for International Development, *U.S. Overseas Loans and Grants, Series of Yearly Data*, volumes I-V, FY1946-FY1988;GNP, labor costs, exchange rates, education—World Bank, *World Tables*, 1988-89 edition;Distance—United States Department of the Navy, *Distances Between Ports, 1967*;OPIC assistance—*Overseas Private Investment Corporation Annual Report*, 1978 through 1985

All significant economic variables have the expected signs. As in all other empirical studies cited, market size has a positive impact on the flows U.S. foreign direct investment abroad.

High labor costs have a negative effect upon foreign direct investment flows. This finding is consistent with the results of Schneider and Frey (1985).

Exchange rates have a negative impact on U.S. foreign direct investment. This finding is consistent with the argument that U.S. foreign direct investment and trade are substitutes in developing countries.

Distance is not a significant deterrent to foreign investment flows. This result agrees with the results obtained by Green and Cunningham (1975).

Educational levels within a host country do not have a significant effect upon foreign direct investment. This finding is consistent with the results obtained by Green and Cunningham (1975) and Root and Ahmed (1979).⁵

The foreign registrants variable is the only significant political variable. This suggests that the presence of foreign registrants of the host country in the United States increases foreign direct investment, presumably through their lobbying efforts.

OPIC assistance is insignificant, perhaps in part due to the relative small amount of OPIC assistance compared to total U.S. foreign direct investment. For example, in 1986 total OPIC assistance, including insurance and loans, totaled about \$581 million, compared to outflows of U.S. foreign direct investment to developing countries of approximately \$7.3 billion.

U.S. military aid and economic aid are not significant. This agrees with the findings of Root and Ahmed (1979), but conflicts with the results of Schneider and Frey (1985).

The Latin American dummy variable is not significant, which indicates that Latin American countries do not receive more foreign direct investment by virtue of their geographical location.⁶

Standardized regression coefficients (beta weights) permit comparison of the relative effect of each independent variable upon the dependent variable.⁷ Beta weights are useful

⁵ The large number of insignificant variables may be due to inflated standard errors caused by multicollinearity. Matrix decomposition detects any possible multicollinearity; this is the method favored by Judge *et al.* (1982, p. 628) because this technique can identify which independent variables are linearly related and what effect these linear dependencies have on the variances of the estimated coefficients. This method requires the computation of the characteristic roots of the $X'X$ matrix, where X is the matrix of observations on the independent variables. Ratios of each characteristic root to the largest characteristic root are computed, resulting in condition numbers. According to Belsley *et al.* (1980), a high condition number (30 or more, with some exceptions) combined with two or more high variance proportions (.50 or higher) indicate that a linear relationship among the dependent variables exists that may affect the standard errors of the estimated coefficients. Matrix decomposition indicates multicollinearity between income, distance, education, military aid, economic aid, and labor costs. This may be responsible for lack of significance of the coefficients of some of these variables.

⁶ The White test, as outlined by Kmenta (1986) and Pindyck and Rubinfeld (1991), tests the null hypothesis of homoscedasticity (constant error variance). The test statistic is computed as the sample size, N , times the R^2 obtained by regressing the squares of the residuals on all the explanatory variables, their squares, and cross-products (Z variables). This statistic takes a chi square distribution with Z degrees of freedom ($Z = 65$). In this study the computed statistic equals 46.92 ($276 \times .17$). Therefore, the null hypothesis of constant error variance cannot be rejected at the .05 level.

⁷ The relationship between beta weights and unstandardized regression is shown as:

$$\text{Beta Weight} = \text{Unstandardized coefficient } (S_x/S_y)$$

when there are two or more independent variables measured in different units (e.g., dollars and miles). According to the beta weights, the foreign registrants variable is the independent variable that exerts the most influence upon U.S. foreign direct investment, followed by labor costs and GNP in the host country. These results indicate that the most important variable influencing U.S. foreign direct investment abroad is not one of the economic measures found in previous studies.

CONCLUSIONS

This analysis includes independent variables designed to measure the impact of United States foreign policy on outflows of foreign direct investment and test the accuracy of the neomercantilist interpretation of foreign direct investment. The regression results provide little support for this neomercantilist view. The number of registered foreign agents from country j exerts a significant impact upon U.S. foreign direct investment to country j , but none of the other political variables are significant. No definite conclusions may be drawn concerning the impact of these variables, however, because their lack of significance may be due to multicollinearity among the independent variables.

The results of this analysis are interesting because they show that both economic and political variables have a statistically significant effect on U.S. direct investment in developing countries over countries and over time. This provides an important addition to the literature, which has tended to focus on a case study approach.

There is much work left to be done in this area. Perhaps the direction of causation flows the other way; that is, U.S. foreign policy protects existing American foreign direct investment abroad. For example, more U.S. foreign aid may flow to countries with a large amount of U.S. foreign direct investment. This would be more in line with the neoimperialist model of foreign direct investment discussed by Bergsten. Also, one can argue that foreign registrants follow foreign investment; that is, a high level of U.S. foreign direct investment in country j encourages more registrants from country j . The causation between the dependent and several independent variables probably goes both ways. Future research could focus on an empirical analysis of the neoimperialist model. Also, further research might build a complete model which incorporates the two way causation between foreign direct investment and American foreign policy.

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where:

S_x = Standard deviation of the independent variable x ; and
 S_y = Standard deviation of the dependent variable y .

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APPENDIX—DEVELOPING COUNTRIES INCLUDED IN STUDY**Latin American/Caribbean**

Argentina
 Barbados
 Bolivia
 Brazil
 Chile
 Columbia
 Dominican Republic
 Ecuador
 El Salvador
 Guatemala
 Honduras
 El Salvador
 Mexico
 Nicaragua
 Panama
 Peru
 Trinidad and Tobago
 Uruguay

African

Algeria
 Egypt
 Morocco
 Tunisia
 Burkina Faso
 Central African Republic
 Ethiopia
 Gambia
 Ghana
 Kenya
 Lesotho
 Malawi
 Mali
 Mauritania
 Mauritius
 Nigeria
 Rwanda
 Senegal
 Tanzania
 Togo
 Zambia
 Zimbabwe

Asian

Bangladesh
 Hong Kong
 India
 Indonesia
 Malaysia
 Pakistan
 Papua New Guinea
 Philippines
 South Korea
 Sri Lanka
 Thailand

Middle Eastern

Israel
 Kuwait
 Oman