

FOREIGN CAPITAL, AID, AND GROWTH IN LATIN AMERICA

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ECONOMIC INTERDEPENDENCE among nations of the world has become enormously complex in recent years. Foreign direct investment and official foreign aid are important aspects of this interdependence. This article examines the effects of these resource flows on the economic growth of the host-recipient countries in Latin America. Foreign direct investment is undertaken by private firms (most of which are “multinational corporations”) in search for profits, while foreign aid is offered by the governments of more developed countries to those of less developed ones for political reasons. In recent years, however, the term “aid” has come to be used to connote total resource flows including foreign direct investment, although the latter is vastly different from official economic aid as to its origin, purpose, rationale, and effect. One unhappy consequence of this semantic confusion is that some students of economic development have treated “aid” as if it were a monolithic bundle of resources governed by the same logic of action and have argued that “aid” stimulates or hinders the economic growth of the recipient country. These arguments have now grown into a ferocious controversy involving uncompromising ideological positions. This article decomposes “aid” into foreign direct investment and official foreign aid, and purports to verify whether the host-recipient countries’ growth performance is statistically compatible with the widely accepted behavioral imperatives of private firms and of governments. (A country “hosts” foreign direct investment, while it “receives” official foreign aid.)

I. THE RATIONALE FOR FOREIGN DIRECT INVESTMENT

An overview of multinational corporations is desirable because they control a significant amount of foreign direct investment. A recent estimate of the world’s gross product is around \$3,000 billion, of which \$450 billion, or 15 per cent, is produced by multinational corporations. Harvey D. Shapiro writes for general readers:

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This [multinational] sector is growing at the rate of 10 per cent a year, faster than the economies of many nations, and Prof. Howard V. Perlmutter of the Wharton School has estimated that by 1985 some 300 giant multinational firms will produce more than half of the world's goods and services. [18, p. 20]

A study at the University of Oregon suggests that many factors are responsible for the decision of corporations to become multinational: ". . . expanded foreign demand, nationalistic attitudes and restrictions on exports and imports, to obtain raw materials, lower costs abroad, diversification, and to maintain supplier relations with a customer" [6, p. 15]. Raymond F. Mikesell and others consider increased profitability and expanding foreign markets the two major economic factors behind overseas investment [16]. But the extractive industries have no choice but to invest wherever they find the natural resources necessary for their survival. Earlier multinational firms were found in these industries, especially during the heyday of colonialism and imperialism of the nineteenth century. Whether in natural resources or in manufacturing, the supreme imperative is profitability for any firm investing abroad. Other factors must eventually be justified by this imperative, or tolerated in so far as this imperative is not violated.

Of course, operations in search for profits are extremely complex. This complexity may be appreciated with the help of a systems model schematized in Figure 1.

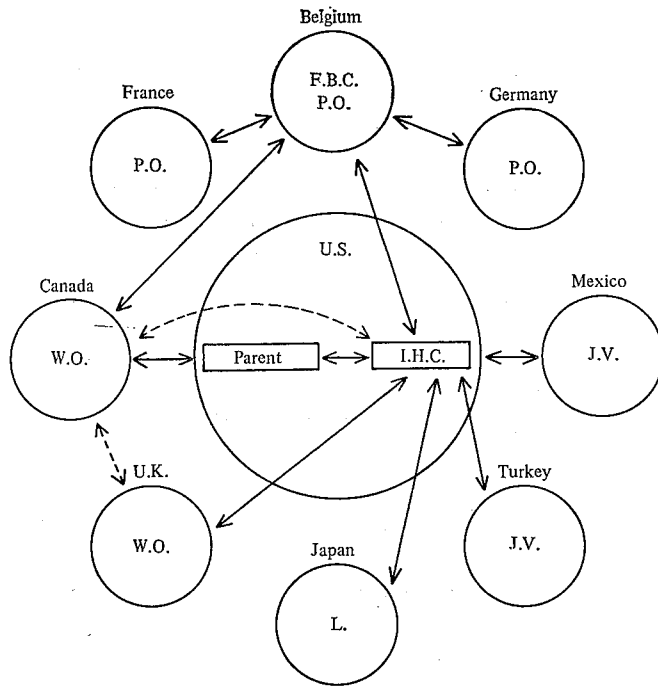
It may be observed that the multinational firm is a chain of companies operating under different national sovereignties, but at the same time under only one central management. The lines of managerial control clearly show that the parent company must look far beyond national boundaries in order to plan its continued expansion. Also, there are certain duties that each component of the multinational must perform. As Maule says:

From the parent company and its international headquarters flow direction and control in such functional areas as finance, research and development, production and marketing, in addition to the provision of assistance for capital outlays. In return, the foreign affiliates cooperate by sending back profits and technological and marketing information. [14, p. 6]

This systems model clarifies the operational structure of multinationals by supplying a picture of the multifaced organization we are dealing with. It also helps us grasp theories concerning foreign direct investment easily.

The multinationals regard nation-states as sales territories. They see the boundaries of nation-states as impediments to their profit objective and would rather like to see these boundaries eradicated. In contrast to the global perspective of the multinational firms, the governments of nation-states are concerned primarily with activities taking place within their boundaries. When they host branches or subsidiaries of the multinationals, they are at a disadvantage in bargaining with these firms, which can move their resources elsewhere in search for a more favorable business environment. This creates bad feelings on the part of nation-states. The removal of nonreproducible resources like minerals and oil adds to the atmosphere of bad feelings. Although nation-states are sovereign constituents of the international political community, their sovereignties are often compromised in return for

Fig. 1. Multinational Structural Arrangements



Legend:

- ↔ Managerial control
- ⇄ Operational cooperation
- W. O. Wholly-owned subsidiary
- P. O. Partially-owned subsidiary
- I. H. C. International headquarters co.
- J. V. Joint venture
- L. License
- F. B. C. Foreign-based company

Source: Isaiah A. Litvak and Christopher J. Maule, *Foreign Investment: The Experience of Host Countries* (New York: Praeger Publishers, 1970), p. 5.

economic gains from hosting multinational firms. Thus, nation-states' nationalism with emphasis on national pride and multinational firms' globalism with emphasis on economic gains often collide with each other, although nation-states can gain from the multinationals and the latter, too, can honor the national pride of their host countries without violating the imperative of profit-making. This conflict situation has given rise to a great many contradictory perceptions of relations between multinational firms and host countries.

A few quotations will illustrate the nature of the disagreement. The left contends that

United States private investment, aid programs, foreign policy, military assistance, military interventions, and international agencies, under the influence or control of the international business community are interwoven and oriented toward the promotion and maintenance of influence and control in these countries. These are the dimensions of imperialism. [7, p. 180]

Another example of leftist thinking is that

what matters in the present context . . . is the question whether the economic surplus generated and invested in the underdeveloped countries has made a significant contribution to those countries' economic development. Even on the most favorable interpretation of the record such a claim can hardly be sustained. [5, p. 179]

On the right we have the following:

. . . the United States investors can derive considerable satisfaction from the evidence of the major contributions that they are collectively making to the growth and development of that region [Latin America]. [15, p. 8]

Similarly, the stand of the right is supported by this statement:

. . . it is above all important to note that the capital contributions made today by the developed countries to the progress of less developed countries bears no trace of exploitation, [and that] on the contrary, the less developed countries have, in many cases, been the only ones to benefit from this capital. [10, p. 52]

With few exceptions, most economists agree that outside capital is useful for stimulating economic development in less developed countries (LDCs). The basic reasoning is that the external capital will supply LDCs with a missing factor (or factors) of production. These factors would include funds, equipment, management skills, technology, resources, or entrepreneurship. Once this has been accomplished, production would increase because of a new product being introduced or the expansion of sales of existing products, and the rise in factor payments. This would then be reflected in higher gross national product in the host country. Therefore, according to this reasoning, growth rates would increase at a faster rate than if the foreign capital inflow was not available. The effectiveness of external resources, however, depends upon the timing of their inflow. There is no universal agreement on this score. Guth states that countries he terms "new countries" (mostly the South American countries) are the only ones ripe for private capital imports on a large scale [10, p. 63]. Albert O. Hirschman, on the other hand, makes exactly the opposite observation because he feels that external capital flows are noxious in the intermediate stages of development which he says characterize Latin America [12, p. 8]. Thus there is a conflict as to when foreign direct investment should flow to LDCs. Considerable foreign direct investment has already been made in LDCs. Whether this has fallen on good or bad timing is an empirical question that a careful evaluation alone can determine.

II. EFFECTS ON BUSINESS ENTERPRISES IN HOST COUNTRIES

With the introduction of foreign capital technology and skills by multinationals, internal economies accrue to the subsidiaries and affiliates of these multinationals.

These internal economies result in cost-reduction, which reduces prices and increase sales. The economies may also spill over to indigenous firms as "external" economies.

Of course, the efficiency of foreign firms may also create external diseconomies. As Albert O. Hirschman, William Rogers, and others have brought out, a "stunting effect" may take place in the LDC. This implies that indigenous firms find themselves competing in the same market against foreign companies which enjoy better technology, newer equipment, and greater access to funds (local and international). Hirschman defines this as the "American challenge," and sees the overwhelming advantages of foreign entrepreneurs leading to monopolistic control [12]. This may mean that foreign businesses can recover their investments in a short period of time by large profit remittances which would gravely affect an LDC's economic structure. A view similar to Hirschman's is proposed for a different context by V. N. Bandera, who states that "in Poland, overconcentration of foreign capital and dependence of skilled personnel on the availability and favors of foreign capital seemed to have discouraged local entrepreneurship" [3, p. 139].

Closely related to this theory is the hypothesis of polarization in an LDC's economy. The foreign investor, because of the advanced technology and larger funds available for investment, can control the more sophisticated, dynamic industries, especially manufacturing, while the local businessmen must be content with the more traditional, less sophisticated industries. This polarization may also hinder the growth of a viable indigenous bourgeoisie which would be necessary for any meaningful industrial growth. This refers to the economic necessity of having a dynamic bourgeoisie to stimulate growth through greater investment and more efficient management. Hirschman also points out that foreign investors in monopoly control get into the position of being "mousy." This restraint leads to trouble because it deprives the LDC policy-makers of guidance, pressures and support needed to push through required development decisions and policies [12, p. 7].

An interesting aspect of external economies owing to foreign direct investment is the following suggestion:

The increased production in a given industry will give rise to a demand for greater supplies of raw material, improved labor skills, power facilities, better roads and transportation for the materials and finished products. These demands, when met, will bring forth a supply of economic overhead facilities which will be useful to a wider range of industries than those receiving the foreign resources. [16, p. 149]

This idea may seem both simple and reasonable in an economic sense, but again with respect to LDCs, much of basic economic thought is subject to debate. Paul Baran suggested that the host government will build infrastructures to give the idea of "harmonious cooperation" which might be taken as a synonym for creating a good "investment environment." But the benefits are then reaped by the foreign firm because these "auxiliary facilities" are auxiliary to only the export-oriented business, and the external economies stemming from them benefit only the production of more raw materials for export [5, pp. 192-93]. Herbert Frankel supports this idea by saying that ". . . history of such 'investment' in Africa and elsewhere affords many examples of railway lines, roads, ports, irrigation works, etc., in the 'wrong places' which not only failed to lead to income-generating development,

but actually inhibited more economic development which might otherwise have taken place" [5, p. 194].

These infrastructures may, inadvertently, give rise to "foreign enclaves." These enclaves support the point made earlier that foreign investors may control critical growth enterprises that directly affect an LDC's growth. Equally important to the LDC is that these enclaves will attract job seekers from the countryside who may end up as unemployed migrants. This rural-urban migration may create extensive slums in the industrial cities. This becomes an added burden on the LDC's government in the way of welfare subsidies and the like. These enclave activities may compound the problems of economic dualism discussed earlier, because, besides the immigrant labor, skilled personnel and industrial capital will be attracted to the enclaves. This would then deprive the vacated region of necessary growth components. As an additional thought to the labor question, proponents of foreign subsidiaries say that they hire "native" people and this increases national income. Thus the markets widen and support further economic expansion. However, this hypothesis is attacked on the grounds of iniquity due to the accentuation of dualism between the "modern" sector built around foreign direct investment and the poorer, rural sectors of the country.

Peter Ady voices skepticism with respect to wage differentials. He feels that ". . . the effect of private overseas investment may be not only to raise inequality but to weaken the domestic government (whether to the advantage of the Left or the Right). It is certainly true that high wage rates in the towns do tend to exacerbate income differentials" [1, p. 29]. This then may lead to serious unrest among the indigenous population, causing the host government political problems. Also, with the new consumer demand, products which do little to assist development (i.e., Coca-Cola, Gillette razor blades, etc.) may be produced due to advertising campaigns. Thus a demand may be artificially created for consumer goods which may be a luxury the LDC can little afford. This has led to increasing sensitivity, both emotional and political, toward foreign investment.

In summary, this section has highlighted the enormous variety of views and conjectures that threatens anyone trying to analyze the question of foreign direct investment. The national economy of an LDC may be viewed as consisting of the foreign enterprise sector and the indigenous sector. If the foreign enterprise sector realizes internal economies in firms affiliated with foreign corporations and at the same time produces net external economies for the indigenous sector, the whole national economy of an LDC can gain. But if the internal economies of foreign affiliated are offset by net external diseconomies suffered by indigenous firms, one cannot be too sure about the benefits of foreign direct investment to the host economy. Eventually, such ambivalent cases must be judged empirically on the merit of each case.

III. THE EMPIRICAL EXPERIMENT

In the light of diverse views about the rationale for foreign direct investment (Section I above) and the consequences of such investment in host countries (Section II), it

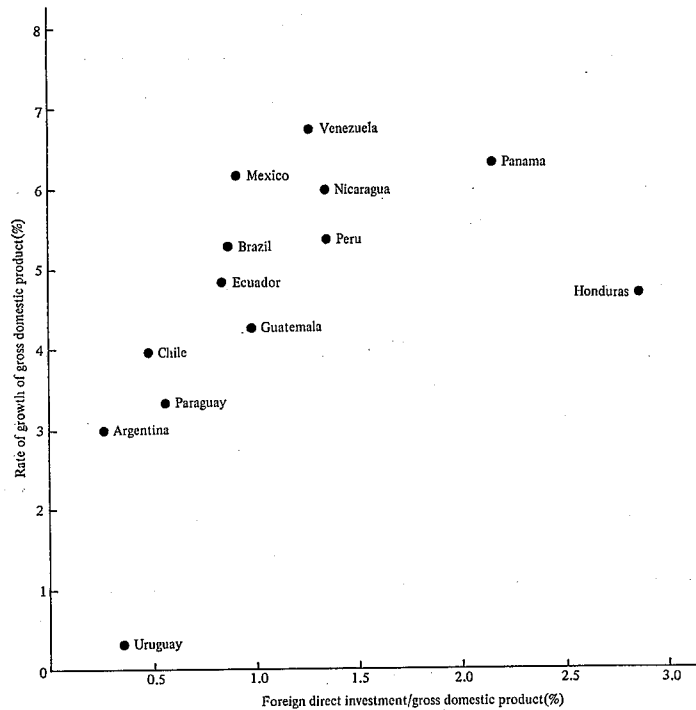
is easy to be bogged down in minutiae without even beginning to answer the question: Does foreign direct investment *generally* help or hinder the economic growth of the host country? As an aid to further discussion, therefore, we propose to look at the growth performance of several Latin American countries over a period of time and to inquire whether inter-country differences in growth may in any way be related to concurrent differences in the amount of foreign direct investment hosted. If the rationale for foreign direct investment is profitability, foreign firms must be interested in the economic growth of their host countries. Over a period of time which is long enough to allow entry and exit (that is, economists' "long run"), therefore, foreign direct investment should be found in greater amounts in fast-growing countries than in slowly-growing ones. This hypothesis follows from Section I above. On the other hand, if foreign firms create, however unintended, negative externalities which are debilitating to indigenous firms in amounts that are not made up for by the growth of the "modern sector" built around foreign capital, slower overall growth may be found in countries hosting larger amounts of foreign direct investments. This possibility emerges from Section II above.

A most uncompromising interpretation of inter-country comparative data on rates of economic growth and foreign direct investment (though subsumed under "aid" including both official foreign aid and foreign direct investment) is made by K. B. Griffin and J. L. Enos [9, pp. 313-27].¹ They set the rates of growth of gross national product against the ratios of "aid" to gross national product for twelve Latin American countries for the period of 1957-64 and find that the two variables are inversely correlated. They interpret this to be indicative of the adverse effects of "aid" on the economic performance of the recipient country. Griffin and Enos are particularly emphatic about the deleterious effects of foreign direct investment on economic growth in much the same manner as some of the arguments introduced in Section II above. The relationship between foreign direct investment and economic growth in Latin America that we present in this section is different from the Griffin-Enos relationship between "aid" and growth, giving rise to a different interpretation of the role of foreign direct investment in Latin America. This is due to three factors: (1) some of our thirteen countries are different from some of the twelve of Griffin and Enos; (2) our period, 1950-68, is much longer than theirs, 1957-64; and (3) we have separated foreign direct investment from "aid."

How foreign direct investment is correlated with economic growth may be seen from Figure 2. The correlation coefficient is 0.66, which is highly significant. This indicates, by the logic of Griffin and Enos, that the economies hosting larger amounts of foreign direct investment tend to grow faster than those hosting smaller amounts of such investment. Or it may also indicate that foreign direct investment tends to go into countries growing faster (because markets are opening up faster in such countries) rather than into those growing more slowly. Causality ultimately depends upon analytical judgment which we shall discuss after certain preliminary quantitative experiments are undertaken.

¹ See for the comments by C. Issawi, M. Kellman, and S. Rottenberg and the author's reply *Economic Development and Cultural Change*, Vol. 20, No. 1 (October 1971).

Fig. 2. The Relation between the Rate of Growth of Gross Domestic Product and the Ratio of Foreign Direct Investment to GDP for Thirteen Latin American Countries, 1950-68



A similar pairing of foreign aid and economic growth (though not presented graphically here) shows virtually no correlation. This is rather gratifying because there is no *prima facie* reason to expect that foreign aid should be correlated with the economic growth of the recipient country. If political reasons are predominant in the selection of recipients and in the determination of the amount, it would be natural that aid is little correlated with economic variables like growth. In view of the high correlation between economic growth and foreign direct investment and of no correlation between economic growth and foreign aid, we begin to see that the direction and volume of foreign direct investment are probably guided by economic rationality concerning returns to investment.

In an attempt to explore statistically relations between economic growth and foreign direct investment, we experiment with two ways of looking at them. One is to "explain" economic growth with foreign direct investment as one of the "explanatory" variables (Subsection A below). The other is to "explain" foreign direct investment by economic growth and other variables (Subsection B below).

A. *The Explanation of Growth*

It is well known that economic growth can be explained in terms of capital forma-

tion, increases in the labor force, and changes in the quality of factors of production [11, Part 2]. This explanation is exhaustive, but any empirical specification of this principle must be partial because it is difficult, if not impossible, to capture all the variables that impinge upon those three broad elements in terms of which growth is explained. The value of this principle to us is that it can be adapted to appropriate forms of quantitative statements for explanations of inter-country differences in growth performance [8]. This means that different growth rates among countries may be attributed to differences in the rate of capital formation, labor force increases, and factor-quality changes.

Foreign aid and foreign direct investment enter into the explanation of economic growth as components of capital formation. The sources of capital formation are two, domestic and foreign, while the foreign sources in turn consist of aid and investment. Thus we write:

Economic growth = Function of (domestic capital formation, foreign aid, foreign direct investment, labor force increases, and changes in other variables).

To operationalize this for a cross-country regression analysis, we have prepared data on the rate of growth of gross domestic product in constant prices, gross domestic capital formation as a percentage of gross domestic product, foreign aid and foreign direct investment as similar percentages, the rate of increase in the labor force, and rates of change in other variables, on an annual basis for the period of 1950 to 1968 for thirteen Latin American countries [2] [4] [13] [21] [22]. The number of countries is limited by the requirement of simultaneous availability of data on all the variable useful to our experiments, especially by the availability of data on foreign aid and foreign direct investment. The thirteen countries are Argentina, Brazil, Chile, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. Ten of these countries are also among the twelve used by Griffin and Enos. The two that make the difference are Colombia and El Salvador. In their place and with one more addition, we have Brazil, Panama, and Uruguay.

Table I presents some of the essential statistical results of the growth function mentioned above. Equations involving foreign aid are not presented because it adds very little to the "explanation" as measured by its contribution to the *R*-squared. Equations 1 and 2 indicate that capital formation alone "explains" 14 per cent of inter-country variations in economic growth, while the labor force increase by itself "explains" 45 per cent of such variations. The *R*-squared for capital formation is barely significant at the 80 per cent level of probability, too low to be accepted as a non-random relationship between this and economic growth. The correlation coefficient is .37. Of course, the low cross-country correlation between economic growth and capital formation is nothing new. It has been ascertained by many before [11, p. 183]. However, this does not mean that capital formation is *not* important. It only means that many factors other than capital formation are involved in the process of economic growth.

According to Equation 3, more than half of the inter-country differences in economic growth are "explained" jointly by gross domestic capital formation and the labor force increase. By adding foreign direct investment as one more explana-

TABLE I
CROSS-COUNTRY REGRESSION EQUATIONS RELATING ECONOMIC GROWTH
TO CERTAIN EXPLANATORY FACTORS, FOR 13 LATIN AMERICAN
COUNTRIES, BASED ON ANNUAL AVERAGES FOR 1950-68

Equation	Constant Term	Gross Domestic Capital Formation	Foreign Direct Investment	Labor Force Increase	Crude Death Rate Reduction	R ²
1	1.512	0.209 (0.153)				0.1448
2	1.937			1.349 (0.446)**		0.4546**
3	-0.887	0.193 (0.113)		1.317 (0.412)*		0.5774**
4	-1.247	0.163 (0.091)	1.345 (0.518)**	1.031 (0.346)*		0.7586*
5	-1.349	0.156 (0.057)*	0.872 (0.346)**	0.551 (0.249)**	-0.744 (0.192)*	0.9161*
6	-1.168	0.172 (0.071)**		0.604 (0.314)	-0.915 (0.227)*	0.8494*

Note: Figures in the parentheses are standard errors of the regression coefficients. Asterisks attached to standard errors and *R*-squareds stand for significance levels: one for 99 per cent level, two for 95 per cent level. The significance levels of the coefficients and *R*-squareds without asterisks are lower than the 95 per cent level.

tory variable, the "explanation" of inter-country differences in economic growth increases as indicated by the rise in the *R*-squared from 58 per cent to 76 per cent. (A hundred per cent of the *R*-squared is the "perfect explanation.") Table I shows that the proportion "explained" improves as one moves from (1) or (2) to (3), and thence to (4), adding one more variable as one goes. We now add one more variable that is considered relevant to economic growth via its possible effect on the improvement of the quality of labor, i.e., the decline in the crude death rate. The proportion "explained" of inter-country differences in economic growth (the *R*-squared for Equation 5) rises to 92 per cent. The value of the *R*-squared is significant at the 99 per cent of probability, a strong indication of non-random (that is, systematic) relationships between economic growth and other variables. The regression coefficients also meet the usual standards of "significance" at least at 95 per cent. It is interesting that the coefficient for capital formation is highly significant in Equation 5, in contrast to its low significance in Equations 1, 3, and 4. This probably means that as other variables take up their shares of "explanation" for inter-country differences in economic growth, the relationships between capital formation and economic growth become more sharply defined than formerly.

Foreign direct investment in Equations 4 and 5 shows rather tight (that is, statistically "significant") relationships with economic growth. Its contribution to the "explanation" of inter-country differences in economic growth may be seen by comparing equations with it and without it, the other things remaining the same, such as Equations 3 and 4, or 5 and 6. The *R*-squared rises from 58 per cent to 76 per cent between Equations 3 and 4. It rises from 85 per cent to 92 per cent when one moves from Equation 6 to Equation 5. The contribution of foreign direct

investment in the latter case seems smaller, but the test shows it is still significant. It may be seen that the decline in the crude death rate is an enormously powerful variable as indicated by how the *R*-squared improves between Equation 3 and Equation 6 by the addition of this variable to the computation. It is interesting that when all the variables shown in Table I and a few more are used simultaneously (only a reckless computational pastime), the variables that survive at least at the 95 per cent of probability are capital formation, foreign direct investment, and the decline in the crude death rate. Moreover, throughout the computation, the decline in the crude death rate is most frequently significant at the highest probability level, followed by foreign direct investment and then by capital formation. Whether this means anything on theoretical grounds is questionable, but it may be a permissible statement to say that inter-country differences in economic growth in Latin America are reasonably explained (that is, with a high degree of probability) by concurrent differences in capital formation, foreign direct investment, and labor-quality changes. One may also note that the sheer quantitative change in the labor force sometimes drops out as a significant "explanatory" variable in the presence of other powerful variables.

One interesting characteristic of foreign direct investment suggested by Equations 4 and 5 in Table I is that it is many times more productive than domestic capital formation. A unit of foreign direct investment produces nearly a unit of domestic product, but a unit of domestic capital formation produces about one-sixth of a unit of domestic product. (This can be seen by comparing the sizes of coefficients of the two factors in Table I, bearing in mind that each factor is expressed as a percentage of gross domestic product such as $\Delta Y/Y$, I_d/Y , and I_f/Y where Y , the common denominator, refers to gross domestic product, ΔY to an increase in Y , I to capital formation or investment, d to domestic, and f to foreign.) This is understandable because domestic capital formation includes social overhead capital and residential construction the productivity of which is at most indirect, while foreign capital in search for profit goes directly into profit-producing, and therefore directly productive, activities. The weak relationships between foreign aid and economic growth may be recalled in this connection. This may indicate that much of foreign aid, in addition to being politically determined as to its volume and direction, goes into the formation of social overhead capital rather than into directly productive activities. But since social overhead capital is necessary for making direct production profitable, one should not despair of the apparent low productivity of gross domestic capital formation or of foreign aid. It is because social overhead capital is being built and expanded that the activities directly related to the market can be profitably carried on.

B. *The Explanation of Foreign Direct Investment*

Of course, correlation is not causation. The reasonable efficiency of foreign direct investment as an explanatory variable for inter-country differences in the rate of economic growth as ascertained by Table I may also indicate that foreign direct investment is attracted in greater amounts by fast-growing countries than by slowly-growing ones. That is, inter-country differences in the hosting of foreign

direct investment relative to the size of the domestic economy may also be "explained" by differences in the relative attractiveness of markets, as indicated by different rates of economic growth. This would make more sense as a statement of causation because it is understandable that investors put their capital in promising markets, while it strains the imagination that investors choose any economy at random but cause economic growth to take place in it once they are there. One may therefore wish to experiment with foreign direct investment as the dependent variable and others as independent. Table II presents some of the results of this experiment.

TABLE II
CROSS-COUNTRY REGRESSION EQUATIONS RELATING FOREIGN DIRECT
INVESTMENT TO CERTAIN EXPLANATORY FACTORS, FOR 13 LATIN
AMERICAN COUNTRIES, BASED ON ANNUAL AVERAGES FOR 1950-68

Equation	Constant Term	Economic Growth	Foreign Aid	Gross Domestic Capital Formation	Labor Force Increase	R ²
1	-0.002	0.222 (0.076)**				0.4339**
2	-0.370	0.211 (0.061)*	0.386 (0.141)**			0.6765*
3	-0.294	0.239 (0.085)*		-0.025 (0.047)		0.4497
4	0.064	0.273 (0.106)**			-0.151 (0.212)	0.4613**

Note: See Table I.

Firms looking for investment outlet are concerned about the profits they can make from such investments. The indicator of the easiest access would be the rate of growth in various countries, because economic growth at least suggests how fast the markets for goods and service are expanding. Equation 1 in Table II suggests that economic growth alone "explains" more than 40 per cent of inter-country differences in the hosting of foreign direct investment in Latin America. Of other variables that can be combined with economic growth to "explain" foreign direct investment, only one (foreign aid) is found statistically significant.

Other equations (3 and 4) indicate that foreign direct investment does not respond to the rate of domestic capital formation or increases in labor supplies. However, foreign direct investment does go into countries which are receiving more foreign aid. Economic growth and foreign aid explain nearly 70 per cent of inter-country differences in foreign direct investment. Computations with other variables are found to be unable to improve the "explanation" (*R*-squared) beyond the level attained by Equation 2 while remaining statistically "significant" at the same time. In terms of the economic reasoning of the investing firms, it seems natural that they should invest more in growing countries, but it somehow eludes the economic rationale that they should be found investing more in countries which are receiving more foreign aid, even though these are not necessarily fast-growing countries. (As

indicated in connection with Table I, there is no statistical correlation between and aid).

When we wondered about this relationship between aid and investment with the help of the behavioral logic based on the profit motive of private firms, a hypothesis suggested itself. The proof of it would be difficult, but it may meet the test of reasoned conjecture. According to the hypothesis, foreign aid is primarily political and has no *prima facie* reason for its high susceptibility to economic explanations, but firms thinking of investment outlet in another country might consider the prospective host country's ability to obtain aid from their own country as an indicator of safety and trust that they might enjoy in the course of their economic activities in that country. In other words, the aid-receiving country probably meets the criteria of "good behavior" by standards of the country where the investing firms are based. It may be political reasons that the U.S. government, for example, desires to help a certain Latin American country. But to the extent that this is reciprocated by the aid-receiving country's friendly attitudes toward the United States, U.S. firms would consider that country an attractive area for investment. And, given time, the U.S. investment may be contributing toward economic growth in the host country.

A simplified scheme of possible interrelations among foreign aid, foreign direct investment, and the economic growth of the host-recipient country appears to be as follows: The U.S. government given official foreign aid to a country in Latin America; that country ensures safety for the activities of U.S. firms; the investment by the latter becomes an important part of the growth process of the country; official foreign aid may be phased out after some years; but the growth momentum continues with more and more U.S. investment attracted to that country. If official foreign aid and foreign direct investment are in such complementary relations in several Latin American countries, a high inter-country correlation between economic growth and foreign direct investment over a period of time is quite likely, while foreign aid is politically too volatile to show any strong correlation with such an eminently economic variable as the rate of economic growth. Interpreted in this way, the apparent lack of correlation or even an inverse correlation between foreign aid and economic growth does not mean that aid contributes nothing, or becomes an obstacle, to the economic growth of the recipient country. One may even conjecture that slowly-growing countries may deploy their diplomatic skills for soliciting foreign aid as an initial prop for economic growth and for the attraction of foreign direct investment. This turns the table completely around against Griffin and Enos.

CONCLUSION

Peter G. Peterson suggests that the problem of the Twentieth-Century Man is "how to be comfortable with ambiguity" [17, p. 5]. But it is nevertheless desirable to reduce the margin of ambiguity where possible. In this article, we have noted that the literature on the relations among foreign direct investment, foreign aid, and economic growth in host-recipient countries is full of ambiguities and ambivalences [20, pp. 17-24]. Rejecting any high-handed a priori arguments, we have only tried

to evaluate these difficulties within the limits of available data and with due respect to the calculus of ambiguity, namely, statistical probability. Our conclusion can be summarized by two basic principles: (1) foreign direct investment is made for profit and (2) foreign aid is predominantly political. The first principle predicts a symbiosis of foreign direct investment and economic growth in the host country, because economic growth is an environment favorable to profit-making. The second principle is comforting when economic reasoning alone fails to account for the direction and volume of foreign aid. The empirical test on the basis of Latin American experiences in the 1950s and 1960s bears out the predictions from these simple basics. We may therefore strike a modest note by saying that foreign direct investment has not hindered the economic growth of Latin American countries and that the politics of foreign aid has not been so irrational as to cancel the compatibility of foreign direct investment with economic growth. While this note may not sound world-shaking, it is astonishingly positive when juxtaposed with many variants of a negative view against foreign direct investment and foreign aid as something decidedly deleterious to host-recipient countries. Of course, our conclusion does not say that the contribution of foreign direct investment toward host-country growth has been maximized or that foreign direct investment has not accentuated the dualism of host-country economies. It only says that despite the less-than-maximum use of profits from foreign direct investment for host-country growth and even despite the possibility of an accentuated dualism in these countries [19, pp. 103-18], *overall* economic growth as observed through gross domestic product has not been hindered by foreign direct investment.

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