

# **DOES OLD-FASHIONED FOREIGN AID STILL HAVE A PLACE IN THE TWENTY-FIRST CENTURY? CORROBORATIVE EVIDENCE**

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## **ABSTRACT**

*This study investigates the impact of foreign aid on the economic growth of recipients in less-developed countries. Using a sample of 81 of these countries over a ten-year period (1990-2000), this study reveals that foreign aid has a negative and insignificant impact on their economic growth.*

## **INTRODUCTION**

Foreign aid is granted for different purposes: humanitarian and disaster relief, military and security assistance, and development aids. For example, the United States, the largest contributor, provides about \$14 billion a year in federal funding to these projects. Of this \$14 billion, 38 percent is allocated to disaster relief, humanitarian assistance, security assistance, and military aid. Approximately 53 percent of the entire foreign aid budget is dedicated to development and economic aids, either bilaterally or through multilateral institutions. Another 5 percent is parceled as corporate welfare through various export promotion programs. The remaining 1 percent goes to supporting foreign aid programs. However, these programs have failed to

help Less-developed countries (LDCs) develop economically (Johnson & Schaefer, 1997).

The Organization for Economic Cooperation and Development (2002) reported that development assistance from western nations was \$56.378 billion in 1999, \$53.058 billion in 2000, and \$51.353 billion in 2001 (see Appendix 1). In addition, \$1.4 trillion was transferred from developed countries to (LDCs) as foreign aid between 1960 and 1996 (*The Economist*, 1996). Such foreign aid from western nations can increase the welfare of both the recipient and the donor country. Foreign aid serves as an enforcement mechanism in the absence of any global organization that can rule on private contracts across borders. Foreign aid is not motivated by altruism in all cases. The rich country provides aid only if doing so increases its utility. If an altruistic motive to alleviate poverty is also present, this will result in an increase in aid and thereby further enhance the poor LDC's welfare (Villamil & Asiedu, 2001).

On the other hand, several researchers (e.g., Clad & Stone, 1993; Islam, 1992; Griffin & Enos, 1970; Boone, 2002) demonstrated that despite this huge amount of foreign aid received by many LDCs, there is no real evidence to prove that these resources improved their economic growth. In contrast, they are worse off today in terms of economic growth, poverty, and disease than they were in the 1960s. Recognizing that foreign aid may not contribute much to the economic development of LDCs, many authorities involved in the foreign aid business are calling for a shift in the orthodox ways of aiding these countries (Schmitz, 1996). Despite this realization, the clamor for foreign aid to LDCs continues unabated (Bowen, 1995; Dhakal, Upadhyaya & Upadhyay, 1996; Tanner, 2002).

However, it is appropriate that before we suggest the replacement of foreign aid by other types of capital inflows (foreign direct investment, portfolios, foreign loans, etc.), a proper investigation of the relative impact of foreign aid on the economic growth should be conducted. This study utilizes an extensive data set covering 81 LDCs over a ten-year period (1990-2000) in order to determine the effects of foreign aid on the economic development of LDCs.

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## BACKGROUND OF THIS STUDY

This section includes a brief classification and description of the world countries. In addition, it includes selected studies for and against foreign aid.

### **World's Classification and Description**

Chaliand (2002) classifies the whole world into four categories: The "First World" is the developed world including the United States, Canada, Western Europe, Japan, Australia, and New Zealand. The "Second World" was the Communist world led by the Union of Soviet Socialist Republics (USSR). With the demise of the USSR and the communist block, there is no longer a Second World. The "Third World" is the underdeveloped world-agrarian, rural and poor. Many Third World countries have one or two developed cities, but the rest of the country is poor, rural and agrarian. Eastern Europe should probably be considered Third World countries. Russia should also be considered a Third World country with nuclear weapons. China, has always been considered a Third World country, and still is. However, the term Third World is not universally accepted. Some prefer other terms such as non-industrialized countries, underdeveloped countries, less-developed countries, or emerging nations. The term "Third World" is probably the one most widely used in the media today.

In general, Latin America, including Mexico, Africa, and most of Asia are still considered Third World. The Asian tigers-South Korea, Taiwan, Malaysia, Indonesia, Thailand (except for their big cities, their maquiladora-type production facilities, a small middle class and a much smaller ruling elite) should probably be considered Third World countries because their populations are overwhelmingly rural, agrarian and poor. Some of the very poorest countries, especially in Africa, are sometimes termed the "Fourth World". These have no industrialization, are almost entirely agrarian (subsistence farming), and have little or no hope of industrializing and competing in the world marketplace. The oil-rich nations (Algeria, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Saudi Arabia, the United Arab

Emirates, and Venezuela) and the newly emerged industrial states (Taiwan, South Korea, and Singapore) have little in common with desperately poor nations (e.g., Haiti, Chad, Afghanistan, and others).

The underdevelopment of the Third World is characterized by a number of common traits: (1) Little or no advanced technology and economy; (2) Economies distorted by their dependence on the export of primary products to the developed countries in return for finished product; (3) High population growth, (4) Widespread poverty; (5) High rates of illiteracy; (6) High rates of disease, and (7) Traditional and rural social structures. Nevertheless, the Third World is sharply differentiated; it includes countries on various levels of economic development. Despite the poverty of the countryside and the urban shantytowns, the ruling elites of most Third World countries are wealthy.

Whatever economic development has occurred in the Third World, it has not been distributed fairly between nations or among population groups within nations. Most of Third World countries that have managed to achieve substantial economic growth are those that produce oil: Algeria, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Saudi Arabia, the United Arab Emirates, and Venezuela. Other important raw materials are also produced by underdeveloped countries, but even strategic raw materials like copper and bauxite are not as essential to the industrialized countries as oil. Indeed, among the countries that do not receive oil revenues, only Brazil, the Ivory Coast, Singapore, South Korea, and Taiwan have enjoyed significant economic growth. Because the underdeveloped nations are collectively so weak, the so-called "new economic order" proposed by some of them will probably remain a phrase, and no more, for the foreseeable future.

While Khor (1999) revealed that about 80 of LDCs (the majority of them being African and Latin American) fell into a debt trap and under the sway of the World Bank (WB) and the International Monetary Fund (IMF), the WB (2001) increased the number of severely indebted countries to 88. Out of the 88 countries, 81 are included in this study.

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## STUDIES SUPPORTING FOREIGN AID

Public aid from western nations can increase the welfare of both the recipient and the donor country. Foreign aid serves as "an enforcement mechanism" in the absence of any global organization that can rule on private contracts across borders. Foreign aid is not motivated by altruism in the authors' model-the rich country provides aid only if doing so increases its utility. If an altruistic motive to alleviate poverty is also present, this will result in an increase in aid and thereby further enhance the poor country's welfare payments (Villamil & Asiedu, 2001).

In their study of foreign investment and foreign aid, Villamil and Asiedu (2001) found that public aid helps rather than hinders private investment in developing countries. For example, technical assistance to a LDC decreases the chance that the nation will default on its private debts. Foreign aid also offers positive incentives for a nation to stabilize its institutions. Lack of institutional stability (due to corruption, civil war or authoritarian rule) is a leading cause of third-world defaults as well as poor economic growth. The less stable a country, the greater incentive its government has to expropriate foreign companies and renege on its debt.

Bowen (1995) criticized the ambiguous findings of previous studies on the relationship between foreign aid and economic growth because those studies had fundamental methodological limitations. Bowen's (1995) study claimed that a clear and significant foreign aid-economic growth relationship does exist depending on the economic development stage of the recipient countries. The author's results revealed a negative foreign aid-economic growth relationship for LDCs with per capita annual income of less than \$987, whereas a positive relationship was observed for countries with per capita annual income above \$987. Snyder (1993) and Dhakal, Upadhyaya, and Upadhyay (1996) provided similar findings.

Bigsten (1998) also provided evidence supporting the impact of foreign aid on economic growth in Africa. Evidence from both cross-country regressions was considered, and issues relating to economic policy, governance, ownership, and sustainability were identified as particularly important. Bigsten (1998) focused on how to structure the foreign

aid-economic growth relationship so that it encourages good governance, which is deemed essential for long-term economic growth. The author suggested that donors should delegate more responsibility to the recipients, while at the same time creating an incentive structure for good performance. Given the improvements in the economic policy environment in Africa, the prospects for effective foreign aid in Africa seem to be more promising than in previous eras.

### **STUDIES AGAINST FOREIGN AID**

A recent study by Boone (2002) of the London School of Economics and the Center for Economic Performance confirmed that United States' economic aid does not promote economic development. Studying more than 100 countries, Boone concluded that long-term aid is not a means to create economic growth. Using the most quantifiable measure of development (the average wealth of the country's citizens) and the index of economic freedom, Johnson and Schaefer (1997) examined the figures on gross domestic product (GDP) per capita of 67 long-term development aid recipients over 29 years (1965-1994). Of these 67 countries, 37 had achieved average per capita GDP growth rates of less than one percent. Most economists agree that this rate is low. Johnson and Schaefer (1997) concluded that foreign aid does not help countries develop economically.

Schmitz (1996) elaborated on the fact that the impact of aid on economic development is still unclear. He reported that while some people call for a termination of all foreign aid, those who still support foreign aid agree that aid as currently administered does not reach those who need it the most. Foreign aid has not significantly changed the lives of people in LDCs. The consensus, even among those involved in the foreign aid business indicated that a shift in the orthodox means of giving aid is long overdue.

Clad and Stone (1993) observed that the American public is completely disenchanted with the nation's aid program. They have clearly demonstrated that this disenchantment does not primarily result from the feeling that foreign aid is taking resources away from domestic programs.

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Rather, the disenchantment is deeply rooted in the belief that foreign aid has failed to achieve desired results. However, America currently devotes less than 0.3 percent of her gross national product (GNP) to foreign aid, ranking only ahead of Ireland among all aid-donor nations. It seems that America needs to refocus and redefine its aid program.

Islam (1992) examined the impact of foreign aid on the economic growth of Bangladesh, one of the poorest countries in the world. Between 1971 and 1989, Bangladesh received about \$18.9 billion in aid. The results of that study indicated that foreign resources in aggregate did not significantly help the development of economic growth in that country. Similarly, Mbaku (1993) investigated the impact of aid on economic development in Cameroon. His results strongly support those of Islam's (1992) study. The results of both studies (Islam, 1992; Mbaku, 1993) support the findings of previous studies conducted by Griffin and Enos (1970) and Papanek (1973). Finally, Snyder (1996) attested that the relationship between foreign aid and private investments is negative.

Foreign aid and existing institutions have failed to solve LDCs' problems. The United Nations Conference on Trade and Development (UNCTAD), held in New Delhi in 1971, suggested that "one percent" of the national income of industrialized countries should be devoted to aid Third World countries. This figure has never been reached, or even approximated. The UNCTAD, held in Santiago (Chile) in 1972, set a goal of a six percent of economic growth rate for underdeveloped countries. This figure was not achieved either. The living conditions endured by the overwhelming majority of the three billion people who inhabit the poor countries have either not noticeably changed since 1972 or have actually deteriorated (Chaliand, 2002).

### **THE DEVELOPMENT OF AN AD HOC ECONOMIC MODEL**

The neoclassical growth model (Solow, 1956; Denison, 1961) proposed that capital accumulation and technological progress are the engine of economic growth. However, this neoclassical exogenous growth model

rejected the impact of other variables. An alternative approach for studying economic growth is to view it as an endogenous model (Lucas, 1988; Romer, 1986) of several factors.

Levine and Renelt (1992) and Harms and Ursprung (2002) asserted that there is no universal model of economic growth accepted by all researchers. We have developed an ad hoc model including basic determinants of economic growth as follows: GDP (gross)= foreign aid + foreign loans + foreign direct investment + human capital + growth rate of labor force + growth rate of population + government spending + openness to international trade + Trade openness indicator + economic freedom + business climate + oil + inflation + political regime + political risk + initial GDP in U.S. \$1988. The initial level of per capita GDP was used to test the neoclassical assumption that the starting level of per capita output has no effect on the steady state economic growth. In the transition to steady state, countries with a lower output per capita are expected to grow faster.

These variables drawn from the literature are by no means exhaustive. We examined the relationship between the independent variables and the dependent variable after controlling for cyclical fluctuations and unusual changes. We controlled this factor by creating a sample covering the 10-year period. The average of ten years should eliminate any cyclical fluctuations. However, most previous studies for or against foreign aid and FDI did not simultaneously run regressions including foreign aid, FDI, and potential factors that affect economic growth in their studies. Therefore, we have included certain factors that influence economic growth and investigated the impact of foreign aid and FDI on economic growth in LDCs.

## **RESEARCH METHODS**

Research methods include sample and data collection, measurements of variables, and data analysis. Each component was implemented according to the following procedure.



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## Sample and Data Collection

Data collection consisted of annual data pertaining to a cross-section of 81 LDCs from 1980 to 2000 period (see Appendix 2). The purpose of selecting this period of time was to include a consistent set of recent data. In addition, the perceptions of LDCs about FDI changed from a primarily negative effect on their economies to a primarily positive role that contributes to their economic growth. The number of countries selected reflects the number of countries on which we could gather data on the variables included in our developed ad hoc economic model.

Required data were collected from various resources including World Bank, 1990- 2001; UN reports from 1990 to 2001; International Monetary Fund (IMF) from 1990-2001; UN Development Programme, 2002 and previous reports; Political Risk Services, 1997 and previous issues, and Harms, 2000; Freedom House, 2001 and previous issues; Gwatney et al., 2001; Pen World Table 5.6 developed by Summers and Heston (1995), and World Bank's (2001) Global Development Finance report and previous reports.

Due to limited data availability concerning our sample, the inclusion of variables and timeframe was reduced. For example, illiteracy variable was not available on annual basis. Some African countries (e. g. Zaire, and others) do not have all data on annual basis.

## Measurement of Variables

The dependent variable is the average of the economic growth for the years 1990-2000. To control for country size, we divided the total volume of foreign aid and foreign direct investment by the population size of each country. The average of the two ratios for the years 1990 through 2000 are the independent variables. To be sure that the results are not just due to the omission of other determinants of GDP, we introduced a number of control variables that we believe to have a significant effect on GDP.

Control variables included in this study are: human capital, growth rate of population, growth rate of labor force, government spending,

openness to international trade, economic freedom, inflation, business climate, oil, political regime (political rights and civil liberties), and political risk.

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| (1) | <p>Dependent variable</p> <ul style="list-style-type: none"> <li>◆ Economic growth was measured by the average of the natural logs of GDPs of each included country from 1990 to 2000. (World Bank, 2001; UN, 2001).</li> </ul>   |
| (2) | <p>Independent variables</p> <ul style="list-style-type: none"> <li>◆ Foreign aid was measured by the natural log of the average of foreign aid received by each recipient country from 1990 to 2000. (World Bank, 2001; UN, 2001).</li> </ul>  |
| (3) | <p>Control variables</p> <ul style="list-style-type: none"> <li>◆ Foreign loans were measured by the natural log of the total foreign loans received by each recipient country from 1990 to 2000. (World Bank, 2001; IMF, 2001).</li> <li>◆ FDI was measured by the natural log of the average of FDI received by each recipient country from 1990 to 2000. (World Bank, 2001; IMF, 2001).</li> <li>◆ Human capital was measured by the average of adult literacy rates in each country for 1990, 1995, and 2000. (UN, 2001; UNESCO (1999).</li> <li>◆ Growth rate of labor force was measured by the average of the growth rates of the labor force of each country from 1990 to 2000. (UN Development Programme, 2001)</li> <li>◆ Growth rate of population was measured by the average of growth rates of population in each included country from 1990 to 2000. (UN, 2001; World Development Report, 2001)</li> <li>◆ Government spending was measured by the average of net spending on defense and education as a percentage of GDP for each government of every country from 1990 to 2000. (UN, 2001)</li> <li>◆ Openness to international trade (reflects the existence of administrative and barriers to trade) was measured by the average of the ratios of exports plus imports to GDP population in each country from 1990 to 2000. (World Bank, 2001)</li> <li>◆ Trade openness indicator (reflects the existence of to tariff protection, restrictions to capital movements, and other distortions) was measured by the average of values of trade openness indicator for 1990, 1990-1992 and 1995-2000. (Gwartney et al, 2001; scale 0-10, where number 10 is the maximal openness)</li> <li>◆ Economic freedom was measured by index of economic freedom assembled by Gwartney et al. (2001). The average values of economic freedom for 1990 and 1995, and 2000 were used because it is not available on annual basis. (Scale 0-10, where 10 is the maximum economic freedom)</li> </ul> |

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| ◆ | Business climate (quality of business environment) was measured by the average of corruption in government, the quality of the bureaucracy, and a country's law-and-order tradition in each country from 1990 to 2000. (Political Risk Services, 2001 and previous issues; scale 0-18, where 18 is the optimal business climate) |
| ◆ | Oil was measured as a dummy variable: 1, if oil exports throughout 1990s were greater than imports; zero otherwise each country from 1990 and 2000. (UN 2001)  |
| ◆ | Inflation in LDCs was measured by the average inflation rates in each included country from 1990 and 2000. (IMF, 2001).  |
| ◆ | Political regime:  |
|   | a. Political rights (people's ability to participate freely in the political process) were measured by the average of Gastil index from 1990 to 2000. (Freedom House, 2001 and previous issues; scale 1-7; represents the maximum political repression.  |
|   | b. Civil liberties (freedom to develop views, institutions, and personal autonomy apart from the state) were measured by the average of Gastil index from 1990 to 2000. (Freedom House, 2001 and previous issues; scale 1-7; represents the maximum civil repression)  |
| ◆ | No political risk was measured by the average of expropriations, exchange controls, and default on government contracts in each country from 1990 to 2000. (Political Risk Services, 1997 and previous issues and Harms, 2000. Scale 0-30, where 30 minimal risk)  |
| ◆ | The initial GDP per capita was measured in U.S. 1988 dollars for each country from 1990 to 2000. (UN, 2001).   |

## Data Analyses

Regression analysis is an appropriate statistical tool and is widely used by researchers investigating relationships of a behavioral and/or economic nature. Regression estimates the relationship concerning independent variables by explaining the variations in the dependent variables (Pindyck & Rubinfeld, 1998).

We utilized the multiple regression technique in order to estimate the relationship between the independent variables and the dependent variable. Thus the regression model is:

$$y = a + b_1x_1 + b_2x_2 + b_3x_3 \dots + b_{16}x_{16} + e$$

Where:

- Y = GDP per capita
- X1 = Foreign aids
- X2 = Foreign loans
- X3 = Foreign direct investments
- X4 = Human capital
- X5 = Growth rate of labor force
- X6 = Growth rate of population
- X7 = Government spending
- X8 = Openness to international trade
- X9 = Trade openness indicator
- X10 = Economic freedom
- X11 = Business climate
- X12 = Oil
- X13 = Inflation
- X14 = Political regime:
  - a. political rights
  - b. civil rights
- X15 = political risk (reverse)
- X16 = Initial GDP in U.S. 1988 dollars
- b1, b2, ..., b15 = estimated regression coefficients
- a = constant
- e = error term

However, potential problems such as multicollinearity, heteroscedasticity, autocorrelation, outliers, non-linear relationship, and the goodness-of-fit of the overall regression model are potential issues that may confront the regression model. In addition, the data may lack the assumption of normal distribution. The existence of such problems to a significant degree, may lead to inaccurate results and misleading conclusions and implications (Pindyck & Rubinfeld, 1998). Therefore, various appropriate statistical techniques will be utilized to detect and remedy any potential problems.

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## FINDINGS OF THE STUDY

To ensure that the multiple regression model has not been undermined by any potential problem, certain statistical tests have been used to check the existence of any problem. Multicollinearity is not a problem because all variance inflation factors (VIFs) are low. Autocorrelation does not exist because the Durbin-Watson statistic is significant (D.W.= 2.4). The plot of the residuals shows that there is no evidence of heteroscedasticity. Neither the Studentized Deleted Residuals Test identified influential outliers for the dependent variable, nor Diffits and the Cook's Test detected influential outliers for the independent variables. The plotted histogram of data depicted normal distribution of the data. The plot of the dependent variable against each of the independent variables showed a linear relationship between these perspective variables. The results of the multiple regression are presented in Table 1. The significant F-statistic (F-value= 5.77; P= .001) confirms a complete goodness-of-fit for the overall regression model.

Data analysis in Table 1 reveals that foreign aid does not have a direct influence on economic growth. Although this factor has a negative effect, it is not significantly different from zero. This finding supports the those of previous studies (e.g., Griffin & Enos, 1970; Clad & Stone, 1993; Islam, 1992; Johnson & Schaefer 1997; Villamil & Asiedu, 2001; Boone, 2002). This finding supports Johnson and Schaefer (1997) who found that the majority of the long-term recipients of foreign aid over 29 years (1965-1994) had achieved very low levels of economic growth (1%).

According to Schaefer and Schavey (2002), foreign aid and all efforts of existing institutions and structures have failed to solve the problem of underdevelopment. For example, the United States has spent more than \$500 billion over the last 50 years on foreign assistance, yet standards of living have fallen in many LDCs during that time. Zambia, for instance, has received more than \$1 billion in foreign aid since 1964, yet its per capita income has dropped from \$664 then to \$338 in 1999 (Schaefer & Schavey, 2002).

Even the United States' Agency for International Development itself admits that only a handful of countries that started receiving assistance in the 1950s and 1960s never graduated from dependent status. Despite massive amounts of international aid, the average annual increase in per capita GNP has declined steadily in LDCs since the 1960s, with many of the LDCs heaviest foreign aid recipients actually suffering negative economic growth.

As a result, Alex de Waal, president of the human rights group, Africa Rights, concluded that foreign aid is structurally bad because it undermines the incentive to take responsibility. The more aid a country receives, the less the government of that country has to answer to the people. If Americans truly want to help other countries, they can best do so, not through failed foreign aid programs, but by improving the United States' economy, so that American businesses have funds to invest abroad, and by pursuing free trade policies (Tanner, 2002).

With respect to control variables affecting economic growth, data analysis in Table 1 reveals that foreign loans (debts) do not have a direct influence on economic growth. Although this factor has a negative effect, it is not significantly different from zero. This finding supports Mishra, Mody, and Murshid's (2001) notion casting doubts on the ability of foreign loans to stimulate long-run growth in underdeveloped economies.

Even if many LDCs are in favor of capital inflows, Hausmann and Fernandez-Arias (2000) asserted that they view international debt flows (especially of the short-term variety) as bad cholesterol. This finding also supports those of Bosworth and Collins (1999) who provided evidence on the effect of capital inflows on the economic growth of 58 underdeveloped countries between 1978 and 1995. The authors found that the impact of loans on the economic growth fell below FDI and portfolios. Dadush, Dasgupta, and Ratha (2000), Lipsey (2001), and Loungani and Razin (2001) found similar results.

**Table 1: Multiple Regression Results Concerning the Impact of Foreign Aid and Foreign Direct Investments on Economic Growth of Less-developed Countries**

| Independent Variables   | Dependent Variable: Economic Growth |         |            |
|---|-------------------------------------|---------|------------|
| Variables   | Coefficient                         | T-value | Sig. level |
| Foreign aid   | -.0746                              | 1.10    | .68        |
| Foreign loans   | -.0746                              | 1.10    | .68        |
| Foreign direct investments  | .9978                               | 2.09    | .05        |
| Human capital   | .1684                               | 1.81    | .10        |
| Growth rate of population   | .1463                               | 1.12    | .23        |
| Growth rate of labor force  | .7221                               | 2.15    | .05        |
| Government spending   | -.0685                              | -1.12   | .38        |
| Openness to international trade   | .0217                               | 1.11    | .62        |
| Trade openness indicator  | .0625                               | 1.09    | .55        |
| Economic freedom  | .0617                               | 1.02    | .52        |
| Business Climate  | .0625                               | 1.10    | .43        |
| Oil   | .9978                               | 2.89    | .001       |
| Inflation   | -.0685                              | -2.18   | .05        |
| Political regime:   |                                     |         |            |
| a. political rights   | .1174                               | 1.12    | .22        |
| b. civil rights   | .1048                               | 1.11    | .34        |
| No political risk   | .1073                               | 1.15    | .35        |
| Initial GDP in U.S. \$1988  | -1.0285                             | -1.49   | .10        |
| R-square= .51<br>Adjusted R-square= .46<br>F= 5.27; Significant F= .001 |                                     |         |            |

In contrast, foreign direct investment has a positive and a significant effect on the economic growth of LDCs. This finding supports those of recent studies (e.g., Dadush, Dasgupta & Ratha, 2000; Feldstein, 2000; Lipsey, 2001; Loungani & Razin, 2001). This finding also supports the assertion of Aitkens and Harrison (1999) who demonstrated that foreign direct investment increases productivity, which in turn promotes growth. But these authors confirm conditions (e.g., skilled labor force, well-developed structures, etc.) under which productivity benefits accrue. For example, some studies claim that foreign direct investment boosted productivity in Malaysia, Taiwan, and the southern provinces of China. In contrast, similar benefits were not found in Morocco, Tunisia, and Uruguay. Moreover, firms with greater research and development in LDCs were able to absorb the foreign direct investment benefits.

Human capital (represented by the proxy adult literacy) has a positive and significant effect on economic growth, which suggests a strong positive link between investment in education and economic growth. Education enhances productivity and promotes higher economic growth. This finding supports Borensztein, Gregorio, and Lee (1998) who asserted that FDI is more productive in countries with a better-educated labor force.

There is a negative and significant relationship between the initial level of per capita GDP and the economic growth in LDCs. This finding contradicts the prediction of the neoclassical theory and supports the results of Barro's (1991) study. The two findings suggest that an increase in the starting per capita real GDP that is accompanied by higher investment in human capital may offset each other and thus the initial GDP becomes unable to stimulate growth in the economy.

Growth rate of labor force has a positive and significant effect on economic growth. According to the neoclassical growth theory, labor force growth should have a positive effect on economic growth rate. Economic growth can be sustained through macroeconomic growth policies that curb inflation, high exchange rates of currency and improper government spending. Thus, the government should initiate economic reforms and must fulfill its commitment to improve the quality of the labor force by focusing on education and training programs (Kormendi & Meguire, 1985).



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Growth rate of population has a positive and insignificant impact contradicting recent findings on the relationship between fertility and economic growth. It is important to note that bigger families with many children are part of the culture of LDCs. The insignificant coefficient of population growth indicates that either capital accumulation or labor force growth did not keep pace with population growth.

Chaliand (2002) suggests that no study of LDCs could hope to assess its future prospects without taking into account population growth. In 1980, the earth's population was estimated at 4.4 billion, 72 percent of it in LDCs, and it reached 6.2 billion at the close of the century, with 80 percent of it in LDCs. This population explosion in the third world will surely prevent any substantial improvements in their living standards and threaten people in stagnant economies with worsening poverty.

Government spending has negative and insignificant effects on economic growth. When we run the regression without the political freedom variable, government spending variable shows a large negative magnitude on economic growth. One possible reason is that governments lacking freedom feel insecure and spend more resources in order to stabilize their regimes rather than promoting productivity and hence economic growth.

In terms of openness to international trade and trade openness indicator, each finding reveals that openness to international trade and trade openness indicator have the expected positive effects although they are insignificant. It appears that trade in LDCs is not integrated with the world economy. Both findings support that of Johnson (1997) who found that most recipients of American foreign aid had the highest barriers to trade in the world. In Johnson's (1997) Index of Economic Freedom survey, 69 of 109 LDCs receiving foreign aid had high or very high marks for their levels of trade protectionism in the world. Trade restrictions are typically expected to have deleterious effects on economic growth due to the inability to exploit comparative advantages. On the contrary, non-recipients of foreign aid, like Australia, Canada, most of the European Union (EU), Japan, Hong Kong, and New Zealand had either very low or low levels of protectionism.

The insignificant relationship between economic freedom and GDP suggests that if LDCs want to achieve growth, they must embrace economic

freedom. That is, countries having high economic freedom achieve much higher per capita incomes. Conversely, countries lacking economic freedom do not experience sustained growth no matter how much assistance they receive. According to the economists Roll and Talbott (2002), such countries could not afford to clean their environment or raise labor standards. Lower tariffs, smaller barriers to foreign investment, and limited regulatory burdens account for as much as 80 percent of the difference in per-capita income between rich and poor countries.

Business climate has no significant effect on economic growth. This finding indicates that many LDCs are not providing a complete and healthy business environment for foreign investors. This means that corruption in some governments, complex bureaucracy, and the lack of law and order are deterring foreign investments. This finding supports that of Harms and Ursprung (2002) who attested that a healthy business climate enhances FDI, which in turn boosts economic growth in LDCs.

Because resource-abundant countries typically offer higher returns to foreign investors, many multinational enterprises would invest in countries that have oil. As expected, there is a positive relationship between the oil variable and economic growth. Unfortunately, Chaliand (2002) found that whatever economic development has occurred in LDCs, it has not been distributed fairly between nations or among population groups within nations. Most of the countries that have managed to achieve substantial economic growth are those that produce oil: Algeria, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Oman, Saudi Arabia, United Arab Emirates, and Venezuela. Since the nations of LDCs are collectively so weak, the so-called "new economic order" proposed by some of them will probably remain a phrase, and no more for the foreseeable future.

As expected, inflation has a negative impact on economic growth. It is safe to conclude that inflation deters FDI from investing in LDCs suffering high inflation. This finding supports the notion that macroeconomic mismanagement lowers aggregate productivity and deters foreign investors. Harms and Ursprung (2002) mentioned a striking example relative to Argentina whose inflation rate decreased from 3,080 percent in 1989 to less than 1 percent in 1997. Despite this formidable improvement, Argentina's

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inflation rate for the entire period was still very high (623%). However, Argentina attracted a huge volume of FDI in the mid-1990s.

With respect to the political regime (political rights and civil rights) in LDCs, free-political LDCs or partly free LDCs have a higher growth rate than those who are not free. This result tends to support those of Helliwell (1994) who claimed that mature democracies likely suffer a slow-down in growth because of a slow buildup in the powers of special interest groups whose successful claims for special treatment reduce the growth of the economy as a whole. In contrast, countries without political freedom have very low economic growth because governments (particularly in Africa) are often confronted with revolutions and military coups destroy economic plans.

Finally, political risk is based on the International Country Risk Guide of the likelihood of expropriation, exchange control, and default on host government contracts. The insignificant negative relationship between this variable and growth suggests the existence of this political risk, to certain extent, in a large number of these LDCs. Although foreign investors refrain from investing in countries having political risk, Harms and Ursprung (2002) refer to the most striking example of China. Despite repression in the Chinese political system, China has witnessed a huge increase of FDI in the 1990s. However, this finding is blurred by time-series analysis which our goal in the next study.

## CONCLUSIONS

The principal goal of foreign aid is to offer positive incentives for LDCs to stabilize their institutions. Lack of institutional stability (due to corruption, civil war or authoritarian rule) is a leading cause of LDCs' defaults as well as poor economic growth. However, the results of this study conclude that foreign aid is little more than welfare for LDCs, with the same disastrous effects as domestic welfare programs. Foreign aid is structurally bad because it undermines the incentive of LDCs to take responsibility. We conclude that foreign direct investment can be a better alternative than foreign aid.

Foreign aid should go to LDCs that agree to open their economies, but more needs to be done to ensure that money is not squandered. If the U.S. truly wants to help LDCs, they can best do so not through failed foreign aid programs, but by improving the U.S. economy, so that U.S. businesses have funds to invest abroad, and by pursuing free trade policies. The broad policies (trade policies, budget deficits, growth rates, etc.) generally exert greater positive or negative influence on the economies of LDCs than does foreign aid.

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| APPENDIX I: Official Development Assistance (ODA)   |            |        |                 |                          |      |      |
|---|------------|--------|-----------------|--------------------------|------|------|
| Country   | ODA in USD |        |                 | ODA as Percentage of GNP |      |      |
|   | 1999       | 2000   | 2001            | 1999                     | 2000 | 2001 |
| 1. Denmark  | 1,733      | 1,664  | 1,599           | 1.01                     | 1.06 | 1.01 |
| 2. Norway   | 1,370      | 1,264  | 1,346           | 0.91                     | 0.8  | 0.83 |
| 3. Netherlands  | 3,134      | 3,075  | 3,155           | 0.79                     | 0.82 | 0.82 |
| 4. Luxembourg   | 119        | 116    | 142             | 0.66                     | 0.7  | 0.8  |
| 5. Sweden   | 1,630      | 1,813  | 1,576           | 0.7                      | 0.81 | 0.76 |
| 6. Belgium  | 760        | 812    | 866             | 0.3                      | 0.36 | 0.37 |
| 7. Switzerland  | 969        | 888    | 908             | 0.35                     | 0.34 | 0.34 |
| 8. France   | 5,637      | 4,221  | 4,293           | 0.39                     | 0.33 | 0.34 |
| 9. Ireland  | 245        | 239    | 285             | 0.31                     | 0.3  | 0.33 |
| 10. Finland   | 416        | 371    | 389             | 0.33                     | 0.31 | 0.33 |
| 11. United Kingdom  | 3,401      | 4,458  | 4,659           | 0.23                     | 0.31 | 0.32 |
| 12. Spain   | 1,363      | 1,321  | 1,748           | 0.23                     | 0.24 | 0.30 |
| 13. Germany   | 5,515      | 5,034  | 4,879           | 0.26                     | 0.27 | 0.27 |
| 14. Portugal  | 276        | 261    | 267             | 0.26                     | 0.26 | 0.25 |
| 15. New Zealand   | 134        | 116    | 111             | 0.27                     | 0.26 | 0.25 |
| 16. Austria   | 527        | 461    | 457             | 0.26                     | 0.25 | 0.25 |
| 17. Australia   | 982        | 995    | 852             | 0.26                     | 0.27 | 0.25 |
| 18. Japan   | 15,323     | 13,062 | 9,678           | 0.35                     | 0.27 | 0.23 |
| 19. Canada  | 1,699      | 1,722  | 1,572           | 0.28                     | 0.25 | 0.23 |
| 20. Greece  | 194        | 216    | 194             | 0.15                     | 0.19 | 0.19 |
| 21. Italy   | 1,806      | 1,368  | 1,493           | 0.15                     | 0.13 | 0.14 |
| 22. United State  | 9,145      | 9,581  | 10,884          | 0.1                      | 0.1  | 0.11 |
| Total   | 56.8       | 53.06  | 51.4USD Billion |                          |      |      |
| Sources:  |            |        |                 |                          |      |      |
| " Net ODA flows in 2000, OECD (PDF Format)  |            |        |                 |                          |      |      |
| " Net ODA flows 2001 , OECD (PDF Format)  |            |        |                 |                          |      |      |
| Note: The U.N. ODA target set is 0.7 percent of GNP. Most nations do not meet that target |            |        |                 |                          |      |      |



**APPENDIX--II****COUNTRIES INCLUDED IN THE STUDY**

Algeria, Angola, Argentina, Bangladesh, Belize, Benin, Bolivia, Botswana, Brazil, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Chile, China, Columbia, Congo, Costa Rica, Cote d'Ivoire, Dominican Republic, Ecuador, Egypt, El-Salvador, Ethiopia, Fiji, Gabon, Gambia, Ghana, Guatemala, Guinea-Bissau, Haiti, Honduras, Hungary, India, Indonesia, Iran, Ivory Coast, Jamaica, Jordan, Kenya, Lesotho, Madagascar, Malawi, Malaysia, Mali, Mauritania, Mauritius, Mexico, Morocco, Mozambique, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Republic of Korea, Rwanda, Senegal, Sierra Leon, Somalia, Sri Lanka, Sudan, Syria, Tanzania, Thailand, Togo, Trinidad & Tobago, Tunisia, Turkey, Uganda, Uruguay, Venezuela, Zaire, Zambia, and Zimbabwe.

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