2004

Effect of Foreign Aid on Development: Does More Money Bring More Development?

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Abstract

This paper attempts to explore whether foreign aid has a positive impact on a country's overall development. Although factors such as corruption, civil conflict, and natural disasters reduce the effectiveness of aid, the hypothesis presented in this paper is that foreign aid should bring positive development in a developing country after controlling for such variables. Since substantial funding is required in order to implement programs to raise the education level, life expectancy rate, and standard of living, assistance in the form of foreign aid should be effective.

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I. INTRODUCTION

Developing countries face challenges of massive poverty, slow GDP growth, higher mortality rates, and low levels of education. According to the United Nations Children's Fund (UNICEF), more than 10 million children under five years old die each year from preventable diseases and other causes in these countries. In 1999, 1.2 billion people lived on less than $1 (in Purchasing Power Parity $) a day and another 2.8 billion people lived on less than $2 a day (World Bank, 2003). The majority of people in the least developed countries cannot read or write. For instance, the illiteracy rate of Ethiopia was 58.5% in 2002 (World Bank, 2003).

These numbers reflect some of the challenges that least developed countries grapple with. This low level of development means miserable, sub-standard living for the country's poor; so the importance of this problem cannot be emphasized enough. The governments in these countries do not have sufficient capital resources to eradicate poverty, prevent deaths from preventable causes, increase the literacy rate, etc. Hence, developed countries have been providing financial assistance to the developing countries for over half a century in an attempt to improve living conditions.

The results of such assistance are mixed. In some cases, it has neither reduced poverty nor contributed to overall development. It has actually worsened the situation by increasing corruption as well as income inequality. One such instance is the increase in poverty in the Philippines under President Marcos's rule (Congressional Budget Office, 1997). Although the Philippines received $33 billion between 1966 and 1986 of foreign aid, a great proportion of assistance was simply channeled by Marcos and his family to their private foreign bank accounts. Consequently, poor people in this country did not benefit from this aid. Real wage rates for agricultural workers fell by 25% from 1966 to 1986 (CBO, 1997). In other cases, countries have improved both their GDP and human development index. For example, in Bangladesh, the adult illiteracy rate decreased from 61.1% to 58.9% from 1998 to 2002 (World Bank, 2003). In the same period, GDP grew from 44.1 billion dollars to 47.3 billion dollars (in 2000 US $). Although the increases in literacy rate and GDP are slight, they are in a favorable direction.

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ment in a developing country after controlling for such variables. Since substantial funding is required in order to implement programs to raise the education level, life expectancy rate, and standard of living, assistance in the form of foreign aid should be effective.

Development in this paper is measured using the human development index (HDI) created by United Nations Development Program, and this measure incorporates the increase in standard of living and health, as well as education of the citizens of a country. In the OLS regression of data from the 50 least developed countries, the human development index will be treated as the dependent variable. Factors such as foreign aid, corruption, presence of civil conflict, democracy, population size, etc, which are assumed to impact development, will be considered as independent variables.

Section II briefly summarizes some of most important studies that have been conducted in this field and states their relevance with respect to this paper. Section III provides the theoretical framework of this study. This section derives the poverty-reduction model and uses it to hypothesize the effect of aid on development. Section IV presents the empirical model relating development to several variables that affect it while Section V discusses the results obtained from the ordinary least square regression used in Section IV. Finally, the Section VI explains the most important findings of the study and the policy implications that follow from these findings.

II. LITERATURE REVIEW

There has been a substantial amount of research in the field of foreign aid and its effects. Most of the research has been undertaken by university professors, World Bank economists, and economists from other international organizations. According to analyses conducted by multilateral agencies such as the World Bank, foreign aid projects overall yield favorable rates of return (CBO, 1997). More specifically, their assessments show that two-thirds to three-quarters of their projects broadly achieved their objectives.

Critics of foreign aid argue that foreign aid discourages domestic saving in developing countries because aid is used for consumption instead of investment (CBO, 1997). Boone (1996) concludes that there exists no significant correlation between aid and growth, since the majority of foreign aid is spent on consumption. In fact, many studies on foreign aid have failed to find a link between foreign aid and economic growth. Griffin and Enos (1970) find that receipt of aid seems to reduce domestic saving and thus does not add to investment. Weisskopf (1972) finds a similar result, in which the inflow of foreign capital has a significantly negative impact on domestic savings. Moslye (1987) concludes that there is no significant correlation between aid and economic growth once factors such as private capital flows and domestic savings are taken into account.

However, some analysts have obtained a positive correlation between aid and growth. Heller (1975) finds a positive and significant relationship between foreign aid and investment (CBO, 1997). Gustav Papanek (1972) suggests that foreign aid does influence development, and the negative results of studies of foreign aid can be attributed to statistical biases. Since the target of foreign aid is towards poor countries, the measured correlation between saving or growth rates and the amount of aid received is biased. In other words, the poorer the country is, the more likely it will receive aid. Consequently, it seems countries that receive more aid are poorer. Gregory Mankiw (1995) argues that the empirical evidence on foreign aid and development is too limited to arrive at strong conclusions. The availability of data - limited to roughly 100 nations over a few decades - is insufficient to analyze various factors that influence foreign aid.

The presence of differing viewpoints by different economists has made the topic of effectiveness of foreign aid very debatable. Some development economists believe that aid, in itself, does not bring a spectacular success, since the outcome is determined by the political and economic environment (Pronk, 2003). Furthermore, flawed policies formulated by the donor or the recipient exacerbate the effects of aid negatively (Pronk, 2003). According

to a study by World Bank economists, Burnside and Dollar (1997), foreign aid is more effective in increasing the growth rate of a country if a country has better fiscal, monetary, and trade policies. They nevertheless find that the adverse effects of variables, such as extreme negative export price shocks, can be mitigated through the increase in the amount of aid.

Most of the research conducted in the area of foreign aid concentrates on the effect of foreign aid on growth. There has been scant research on the effect of foreign aid on the human development. One of the few papers that examines this relationship is the paper by Gani and Clemes (2003), in which they show that aid for education and water is positively correlated with human well-being in lower-middle-income countries. The work presented in this paper is unique because there has been no previous research examining the correlation between overall human development and general foreign aid. The findings of this paper provide an insight into whether foreign aid contributes to holistic development, actually improving the living condition and welfare of people in developing countries.

III. THEORY

Developing countries need investment for economic growth as well as overall development. Since these countries do not have sufficient funds to invest either in capital goods, human capital, or even the basic minimum necessities for the poor, the financial assistance that developing countries receive has the potential to contribute to such investment.

This paper is based on the Poverty-Reduction Model, which I derive next.

Assume funding towards poverty-reduction programs (programs towards increasing the literacy rate, school enrollment rate, decreasing the number of death due to preventable diseases, etc.) increases the HDI in ideal conditions. Denote this funding or investment on such programs by I.

Therefore,

$$HDI_m = k*f(I) \qquad (3.1)$$

where HDI_m is the marginal HDI, k is a positive con-

stant, and f(I) is a function of I. Clearly, based on our assumptions, if I is positive, f(I) is positive.

Investment on poverty-reduction programs depends on funding in the form of private investment, government spending, and foreign aid. So, in ideal conditions (if investment actually goes towards the programs) we have:

$$I = g(sY) + a*F + b*G \qquad (3.2)$$

where s is the savings rate, a is a fraction of foreign aid geared towards development, and b is a fraction of government expenditures towards such programs. In the equation, Y, F, and G represent GDP, foreign aid, and government expenditures, respectively.

The assumption behind having sY in the equation is that investment in factories and businesses provides job opportunities so that the living standard of the poor increases. Therefore, g(sY) represents a function that contributes to poverty-reduction programs. Since the relationship is not direct, g(sY) has been used instead of adding sY to the equation.

On the other hand, foreign aid and government expenditures contribute to investment directly. Substituting equation (3.2) into (3.1), we get:

$$HDI_m = k*f(g(sY)+aF+bG) \qquad (3.3)$$

Hence, if g(sY), F, and G are positive, f(I) is positive and HDI_m is positive. The positive sign of the marginal HDI implies that an increase in investment in the form of private investment, foreign aid, or government spending increases the HDI, thus reflecting the decline in the poverty level of a country.

In the model, we can assume that the values of *a* and *b* are close to 1 in ideal conditions (nearly every penny of foreign aid is spent on poverty-reduction program or nearly every penny of government budget is spent on the welfare of the poor). In less than ideal conditions, factors such as corruption, higher government consumption, and prevalence of natural disasters will reduce the fraction of *a* and *b*. Therefore, from this theoretical model, it

follows that foreign aid has a positive effect on HDI, *ceteris paribus*.

This model does not naively assume that countries will achieve a given level of HDI once they receive the foreign aid to supplement the investment towards poverty-reduction programs. Because of rampant corruption, humanitarian crisis, civil war, and natural disasters (earthquakes and floods) that a least developed country usually faces, such countries may not develop despite the flow of sufficient foreign aid. Foreign aid, in itself, may not be detrimental, but several other problems decrease the effectiveness of aid. Such variables may reduce the value of *a* closer towards 0. Nevertheless, after controlling for the variables that bring down the effectiveness of aid, the hypothesis in this paper is that

foreign aid exerts a positive impact on development. An increase in HDI will reflect this positive impact.

IV. EMPIRICAL MODEL

This paper is based on the hypothesis that foreign aid has a positive impact on development. Table 1 presents the variables and descriptions of the variables incorporated in the empirical model. Most papers in the past have used GDP growth as an indicator of development. This paper measures this variable differently by using the HDI, as calculated by United Nations Development Program (UNDP) in its annual *Human Development Reports*. Since the meaning of development has evolved over the years, the focus has shifted from a certain percentage of GDP to overall development of citizens of

TABLE 1
Variables and Descriptions

Variable	Description
HDI	Average of life expectancy index, knowledge index, and GDP index
Foreign Aid (+)	Aid per capita that includes official development assistance and official aid
FDI (% of GDP) (+)	Net inflows of private investment recevied by a developing country to obtain 10 percent or more of voting stock in a business enterprise
Initial HDI (+)	HDI in the year 1975
Total Extrenal Debt (-)	Debt owed to non-residents that is repayable in foreign currency, goods, and services
Savings (+)	Gross national savings, as a percentage of GDP
Risk (+)	Index of risk of investing in an economy (100 represents the lowest risk and 0 represents the highest risk)
Government Consumption (-)	Government expenditures used towards non-development purposes, as a percentage
Conflict (-)	Index measuring the presence of civil conflict in a developing country

a developing country. The value of HDI ranges from 0 to 1, where 0 represents the lowest human development and 1 represents the highest human development. HDI is calculated from the average of three factors – longevity, knowledge, and GDP per capita. These three factors are considered to be the end products of development. This study focuses on the HDI measures from the years 1975, 1980, 1985, 1995, and 2001, in order to compare how development has taken place over a span of 26 years. The sample consists of 44 developing countries, which have the lowest HDI measures.

The most important independent variable in this research is foreign aid per capita. The source of data for this variable is the *World Bank Indicators*. Aid in this paper includes Official Development Assistance (ODA) and official aid. Measuring foreign aid in per capita levels helps in the comparison of the amount of aid received between a country with a large population and that of a small one. The hypothesis that foreign aid impacts development positively is tested empirically by using ordinary least-squares regression analysis. The following model will accomplish the task of testing this hypothesis.

$$\text{HDI} = a_1 + a_2 * (\text{Foreign aid per capita}) + a_3 * (\text{Foreign Direct Investment}) + a_4 * (\text{Initial HDI}) + a_5 * (\text{Total External Debt}) + a_6 * (\text{Savings}) + a_7 * (\text{Risk}) + a * (\text{Government Consumption}) + a_9 * (\text{Conflict})$$

In this model, foreign aid per capita and savings follow directly from Equation (3.3). While the government spending on development programs also follows from the equation, it has not been included due to the unavailability of data. Regarding factors that reduce the effectiveness of aid in Equation (3.3), government consumption reduces the value of *b*, while factors such as risk and conflict reduce the value of *a*. Foreign direct investment, initial HDI, and total external debt are used as control variables. Initially, the empirical model also contained "natural disasters" as a control variable. However, due to the lack of adequate data for all countries in the sample, this variable has been eliminated.

In this paper, foreign aid per capita is measured by averaging the aid per capita of previous years before the year of HDI. For example, the foreign aid per capita from 1970-1974 is used for the year 1975. Since aid per capita does not increase the HDI in the same year, this variable has been lagged. An average of five years of foreign aid received before the year of a given HDI has been computed to determine the amount of aid received.

Foreign Direct Investment (FDI) measures the net inflows of investment received from other countries by a developing country. According to the World Bank definition, FDI is the investment needed to obtain a lasting management interest in a business enterprise in a different country. FDI should increase HDI because such an investment creates jobs in a developing country, thus increasing the living standards of the poor.

Initial HDI is the HDI in the year 1975. This is included as one of the control variables because it will help to determine if a country's HDI has grown over the years. Any improvement in HDI over the span of 25 years depends on the initial HDI. A country with a higher initial HDI is more likely to improve faster than a country with lower HDI because a high initial HDI is expected to affect HDI positively.

Total external debt is the debt owed to residents in a different country. It includes public, publicly guaranteed, and private non-guaranteed long-term debt, use of International Monetary Fund (IMF) credit, and short-term debt. If a country is highly indebted, a country will spend the majority of its foreign currency in repaying the debt. This will hinder the development process by draining the foreign currency from the economy. Thus, a high external debt is expected to decrease HDI.

A high domestic savings rate may be one of the factors responsible for development. The higher the savings is, the higher the investment. As suggested by most growth models, investment plays a crucial role in development. If most people in a country are able to obtain loans and invest in businesses, the HDI of that country should be higher. Thus, my hypothesis is that a higher domestic savings rate brings an increase in the value of HDI.

Corruption and various other risks reduce the effectiveness of aid. In the theoretical model,

such a risk reduces the fraction of *a,* thus resulting in a lower value of *aF.* The flow of assistance may simply disappear if the government receiving the aid is highly corrupt. To measure corruption and various kinds of risks, European country credit-worthiness rating ranks the risk of investing in an economy from 0 to 100. Some examples of risks used in the calculation of this rating are the speed with which applications are processed and the prevalence of red tape bureaucracy. A value closer to 0 indicates a high risk, while a value closer to 100 indicates a very low risk. These indices are based on how businesses and donors rate the presence of corruption and other sorts of risks in a particular country. A country with a high risk reduces the fraction of *a,* resulting in a lower amount of effective foreign aid. Therefore, a country with high risk is expected to have a lower HDI. In other words, when the value of the risk index is higher, it is expected that the HDI will increase, *ceteris paribus.*

Government consumption is defined as the amount a government spends on purchases of goods and service, and compensation of employees. It also includes spending on national defense. If the government spends a huge amount of funding towards its own consumption, an increase in HDI is less likely. In the theoretical model, the higher the government consumption, the lower the value of *b* is. As a result, the value of *bG* goes down. Hence, a high rate of government consumption is expected to decrease HDI.

Civil conflict in most African countries has resulted in a massive loss of lives. Even if foreign aid pours into these countries, it will be harder to use this foreign aid effectively for investment towards improvement of living conditions. In the theoretical model, this reduces the value of the fraction *a.* As a result, the effective aid that actually goes towards the program decreases. Consequently, the presence of ethnic conflict is expected to reduce HDI. A dummy variable has been used to measure the presence of a civil conflict in a developing country. Based on the information from the website of the Central Intelligence Agency (CIA), for a country experiencing internal armed conflicts between civilians

and the military or different ethnicities, the dummy variable is set at 1. For a country with no major civil conflict, the dummy variable is set at 0.

V. DATA

The source of data for aid per capita, FDI, total external debt, total savings, risk, and government consumption is the *World Bank Indicators* published by the World Bank. The data for HDI and initial HDI come from Human Development Reports published by the United Nations Development Program (UNDP). Table 2 presents descriptive statistics.

The sample consists of 44 developing countries that have a HDI lower than .595 in the year 1975. The cutoff point was chosen because an HDI below .6 represents a developing country. If the value of HDI is less than .5, a country is said to have a low level of development. However, some countries, such as India and Bangladesh, which are considered to be poor countries, have HDI's slightly higher than .5. So a cutoff point of .6 is chosen to include other poor countries. The inclusion of such countries is based on the World Bank classification of lower income countries.

The years included for each country are 1975, 1980, 1985, 1990, 1995, and 2001. Therefore, the sample size consists of 264 observations. However, due to lack of data on some of the independent variables, the sample size has been reduced to 253.

It is interesting to note some observations in the demographics of the data collected. Burkina Faso, in 1975, had the lowest HDI in the sample, and its HDI has increased over several years from 0.23 to 0.33 in 2001. South Africa, in 1995, had the highest HDI, though its HDI in 2001 decreased from .74 to 0.684. Overall, the HDI of South Africa rose by 3.6%, from 0.660 in 1975 to 0.684 in 2001.

Nepal has shown the largest improvement in HDI among the countries in the sample. Its HDI increased from 0.287 to 0.499 from 1975 to 2001, which is an increase of 73.95%. Every year, Nepal received, on average, $13.56 of aid per capita from 1970 to 2000. The least improvement in HDI has

TABLE 2
Descriptive Statistics

Variable	n	Minimum	Maximum	Mean	Standard Deviation
HDI	264	.23	.74	.4703	.12
Foreign Aid (in dollars)	259	.17	123.71	32.66	28.93
FDI (% of GDP)	260	-25.78	29.51	1.31	3.31
Initial HDI	264	.23	.66	.41	.11
Total Extrenal Debt (in dollars)	258	.00	170,109.70	9,572.35	21,104.82
Savings (as a percentage)	264	-70.43	44.02	11.62	15.06
Risk	264	14.10	64.70	34.94	11.62
Government Consumption	260	1.43	90.50	15.62	10.94
Conflict	264	0	1	.25	.44

taken place in Zambia, where its HDI decreased from 0.462 in 1975 to 0.386 in 2001. This represents a 0.16% decrease in HDI over a span of 26 years. Zambia received $48.94 of aid per capita each year from 1970 to 2000. Despite the greater flow of foreign aid, Zambia's decrease in HDI is probably due to the death toll from AIDS. Bollinger and Stover (1999) point out that AIDS has affected Zambia's economy by increasing health care costs, reducing the labor force, and decreasing the number of experienced productive workers. Costs related to the treatment of AIDS are very high, and the death toll from AIDS adversely affects human development by reducing average life expectancy and standard of living.

VI. RESULTS

The results for the ordinary-least square regression for my empirical model are presented in Table 3.

The OLS regression yielded an adjusted R^2 of .881, which means that the model explains about 88.1% of the total variation in HDI values. The coefficients of most of the variables have the expected signs, and all of them are significant at the 0.05 or 0.01 level. After controlling for the other variables, the relationship between foreign aid and HDI is positive, as expected, and the coefficient of foreign aid is significant at the 0.01 level. The only unexpected result is the positive sign on the coefficient of total external debt, and this will be further discussed later in this section.

The hypothesis that foreign aid has a positive impact on development is thus supported by the empirical results. A dollar increase in aid per

capita increases the value of HDI by 0.0005962, *ceteris paribus*. Although the number 0.0005962 seems very small, it is indeed a noteworthy change for the value of HDI, which ranges from 0 to 1. The 0.01 significant level of the coefficient suggests that foreign aid does play a role in human development.

The coefficient of FDI has a positive sign, as expected. The coefficient of this variable is also significant at the 0.01 level. When FDI, as a percentage of GDP, increases by 1%, HDI goes up by 0.001918. The results support the hypothesis that FDI plays a positive role in contributing to overall development.

A higher initial HDI is one of the reasons why a country develops faster. Since the value of HDI cannot exceed one, this result should be interpreted in the following way; the coefficient 0.891 implies that an increase in HDI by 0.1 raises the HDI by 0.0891, on average. The implication of this result is that countries with initial higher HDI measure see a greater improvement in the value of their HDI over a period of several years.

The regression yields an unexpected result for the relationship between total external debt and development. A dollar increase in total external debt actually raises the value of HDI by 0.000001140, *ceteris paribus*. Fur-

thermore, since the coefficient is significant at the 0.01 level, a hypothesis that this result is due to chance can be discarded. Even though the idea of debt contributing to development seems counterintuitive, it is possible to offer an explanation to describe this effect. Developing countries receive huge loans from multilateral organizations and banks for the development process. These loans are used to fund development programs designed to increase literacy rates and reduce mortality rates from preventable diseases. Since developing countries do not have the resources to pay back the loan, the amount of debt continues to increase every year. However, these development programs bring improvement in the living standards of the poor by increasing capital and infrastructure for such programs. Therefore, although a developing country is becoming increasingly indebted every year, it is possible that HDI is rising at the same time.

A higher savings rate contributes to investment and thus plays a significant role in development. The results of the regression support this hypothesis. The coefficient of savings is 0.0004574, and it is significant at the 0.05 level. On average, a 1% increase in the savings rate raises the value of HDI by 0.0004574, *ceteris paribus*.

If a country is a risk to investors, the effec-

TABLE 3
Regression Results for HDI

Variable	Coefficient
Constant	.059760** (3.905)
Foreign Aid	.000596** (5.854)
FDI	.001918** (2.401)
Initial HDI	.891000** (26.359)
Total Extrenal Debt	.000001** (8.283)
Savings	.000457* (2.332)
Risk	.000842** (2.805)
Government Consumption	-0.001004** (-3.913)
Conflict	-0.02909** (-3.904)

Adjusted R^2 = .881   n = 253

* indicates significance to the .05 level
** indicates significance to the .01 level

NOTE: t-statistic appears in parentheses

tiveness of foreign aid goes down. In general, a high prevalence of corruption and red tape bureaucracy impacts development negatively. As expected, the HDI of a less risky country is higher. The coefficient is significant at the 0.01 level. When the risk index goes up by one point (i.e. the risk to investors lowers), HDI increases by 0.0008422, *ceteris paribus*.

A higher government consumption rate diverts funding towards development and a decrease in HDI takes place. As expected, the coefficient is negative. Since the coefficient is significant at the 0.01 level, there is only a 1% chance that this negative relationship occurred by chance. While holding all the other variables constant, an increase in government consumption by 1% causes the HDI to decrease by 0.001004.

If a developing country is plagued by civil conflict, it is harder for a country to develop. The regression result confirms this hypothesis by showing that the presence of civil conflict negatively impacts HDI. The coefficient of conflict is -0.02909, and it is significant at the 0.01 level. In general, a civil conflict in a least developed country decreases the HDI by 0.02909.

Highly significant expected results and a high adjusted R^2 value reflect that the theoretical and empirical models are indeed reliable in predicting the development of a country.

VII. CONCLUSION

The results of the regression strongly support the hypothesis that foreign aid has a positive effect on development. Although there is a huge debate among economists and politicians whether foreign aid is effective, the empirical results show that it does play a role in a country's development. This paper also shows that factors such as high government consumption, corruption, and civil conflict are detrimental to development.

Several policy implications arise from the results of this study. First of all, since Foreign Direct Investment (FDI) helps in a country's overall development, governments of developing countries should create a good environment to attract foreign investment. These governments should encourage foreign investors to invest in their economies.

According to the results, a higher savings rate is important in increasing the HDI of a country. The government should thus encourage citizens of its country to save more. One way to achieve this is by developing banking networks all over the country to facilitate saving.

The government of a developing country should implement certain policies to prevent corruption in government offices. Since it is one of the factors that increase the risk of investing in that country, the government can establish anti-corruption agencies to monitor businesses as well as the government offices. Legislation should be enforced to penalize corrupt government officials. This will attract foreign investors to invest in the country and it will also increase the effectiveness of foreign aid.

As high government consumption reduces the value of HDI, the government should cut back on unnecessary expenditures towards non-development purposes. It can reduce spending on unnecessary defense expenditures. Purchasing missiles and high tech defense equipment may not be justifiable when most of the people in the country are living a sub-standard existence. If, instead, the government spends a higher proportion of GDP on development programs, development may actually take place in the country.

The findings of this research strengthen the argument for the justification of foreign aid because empirical results show that foreign aid is effective in helping a developing country develop. Most previous research concentrated on the relationship between GDP growth and foreign aid and that is probably the reason why some of the research found a negative relationship between growth and foreign aid. Since foreign aid is usually used towards programs such as providing medicine, building schools, creating infrastructure, and launching adult literacy programs, foreign aid should have brought a positive effect on human development. The GDP growth might have failed to capture the overall development occurring in developing countries. Nevertheless, the improvement of human development may bring GDP growth in the future because people's

productivity will increase as a country becomes developed in terms of human development.

These findings also underscore the importance of implementing measures to reduce corruption and government consumption while promoting savings and FDI. Nevertheless, there are avenues for further research in this area. Future studies are needed to determine exactly how foreign aid causes development. In the past, most researchers have linked the relationship between foreign aid and economic growth. It would be interesting to determine whether foreign aid impacts human development directly or whether it first causes economic growth, which in turn raises the value of HDI. Or, an increase in HDI may bring more rapid economic growth because of the increase in healthy and educated human capital. Understanding the relationship between foreign aid, HDI, and economic growth will enable policymakers to prioritize economic growth or poverty reduction, depending on which one has a stronger linkage to holistic development.

REFERENCES

Bollinger, Lori, and John Stover. "The Economic Impact of AIDS in Zambia" The Futures Group International, United States Agency for International Development (USAID), 1999.

Boone, Peter. "Politics and the Effectiveness of Foreign Aid." European Economic Review, Vol 40, 1996: 289-329.

Burnside, Craig, and David Dollar. "Aid Policies and Growth" Macroeconomics and Growth Division Policy Research Department World Bank. June 1997. Available <http://www.worldbank.org/html/dec/Publications/Workpapers/WPS1700series>.

Congressional Budget Office. "The Role of Foreign Aid in Development," 1997. Available <http:/www.cbo.govshowdoc.cfm?index=8&sequence=1>.

Gani, Azmat, and Michael Clemes. "Aid Type and Its Relationship With Human Well Being" International Journal of Social Economics, Vol 30-6, 2003.

Griffin, Keith, and J.L. Enos. "Foreign Assistance: Objectives and Consequences" Economic Development and Cultural Change, Vol. 18, 1970: 313-337.

United Nations. Human Development Report CD-ROM, 1999.

Mankiw, Gregory. "The Growth of Nations," Brookings Papers on Economic Activity, 1995.

Papanek, Gustav. "The Effect of Aid and Other Resource Transfers on Savings and Growth in Less Developed Countries." Economic Journal, Vol 82, 1972: 934-950.

Pronk, Jan. "Aid as a Catalyst: A Rejoinder." Development and Change, 34-3, 2003: 383-400.

United Nations Children's Fund. "Children Should Not be Dying From Preventable Causes." 10 October 2003. Available <http://www.unicef.org/why/why_preventable_causes.html>.

United Nations Development Program. "Human Development Reports" 20 October 2003. Available <http://www.undp.org/hd>.

Weisskopf, Thomas. "The Impact of Foreign Capital Inflow on Domestic Savings in Underdeveloped Countries." Journal of International Economics, Vol 2, 1972, 25-38.

World Bank. 10 October 2003. Available <http://www.worldbank.org/poverty/mission/up2.htm>.

World Bank. World Development Indicators CD

ROM, 2003.