Globalization and Human Development

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This article investigates the social impact of globalization as measured by economic liberalization. This study attempts to answer four questions using cross-section of countries: Does globalization spur human development? Is globalization related to gender related economic development? Does globalization exacerbate income inequality? Finally, what is the impact of globalization on different income group? Regression analysis for cross-section of about 150 countries indicates that there is a strong relation between globalization and human development and gender related development indexes for entire counties. However, only high-income countries show a significant relation. One impression emerges from the study is that the key consideration in determining a country's position in human development ranking is not related to globalization for developing countries at low or low-middle income groups. Globalization perhaps is important for human development only after certain level of income growth. Also, the results indicate that globalization exacerbates income inequality is for the all income groups, but the relation does not hold when testing for different income levels.

Introduction

One of the essential national policy decisions of past two decades has been globalization. Policy makers all around the world as part of adjustment programs promoted by the International Monetary Fund and the World Bank have pushed for liberalization of their economic policies as a means for globalization and economic growth. Thus, the relationship between globalization and economic growth has received considerable attention in recent years. At the theoretical level, Mckinnon (1973), and Shaw (1973) established that financial globalization has positive impact on the development of the real sector with possible causation from financial globalization to economic development and growth. At the empirical level, many studies have shown positive correlation between financial globalization and economic growth (see, for example, World Development Report 1989, King and Levine 1993, and Odedokun 1996). Bekaert et al. al (2001) find that a financial globalization leads to a one percent increase in annual real per capita GDP growth over five year period, and find this increase statistically significant (Bekaert: 34). Using recently developed time series causality test techniques, studies have provided little support for the view that financial globalization leads the process of economic development (Demetriades and Hussein, 1996).

Many empirical studies have concentrated on the relationship between financial globalization (as opposed to broader issue of economic globalization) and economic growth. In recent years, the focus of empirical studies has been on the relationship between globalization and income inequality. The experiences of many countries with financial liberalization as a subset of globalization have been mixed -- some succeeded while others failed. For example, the financial liberalization in Argentina, Brazil, Mexico, and Uruguay ended in financial failure, which precipitated imposition of regulation. In contrast to the financial liberalization spree in Latin America, the financial sectors of most Asian developing countries remained relatively regulated in 1980s. Many of these countries have shown rapid GNP per capita growth in 1990s. The varying experiences with financial liberalization around the world indicate that financial liberalization is not a remedy for all economic ills. In fact, current policy recommendations of international organizations reconsider various aspects of financial liberalization including broader issues.

The ultimate goal of economic activities is improvement in quality of life and the primary objective of economic growth is to benefit people. Most countries emphasize social well-being of people as the fundamental goal. Consequently, the problem faced by the policy makers is to increase social benefits. However, it is not clear whether the indicators of economic progress and measures of wealth such as growth in GNP per capita are the primary determinant of social and economic well being of the masses. Growth in GNP per capita may be insufficient for human development and increasing social benefits. In fact, Mazumdar (1996) examined the causal relation between social development and economic growth and concluded that there is no uniform relation. The quality of people lives can be poor even with rapid economic growth. In fact, the transformation of economic growth to human development depends on several factors. Fosu (2002) concluded that political instability adversely affected the transformation of growth in Sub-Saharan Africa.

Although there are many studies investigating the link between financial liberalization or globalization and economic growth, the relation between economic liberalization and quality of people's lives has not been examined rigorously. The purpose of this article is to investigate the

social impact of globalization as measured by economic liberalization. This study attempts to answer the following questions:

a) Does financial globalization spur human development?
b) Is financial globalization related to gender related economic development?
c) Does financial globalization exacerbate income inequality?
d) What is the impact of financial globalization on different income groups?

This paper is different from previous attempt in two respects: (a) using a broader measure of globalization, which reflects current recommended adjustment policies, (b) examining the impact of the globalization on social indicators in general and the needs of women in particular as opposed to GNP per capita exclusively.

The organization of this paper is as follows: Section two describes proxies employed for financial globalization and human development, section three provides results, and conclusion is explained in the last section.

Measurements and data

The indicators for human development and globalization are complex as both are multidimensional and to some degree qualitative. Instead of creating new indices for measuring globalization and human development, for the purpose of this paper, already constructed indices are used.

Globalization
Globalization is an extremely complex phenomenon and is measured by its various indicators. To some people globalization insinuates spread of culture and ideas, impoverish workers in poor countries, damaging the environment or faster spread of disease. Globalization for some non-economists is equivalent of the extension of the mechanisms of capitalism at the world level. On the other hand, many economists view globalization as increase in international trade of both financial assets and goods that comes from a decrease in transaction costs. In the empirical literature, several variables tend to serve as indicators of globalization, for example: Capital flows measured by relative size of FDI; Trade measured by ratio of total trade to GDP, which is perhaps the most extensively used measure of economic globalization; Flows of Labor (movement of workers between countries over long periods); policy restrictions on international capital movements, and even tax policies. Since for the purpose of this study a quantitative measurement is needed, the Economic Freedom Index (EFI) developed by the Heritage Foundation is employed is employed (Kane et. al, 2006). The Index of Economic Freedom, which started in 1995, is an average of 10 freedoms that is considered important to the development of personal and national prosperity. Many variables included in this index are very good proxies for globalization. Countries with high degree of economic freedom are indeed pioneer of globalization.

Briefly the ten indicators of economic freedom are:

1. **Business:** the ability to create, operate, and close an enterprise quickly and easily. The

variables included in the business indicator include: time and cost of starting new business, and ease of starting and closing a business.

2. **Trade:** a composite measure of the absence of tariff and non-tariff barriers that affect imports and exports of goods and services.

3. **Fiscal**: a measure of the burden of government from the revenue side. The variables included are mainly individual and corporate tax rates.

4. **Government:** includes all government expenditures as a percentage of GDP and revenues generated by state-owned enterprises as a percentage of total government revenue.

5. **Monetary:** this indicator combines a measure of price stability with an assessment of price controls. Both inflation and price controls distort market activity. Price stability without microeconomic intervention is the ideal state for the free market and financial globalization.

6. **Investment**: an assessment of the free flow of capital, especially foreign capital. Degree of government, measured by degree of government encouragement of foreign investment. Scale of 0 to 100 (qualitative measurement).

7. **Financial Sector**: the relative openness of each country's banking and financial system Government control of financial sector (Banks, Central Bank, etc.). Scale of 0 to 100 (qualitative measurement)

8. **Property Rights:** An assessment of laws that permit property rights. Scale of 0 to 100 (qualitative measurement).

9. **Corruption:** based on quantitative data that assess the perception of corruption in the business environment, including levels of governmental legal, judicial, and administrative corruption.

10. **Labor:** is a composite measure of the ability of workers and businesses to interact without restriction by the state. It includes variables such are minimum wage, rigidity of hours, and difficulty of firing redundant employees.

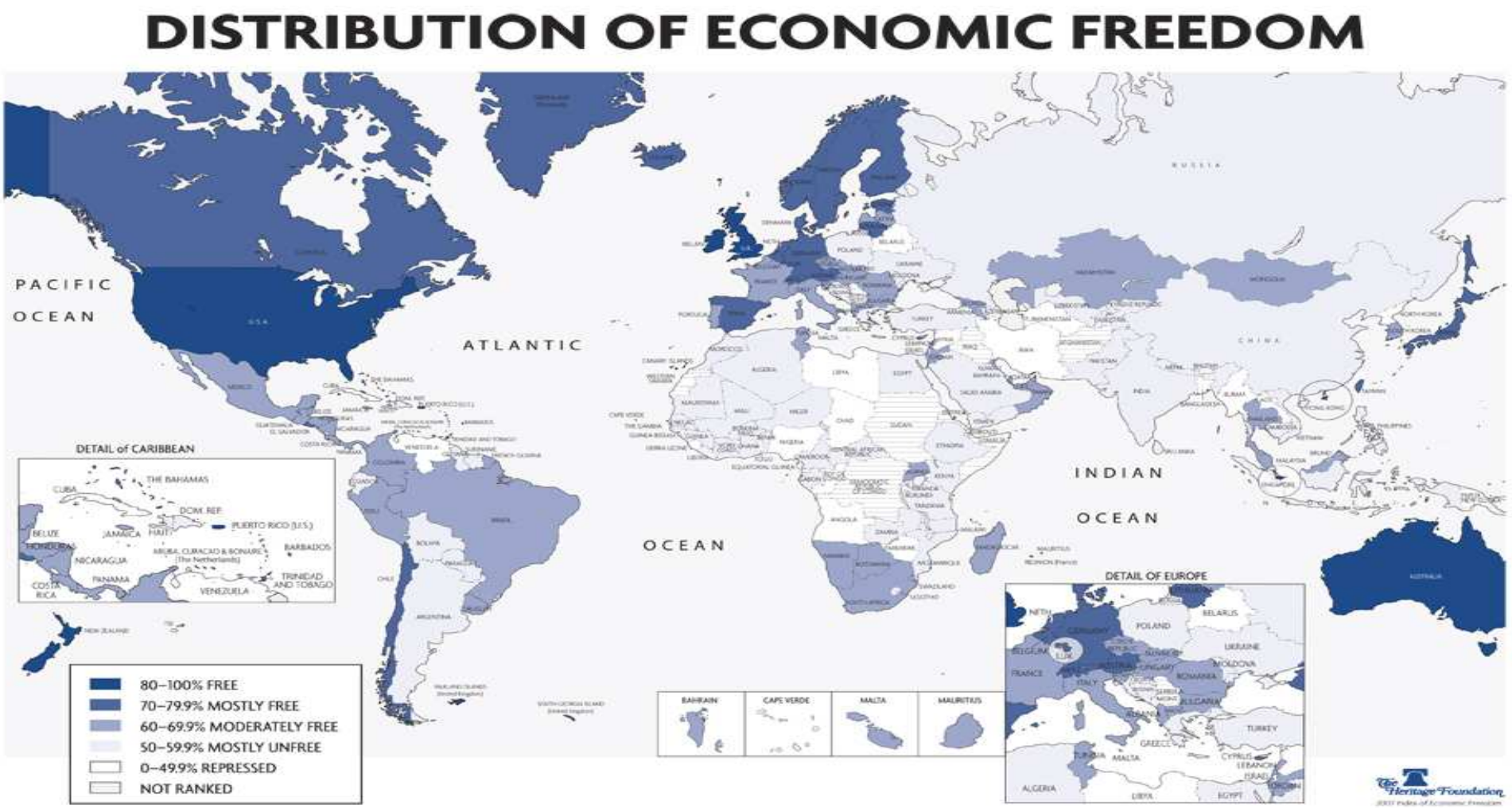
All 10 factors are equally weighted and are graded using a scale from 0 to 100, where 100 represent the maximum freedom. The advantage of EFI is inclusion wide range of variables related to economic liberalization and globalization in addition to the coverage. The index is available for large group of countries. For the year 2006, one hundred sixty seven countries are rated according to the above economic and policy variables in scale of 0 to 100 and then ranked according to five categories of economic liberalization. Countries receiving a score between 80-100 are considered free, countries scoring between 70-79.9 are ranked mostly free, countries with score of 60 to 69.9 are ranked moderately free, countries with score of 50 to 59.9 are considered mostly unfree, and economies that obtain score of 0 to 49.9 are considered repressed (Kane 2006).

The ranking according to EFI indicates that Hong Kong is the freest country (score of 89.3) and North Korea with score of 3 is the most repressed. As chart 1, following page, shows most of world's freest economies are in North America and Europe, while most of the world's economically repressed countries are in Africa and Middle East. Asia has a mixture of free and unfree economies. As a whole, sub-Saharan Africa is economically unfree and by far the poorest area in the world.

Human Development Dimension

It has been argued that GNP pre capita, the standard measure of economic growth, is a poor measure of human development. Consequently, several multidimensional indicators such as Index of Well Being, Index of Quality of Life, and Social Development Index have been constructed (see Pillarisetti 1997 for details). Among all these new indicators, Human Development Index (HDI) developed by the United Nation Development Program has been most successful and received acceptability among development economists. For the purpose of this paper, 3 variables from *Human Development Report* are taken into account: Human Development Index (HDI), Factors related to gender development known as Gender Disparity Index (GDI), and Gini Index (GI).

Chart 1


DISTRIBUTION OF ECONOMIC FREEDOM
PACIFIC
OCEAN
ATLANTIC
OCEAN
INDIAN
OCEAN
DETAIL of CARIBBEAN
DETAIL OF EUROPE
80–100% FREE
70–79.9% MOSTLY FREE
60–69.9% MODERATELY FREE
50–59.9% MOSTLY UNFREE
0–49.9% REPRESSED
NOT RANKED
BAHRAIN
CAPE VERDE
MALTA
MAURITIUS
Heritage Foundation

HDI considers 3 dimensions of longevity, knowledge, and standard of living. Since HDI excludes many important factors, such as political freedom, cultural values, and environmental factors, it has also received some criticisms. For example, Cahill (2005) argues that longevity and knowledge adds relatively small amount of information about human development. Although other studies provide additional factors for measuring human and social development, they are limited in their coverage of countries and years. HDI has much broader scope than GNP per capita per se. The following variables measure magnitude of human development:

1. Longevity
   - Life expectancy
2. Knowledge
   - Adult literacy (two-thirds weight)
   - Mean years of schooling (one-third weight)
3. Standard of Living
   - Real GDP per capita adjusted for purchasing power parity (PPP)

The HDI sets a minimum and a maximum for each dimension and then shows where each country stands in relation to these scales -- expressed as a value between 0 and 1. For example, the minimum adult literacy rate is 0% and the maximum is 100%, the literacy component of knowledge for a country where the literacy rate is 75% would be 0.75. Similarly, the minimum for life expectancy is 25 years and the maximum 85 years, so the longevity components for a country where life expectancy is 55 years would be 0.55. For income the minimum is $100 and the maximum is $40,000 (PPP).[1] The scores for the three dimensions are then averaged in an overall index between 0 and 1, with 1 as maximum human development record.[2]

The Human Development Report also estimates HDI ranking for gender disparities, expressing the female value of each component as a percentage of the male value. These percentages are calculated separately for income, educational attainment, and life expectancy, and then averaged to give an overall index. Multiplying this overall index by the country's HDI result is gender disparity index (GDI).

Finally, Gini Index measures inequality over the entire distribution of income and consumption. A value of zero represents perfect equality and 100 indicates perfect inequality.

For HDI, the 2006 Human Development Report provides information for 177 countries. After matching with Economic Freedom Index (EFI) there are 155 countries for this study. The number of observations drops to 130 for GDI, and 125 for Gini Index after matching with EFI. The geographical coverage EFI and HDI permits the examination of the effects of economic globalization for countries at different income levels.

[1] One of the criticisms of HDI is the fixed reference point (maximum and minimum vector), which makes HDI only intertemporally comparable.
[2] For more detail, refer to UNDP (2007).

Empirical Results

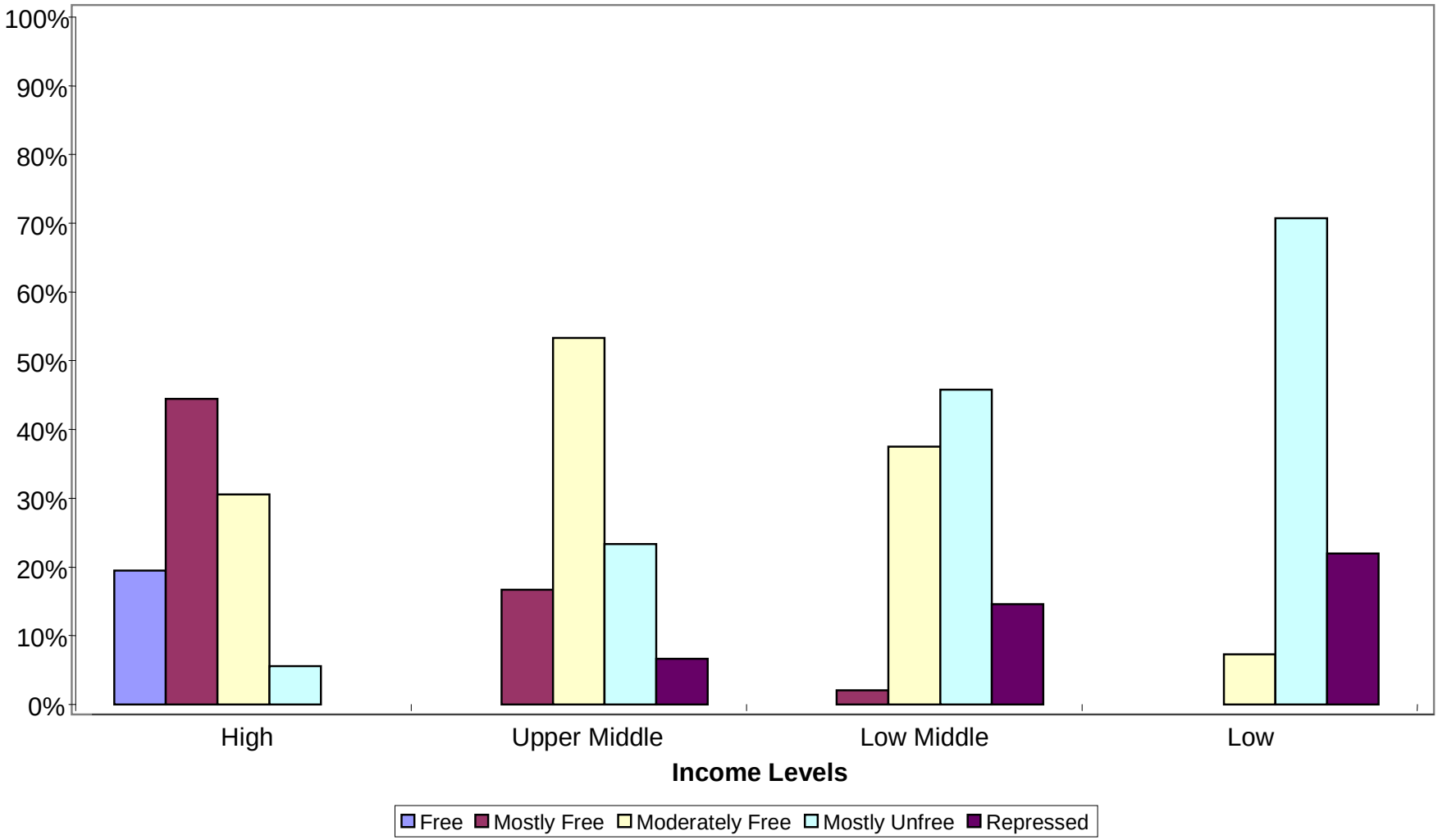
Descriptive Statistics

For the purpose of this study economies are divided according to 2005 GNI per capita, calculated using the World Bank Atlas method. The groups are: low income, $875 or less; lower middle income, $876 - $3,465; upper middle income, $3,466 - $10,725; and high income, $10,726 or more. As Table1 exhibits, most of world's economies are still unfree. Of the 155 countries, 29 are free or mostly free while 78 are unfree or repressed, and 48 are moderately free. The majority of free and most free countries are in high and upper middle-income group. All the Free countries are high-income countries. Except, Chile, Estonia, Lithuania, Trinidad& Tobago, and Barbados, all the mostly free countries are also high income group. Also, Saudi Arabia and Greece are the only high income economies classified under mostly unfree. Chart 2, following page, shows income classification and economics freedom index, which depicts relationship between income group and economic freedom. In fact, Index of Economic Freedom annual editions consistently report a strong correlation between economic freedom index and degree of economic growth, as displayed with a scatter diagram in chart 3.

Table 1: Economic Freedom and GNP per capita Classifications

Income levels	Levels of Economic Freedom					
	Free	Mostly Free	Moderately Free	Mostly Unfree	Repressed	Total
High Income - Number - Percentage	7 19%	16 44%	11 31%	2 6%	0 0%	36 100%
Upper-Middle Income - Number - Percentage	0 0%	5 17%	16 53%	7 23%	2 7%	30 100%
Low Middle Income - Number - Percentage	0 0%	1 2%	18 37%	22 46%	7 15%	48 100%
Low Income - Number - Percentage	0 0%	0 0%	3 7%	29 71%	9 22%	41 100%
Total - Number - Percentage	7 4%	22 14%	48 31%	60 39%	18 12%	155 100%

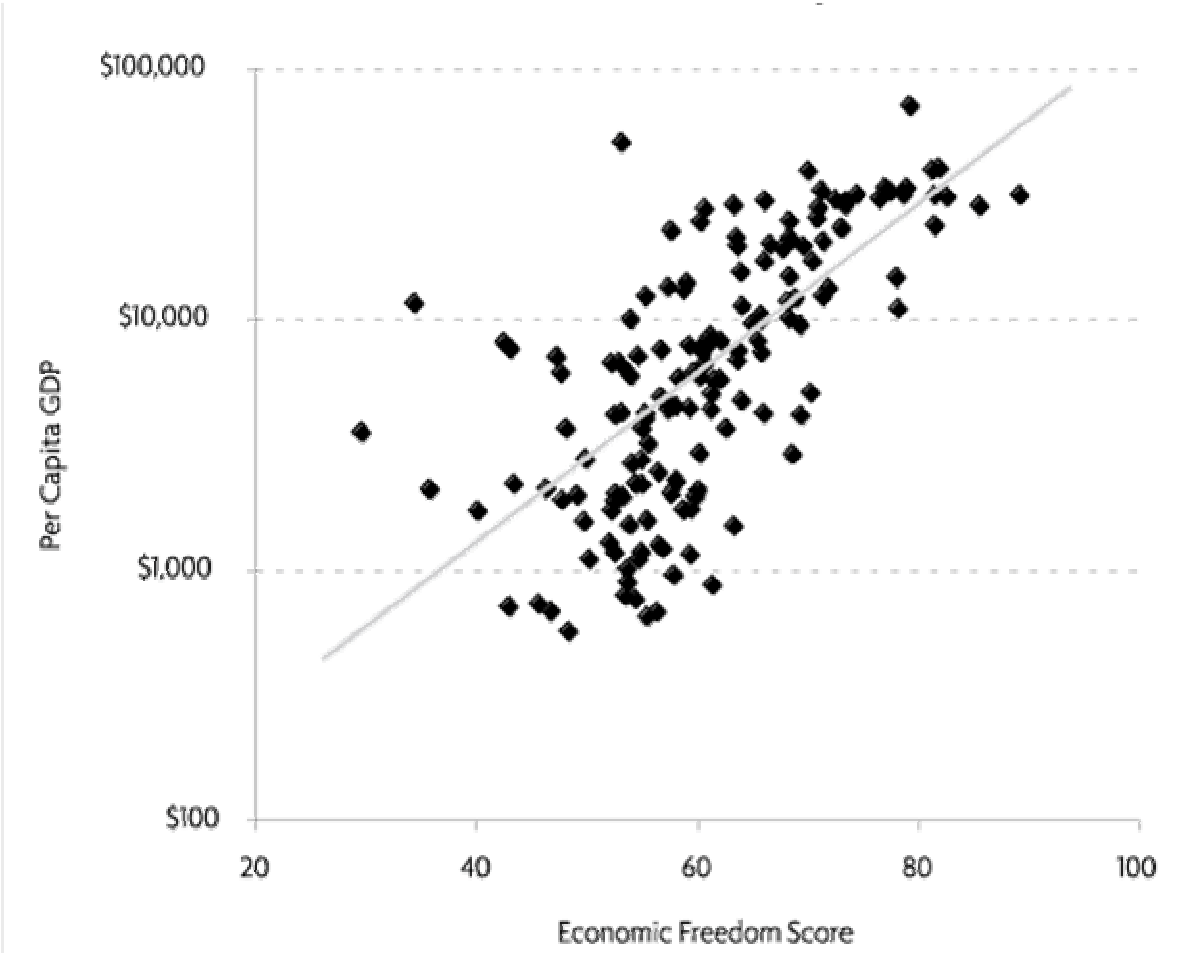
Chart 2: Economic Freedom and Income Classifications



According to *2006 Human Development Report*, Norway with score of 0.965 has the highest human development, and Niger with score of 0.311 is the lowest of all. Other high-income industrial countries, for example the U.S., Japan, and Canada, are also ranked high in HDI. African nations demonstrate the least HDI scores in general. Countries also show different ranking regarding HDI and conventional GDP per capita. In fact, *Human Development Report* noted that there is no automatic link between economic growth and human development criteria. On the other hand, HDI and GDI are rather comparable. Norway, Australia, Canada, and the U.S., which have highest positions in GDI respectively also rank high in HDI scale. However, there is not apparent relation Gini index (GI) and HDI For example, Azerbaijan with score of 19 shows the lowest income disparity among all the countries in the sample, while it ranks number 99 in HDI. On the other hand, Namibia with score of 74.3 displays highest income inequality. Many countries in South and Central America are among the highest Gini scores. Nevertheless, comparison of Gini index among countries must be made with caution because the surveys cover different years using different methodology. In fact, recent case studies reveal deterioration of income equality in many former Soviet Union Republics and central –eastern European countries and updated data may show a different picture.

Table 2 shows basic descriptive statistics for income groups and economic freedom scores and other variables. The data demonstrate that there is a pattern for EFI and income groups. The mean score decreases as we move to lower income clusters, indicating a trend in the direction of economic repression. The GDI and HDI also show the same consistent pattern that is as income level increases GDI and HDI also increases. The Gini Index, however, does not demonstrate the same relationship. For example, low-income counties, on average, show lower income inequality than low-middle income countries. In general there is not much variation among income groups with regards to Gini coefficient, except for high-income level. High income group, however, show more equal distribution of income. The dispersion for different indices across income classification is also important to note. For example, the coefficient of variations for GDI and HDI for low income is much higher than other income groupings. The upper-middle income group exhibits a very high dispersion for all indices as compared to high income groups.

Chart 3: Economic Freedom vs. Per Capita GDP



Sources: World Bank, *World Development Indicators Online*, at *publications.worldbank.org/subscriptions/WDI* (October 19, 2006; subscription required); Central Intelligence Agency, *The World Factbook 2005*, at *www.cia.gov/cia/publications/factbook/index.html* (October 19, 2006); International Monetary Fund, World Economic Outlook database, April 2006, at *www.imf.org/external/pubs/ft/weo/2006/01/data/ 24 index.htm* (October 19, 2006); and Tim Kane, Kim R. Holmes, and Mary Anastasia O'Grady, *2007 Index of Economic Freedom* (Washington, D.C.: The Heritage Foundation and Dow Jones & Company, Inc., 2007), at *www.heritage.org/index*.

Table 2: Description of Variables

Income Levels	GDI			HDI			GI			EFS		
	Mean (CV)	Min	Max	Mean (CV)	Min	Max	Mean (CV)	Min	Max	Mean (CV)	Min	Max
All Levels	.712 (27)	.262	.962	.717 (25)	.3110	.965	40.30 (26)	19.00	74.3	60.87 (17)	29.68	89.29
High	.920 (5)	.74	.96	.919 (5)	.777	.965	33.03 (16)	24.7	43.40	72.64 (11)	57.65	89.29
Upper-Middle	.80 (10)	.555	.881	.80 (10)	.570	.885	42.30 (27)	15.40	63.00	63.29 (14.29)	34.48	78.29
Lower Middle	.700 (14)	.431	.814	.713 (13)	.439	.826	43.14 (28)	19.00	74.30	56.79 (14)	29.68	70.31
Low	.476 (24)	.292	.708	.482 (22)	.311	.709	41.21 (22)	26.80	62.90	53.54 (10)	35.81	63.41

EFS = Economic Freedom Scores
HDI = Human Development Index
GDI = Gender Disparity Index.
GI = Gini Index
CV = Coefficient of Variation (Figures in Parentheses)

Regression Results

The HDI, GDI, and GI were regressed against economic freedom scores for all countries as well as different income groups. The results reported in tables 3-6. Table 3 shows that HDI is influenced by degree of economic freedom for all countries. The adjusted R-squared also shows relative high degree of explanatory power. However, this significant relation is only true for high income group. This result indicates that the impact of economic freedom, which can be viewed as globalization, can be seen only for high income group. The other groups (upper-middle, low-middle, and low income) do not demonstrate significance at any level.

Table 4 shows the relation between economic freedom scores and gender disparity index. The result of regression is almost the same as table 3. There is high significant relation for all income groups, which is mostly derived from high income group impact. The upper middle and low income groups do not show any relation, while low-middle income group exert some degree of significance with very low explanatory power.

The last regressions reported in Table 5, shows regression between economic freedom score and Gini index. The result of this regression is rather difficult to interpret. The entire group shows a significant negative relation between EFI and GI, but the adjusted R^2 is very weak. The negative relation indicates economic freedom or globalization results in additional income disparity. This result corroborates with the general view that globalization in recent years has exacerbated income inequality worldwide. However, the disaggregated data is rather inconclusive. For high income group, in fact there is a low significant positive relation, showing for high income group globalization created more income inequality. However, for all other income groups the regression did not show any significant relationship.

Table 3: Regression Results for HDI

Dependent Variable: Human Development Index
Independent Variable: Economic Freedom Score

Income Levels	Constant	Coefficient	Adjusted R-squared	N
All levels	.04	.01 (10.27)***	.40	155
High	.69	.003 (4.10) ***	.31	36
Upper-Middle	.64	.003 (1.64)	.05	30
Low-Middle	.59	.002 (1.22)	.01	48
Low	.31	.003 (1.04)	.002	41

t-ratios in parentheses
*** Significant at 1% level

Tablo 4: Regression Results for GDI

Dependent Variable: Gender Related Development Index
Independent Variable: Economic Freedom Score

Income Levels	Constant	Coefficient	Adjusted R-Squared	N
All Levels	-.15	.014 (11.43)***	.5	130
High	.62	.004 (4.72)***	.41	32
Upper-Middle	.63	.003 (1.21)	.02	25
Low-Middle	.39	.005 (2.27)*	.10	37
Low	.22	.05 (.1.29)	.02	36

t-ratios in parentheses
*** Significant at 1% level
*Significant at 10 % level

Table 5: Regression Results for Gini Index

Dependent Variable: Gini Index
Independent Variable: Economic Freedom Score

Income Levels	Constant	Coefficient	Adjusted R-Squared	N
All Levels	52.50	-.2 (-2.09)**	.03	125
High	15.72	.23 (1.71)*	.07	26
Upper-Middle	36.32	.09 (.27)	-.05	22
Low-Middle	24.27	.32 (1.01)	.00	39
Low	65.42	-.45 (-1.56)	.04	38

t-ratios in parentheses
** Significant at 5% level
* Significant at 10 % level

Conclusion

Although for many years policy makers have voiced their concern that economic growth is not the end in itself, only a few studies have considered the impact of adjustment policies on other aspects of development. This study analyzed the impact of globalization on human, gender development, and income equality. The regression analysis indicates, although there is a strong relation between EFI and GDI, HDI for entire counties, only high-income group show a significant relation. One impression emerges from the study is that the key consideration in determining a country's position in human development ranking is not related to globalization for developing countries at low or low-middle income groups. Globalization perhaps is important for human development only after certain level of income growth. Also, the general view that globalization exacerbates income inequality need to be addressed researched in more detail. Of course, the validity of data and the appropriateness of HDI as a measure of human development are questionable. For example, the EFI may not capture the development of globalization. A country may pass laws for liberating financial sector, but it does not create actual integration of the market. The changes in policies do not attract foreign direct investment or international trade. In addition, the impact of globalization on human development takes time to establish. Many countries recently have liberalized their economies and entered the global market economy and the effect of these policies does not appear in this analysis. Another problem could be the synchronizing of data sets HDI and EFI. The economic freedom data are mainly based on 2006 information while HDI and GDI are calculated on the basis of 2006 data.

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