Ethical Development and the Social Impact of Globalization

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Ethics is not a topic typically addressed by economists. Economists are positive theorists and the closest they come to approaching normative issues is when maximizing multivariate utilitarian social welfare functions. Although the transition of economics from a philosophy to a science over the past three decades has been a boon to economic practice and thinking, the discipline has arguably "thrown out the baby with the bathwater," in that few contemporary economists are comfortable discussing normative issues. Further, the filtering mechanism imposed by Ph.D. comprehensives favors students with technical and mathematical training over those with a background in philosophy and the liberal arts backgrounds. Admittedly, public finance professors do pay lip service to differing philosophical rationales for income redistribution, but one is

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unlikely to find the subject of ethics in the index of their texts or for that matter in any of the modern economics texts. Interestingly, Adam Smith, the father of modern economics, was not shy about merging normative statements into his path-breaking text, *The Theory of Moral Sentiments*.[2]

Jagdish Bhagwati has publicly stated that economists need to step up to the plate to inform the **general public** that free trade provides a proven path for developing countries to reduce poverty and to provide a better life for their citizens.[3] As implied, public policy lectures on trade topics require courage because the general public does not comprehend complex topics like capital flows and the economic dynamics underpinning the gains from trade. The public's knowledge of trade is shaped by nightly news broadcasts which detail job losses in import competing industries, global warming, the devastation of the rain-forests, child-labor problems, sweat shops, human rights violations, and the "self-serving ethics" of multinational corporate executives. In addition, there is an almost certainty that free trade defenders will address an audience which includes a large a number of anti-globalists, who rally to causes that stir their passions and for whom listening to free-trade supportive lectures based on the mountains of evidence is not high on their agenda.

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[2] Smith, Adam, *The Theory of Moral Sentiments*, Oxford: Clarendon Press, 1776.

[3] Bhagwati, Jagdish, "After the Seattle Debacle: What next for free trade?" Alex G. McKenna Economic Education Series, 50th Lecture, Fall 2000.

It is with the strength of Bhagwati's pronouncement and "call to arms," that our normative nature emerges[4] and we suggest the following statements: Ethical development requires and is consistent with open markets, the protection of private property rights, the rule of law, privatization of public assets, and limited government. The role of multilateral organizations like the World Bank, International Monetary Fund, and United Nations, should be to promote and encourage globalization. Free trade is very much responsible for vast improvements in the lifestyles of both developing and developed countries.

The Heart of Development

Political and economic obstacles to ethical development are supported by those who believe that free trade is the definitive cause of environmental degradation (e.g, global warming and pollution), unemployment, lower rates of labor compensation in developed countries, and growing world income inequality. This anti-trade stance is consistent with an attraction to socialism and relativism. Anti-globalists believe that an elimination of trade and reduction in growth invariably lead to a better world for the truly poor where native cultures and economies are protected from Western influence. This position is inconsistent with evidence. Over two-hundred years of empirical and historical research, offered by both liberal and conservative economists, provides overwhelming evidence that free trade, the rule of law, access to better education, and private property

[4] To be precise, this paper follows a normative path to defend free trade and to rebuke anti-globalist rhetoric. But admittedly and without apology, we support our arguments via the data analytic and quantitative skills that we both owe to graduate school training at the University at Albany.

rights offer a significantly better life and substantially more socio-economic opportunities to all individuals of both developing and developed countries. It is ironic that the true humanitarians of the world are the free trade **positive theory** economists. Numerous free trade economists have stated a strong desire to formulate economic policies that assist the disadvantaged and poor through both multilateral grants (not loans) and trade policies that would create millions of jobs and provide industry growth for developing countries.[5]

Simply put, the anti-globalist premise is that production causes pollution which reduces world welfare; thus, growth is bad. This upside-down fallacy of composition logic leads to the conclusion that real growth translates into lower standards of living—a conclusion that nearly the entire spectrum of economists does not take seriously.

The anti-globalist pundits expect trade to increase structural unemployment—a zero-sum game where purchasing imports implies that fewer domestic products are sold,

[5] Recent articles and lectures by Jeffrey Sachs, Jagdish Bhagwatti, Adam Lerrick, and Lawrence Lindsay confirm this claim. See *International Debt Relief: A Moral and Economic Challenge,* by Todd Flanders, Gary Quinlivan, and Michel Therrien, Christian Thought Series, Number 2, Center for Economic Personalism at the Acton Institute for the Study of Religion and Liberty, Summer 2001. Also see Adam Lerrick, "A New Approach to Development Aid: Changing the Incentives," *Economic Directions*, Center for Economic and Policy Education, Alex G. McKenna School of Business, Economics, and Government at Saint Vincent College, Vol. 13, No. 1, 2003, forthcoming. Gordon Brown, British chancellor of exchequer, proposed doubling aid to developing countries to improve health conditions, education, and to cut world poverty rates in half by 2015 (Hunt, Albert R. "A New Marshall Plan?" *Wall Street Journal*, December 29, 2001, P. A17). Aid would be contingent on pro-market reforms and transparency in usage of aid funds. According to the *Wall Street Journal* pundit, Albert Hunt, Brown's proposal is opposed by the "anti-globalization crusade of labor and environmental groups" and by those who question the benefits of past aid.

and older individuals become permanently unemployed or relegated to low-pay service jobs. The post hoc fallacy committed in this argument is that increased trade also implies more exports and, in cases of trade deficits, capital inflows. Export industries are a country's relatively efficient industries and, combined with capital inflows, they both provide positive incentives via higher paying jobs to those unemployed individuals who need to be retrained. As a consequence, unemployed inputs and future inputs are directed by the invisible hand of the market to the more efficient export-oriented industries. The evidence that these positive incentives are working is easily obtained: A review of the last three decades of U.S. trade data reveals that increased rates of employment are positively correlated to increased imports—as income rises, jobs are created and more expenditures on imports take place. On the flip side, as is commonly known, from 1989 to 2003, Japan's trade surpluses with the United States have endured without abatement and yet, Japan's economy has been stagnant with non-existent job growth. Paradoxically, numerous articles (especially emanating from IMF reports) addressing the aftermath of the "1997 Southeast Asian Crisis" and the two "Latin American Crises," which followed the 1994 Mexican peso devaluation and the 1998 Russian bond default, approvingly noted that those countries that went on to incur substantial recessions and increased poverty rates at least were able to realize the positive effect of improvements to their current accounts. This is not a startling revelation. Countries that become (or are made) poorer reduce their purchases of all goods including imports. By making them poorer yet, an indigenous, and now heavily-indebted, population is not made better off by a current account surplus.

There is Hecksher-Ohlin-Samuelson theoretically-based evidence and some minor empirical support (i.e., adjusted for productivity differences, government impediments, input heterogeneity, and transportation costs) that real wages have a tendency to converge.[6] But as long as free trade leads to improvements in both country and world welfare, labor wage rate convergence for homogeneous labor is a cost worth bearing for the developed countries on behalf of those countries that are impoverished. There is of course plenty of evidence that the distribution of the "gains from trade" is not equitable. How the "gains from trade" are divided is a domestic problem generally dependent on a country's degree of economic and social mobility.[7] But as we show below, increased per capita trade has led to increased income equality.

Anti-globalists also preach that transnational corporations enrich themselves at the expense of both the inhabitants of least developed countries and of the laborers who would supposedly become unemployed in the developed countries. The facts, however, reveal that, over the last two to three decades, transnational corporations have done more to clean up the environment and to promote world welfare than the aggregate initiatives of the World Bank, World Trade Organization (WTO), International Monetary Fund (IMF), and the Organization for Economic Cooperation and Development (OECD) combined.[8] Further, rather than consolidating economic power, the power of transnational

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[6] Salvatore, Dominick, *International Economics*, 7th Edition, John Wiley&Sons, New York, 2001, pp. 141–142.

[7] Nancy Birdsall and Carol Graham (Eds), *New Markets, New Opportunities? Economic and Social Mobility in a Changing World*, Brookings Institution Press, Washington D.C., 2000.

[8] Quinlivan, Gary, "Multinational Corporations: Myths and Facts," *Religion and Liberty*, Acton Institute, November/December 2000. Also see Quinlivan, "Sustainable Development: The Role of Multinational

corporations appears to be disseminating over an ever-broader base. Over the past twenty-five years, the number of transnational firms has increased almost six-fold (7% annually) while world GDP has increased less than three-fold (4% annually). The implication is that the economic power of the average transnational firm (as measured by the ratio of world GDP to the number of transnational firms) is halving every 25 years.[9]

With regard to the charge of labor exploitation, the data suggest that transnational firms actually provide better wages than indigenous firms. Affiliates of US multinational firms pay wage premia that range from 40% in high-income countries to 100% in low-income countries. Workers in foreign-owned apparel and footwear factories in Vietnam rank in the top 20% of wage earners. In 2000 at Nike factories abroad, annual wages were $670 compared with an average minimum wage of $134. In Indonesia, annual wages were $720 compared with an average annual minimum wage of $241. In Mexico, firms that exported half of their product paid wages that were, at the low end, 11% higher than wages of non-export oriented firms. Firms that exported most or all of their product paid wages from 58% to 67% higher than wages of non-export oriented firms.[10]

Corporations," chapter in *Renewing the United Nations and Building a Culture of Peace*, IIFWP, Prepared for the Millennium Summit and General Assembly of the United Nations, Winter 2000.

[9] Got this info from a Gary paper – need a cite.

[10] Drusilla K. Brown, Alan V. Deardorff, and Robert M. Stern, "The Effects of Multinational Production on Wages and Working Conditions in Developing Countries," discussion paper no. 483, School of Public Policy, The University of Michigan, August 2002.

The Developmental Role of WTO, IMF, and World Bank

The WTO, IMF, and World Bank have sought to promote trade and capital flows through the opening of domestic markets, resolving financial crises, direct loans, financial support for NGOs (non governmental organizations), and expenditures on various welfare-oriented projects. These multilateral organizations are committed to reducing world poverty rates.

WTO

Since the 1999 Seattle protests, the WTO has been accused of providing a forum that favors multinational corporations at the expense of domestic labor and the world environment.[11] The WTO discussions concerning labor and environmental rights were also criticized by developing countries due to their prohibitive impact on the exports of developing countries and their tendency to favor in an obvious hegemonic fashion the inefficient industries of the developed countries. According to the developing countries, industrialized countries went through the same transitional development stages of high pollution heavy industry and child labor problems. Furthermore, to varying degrees, the developing countries cannot afford the new clean technologies and if forced to pay some

[11] Das, Dilip K., "The Global Trading System: From Seatlle to Doha," *Canadian Institute of International Affairs International Journal*, LexisNexis, CBCA-ACC-NO: 5519029, v.57(4), September 2002. Also see, Mark Suzman, "World News: Trade: Protests gather momentum across city WTO in Seattle security breach postpones preliminary NGO conference," *Financial Times* (London), November 30, 1999, World News: Trade; p. 5. And, Transcript #99113000FN-I10, MONEYLINE, November 30, 1999, Tuesday 6:30 pm Eastern Time with guests Alan Brown and Chris Kitze.

kind of WTO-imposed minimum compensation to their labor, their comparative advantage in labor intensive goods would be jeopardized. Developmental studies reveal that real GDP per capita has a U-shaped relationship with environmental pollution—as real GDP per capita rises the environment at first worsens, but at approximately $5,000 per capita GDP, the environment improves.[12] As income rises, domestic expenditures to improve the environment become an increasing priority, especially for those countries that have some degree of democracy.[13] Preventing free trade from competitively increasing the technological efficiencies associated with global production and augmenting real income in developing countries will only postpone the world's environmental cleanup. Increases in real GDP also lead to demands for better education, which coincides with reductions in child labor rates.[14]

The General Agreement on Trade and Tariffs, the precursor to WTO, was too heavily influenced by the developed countries' special interest groups (i.e., especially in the areas of textiles, foot apparel, steel, automobiles and agricultural products).[15] Trade restrictions took the form of import quotas, voluntary export restraints on textiles, the

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[12] See Bhagwati, Jagdish, "The Case for Free Trade," *Scientific America*, November 1993, Volume 269, Number 5, pp. 42–9.

[13] Gene Grossman, "Trade and the Environment: Friends or Foes?" *Economic Directions*, Center for Economic and Policy Education, Alex G. McKenna School of Business, Economics, and Government at Saint Vincent College, Vol. 13, No. 3, 2003, forthcoming.

[14] Quinlivan, Gary, "The Multilaterals," *The World & I Magazine*, Washington Times, November 2000, Vol. 15, No. 11, pp. 267–285.

[15] Ibid.

Multifibre Agreement of 1974, section 22 of the U.S. Agricultural Adjustment Act,[16] and the EEC's 1968 Common Agricultural Policy. Agricultural and textile limits on imports were primarily applied to Latin America, Asia, and Africa.[17] The developed countries also discriminated against developing countries by heavily subsidizing their agricultural industry through support prices and subsidized agricultural exports.

The 1994 WTO agreement proposed to eliminate quotas, reduce subsidies and other market impediments to open Western markets to developing countries. Article 2 of the WTO agreement included the phase out of the Multi-Fiber Agreement by January 1, 2005, but that timeline will not be achieved.[18] With respect to textiles, recent U.S. trade negotiations suggest a possible extension in that timeline to 2009 for the American hemisphere. In February 2003, U.S. Trade Representative Robert Zoellick declared the Bush Administration's intention to create a North-South American Free Trade Zone (minus Cuba) by the end of 2004.[19] This proposal suggested a five-year phase out of U.S. textile duties from the completion of the Free-Zone agreement. Furthermore, the Doha Round of the WTO was unable to set a definitive timeline to eliminate agricultural subsidies.[20] But some strides have been made—the U.S.-African Free Trade Act of 2001

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[16] Rowley, Charles K., Thorbecke, Willem, and Wagner, Richard E., *Trade Protection in the United States*, The Locke Institute, Edward Elgar, Brookfield, 1995, p. 218.

[17] Lash, William H., "Africa and the textile wars," *The Washington Times*, 11-12-97.

[18] http://otexa.ita.doc.gov/integ.htm. Also see Caharanjit Ahuja, "Protectionism in textile industry must go, says expert," http://www.expressindia.com/fedaily/19991206/fco06004.html.

[19] King, Neil Jr., "U.S. Offers Cuts In Tariffs to Spur Trade in Americas," Wall Street Journal, February 12, 2003, p. A13.

[20] Miller, Scott, "WTO Proposes Ending Farm-Export Subsidies," February 13, 2003, p. A10.

eliminated tariffs and quotas on the import of African textiles and apparel, but once again U.S. special interests were able to water the Free Trade Act down such that imports from Africa were required to be processed from U.S. produced bolts of cloth. Fortunately, the agreement is contingent on free market reforms in those African nations participating in trade with the U.S.

In February 2003, the WTO called on member developed nations to agree to a nine-year phase out of agricultural subsidies and set a March 31, 2003 deadline to define a mutually agreeable "roadmap" for the phase out. Politically the free trade momentum is further complicated by the reluctance of the developing countries to give concessions in the service industry in exchange for the elimination of agriculture subsidies and textile tariffs and quotas.

IMF

Since 1995, the IMF with the assistance of the World Bank and the U.S. Treasury's Exchange Stabilization Fund has provided billions of dollars to soften the financial crises of numerous developing countries (e.g., Mexico in 1995; Thailand, South Korea, and Indonesia in 1997; Russia in 1998/99, Ecuador in 1999, and Argentina in 2002/03). But numerous economists have questioned if these loans prevent contagion, reverse financial crises, and lay a foundation for responsible domestic financial institutions or if the loans are a source of moral hazard promoting future crises. Clearly numerous financial institutions of developed countries have benefited directly from the bailouts, but the countries in crisis were left with severe recessions and a highly indebted indigenous population.

World Bank

The World Bank consists of the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA).[21] The IBRD borrows in international capital markets and makes loans to developing countries at market rates for development projects. The IDA obtains its funds from developed countries and makes subsidized loans to the poorest developing countries. Affiliated with the World Bank are the International Finance Corporation, which provides direct loans to the private sector in developing countries and the International Center for Settlement of Investment Disputes, which promotes flows of international investment by acting as arbitrators of disputes between foreign investors and governments.

Unlike the IMF, the World Bank provides self-evaluations through its Operations Evaluation Department (OED).[22] From 1990 to 1998, for the most part, less than 40

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[21] Peter B. Kenen, *The International Economy*, 3rd edition (Cambridge: Cambridge University Press, 1994), p. 481. Also see Quinlivan, "The Multilaterals," *International Journal on World Peace*, Vol. XVII No. 3, September 2000, pp. 47–75.

[22] For OED reports from 1992–01 see: http://www.worldbank.org/oed/arde2001/. "World Bank Evaluation, Monitoring and Quality Enhancement": http://www.worldbank.org/evaluation/. See Tables 1, 2, and 13; and especially pages 6, 16, 17, 68, 69. Evaluations focus on three measures of success utilizing two weighting methods—disbursements and projects. The measures of success include: the percent of projects or disbursements that (1) have a satisfactory outcome; (2) that are "likely or better" to be sustainable; and (3) that have a "substantial or better" institutional development impact. To be rated satisfactory, a project must have an economic rate of return of at least 10 percent and "Most of the relevant development objectives are (or are expected to be) achieved efficiently with only minor shortcomings" p. 67. Sustainability measures the durability of a project. The institutional development impact "measure evaluates the extent to which an intervention improves the ability of a country or region to make more

percent of World Bank-supported projects had Institutional Development (ID) Impact ratings of "Substantial or Better." However, since 1998 (1999 if based on the World Bank's project-weighted measurement), substantial improvements have occurred in all three of the World Bank assessment measurements for outcome, sustainability, and ID impact. The World Bank evaluated 1007 ($84.3 billion dollars worth) projects that exited their active portfolio during fiscal years (FY) 1996 to 1999 and another 384 ($27.5 billion) projects that exited in FY 2000 to 2001. Comparing, via project weighting, the Exit FY96–99 projects to the Exit FY00–01, there has been a 15 percent or better absolute percentage increase in Institutional Development ("substantial or better"), at least a 20 percent absolute increase in Sustainability ("likely or better"), and an achieved level of at least 80 percent in the "satisfactory" outcome measures, in the economic policy, education, finance, telecommunications, transportation, urban development, and water supply and sanitation sectors. Utilizing measures weighted by disbursements, the improvement list narrows to education, finance, and transportation. Even the agricultural sector showed some improvement given the disbursement weights, but based on the project weights, improvements have been slight and both the sustainability and ID measures of the FY00–01 exits are still below 50 percent.

Examining the regional impact of World Bank initiatives, on a disbursement-weighted basis, only Africa is below 60 percent in sustainability for its FY00–01 exits. The ID impact for Africa, the Middle East and North Africa, and South Asia was below 32 percent, which represented a substantial drop in the ID impact measurement based on

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efficient, equitable, and sustainable use of its human, financial, and natural resources" p. 68.

the FY96–99 exits.[23] Utilizing a project-weighted measure, however, the ID impact shows slight improvements across the board. Africa significantly lagged the other five regions in outcome, sustainability, and ID impact. But fortunately, comparing the FY00–01 exits to the FY96–99 exits, Africa did realize significant improvements in its satisfactory outcome and sustainability measures. Hopefully, this improvement will reverse the World Bank's dismal long run sustainability record for past African projects and, thus, correct a 25 year 20 percent decline in African consumption per capita.[24]

Examining the FY96–01 exits, on a project weighted basis, in Africa, 7 out of 30 countries had satisfactory outcomes below 50 percent, but only 9 of the 30 countries had sustainability rankings exceeding 50 percent and the ID impact exceeded 50 percent in only 4 countries. Only three countries (Russian Federation, Haiti, and Jamaica) in the remaining five regions had less than a 50 percent satisfactory outcome ranking on a project-weighted basis. Fifteen out of 56 non-African developing countries receiving aid from the World Bank had exited projects that were less than 50 percent sustainable. Finally, 34 of the 56 non-African countries had exited projects whose ID impact were below 50 percent. The most serious failures of FY 96–01 exits occurred in Angola, Burundi, Central African Republic, and Haiti where none of the 36 projects which received $660 million dollars of disbursements are believed to be sustainable. Furthermore, less than 1/3 of 222 projects, costing $9 billion in disbursements, were viewed to be sustainable.

[23] The regions include Africa, East Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, and South Asia.

[24] *Human Development Report 1998*, Oxford University Press, 1998, pp. 1–2.

The evidence indicates that the salvation of least developed countries will not come from primarily from World Bank directed loans. These countries need to impose market-oriented reforms to attract foreign direct investment and developed countries must open their markets.

The Social Gains from Trade

Many studies have demonstrated the gains from trade in terms of improvements in per-capita income. In considering the ethics of development, our intent is to focus on social, rather than purely economic, gains from trade. For 147 countries, we examine data on the following social indicators:

1. Individual rights (as measured by child labor, the human development index, and the index of economic freedom);
2. Income distribution (as measured by the Gini coefficient);
3. Health (as measured by life expectancy, infant mortality, the daily supply of protein, and the daily supply of calories);
4. The environment (as measured by the annual rate of deforestation, and CO_2 emissions);
5. Gender equality (as measured by female adult literacy, the gender related development index, and the gender empowerment measure).

In almost all cases, we find greater social benefit for countries that experience greater per-capita trade. While these analyses are strictly correlational, we have conducted panel data analyses within the context of distributed lag models that indicate

that current changes in per-capita trade significantly predict future changes in social benefit as measured by the United Nations' Human Development Index (cf. Quinlivan, Gary M. and Antony Davies, "A Panel Data Analysis of the Impact of Trade on Social Welfare").

Countries with the lowest per-capita trades are Sierra Leone ($27), Burundi ($34), Madagascar ($47), and Mozambique ($58). Among the countries with the greatest per-capita trades are: Singapore ($68,000), Hong Kong ($60,000), Luxembourg ($39,000), Belgium ($32,000), and Ireland ($25,000). Germany, Japan, and the United States rank 16th, 30th, and 32nd with per-capita trades of $12,000, $6,000, and $5,900, respectively.

Individual Rights

Of great concern among free-trade opponents is the belief that increased globalization leads to a greater exploitation of children as lesser developed countries employ greater numbers of low-wage children to supply products to developed countries. A look at the data reveals the reverse – countries with higher per-capita trade actually have a significantly lower incidence of child labor. On average and across countries, an increase in per-capita trade of 10% is associated with a 1% decrease in the child labor rate.

Figure 1 shows a decrease in child labor for countries with greater per-capita trade. This data would support the counter-claim that, rather than augmenting child labor, increased trade provides the additional standard of living that enables parents to remove their children from the workforce and put them in school, thus reducing the incidence of child labor in both the current and future generations.

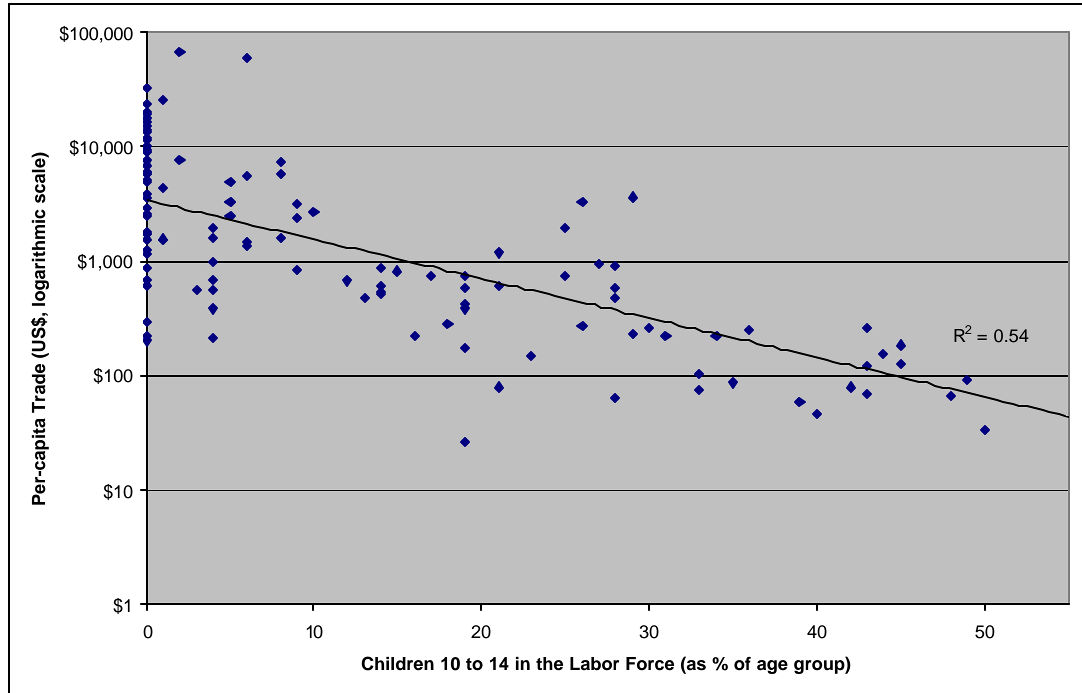

Figure 1. Relationship between per-capita trade and child labor[25]

In an attempt to develop a broader standard of living index that accounts for non-monetary factors, the United Nations Development Programme has produced a composite measure of life expectancy, educational enrollment, adult literacy, and per-capita income called the Human Development Index (HDI). The HDI ranges from 0 (abysmal human development) to 1 (superb human development). As of 1997 (the last year in which HDI numbers are available), countries scoring at the bottom of the chart included Sierra Leona (0.254), Niger (0.298), Ethiopia (0.298), and Burundi (0.324). Countries at the top of the HDI chart included Canada (0.932), Norway (0.927), the United States (0.927), and Japan (0.924). Figure 2 shows the relationship between per-capita trade and the HDI. For the countries shown, the mean HDI is 0.689. The mean per-capita trade for the fifty-two

[25] Source: *International Financial Statistics*, International Monetary Fund, December 2001, and *World Development Indicators*, World Bank, 2002.

countries earning an HDI below the mean is $421. The mean per-capita trade for the ninety-five countries earning an HDI above 0.689 is $7,000.[26]

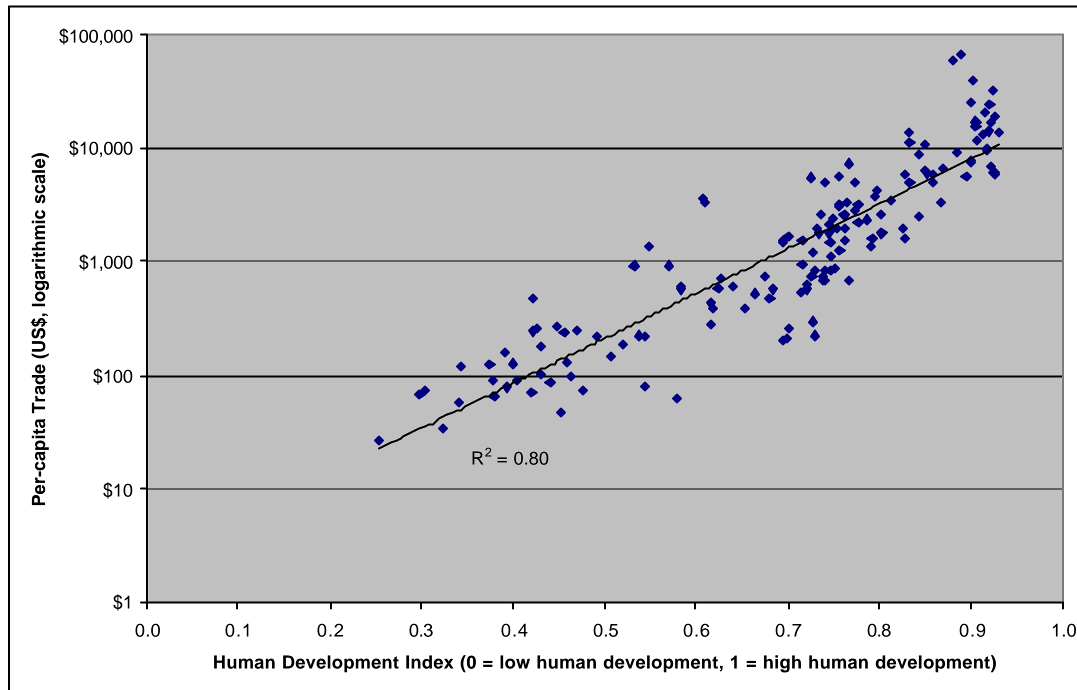

Figure 2. Relationship between per-capita trade and the Human Development Index[27]

The Heritage Foundation maintains an annual composite measure of economic freedoms called the Index of Economic Freedom (IEF). The IEF is an average of subjective ratings of freedoms as reflected in the fiscal burden on the private sector, monetary policy, government intervention in markets, banking regulation, price controls, property right protections, the speed and reliability of the judicial system, and the incidence of black markets. Each country receives a ranking from 1 (very free) to 5 (very repressed). The lowest ranked countries (in terms of freedom) are: Libya (4.9),

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[26] The standard deviations of the means for the bottom and top groups are, respectively, $94 million and $1.1 billion. The p-value for the hypothesis that the two means are equal is virtually zero.

[27] Source: *International Financial Statistics*, International Monetary Fund, December 2001, and *Human Development Report*, United Nations Development Programme, 2002.

Azerbaijan (4.7), Rwanda (4.3), and Sudan (4.2). The highest ranked countries are: Singapore (1.5), Bahrain (1.7), New Zealand (1.8) and the United States (1.8). Noteworthy is a comparison of Figures 2 and 3. While Figure 3 shows a significant relationship between per-capita trade and economic freedom, Figure 2 shows a much stronger correlation (0.80 versus 0.51) of per-capita trade with the HDI. This result is consistent with the proposition that the non-economic (i.e. social welfare) gains of increased globalization may be at least as important as the economic gains.

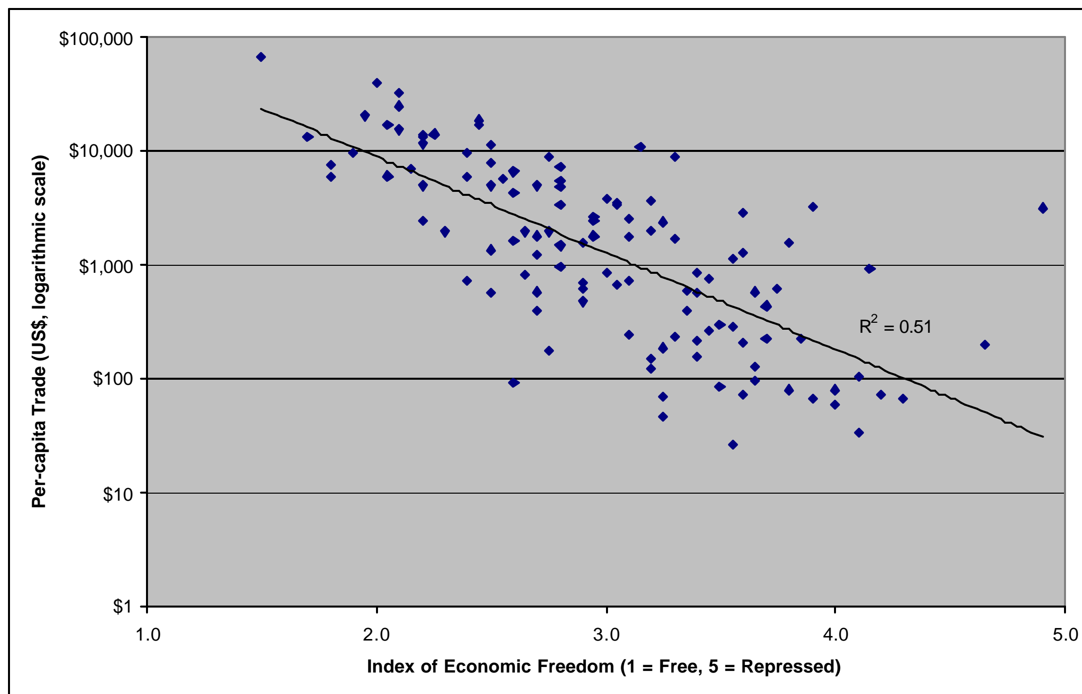

Figure 3. Relationship between per-capita trade and the Index of Economic Freedom[28]

Income Distribution

A common counter-argument to globalization is that, while increased trade may indeed lead to an increase countries' GDP's, the income gains accrue to a select few

[28] Source: *International Financial Statistics*, International Monetary Fund, December 2001, and *Index of Economic Freedom*, Heritage Foundation, 2002.

leading to a widening of the gap between rich and poor. According to the Gini coefficient, which ranges from a low of 0 (perfect income equality) to 100 (perfect income inequality), countries with the most equitable income distributions are: Cyprus (19.3), Finland (19.9), Ukraine (25.7), and Spain (25.9). Countries with the most inequitable income distributions are: Swaziland (63.7), Gabon (63.2), South Africa (62.3), and Malawi (62.0). Figure 4 shows a clear positive relationship between per-capita trade and a more equitable income distribution. What is interesting is that Figure 4 is consistent with the proposition that trade is necessary, but not sufficient for an equitable distribution of income: Most countries with high per-capita trade also have equitable distributions of income, but not all countries with equitable distributions of income exhibit high per-capita trades. Also noteworthy is the apparent "barrier" at a Gini coefficient of 27. Only ten countries have per-capita trades above (approximately) $14,000. None of these achieve Gini coefficients less than 27. A possible explanation for this apparent contradiction (high per-capita trade is associated with a more equitable income distribution, but only up to a point) is that too much equity is a sign that the society has squelched the work incentive through (for example) overly progressive taxes. Thus, increased trade has the positive effect of decreasing the gap between rich and poor, but requires that enough of a gap remain that entrepreneurs are incented to develop goods and services of value to trade partners. A simple difference of means test shows that the mean of the Gini coefficients for countries with per-capita trades greater than $5,000 is significantly less ($p = 0.0001$) than the mean of the Gini coefficients for the remaining countries.[29]

[29] For countries with per-capita trades greater than $5,000: mean Gini = 32.6, standard deviation = 7.1, n =

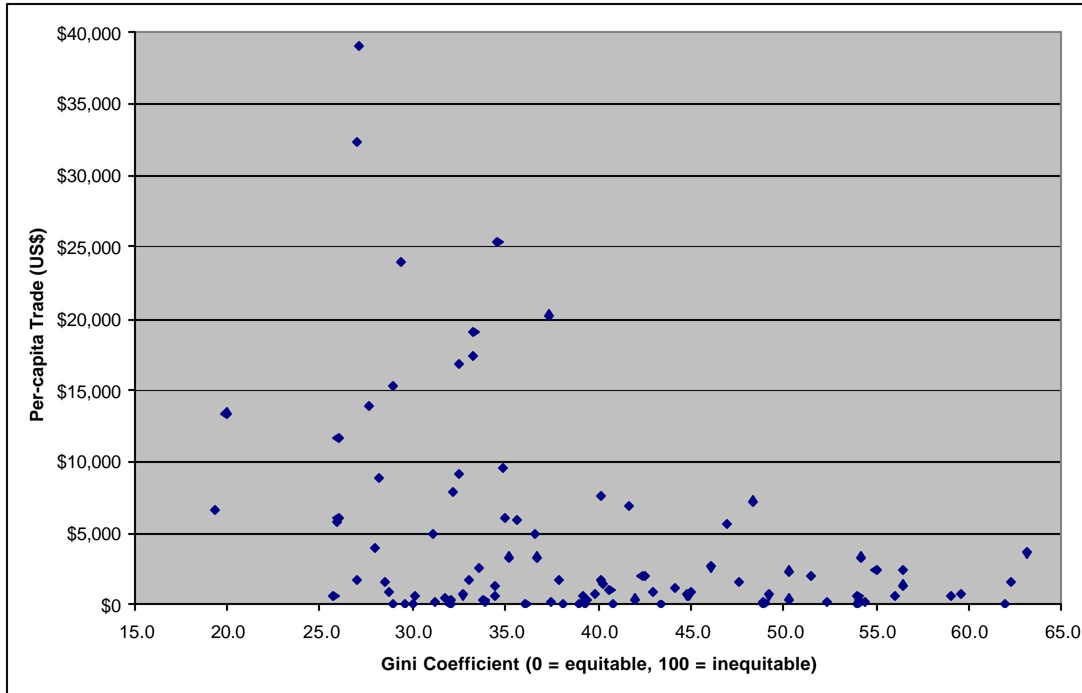

Figure 4. Relationship between per-capita trade and income distribution[30]

Health

In examining the relationship between globalization and health, we look at both outcome measures (longevity and infant mortality) and food intake measures (protein and caloric consumption). In terms of outcome measures, higher per-capita trade is strongly associated with both increased longevity and decreased infant mortality. Over all countries, median per-capita trade is $1,500. Yet, for countries with more than $1,000 in per-capita trade, all have longevities exceeding the median (70 years) with the exception of Botswana (39 years), South Africa (48 years), Gabon (58 years), Russia (65 years),

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27. For countries with per-capita trades less than $5,000: mean Gini = 42.2, standard deviation = 10.1, *n* = 68.

[30] Source: *International Financial Statistics*, International Monetary Fund, December 2001, and *Measuring Income Inequality: A New Database*, Deininger, Klaus, and Lyn Squire, World Bank, 2002.

Belarus (68 years), and Thailand (69 years). Similarly, for countries with more than $1,000 per-capita trade, only three have infant mortalities above the world mean: South Africa (63 per 1,000), Botswana (58 per 1,000), and Gabon (58 per 1,000), and only six have infant mortalities above the world median: South Africa (63 per 1,000), Botswana (58 per 1,000), Gabon (58 per 1,000), Turkey (34 per 1,000), Mexico (29 per 1,000), Thailand (28 per 1,000).

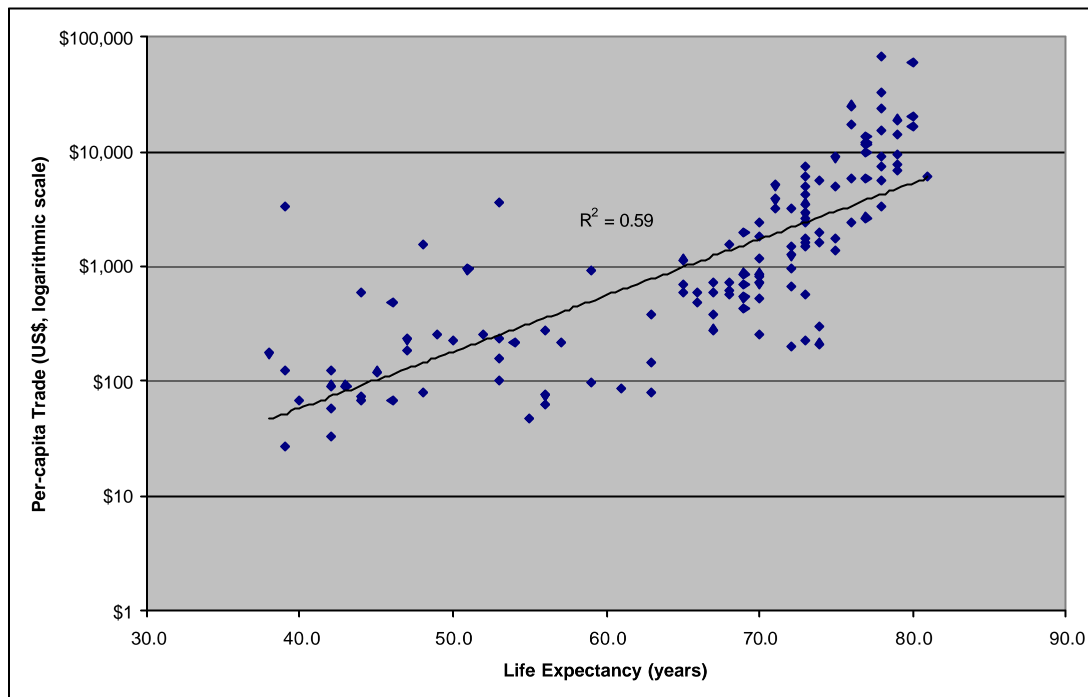

Figure 5. Relationship between per-capita trade and life expectancy[31]

[31] Source: *International Financial Statistics*, International Monetary Fund, December 2001, and *World Development Indicators*, World Bank, 2002.

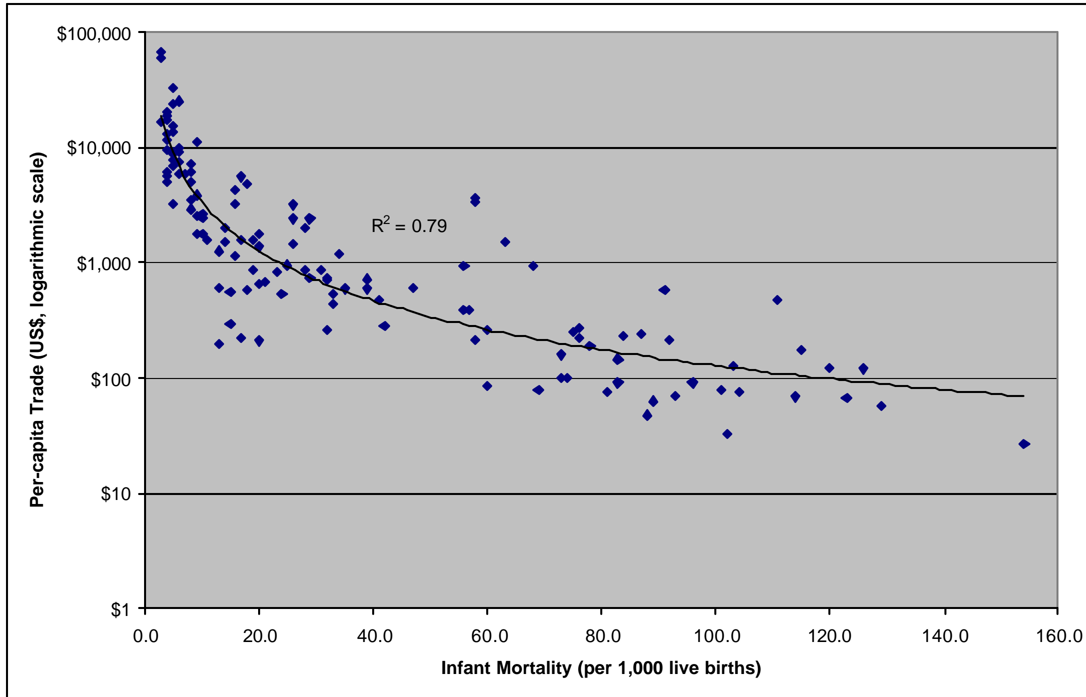

Figure 6. Relationship between per-capita trade and infant mortality[31]

While the outcome measures of longevity and infant mortality can be influenced by both health care and nutrition, caloric and protein consumption figures are functions of nutrition alone. Figures 7 and 8 show the relationship between these consumptions and per-capita trade. The maximum per-capita trade for countries with average caloric intakes of less than 2,000 calories (the recommended daily allowance) is 15% of the median per-capita trade for countries with caloric intakes above 2,000. Similar results hold for protein intake. Whether in terms of outcomes or consumption, people in countries with higher per-capita trade exhibit better average health than those in countries with low per-capita trade.

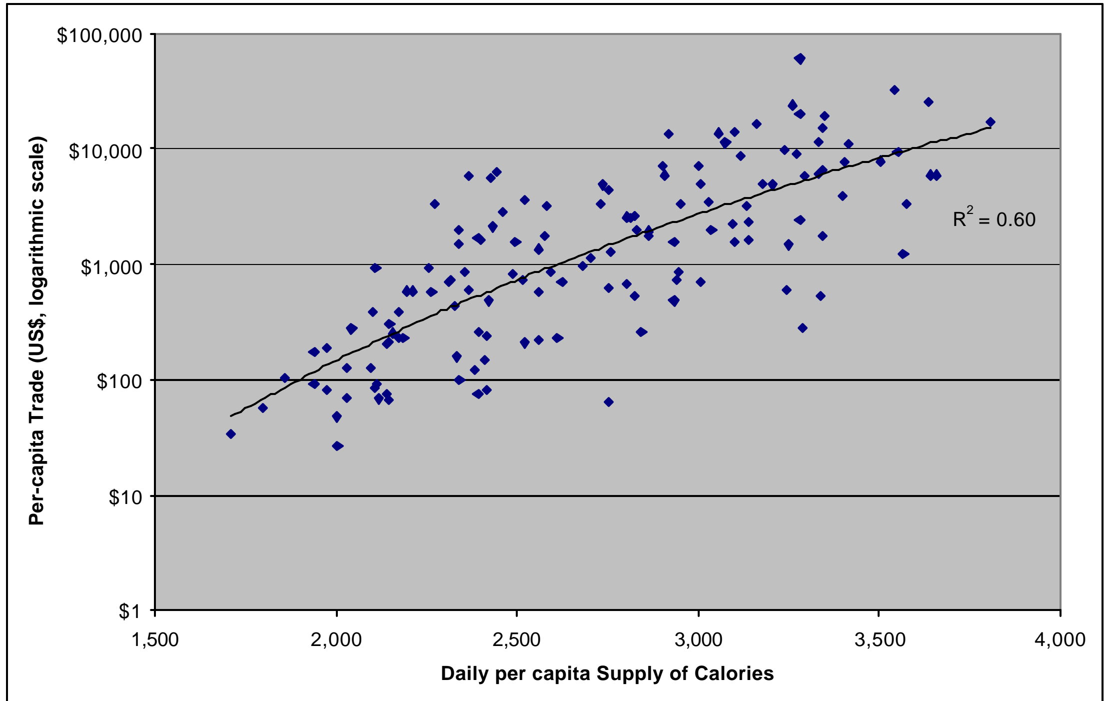

Figure 7. Relationship between per-capita trade and caloric intake[32]

[32] Source: *International Financial Statistics*, International Monetary Fund, December 2001, and *World Development Indicators*, World Bank, 2002.

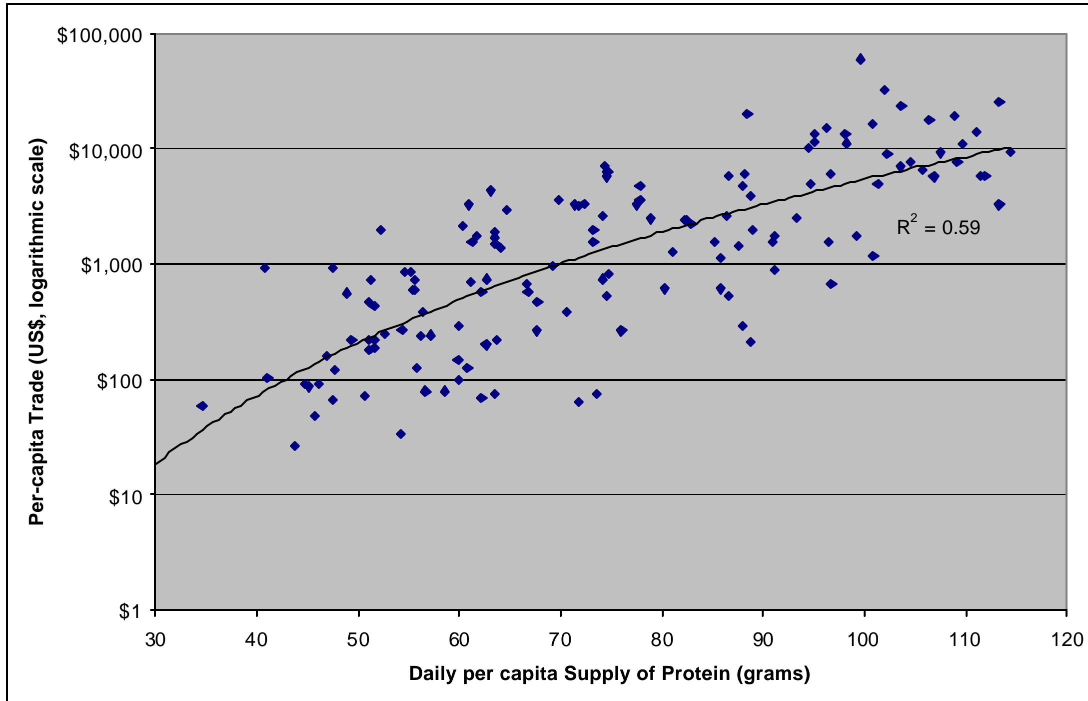

Figure 8. Relationship between per-capita trade and protein intake[32]

The Environment

Another argument against globalization is that multinational corporations exploit the environment in the interest of producing lower cost goods. Evidence suggests that this is not the case. Figure 9 shows a strong positive relationship between per-capita trade and CO_2 emissions. Because trade requires industry and industry creates CO_2 emissions, we would expect a positive relationship. However, the relationship seems to stop after approximately $10,000 per-capita trade. There are only five countries that have both per-capita trades greater than $10,000 and CO_2 emissions greater than 12 metric tons per-capita: Kuwait ($11,000, 25.3 tons), Luxembourg ($39,000, 20.2 tons), Singapore ($68,000, 19.5 tons), Bahrain ($14,000, 18.6 tons), Norway ($19,000, 15.4 tons), and Canada ($14,000, 13.8 tons). By contrast, there are twelve countries that have per-capita trades above $10,000 and CO_2 emissions less than 12 metric tons. Notable among these is Hong Kong ($60,000, 3.7 tons).

Acknowledging that higher CO_2 emissions necessarily accompany greater productivity, which, in turn, accompanies greater trade, a more pertinent question is "what is a country's cost of trade in terms of CO_2 emissions?" Figure 10 shows the relationship of per-capita trade to the ratio of emissions to trade. What is clear is that, as globalization increases, CO_2 pollution *declines as a fraction of the value of trade*. For example, no country with a per-capita trade above $10,000 emits more than 0.002 tons of CO_2 per dollar trade. This contrasts with 44 countries with per-capita trades below $10,000 that emit more than 0.002 tons of CO_2 per dollar trade. The most egregious polluters are: Azerbaijan ($201 per-capita trade, 0.0200 tons per dollar trade), Kazakhstan ($686 per-capita trade, 0.0150 tons per dollar trade), India ($80 per-capita trade, 0.0140 tons per dollar trade), Ukraine ($616 per-capita trade, 0.0130 tons per dollar trade), and China ($261 per-capita trade, 0.0110 tons per dollar trade). By this measure, the countries that pollute the least given their levels of trade are: Hong Kong ($60,000 per-capita trade, 0.0001 tons per dollar trade), Singapore ($68,000 per-capita trade, 0.0003 tons per dollar trade), ($20,000 per-capita trade, 0.0003 tons per dollar trade), and Belgium ($32,000 per-capita trade, 0.0003 tons per dollar trade).

The evidence suggests that, while greater levels of trade are associated with greater CO_2 pollution, the *pollution cost of a dollar of trade* declines as the level of trade increases. In short, globalization leads to a reduction in the environmental opportunity cost of production.

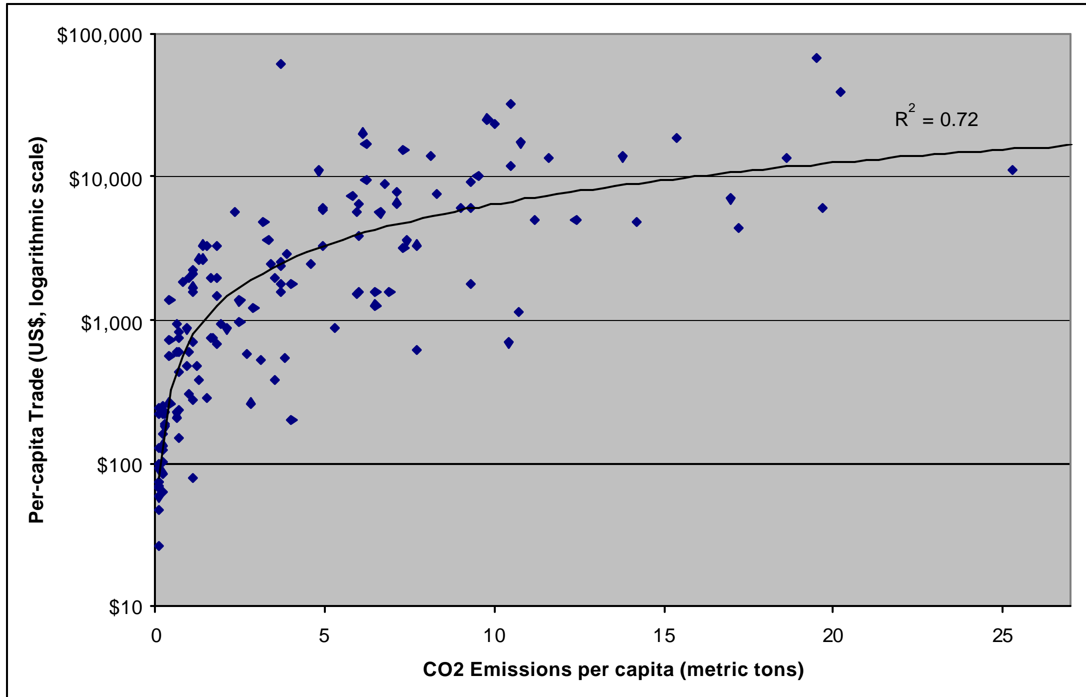

Figure 9. Relationship between per-capita trade and CO_2 emissions[33]

[33] Source: *International Financial Statistics*, International Monetary Fund, December 2001, and *World Development Indicators*, World Bank, 2002.

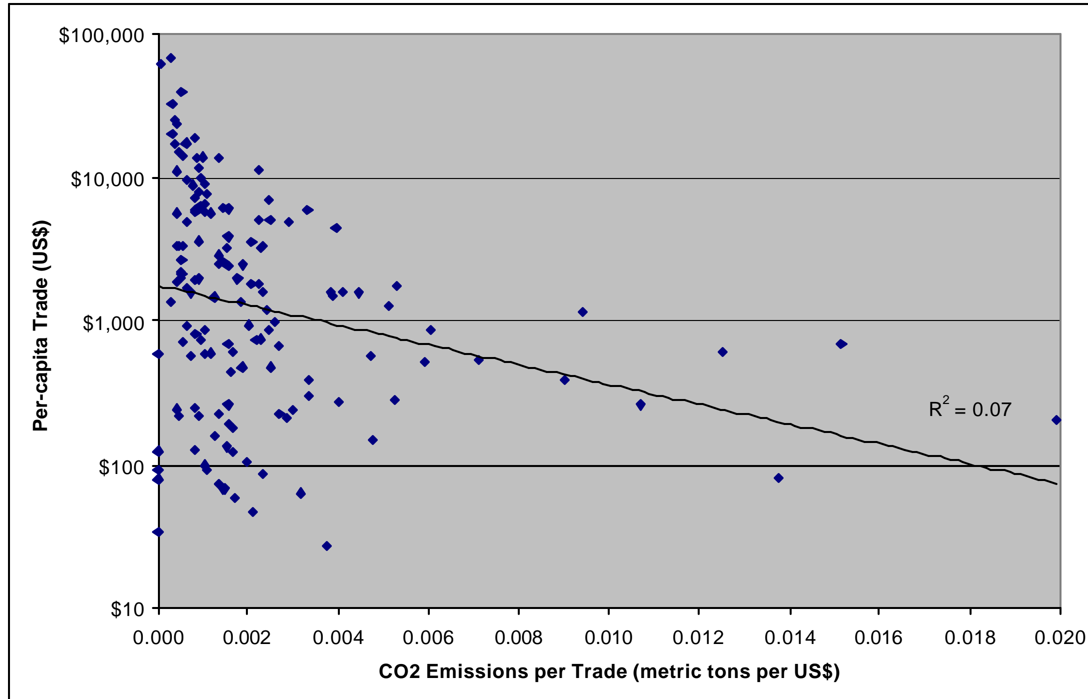

Figure 10. Relationship between per-capita trade and CO_2 emissions to trade ratio[34]

Note the eight outliers on the right of Figure 10: Azerbaijan (0.020 tons per dollar trade), Kazakhstan (0.015 tons per dollar trade), India (0.014 tons per dollar trade), Ukraine (0.013 tons per dollar trade), China (0.011 tons per dollar trade), Russia (0.009 tons per dollar trade), Mongolia (0.009 tons per dollar trade), and Iran (0.007 tons per dollar trade). If we ignore these eight outliers, the relationship between per-capita trade and emissions per dollar trade becomes much stronger. Figure 12 shows that a strong trend toward a reduction in the emissions-cost of trade as trade increases. This likely results from the fact that increased trade provides increased revenues that allow producers to modernize physical plant.

[34] Source: *International Financial Statistics*, International Monetary Fund, December 2001, and *World Development Indicators*, World Bank, 2002.

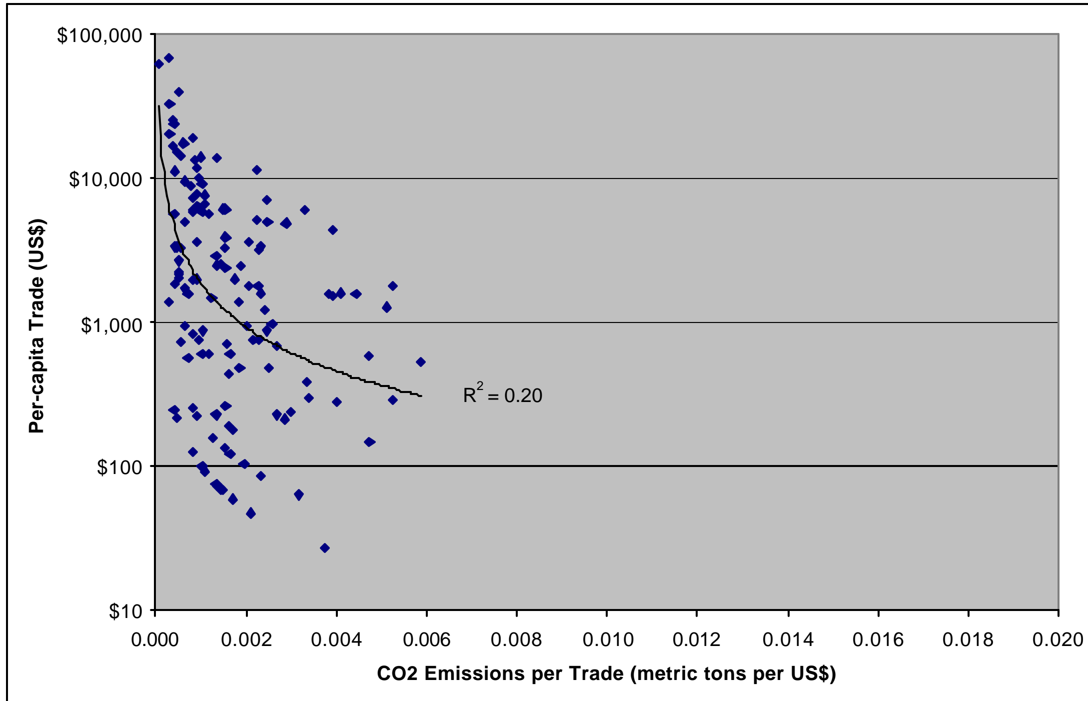

Figure 11. Relationship between per-capita trade and CO_2 emissions to trade ratio (ignoring outliers)

Figure 12 tells a similar story with regard to deforestation. Of the 29 countries with per-capita trades greater than $5,000, only four (14% of the 29) experienced deforestation, and only one of those (3% of the 29) experienced an annual loss of more than 1%. Of the 97 countries with per-capita trades below $5,000, 70 (72% of the 97) experienced some deforestation, and 29 of those (30% of the 97) experienced an annual loss of more than 1%. Similarly, the median per-capita trade for countries that experienced reforestation was $4,400 versus a median of $823 for countries that experienced deforestation. Because trees convert CO_2 pollution to breathable O_2, in combining Figures 9 and 12, one might question to what extent the deforestation by low-trade countries offsets their reduced CO_2 emissions. A simple difference of means test shows that the mean rate of deforestation for countries with per-capita trades greater than

$5,000 is significantly less (p = 0.0001) than the mean of the rates of deforestation for the remaining countries.[35]

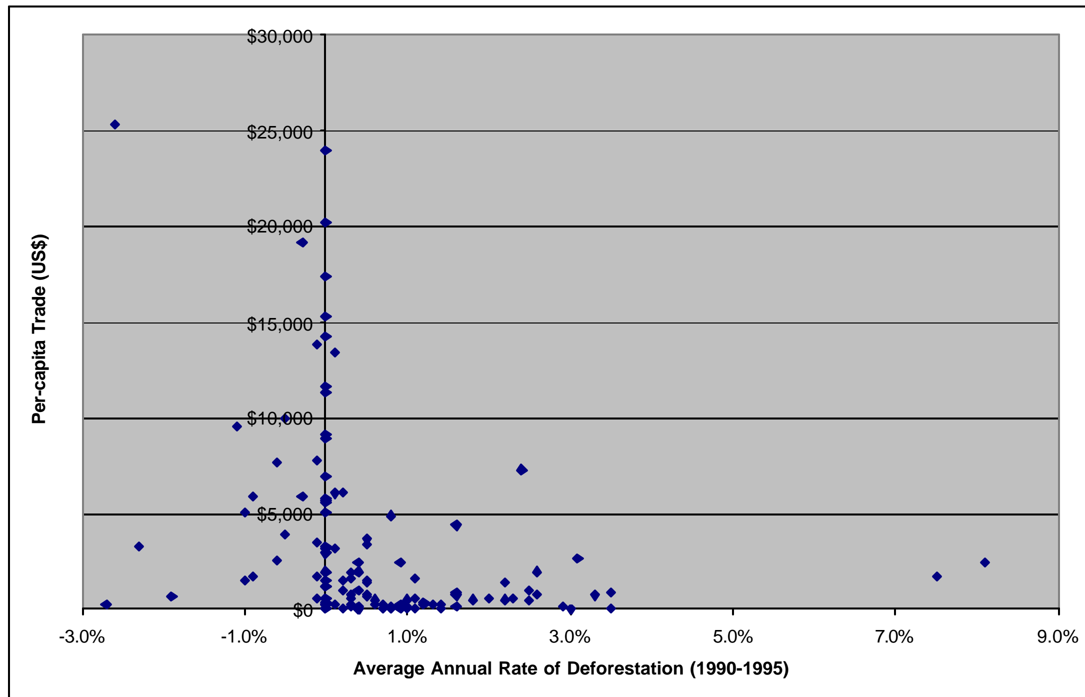

Figure 12. Relationship between per-capita trade and deforestation[34]

Gender Equality

A common thread in the arguments against globalization is exploitation – whether of children, the poor, smaller trading partners, or the environment. As evidenced by their plight in many countries, when eradicating exploitation, one of the last groups to be considered is women. As such, gender equality measures may serve as a bellwether for other forms of exploitation. If globalization results in greater gender equality, then it likely also brings with it a reduction in other forms of exploitation.

[35] For countries with per-capita trades greater than $5,000: mean deforestation rate = –0.2%, standard deviation = 0.7%, n = 29. For countries with per-capita trades less than $5,000: mean deforestation rate = 0.9%, standard deviation = 1.0%, n = 97.

Figure 13 depicts the relationship between per-capita trade and the female literacy rate (expressed as a fraction of the male literacy rate). As per-capita trade rises, the female literacy rate rises to equity with that of males.

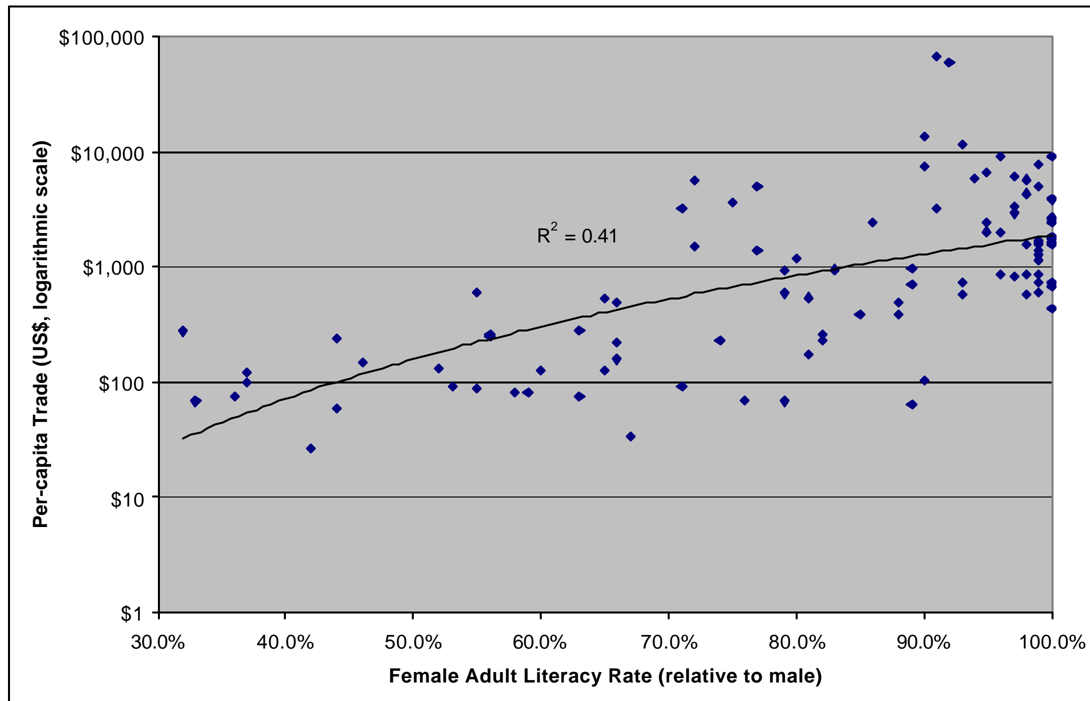

Figure 13. Relationship between per-capita trade and female literacy[36]

Figure 14 shows per-capita trade versus the Gender related Development Index (GDI). As with the Human Development Index, the United Nations Development Programme assigns a GDI rating to each country. The GDI measures the same outcomes as the HDI but adjusts the outcomes for inequalities in the achievements of women versus men. For example, a country with perfect gender equality would receive a GDI rating identical to its HDI rating. As a country's gender equality declines, its GDI rating falls

[36] Source: *International Financial Statistics*, International Monetary Fund, December 2001, and *Human Development Report*, United Nations Development Programme, 2002.

below its HDI rating. Figure 14 shows a strong positive relationship between per-capita trade and the GDI.

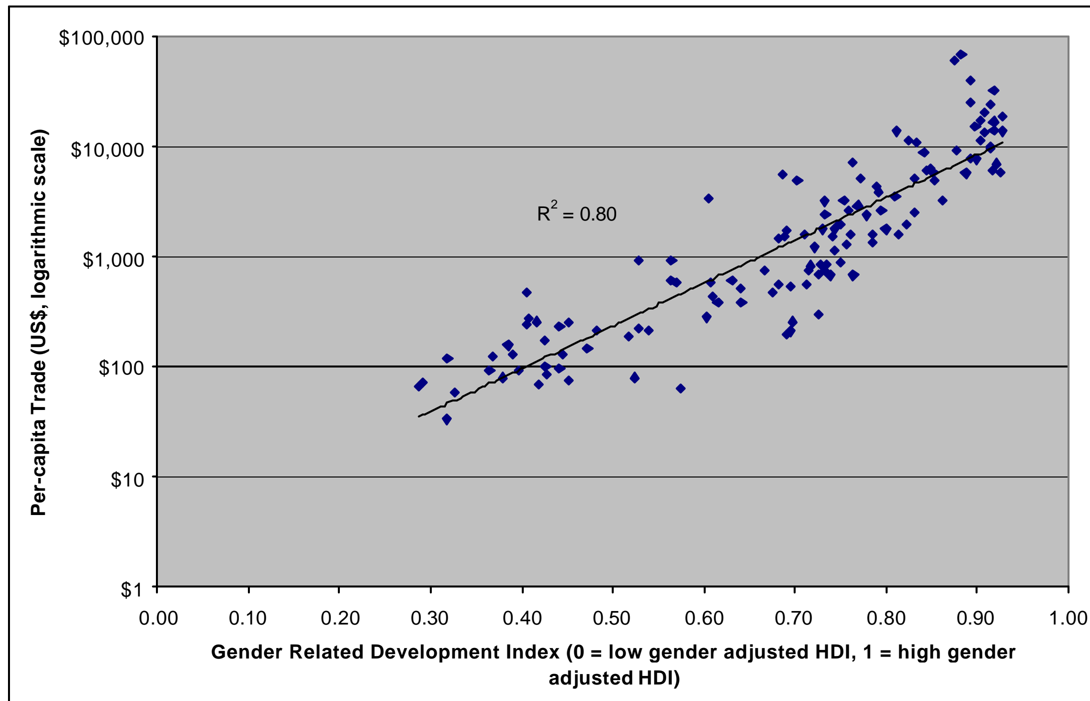

Figure 14. Relationship between per-capita trade and gender related development index[37]

Often, gender inequality arises from the fact that women have mitigated roles in economic and political life. The United Nations Development Programme maintains a separate measure, the Gender Empowerment Measure (GEM), which tracks the proportion of women in legislatures, among senior officials, and holding positions as office managers, professionals, and technical workers. The GEM also measures gender differences in income as a proxy for economic independence. If GDI measures the outcome of equality in terms of its effect on overall quality of life, GEM measures the source of equality in terms of the distribution of social, political, and economic power.

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[37] Source: *International Financial Statistics*, International Monetary Fund, December 2001, and *Human Development Report*, United Nations Development Programme, 2002.

Figure 15 shows that, like female literacy rates and the GDI, the GEM is greater in countries with greater per-capita trades.

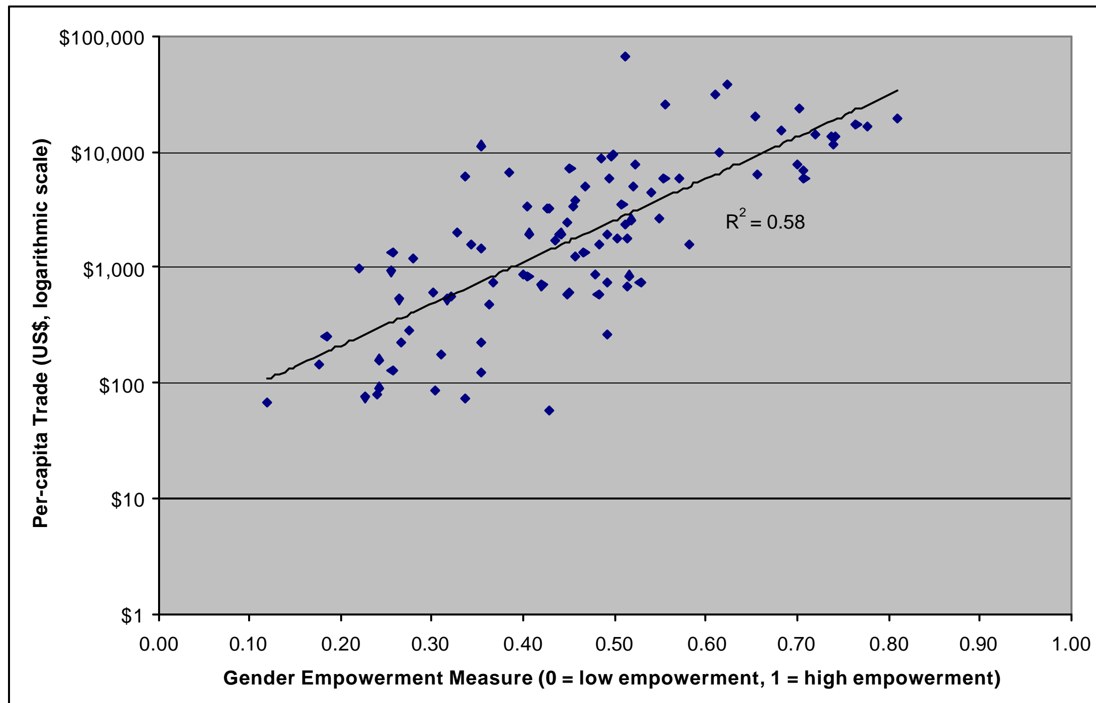

Figure 15. Relationship between per-capita trade and gender empowerment measure[38]

Factors Contributing to Improvements in Global Welfare

Methods of diminishing world poverty are not a mystery. The Chinese discovered it quickly after Mao's death—privatization and a well-educated population. The importance of privatization is further advanced by Lee Hoskins and Eiras, who conclude that private property rights is the primary variable explaining real growth and improvements in standard of living.[39] Costa Rica has become the gem of Latin America,

[38] Source: *International Financial Statistics*, International Monetary Fund, December 2001, and *World Development Indicators*, World Bank, 2002.

[39] Hoskins, Lee and Ana I. Eiras, "Property Rights: The Key to Economic Growth," in *2002 Index of Economic Freedom*, eds. Gerald P. O'Driscoll, Jr., Kim R. Holmes, and Mary Anastasia O'Grady, The

thanks to President Oskar Arias' focus on education. The World Bank has also concluded that its most successful (i.e., poverty reducing efforts) expenditures have been on primary education in the Least Developed Countries. The consensus of the contributing authors in Birdsaw's and Graham's edited text is that reductions in poverty are dependent on private and public education initiatives and increased opportunities to advance oneself.[40] The Achilles heel in this line of argument, and one which anti-globalists are quick to exploit is that (1) increased national income and/or decreased poverty rates do not imply a reduction in the gap between rich and poor—i.e., the poor may indeed get richer, but the rich may get richer at a faster rate, and (2) increased national income may come at the cost of exploitation of women, children, the poor, trading partners, and/or the environment. This paper addresses these anti-globalist arguments by focusing on the impact of globalization on a broad spectrum of social measures such as individual rights, income distribution, health, the environment, and gender equality. What we find is that globalization has far broader implications for improvements in standards of living than simply increased income. The data clearly shows that countries that have higher per-capita trade also enjoy better health, a smaller gap between rich and poor, reduced child labor rates, greater gender equality, and improved environmental conditions.

Heritage Foundation and Dow Jones & Company, Inc., 2002, Chapter 3, pp. 37–48.

[40] Nancy Birdsall and Carol Graham (Eds), *New Markets, New Opportunities? Economic and Social Mobility in a Changing World*, Brookings Institution Press, Washington D.C., 2000.

Conclusion

As evidenced above, both anecdotally and empirically, the improvement to world welfare is a direct result of increased globalization. In those regions (South Asia and Sub-Saharan Africa) where trade has been severely restricted, welfare changes over the last 15 to 30 years have been stagnant or negative. The improvement in world welfare has also been primarily a free market initiative—as a percent of GNP, from 1990 to 1999, of the top 20 HDI ranked industrialized countries, 12 reduced their Official Development Assistance, and the United States cut its percentage of GNP aid by one-half.[41]

There are some obvious lessons for developing countries to follow in order to maximize their growth and welfare. As noted by Hoskins and Eiras, economic freedom and real per capita GDP (Purchasing Power Parity) are positively related in an accelerating fashion.[42] They find this relationship to be strongly explained by the protection of private property rights. Flanders and Quinlivan offer similar evidence of the importance of economic freedom.[43] In their study, the highest income developing countries were found to be substantially more open than the poorest 20 developing countries. Flanders and Quinlivan also found that the freer nations attracted more foreign

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[41] Ibid., p. 190.

[42] Hoskins, Lee and Ana I. Eiras, "Property Rights: The Key to Economic Growth," in *2002 Index of Economic Freedom*, eds. Gerald P. O'Driscoll, Jr., Kim R. Holmes, and Mary Anastasia O'Grady, The Heritage Foundation and Dow Jones & Company, Inc., 2002, Chapter 3, pp. 37–48.

[43] *International Debt Relief: A Moral and Economic Challenge,* by Todd Flanders, Gary Quinlivan, and Michel Therrien, Christian Thought Series, Number 2, Center for Economic Personalism at the Acton Institute for the Study of Religion and Liberty, 2001.

direct investment—the poorest ten countries attracted only 0.43 percent of the total FDI obtained by the 54 developing countries in their sample.