

Chapter 4

Does Economic Freedom Promote Women's Well-being?

By Michael D. Stroup

Introduction

Over the last few decades, more and more countries have been adopting the political and economic institutions that promote greater economic freedom. For example, many Eastern European countries have been moving towards market economies after the dissolution of the Soviet Union. There has been the remarkable rise of the Asian Tiger economies of the Pacific Rim countries. Today, even China is dabbling with localized, free-market areas. To varying degrees these governments are:

- 1 decreasing the size and scope of government allocations of resources,
- 2 establishing and protecting private property rights,
- 3 insulating their sovereign money from political influences,
- 4 opening up their economies to international markets, and
- 5 decreasing the scope of regulatory control over private commerce.

Economic Freedom of the World

These notable events have created a grand social experiment for economists to examine in this new millennium. The Fraser Institute compiles and publishes an annual index of economic freedom in each country (Gwartney, Hall, and Lawson, 2010) that aids the cross-country analysis of this global phenomenon. The index published in *Economic Freedom of the World*, (EFW index), is made up of various metrics reflecting the extent to which each country has implemented the five categories of institutions noted above that promote economic freedom.

Many empirical studies using the EFW index reveal that a country's economic freedom is highly correlated with its level of economic prosperity, capital investment, and rate of economic growth (Dawson, 1998; Gwartney, Holcombe, and Lawson, 1999; Gwartney, Lawson, and Holcombe, 2006; Hall, Sobel, and Crowley, 2010). Other studies have even shown that the EFW index, or its constituent components, is positively correlated with many non-monetary measures of social welfare such as maintaining peaceful relations between nations (Gartzky, 2007; Hall and Lawson, 2009) and various measures of individual well-being (Norton, 1998, 2003; Stroup, 2007).

However, one can ask whether this increase in prosperity and well-being has also generated a more equitable allocation of these benefits within society. Scully (2002) has found that economic freedom is correlated with more equal distributions of income across countries, but does economic freedom promote the well-being of typically under-served groups in a society? For example, would women find that living in a market-based economy tends to support their pursuit of a better quality of life? Stroup (2008) used selected measures of women's well-being from the World Bank Indicators database to find evidence that some aspects of women's well-being were positively correlated to the country's level of economic freedom.

Evidence from the UN Development Program's Gender Inequality Index

The empirical analysis in this chapter examines whether a beneficial link between economic freedom and women's welfare remains evident when using the Gender Inequality Index (GI index). This index comprises various measures of women's well-being and is compiled by the United Nations Development Program (United Nations, 2010). Simple correlations between these measures of women's well-being and the values of the EFW index are examined

and regression analysis is employed to determine if a relationship between economic freedom and women's well-being remains after controlling for per-capita income, and religious and regional ethnic differences across countries. The results indicate that women living in those developing countries embracing the institutions of economic freedom might be encouraged, since empirical evidence implies that those institutions that promote economic freedom have relatively better metrics of women's well-being, as defined by the United Nations Development Program.

How economic freedom promotes women's well-being

Before examining the data, one might ask: Why would a society characterized by greater economic freedom be relatively more beneficial for a woman's pursuit of well-being? After all, market-based economies have been roundly criticized as a heartless arrangement of political and economic institutions that ignore the innate value of individuals as human beings (Stiglitz, 1996; Stiglitz et. al., 2006; Posner, 2009). This criticism has been especially pointed regarding those groups considered disenfranchised in society (Stiglitz, 2002), such as women (Gibson-Graham, 1996).

Yet, a competing theory that economic freedom benefits women may be explained as a simple case of supply of, and demand for, valuable human capital. Consider the demand side. Individuals in a market-based society engage in voluntary commerce within a highly competitive economy. In an economic environment characterized by private property rights and the rule of law, individual prosperity can only be achieved by providing a product or service of sufficient value that the buyer voluntarily pays more than the seller's cost of providing it. Neither the profits from making good economic decisions nor the losses of making bad economic decisions are shared by any third parties to the exchange. This means the incentives for seeking out and exploiting mutual gains from trade are maximized, making everyone in a society more keenly aware how significant lost economic opportunities (or "opportunity cost" in economic parlance) can be when pursuing one's own prosperity.

One particularly prominent opportunity cost is the loss of the value of female human capital in the key economic processes of innovation, production, and distribution within a nation's economy. The recognition of, and demand for, female human capital is expected to be higher in any society where a greater level of economic

accountability is imposed on those who ignore such opportunity costs by practicing intolerant and prejudicial behavior. Market-based societies economically punish those who practice such behavior, as they are forced to bear all of the forgone benefits arising from their choice. The more enlightened and tolerant individuals enjoy the full benefits of their impartiality. This makes it much more difficult for individuals in a market-based society to sustain a persistent undervaluation of female human capital.

Next, consider the supply side. As stated earlier, the level of economic freedom has been found to be highly correlated with prosperity and economic growth. Parents of more prosperous families find it easier to release the labor of their children to pursue education or technical training, rather than keeping them home to support the family with their unskilled labor. In a society where the value of female human capital is highly demanded, both male and female children of these families would be expected to attain higher levels of education and training. A greater supply of female human capital helps the individual woman as well as the society in which she lives. It creates a more productive labor force with greater economic potential for the whole economy, while enhancing a woman's ability to identify and exploit a larger set of economic opportunities for avoiding any resilient pockets of intolerance and bigotry left in society.

Therefore, an increase in both the supply of, and demand for, female human capital can increase a woman's ability to achieve greater individual prosperity while enhancing the well-being of all women. This would naturally place greater pressure on men to recognize women's equal standing in the various non-economic facets of society as well. If women's well-being is found to be correlated with the level of economic freedom in a country, then this would be evidence that the cold-hearted institutions of markets could truly unite the noble goals of an enlightened and tolerant society with the self-centered goals of individual prosperity—thus demonstrating Adam Smith's insight of how people voluntarily interact in the market as if "led by an invisible hand to promote an end which was no part of his [or her] intention" (1776, par. IV.2.9).

Measuring women's well-being

When there are conflicting theoretical models of whether or not greater economic freedom promotes the well-being of women, the question of which theory fits best requires an empirical investigation. Do countries with greater economic freedom generally exhibit superior measures

of women's well-being, such that a female living in a market-based society is more likely to achieve a higher quality of life? The following cross-country analysis compares the value of the EFW index with the level of various non-monetary measures of women's well-being, as developed by the United Nations Development Program. In their annual Human Development Report (UNDP, 2010), the UNDP examines and quantifies the relative progress that countries are making in advancing human development around the world. They also examine the respective impacts of various political, economic, and cultural changes on women's well-being in each country.¹

A key founder of UNDP project was the late Mahub ul Haq. Like other prominent social scientists, such as Nobel Laureate Amartya Sen, ul Haq felt that traditional measures of economic prosperity (like GDP per capita) reflected only a narrow aspect of an individual's true level of well-being. Indeed, he writes, "the basic purpose of development is to enlarge people's choices (and) create an enabling environment for people to enjoy long, healthy and creative lives" (UNDP, 2010: <<http://hdr.undp.org/en/humandev/>>).

While the annual UNDP reports consistently question the efficacy of markets in promoting non-monetary aspects of individual well-being, their reports do compile a useful database of socio-economic measures reflecting the level of individual well-being in each country. Indeed, the UNDP encourages social scientists to use this data for research into various global human development issues. These measures range from educational attainment and literacy rates to health-care access and mortality rates to various indicators of economic and political opportunity like labor-force participation rates and minority representation in government.

In this light, the UNDP has developed a Gender Inequality (GI) Index² designed to reveal each country's relative performance in promoting the well-being of women. The value of the GI index ranges from 0 to 1, with higher values indicating a greater level of gender inequality in a society. The GI index comprises five measures reflecting the level of female achievement in three basic categories of women's well-being:³

- 1 Reproductive Health (maternal mortality ratio and adolescent fertility rate),
- 2 Empowerment (female parliamentary representation and educational attainment), and
- 3 Labor Market (female labor force participation rate).

Whether these five measures adequately reflect a woman's well-being is not questioned in this analysis. These and similar measures are widely used to reflect women's well-being in the economic development literature on gender inequality. The GI index and its various components are simply examined to determine if greater economic freedom are properly correlated with those measures that the UNDP deems as vital to women's well-being.

The Fraser Institute's EFW index comprises various economic and political measures that reflect the presence of institutional structures in a country that promote economic freedom. These measures are grouped into the five categories listed in the introduction, above, and are aggregated into a single index. The scale of the EFW index runs from 0 (least economic freedom) to 10 (most economic freedom).

Examining the data

Figure 4.1 reveals a histogram which illustrates the relationship between the GI index from the 2010 report and the EFW index. Assuming that the institutions of economic freedom in a society take time to influence these measures of women's well-being, the EFW index values used in these histograms are the average between the 1995 and 2008 EFW index (the latest year available).⁴ The countries are arranged in order of economic freedom index value, with the quartile of the least free countries on the left and the quartile of the freest countries on the right. A higher GI index value indicates greater inequality for women, such that the histogram reveals how the average value of the GI index continuously declines as the average value of economic freedom rises across the quartiles. This relationship lends support to the theory that greater economic freedom promotes the women's well-being.

However, a more careful examination would also look at how well each component of the GI index is correlated with the level of EFW index in a country. A similarly constructed histogram in Figure 4.2 reveals how the percent of female seats in national parliament and the percent of female adults with a secondary education both consistently

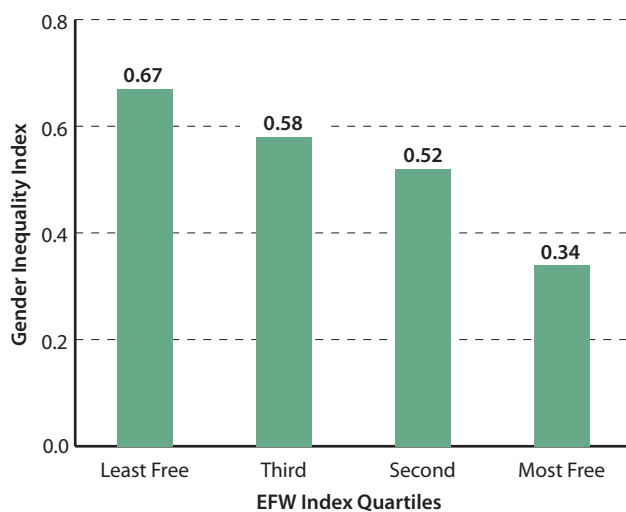
1 Unless otherwise indicated, all measures used in this analysis come from the UNDP report, which gleans country data from the databases of organizations like UNICEF, the World Health Organization, and similar international databases.

2 This is not to be confused with an older UNDP index, called the Gender Development Index, which the GI index now replaces.

3 The UNDP data can be freely downloaded in Excel format at <<http://hdr.undp.org/en/statistics/data/>>.

4 This sample includes data from all countries in the GI index for which data exists in the EFW index.

Figure 4.1: Gender Inequality Index compared to EFW Index (larger is more unequal)



increase with the value of the EFW index.⁵ Figure 4.3 shows how maternal mortality (per 100,000 births) and adolescent fertility per 1,000 females age 15–19⁶ both consistently decline with the value of the EFW index. However, Figure 4.4 illustrates that the rate at which women participate in the labor force does not appear to have any meaningful correlation with the value of the EFW. This last result is discussed in more detail, below.

Controlling for other influences

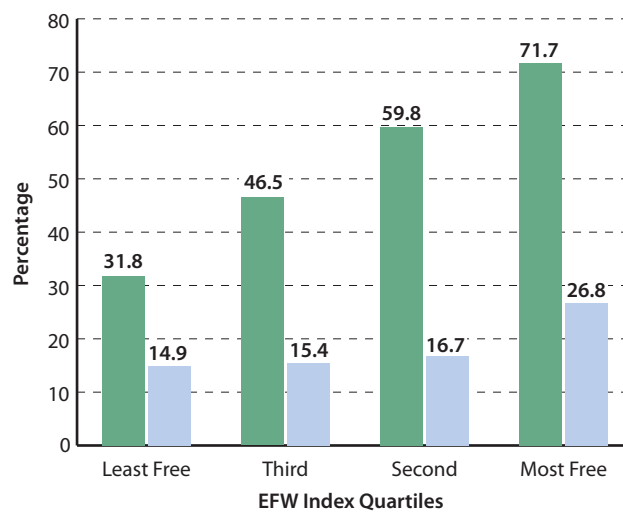
The preceding empirical examination shows that higher levels of the EFW index are correlated with lower, more beneficial, ratings on four of the five measures that make up the GI index, as well as with a lower, more beneficial, level on the GI index itself. This intriguing evidence implies that countries with more economic freedom generally tend to promote the well-being of women, at least as measured by the GI index. Yet one must be careful to control for other influences that could produce similar statistical results.

Cultural differences across ethnic regions of the world and arising from religious traditions embedded in a country's historical roots affect women's well-being. As Blau et al. state: "Social forces such as religion, ideology, and culture also influence women's status, especially through

⁵ For the purposes of inclusiveness, the following histograms use the UNDP measures for all available countries, which may reflect data from some countries not included in the GI index.

⁶ See UNDP, 2010: Technical notes <http://hdr.undp.org/en/media/HDR_2010_EN_TechNotes_reprint.pdf> for a description of the HDR indices, indicators, and calculations.

Figure 4.2: Percentage of female adults with secondary education (■) and female seats in parliament (■) compared to EFW Index



their effect on the labor market activity" (2006: 377). For example, women living in theocratic Muslim nations likely face more restrictive female labor laws and educational opportunities than women living in non-Muslim nations. Women living in former European colonies dominated by Catholic beliefs might have relatively less influence over how many children they will bear or what stage in their life they might want to have children (World Bank, 2000).

It would be helpful to try to control for such influences when statistically uncovering the relationship between economic freedom and various measures of women's well-being. Regression analysis is a useful statistical procedure that is often employed in social science research to hold constant such extraneous influences. In this light, a separate linear regression was run using each of the five UNDP measures, and the Gender Inequality Index itself, as dependent variables. Each equation uses the same specification. The explanatory variables used in each regression include:

- the EFW index, expressed as the average of the 1995 and 2008 index values;
- the percent of the population that is Muslim;
- the percent of the population that is Catholic or Orthodox;
- a dummy variable for each of the geographical regions of the world, as defined by the United Nations and the World Bank: North America, Latin America, Western Europe, Middle East, sub-Saharan Africa, East Asia, and South Asia.

Figure 4.3: Maternal mortality rate and adolescent fertility rate compared to EFW Index

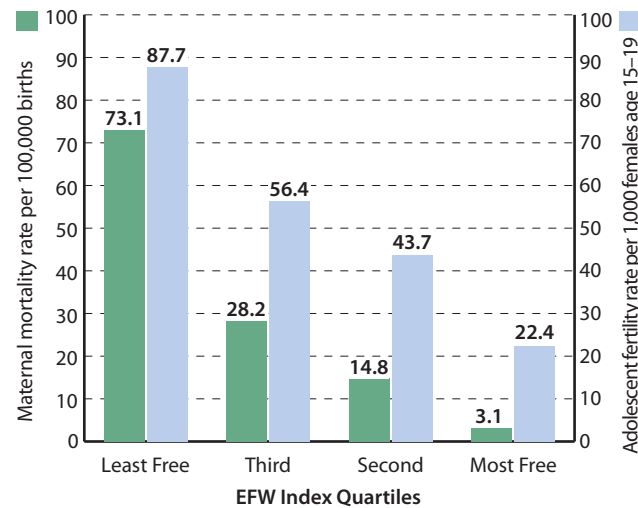
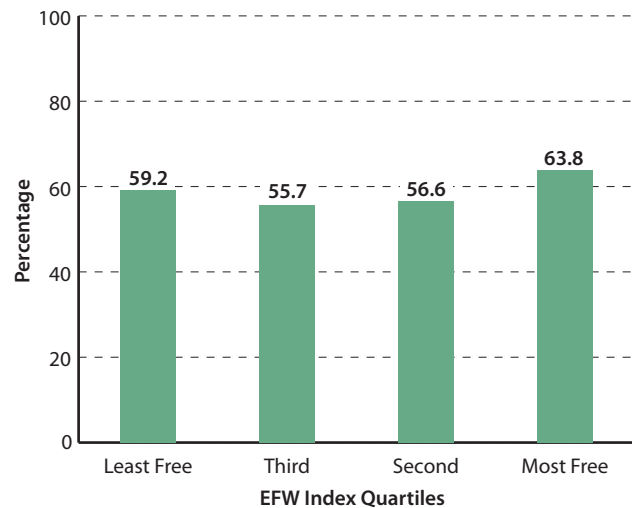


Figure 4.4: Female labor-force participation rate (%) compared to EFW Index



Additionally, women in more prosperous countries may be able to pursue a greater scope of opportunities for individual advancement than women in less prosperous countries. As mentioned earlier, the EFW index is highly correlated with the level of prosperity in a country. If economic prosperity promotes women's well-being, this would imply that the level of economic freedom in a country might have both a direct and an indirect influence on women's well-being. Therefore, a second specification was run for each of these six dependent variables that includes the Gross Domestic Product (GDP) per person, expressed as the average of 1995 and 2005 levels of GDP per person, measured in thousands of year-2000 US dollars.

Interpreting the results

Table 4.1 reveals the statistical results from two linear regression specifications (with and without income) for each of the six dependent variables. In each case, the same number of countries was used in both regressions for direct comparability of the results. All countries were included in each sample for which data was available.

First, consider the regression results for the GI index. The coefficient estimate for the EFW index was statistically significant in explaining the observed variation in the GI Index at the traditional 5% level, both with and without the income variable present in the specification. The average value of the GI Index in this sample of 111 countries was 0.53. The coefficient estimate for the EFW variable in the specification without the income variable is -0.06 . The negative sign indicates that

higher EFW index values are associated with lower GI index values, supporting the theory that economic freedom appears to have a beneficial influence on women's well-being.

The coefficient estimate for EFW indicates that a one-point increase in the EFW index would result in a decline in the GI index of -0.06 . To put the magnitude of this beneficial impact into context, consider the histogram displayed in figure 4.1. The difference in the average EFW index value for the middle two quartiles was 0.59. If a one unit increase in the EFW index can be expected to decrease the GI index by -0.06 , this 0.59 increase in the EFW index is expected to produce a 0.035 decrease the GI index (-0.06 times 0.59). The difference in the GI index value between these same quartiles was 0.06 (the difference between 0.58 and 0.52). This implies that the expected benefit from the observed increase in the EFW index values between these middle two quartiles may explain about 58% the actual difference in the GI index between the these same quartiles (because 0.035 is 58% of 0.06). In other words, after controlling for potential ethnic differences across regions and for religious differences across countries, over half the difference between the GI index values between these two quartiles could be explained by the differential in the average levels of economic freedom between the two groups of countries.

However, some of the estimated impact of the EFW index on the GI index may not be directly attributable to the level of economic freedom in a society. This possibility arises because the income variable was not included in the specification referred to above. If economic freedom promotes prosperity, which in turn promotes women's

Table 4.1: The impact of economic freedom on women's well-being

	Equation 1a Gender Inequality Index	Equation 1b Gender Inequality Index	Equation 2a Female representation in parliament (% of seats)	Equation 2b Female representation in parliament (% of seats)
Number of Countries	111	111	117	117
Mean Dependent Variable	0.53	0.53	18.42	18.42
EFW Index	-0.06**	-0.03**	3.96**	2.34*
GDP per capita		-0.01**		0.30**
Percent Muslim	0.14**	0.11**	-6.72*	-5.49
Percent Catholic or Orthodox	0.02	-0.01	-3.59	-2.10
R-squared	0.80	0.84	0.27	0.30
No. of significant regions**	3	1	0	0
	Equation 3a Adult women with secondary education (%)	Equation 3b Adult women with secondary education (%)	Equation 4a Maternal mortality (per 100,000 births)	Equation 4b Maternal mortality (per 100,000 births)
Number of Countries	113	113	118	118
Mean Dependent Variable	52.26	52.26	299.71	299.71
EFW Index	5.44**	4.88*	-112.80**	-131.41**
GDP per capita		0.09		3.37
Percent Muslim	-27.98**	-27.57**	273.59**	288.03**
Percent Catholic or Orthodox	-10.60	-10.18	49.78	66.41
R-squared	0.61	0.61	0.73	0.73
No. of significant regions**	4	4	1	1
	Equation 5a Adolescent fertility (per 1,000 females age 15-19)	Equation 5b Adolescent fertility (per 1,000 females age 15-19)	Equation 6a Female labor force participation (%)	Equation 6b Female labor force participation (%)
Number of Countries	119	119	119	119
Mean Dependent Variable	53.25	53.25	58.61	58.61
EFW Index	-7.91**	-6.64*	-0.05	-1.83
GDP per capita		-0.22		0.33**
Percent Muslim	22.40**	21.43**	-22.50**	-21.05**
Percent Catholic or Orthodox	6.10	4.99	-9.68**	-8.02**
R-squared	0.73	0.73	0.54	0.56
No. of significant regions**	2	1	2	1

Note: * denotes significance at the 10% level, and ** denotes significance at the 5% level.

well-being, then some or all of the observed impact of EFW index could be only *indirectly* attributable to the influence of economic freedom via its impact on economic prosperity. In this light, table 4.1 also reveals the results from adding the income variable to the GI index regression. The coefficient estimate on per-capita income was found to be negative and significant, as expected. While the presence of income in the equation did not diminish the statistical significance of the EFW index, the magnitude of the coefficient estimate diminished from -0.06 to -0.02 . This implies that the level of economic freedom still retains some direct impact on women's well-being, even after controlling for differences in prosperity across countries. Using this estimate of the *direct* impact of EFW index, it appears that economic freedom still explains almost 20% of the observed difference in the GI index between the middle two quartiles in figure 4.1.

Next, consider the five different measures of women's well-being that make up the GI index. Among those regressions excluding the income variable, the EFW index was found to be beneficial to women's well-being and statistically significant at the 5% level in four of the five measures. Only Female Labor Force Participation was not significantly influenced by the level of the EFW index (which is discussed further, below). When income was included in these specifications, it was found to be significant for only two variables (Female Representation in Parliament and Labor Force Participation). The EFW index was found to remain beneficial and significant at the 5% level for only one of the five dependent variables (Maternal Mortality). Interestingly, the magnitude of the coefficient increased after including the income variable. The EFW coefficient estimates for the remaining three dependent variables were found to be significant at only the 10% level. In each case, the EFW index retained a beneficial impact but the magnitude of their respective impacts was diminished.

It is worth briefly summarizing the impact of the various control variables. Palaez (2009) examined the EFW index for Islamic nations and found that, as a group, these countries have exhibited a decline in the level of economic freedom over the last decade or so. Even after controlling for the level of economic freedom, the coefficient estimate for the Percent Muslim Population variable was found to be statistically significant at the 5% level for 14 of the 18 regressions. In each of these cases, the coefficient estimate had a detrimental impact on the GI index and on each of the five component measures of women's well-being. The coefficient estimates for the Percent Catholic

Population variable were found to be statistically significant for only two of the 18 regressions (in both equations, for Labor Force Participation) and exhibited a detrimental impact in both cases. Finally, one or more regional dummy variables were found to be significant in 10 of the 12 regression equations.

Reconsidering female labor force participation

Why would the measure of labor force participation appear to be the only uncorrelated component of the GI index when compared to the average level of economic freedom in a country? There are many possible explanations. First, there may be one or more omitted explanatory variables in the specification. As Blau et. al. explain: "Factors that influence the supply of female labor include the relative value of market earnings as compared to time spent in household production, which is itself strongly influenced by fertility rates (and) the availability of goods and services for purchase" (2006: 377). The fertility influence could be reflected by including the UNDP fertility rate as an explanatory variable. The market earnings influence could be reflected by the level of human capital, or educational attainment, evident among women. Therefore, the UNDP secondary education variable could be included as an explanatory variable.

Second, cross-country studies in the development economics literature note that different stages of a country's level of economic development can influence women's willingness to join the labor force outside the home. Blau et. al. state: "Part of the explanation for differences in labor force activity by gender is that countries, and more generally regions, are in various stages of economic development, ranging from agricultural to industrial to post-industrial" (2006: 373). For example, Mammen and Paxson (2000) find that female labor force participation is generally higher in less-developed agricultural economies and generally declines among those countries that have transformed into more industrial economies.

Therefore, the share of a country's GDP arising from the agricultural and manufacturing sectors could also be included in the specification to reflect this impact. The agricultural and manufacturing sector's percentage value-added to GDP are each calculated as the average between 1995 and 2005 values. Both variables are available from the World Bank Development Indicators database (World Bank, 2010: table 1), and are included as a ratio of agriculture to manufacturing sectors to reflect any potential non-linear influence on female labor force participation.

Table 4.2: The impact of economic freedom on female labor force participation rates

	Equation 7a Female labor force participation (%)	Equation 7b Female labor force participation (%)	Equation 8a Ratio of female-to- male labor force participation rates (%)	Equation 8b Ratio of female-to- male labor force participation rates (%)
Number of Countries	94	94	94	94
Mean Dependent Variable	57.8	57.8	71.94	71.94
Percentage change EFW	0.05	0.13*	0.12**	0.18**
GDP per capita		0.39**		0.30*
Adolescent fertility	-0.11**	-0.10**	-0.12**	-0.11**
Female secondary education	-0.10	-0.13**	-0.06	-0.09
Ratio agriculture/manufacturing	1.52	1.37	1.60	1.49
Percent Muslim	-20.01**	-19.56**	-26.06**	-25.71**
Percent Catholic or Orthodox	-7.63*	-6.13	-8.31*	-7.13*
R-squared	0.60	0.63	0.69	0.71
No. of significant regions**	2	1	2	1

* denotes significance at the 10% level, and ** denotes significance at the 5% level.

Third, while initially examining the influence of the EFW index on the five components of the GI index, the EFW index was included in one of two forms: the average level and the percentage change in levels between 1995 and 2008. While the average level appeared to be reasonably robust in statistical significance across the five components, the percentage change variable was rarely significant—except in explaining the female labor force participation rate. In this case, the percentage change in EFW index was weakly significant at the 10% level. In this light, the change in EFW index is used in place of the average level, which has proven to be statistically insignificant.

Table 4.2 reveals the results of using a specification derived from the above discussion to explain the level of the UNDP's measure of the female labor force participation rate. The mean value of female labor force participation in this sample was about 58%. Additionally, the ratio of female-to-male labor force participation rates is also

used as an explanatory variable (the male variable is available from the same UNDP report). The mean value of this ratio indicates that the average female labor force participation rate is only 72% that of men.

When controlling for income, the percentage change in the EFW index is significant at the 10% level for the female labor force participation rate equation, and significant at the 5% for the ratio of female-to-male participation rates equation. An increase in the percentage change of the EFW index of one percentage point increases the female labor force participation rate by 0.13, and increases the ratio of female-to-male participation rates by 0.18. Given that the average change in the EFW index in the sample was 14%, this implies that the average increase in the level of economic freedom across countries from 1995 to 2008 has improved female labor force participation by 1.8% (14 times 0.13) and improved the ratio of female-to-male participation rates by 2.5% (14 times 0.18).

Conclusion

Would a woman living in a relatively more market-based society find that the institutional characteristics of economic freedom tend to support or hinder her pursuit of a better life? Using the United Nations Development Project data on women's well-being, this empirical examination yields some encouraging evidence. Women living in countries exhibiting more economic freedom appear to enjoy higher levels of well-being.

This conclusion is supported by examining the correlation between the value of the EFW index and the various socioeconomic measures of the Gender Inequality Index (GI index) used by the United Nations Development Project (UNDP, 2010). This index is designed to reflect the degree of progress that each country has made in promoting the well-being of women. It is made up of five components collated into three categories: Reproductive Health (maternal mortality and adolescent fertility), Empowerment (female parliamentary representation and educational attainment), and Labor Market (female labor force participation rate).

First, examining simple histograms of the GI index and its components with the average level of EFW index between 1995 and 2008 revealed beneficial correlations existed for all but the female labor force participation rate. Second, simple regression analysis results indicated that, even when controlling for cross-country differences in income, religious influences, and geographical regions, the level of economic freedom appears to exert a beneficial influence over the GI index, as well as over four of its five components (again excepting female labor force participation rates). Third, when the percentage increase in the EFW index over the same period is used in place of the level of EFW index, and other pertinent control variables were included based on models used in the economic development literature, increases in the EFW index

were found to improve the labor force participation rate of women, as well as improve the ratio of female-to-male labor force participation rates.

For example, when considering the direct influences (after controlling for cross-country differences in per-capita incomes) exhibited by economic freedom in a country, a one-point increase in the average EFW index was found to be associated with:

- a decline in the UNDP Gender Inequality (GI) index of 0.03 when the sample average is 0.53;
- a decline in the maternal death rate by 131 women per 100,000 births when the sample average is 300;
- a reduction of over six births per 1,000 births to females age 15–19 when the sample average is 53;
- an increase of almost five percentage points in the percentage of women with a secondary education when the sample average is 52%;
- an increase of two percentage points in the number of women holding seats in parliament in the legislative branch of a national government when the sample average is 18%.

Clearly, the regression specifications used in this empirical analysis to explain observed variation in the GI index components can be improved upon, by using unique specifications pertaining to each particular measure of women's well-being. The above empirical analyses simply illustrates that a more thorough investigation is warranted into the apparently beneficial relationship between economic freedom and women's well-being.

Appendix: List of the countries and the regression equations in which they were included

All countries were included for which data were available for all variables employed in each regression analysis.

	Equations							Equations							
Albania	1	2	3	3	4	5	Czech Republic	1	2	3	3	4	5	6	
Algeria	1	2	3	3	4	5	6	Denmark	1	2	3	3	4	5	6
Argentina	1	2	3	3	4	5	6	Dominican Republic	1	2	3	3	4	5	6
Australia	1	2	3	3	4	5	6	Ecuador	1	2	3	3	4	5	
Austria	1	2	3	3	4	5	6	Egypt	1	2	3	3	4	5	6
Bahamas		2		3	4	5		El Salvador	1	2	3	3	4	5	6
Bahrain	1	2	3	3	4	5		Estonia	1	2	3	3	4	5	6
Bangladesh	1	2	3	3	4	5	6	Fiji			3	3	4	5	6
Belgium	1	2	3	3	4	5	6	Finland	1	2	3	3	4	5	6
Belize	1	2	3	3	4	5	6	France	1	2	3	3	4	5	
Benin	1	2	3	3	4	5	6	Germany	1	2	3	3	4	5	6
Bolivia	1	2	3	3	4	5	6	Ghana	1	2	3	3	4	5	6
Botswana	1	2	3	3	4	5	6	Greece	1	2	3	3	4	5	
Brazil	1	2	3	3	4	5	6	Guatemala	1	2	3	3	4	5	6
Bulgaria	1	2	3	3	4	5		Guinea-Bissau		2		3	4	5	
Burundi	1	2	3	3	4	5	6	Guyana	1	2	3	3	4	5	6
Cameroon	1	2	3	3	4	5	6	Haiti	1	2	3	3	4	5	
Canada	1	2	3	3	4	5		Honduras	1	2	3	3	4	5	6
Central African Rep.	1	2	3	3	4	5	6	Hong Kong			3		4	5	6
Chad		2		3	4	5		Hungary	1	2	3	3	4	5	6
Chile	1	2	3	3	4	5	6	Iceland	1	2	3	3	4	5	
China	1	2	3	3	4	5	6	India	1	2	3	3	4	5	6
Colombia	1	2	3	3	4	5	6	Indonesia	1	2	3	3	4	5	6
Congo, Dem. Republic	1	2	3	3	4	5		Iran	1	2	3	3	4	5	6
Congo, Republic	1	2	3	3	4	5	6	Ireland	1	2	3	3	4	5	6
Costa Rica	1	2	3	3	4	5	6	Israel	1	2	3	3	4	5	
Côte d'Ivoire	1	2	3	3	4	5	6	Italy	1	2	3	3	4	5	6
Croatia	1	2	3	3	4	5	6	Jamaica	1	2	3	3	4	5	6
Cyprus	1	2	3	3	4	5	6	Japan	1	2	3	3	4	5	

Appendix, continued: List of the countries and the regression equations in which they were included

All countries were included for which data were available for all variables employed in each regression analysis.

	Equations							Equations							
Jordan	1	2	3	3	4	5	6	Romania	1	2	3	3	4	5	6
Kenya	1	2	3	3	4	5	6	Russia	1	2	3	3	4	5	
Korea, South	1	2	3	3	4	5	6	Rwanda	1	2	3	3	4	5	6
Kuwait	1	2	3	3	4	5		Senegal	1	2	3	3	4	5	6
Latvia	1	2	3	3	4	5	6	Sierra Leone	1	2	3	3	4	5	
Lithuania	1	2	3	3	4	5	6	Singapore	1	2	3	3	4	5	6
Luxem.	1	2	3	3	4	5	6	Slovak Republic	1	2	3	3	4	5	6
Madagascar		2		3	4	5		Slovenia	1	2	3	3	4	5	6
Malawi	1	2	3	3	4	5	6	South Africa	1	2	3	3	4	5	6
Malaysia	1	2	3	3	4	5	6	Spain	1	2	3	3	4	5	6
Mali	1	2	3	3	4	5	6	Sri Lanka	1	2	3	3	4	5	6
Malta	1	2	3	3	4	5		Sweden	1	2	3	3	4	5	6
Mauritius	1	2	3	3	4	5	6	Switzerland	1	2	3	3	4	5	
Mexico	1	2	3	3	4	5	6	Syria	1	2	3	3	4	5	6
Morocco	1	2	3	3	4	5	6	Tanzania		2		3	4	5	
Namibia	1	2	3	3	4	5	6	Thailand	1	2	3	3	4	5	6
Nepal	1	2	3	3	4	5	6	Togo	1	2	3	3	4	5	6
Netherlands	1	2	3	3	4	5	6	Trinidad & Tobago	1	2	3	3	4	5	6
New Zealand	1	2	3	3	4	5		Tunisia	1	2	3	3	4	5	6
Nicaragua	1	2	3	3	4	5	6	Turkey	1	2	3	3	4	5	6
Norway	1	2	3	3	4	5	6	Uganda	1	2	3	3	4	5	6
Pakistan	1	2	3	3	4	5	6	Ukraine	1	2	3	3	4	5	6
Panama	1	2	3	3	4	5	6	United Arab Emirates	1	2	3	3	4	5	6
Papua New Guinea	1	2	3	3	4	5	6	United Kingdom	1	2	3	3	4	5	6
Paraguay	1	2	3	3	4	5	6	United States	1	2	3	3	4	5	6
Peru	1	2	3	3	4	5	6	Uruguay	1	2	3	3	4	5	6
Philippines	1	2	3	3	4	5	6	Venezuela	1	2	3	3	4	5	6
Poland	1	2	3	3	4	5	6	Zambia	1	2	3	3	4	5	6
Portugal	1	2	3	3	4	5	6	Zimbabwe	1	2	3	3	4	5	6

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