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Potential Sources of Modern Day Slavery

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Abstract

Globally, the existence and persistence of slavery is a major problem that needs to be addressed. In addition to calling attention to slavery by making slavery a high priority issue on the national agenda, gaining some understanding of the sources of slavery is necessary for governments to effectively deal with slavery. This paper considers four factors as potential determinants of slavery at the national level. They are economic development, population growth, unemployment, and natural resource rental income. Empirically, cross country regression analysis is undertaken to test whether these four factors are of consequence for slavery. The results suggest that each of the four factors is relevant for slavery, with higher levels of economic development leading to lower levels of slavery, and higher population growth, unemployment, or rental income , leading to higher levels of slavery.

INTRODUCTION

It is appalling, but true, that slavery still exists in the modern world. From almost any moral perspective, or from practically any notion of what it means to be civilized, slavery, the ownership of one individual by another, is an abomination. One of the major feasts of the Jewish people, the Passover, celebrates the emancipation of the Jewish people from the cruel fate of slavery. From a Rawlsian point of view, welfare in society can be maximized by making the worst possible state in society as good as possible. As there is almost nothing worse that can be imagined than for a human being to be in slavery, this means, from a Rawlsian perspective, that social welfare is maximized by minimizing slavery.

In order to reduce slavery, to be able to devise policies to effectively control slavery, it is first necessary to understand the current causes of slavery, and the conditions that bring it about .

The nation state, at the present time, is the preeminent form of political and social organization. Across nations, the amount of slavery varies considerably. The fundamental question is why. What are the reasons for differences in the amount of slavery across nations?

This paper investigates whether four potential factors, the level of economic development, population growth, unemployment, and, rent as a source of income are important in explaining differences in the amount of slavery between nations.

The paper is broken down into five sections. The first section reviews some of the work that has been done looking at the sources of modern slavery. The second section presents a formal model of modern slavery. The third sections identifies the sources of the variables that are used in the empirical analysis. The fourth section discusses the results of cross country regressions of slavery on economic development and the three other variables considered as potential determinates of slavery. The fifth section closes by offering some concluding remarks.

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BACKROUND LITERATURE

Bales feels that the essence of slavery is, at all times and places, the control of one individual by another thorough actual or potential violence (Bales 2004). His analysis of the historical data shows that the price of slavery today is lower than at any other time in history. He maintains that the price of slavery today is falling due to an increase in the supply of slavery, and attributes the reasons for this increase to rapid population growth, rising level of impoverishment due to widening income disparities between groups from globalization, and the lack of law and order resulting from government corruption. His regression analysis, that uses human trafficking from a country as the dependent variable, indicates that government corruption, infant mortality, the percentage of the population below age fourteen, food production, population pressure, and conflict and social unrest may be important factors for slavery. In addition, his regression analysis, that employs an ordered logit estimator and uses an index of slavery as the dependent variable, shows that GDP per capita and the United Nations Human Development Index are relevant for slavery.

Crane looks at slavery from a management perspective (Crane 2011). He develops a comprehensive theory of slavery that considers both the internal organizational capabilities of an organization that can enable it to practice slavery right in the face of illegality, and the external conditions that allows slavery to exist. One of his key organizational capabilities is organizational access to violence and the effective organizational ability to use it. A few of his external conditions include unemployment, poverty, isolation, and government weakness.

Arocha considers a host of factors that may influence slavery in a country (Arocha 2005). In her empirics, she uses a categorical index based on expert opinions as her dependent variable , and employs maximum likelihood estimation on an ordered logit model for a cross section of one hundred forty six countries. From the results of her regressions, some of the variables that appear to be relevant for slavery are economic development, political rights, corruption trafficking in and out of a country, external debt, regional location, and fundamental culture.

At least with regard to sex slavery, law may be a relevant factor. In their cross country regressions, Jakobsson and Kotsadam find that slacker prostitution laws, when adjusting for one or more of their control variables (population, GDP per capita, the rule of law, and the share of immigrants in the population), significantly increases both trafficking inflow and victims from trafficking (Jakobsson and Kotsadam 2013).

Martinsen postulates that there may be a non-linear relationship between modern slavery and gender inequality. In her cross country regression analysis, she uses an index of human trafficking outflow for her dependent variable, and finds, when adjusting for population and GDP per capita, a hump shaped relationship between human trafficking outflow and the percentage of women in parliament, and between human trafficking outflow and labor force participation of women (Martinsen 2014).

Datta and Bales look at six potential determinants of slavery (state stability risk, women' s economic rights, freedom of speech, access to financial services, Eastern European location, and percentage of men over sixty years in age) in a cross section of thirty seven European countries for 2012 (Datta and Bales 2014). They generate their own estimates of the numbers enslaved by country on the basis of representative survey data, and use the natural logarithm of slavery as their dependent variable. They find that, except for women's economic rights, that all of the other variables are significant at the five percent level of significance or better, with a positive estimated coefficient on state stability risk, access to financial services, location in Eastern Europe, and men over sixty, and a negative coefficient on women's economic rights and freedom of speech.

Labor migration may be important for human trafficking. Mahmoud and Trebesch hypothesize that human trafficking depends critically on emigration (Mahmoud and Trebesch 2010). They believe that greater emigration reduces the recruitment costs of human trafficking causing greater human trafficking. Mahmoud and Trebesch employ data from household surveys of five Eastern European countries (Belarus, Bulgaria, Moldova, Romania, and Ukraine) experiencing high levels of human trafficking to examine human trafficking. Their regressions indicate, in line with their central contention, that greater migration prevalence by households increases the incidence of human trafficking. Furthermore, their findings suggest that greater awareness of the risks of trafficking by households reduces the incidence of human trafficking.

Empirical research on human trafficking is at its beginning stages. At present, there is not a lot of the existing empirical work on human trafficking , and there is a pressing need for more empirical work in the area. Gozdziak and Bump provide a comprehensive bibliography of research on human trafficking (Gozdziak and Bump 2008). Of the two hundred eighteen journal articles they identify, only thirty nine are devoted to empirical research, and, of these, only thirty six appear in peer reviewed publications.

FORMAL MODEL OF SLAVERY

The formal model of slavery consists of a single equation with its associated partial derivatives. The equation is as follows.

$S = f(D, P, U, R) \quad \delta S/\delta D < 0, \delta S/\delta P > 0, \delta S/\delta U > 0, \delta S/\delta R > 0$

In the equation, S is the amount of slavery, D stands for the level of economic development, P is the rate of population growth, U is unemployment, and R is rental income. The partial derivative of slavery with regard to democracy is positive, but it is negative with regard to the three other variables.

It is anticipated that slavery will be negatively related to the level of economic development. Anything that improves the opportunity set of individuals in society is likely to reduce slavery. Higher levels of economic development increase both the quantity and quality of opportunities available to members of society. It is absence of opportunities, or bad, or poor opportunities, that put people in a position to become enslaved.

Slavery is also expected to be positively related to population growth. Typically, population growth is highest in the poorest nations, and within nations, among poorest income groups. That is to say, population growth is generally higher for the very people that can least afford to have children, and for which a larger family leads to further misery. Population growth among the poor makes a bad situation worse. In the extreme, it moves them from a barely manageable subsistence lifestyle to a position of indebtedness and of destitution, making them prime targets for enslavement.

The third factor is unemployment. Slavery is predicted to be positively related to unemployment. Unemployment makes people more vulnerable, and, therefore, leaves them in a condition more likely to become enslaved. Sustained unemployment eventually places almost anyone in a desperate position in which they are willing to do almost anything to survive, and where they have no means available to defend themselves from any form of exploitation.

While underdevelopment, rapid population growth, and high levels of unemployment are factors that may promote conditions that augment the supply of slavery, unlike these three supply factors, the share of natural resource rental income is considered to be a demand factor. For slavery to exist, there must be a set of people who can rationalize to themselves, as well as to others, the existence of slavery, and who are willing and able to buy and sell slaves, and to use and exploit them for their own advantage and purposes. In the modern world, one likely potential source for members of this group, for members in this class, are individuals who derive a substantial share of their incomes from natural resource rents.

Economic rents can be obtained without any contribution to production, and tend to promote the development of an aristocratic mind set. The aristocratic mind set, although favoring any and all activities, such as war, that can be used to acquire more land, distains work, and all those who must work in order to survive. Historically, in feudal agrarian societies, rents derived from the land were associated with an extremely powerful class division between aristocrats and others. The more an individual derives his income from rents, the more the aristocratic perspective has a chance to take hold of his being and to become an fundamental part of his identity. With the enormous perceived social distance between themselves and others, aristocrats feel it is their right, that they are entitled, to use, exploit, or enslave, those beneath them. Thus, from the demand side, the incidence of modern slavery in a nation, the percentage of the population that is enslaved, is expected to be positively related to the percentage of natural resources rents to GDP.

VARIABLE SOURCES

Slavery is quantified by using the percentage of the population in modern slavery for 2014. The numbers come from the Global Slavery Index web site (The Global Slavery Index 2015).

The measure of economic development is GDP per capita for 2010. The source for the data is the World Bank (World Bank 2014).

Population growth , the unemployment rate, and the percentage of natural resource rents to GDP are all for the year 2010. Just like the GDP per capita data, the data for these variables comes from the World Bank.

EMPIRICAL RESULTS

Table I shows the results of cross country regressions of slavery, as measured by the percentage of the population in slavery, on the four factors, the level of economic development, population growth, the unemployment rate, and the percentage of natural resource rents to GDP.

Table I: Cross Country Regressions Of Slavery On Economic Development And Other Potential Determiannts

	(1)	(2)	(3)	(4)
CONSTANT	.5663 (10.35) *	.3754 (6.36) *	.1282 (1.39)	.0990 (1.095)
DEVELOPMENT	-.0000057	-.00000075	-.0000068	-.0000065

	(-2.73) *	(-3.92) *	(-3.60) *	(-3.52) *
POPGROWTH		.1432 (5.95) *	.1686 (6.84) *	.1298 (4.79) *
UNEMPLOYMENT			.0226 (3.45) *	.0209 (3.25) *
RENTSTOGDP				.0084 (3.09 *
RSQ	.046	.223	.280	.322
N	158	158	156	156

The table is organized in the following way. The first column provides a list of the potential explanatory variables that can enter the regression equations. The remaining four columns show the results of four different regressions. These four regression equations are numbered in the first row. If and when a variable enters an equation, then its estimated coefficient is given in the appropriate row and column in the table with its individual t-statistic underneath in parenthesis. The presence of an asterisk below the individual t-statistic indicates that a variable is significant at the one percent level of significance or better in that equation. The r-squared value for each equation is provided in the second to the last row, and finally, the number of countries entering an equation (the sample size)is shown in the last row.

The table contains four equations. The first is an equation of slavery, as measured by the percentage of the population in slavery, on economic development alone. The second regresses slavery on both economic development and on population growth. The third adds the unemployment rate as an additional explanatory variable to economic development and population growth. Finally, the fourth is a regression of slavery on all four factors, economic development, population growth, the unemployment rate, and the percentage of natural resource rental income to GDP.

The results provide strong support for the position that the four factors, the level of economic development, population growth, the unemployment rate, and the share of natural resources rents in GDP are important for slavery, as measured by the percentage of the number of people in slavery to the population. Any time any one of the four factors enter an equation, the factor is significant at the one percent level of significance or better. All four factors also have their appropriate signs. The estimated coefficients indicate that higher levels of economic development reduces slavery, while rates of population growth, unemployment, or increased natural resources rental share increases slavery. When all four factors are used together (equation (4)), they explain over thirty two percent in the cross country variation of the percentage of slavery to the population in a sample consisting of one hundred and fifty six countries.

CONCLUSION

From the regression results, it appears that each of the four factors considered to be of theoretical importance for modern day slavery matters for modern slavery. Thus, according to the findings of the paper, a profile of a high slavery country , a country with a high percentage of slavery to population relative to other countries, is a country existing at a low level of economic development, with a high rate of population growth, substantial unemployment, and a relatively large share of national income coming from natural resource rents. In essence, it is likely to be a country with a substantial and growing amount of poor people with little or no opportunities, coupled with an elite that finds no scruples to enslave the masses, and who, politically, may even consider slavery as a necessity in order to keep the lower class in check, and, who, personally, may view the ability to own slaves as a component of their class identity.

Policy wise, to reduce slavery, each of the four characteristics of a modern high slave country needs to be addressed.

First, economic development needs to be promoted in the high slave country so that more opportunities are available to the people in the country, especially to the poor. This may be extremely difficult, not just economically, because of the enormous economic hurdles that have to be overcome, but politically, since the elites, the people that are in control of the government, are more than contented with the status quo, as they are currently living quite nicely and have high status in the prevailing social structure.

Second, population growth needs to be brought under control to avoid a Malthusian trap. The poor need to be educated to use moral means or birth control to have smaller families. Internationally, the ability of people to legally emigrate from high population growth, low opportunities countries to high opportunity, highly developed, countries must become more, not less, of a possibility.

Third, unemployment must be reduced. Conditions favorable for business and investment have to be created. The government needs to provide necessary infrastructure . Investment in the country must become profitable and not unduly risky to undertake.

Fourth, when substantial rents from natural resources exist, these rents somehow, either through taxation or some other means, need to be channeled away from a renter class, and used for the economic development of the country.

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