

Is globalization to be blamed for child labour



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This paper addresses an issue that appears to be on the increase worldwide; Child Labour. Recent ILO estimates state that every seventh child in the world is engaged in working activities. Because of their family's financial difficulties these children are forced to give up their future in terms of education, health and leisure. This emphasises the importance to carry out further research and analysis on the phenomenon of child labour as well as come up with effective policy inventions in order to eliminate child labour. According to Basu (1999) designing policies should be based on careful analysis and research instead of underlying emotions or feelings towards child labour.

It is extremely important to consider the precise definition of child labour before proceeding. There is immense heterogeneity in defining child labour as different groups view it differently. For example according to Ashagrie (1993) a child is categorised as "labourer" if the child is "economically active". Then again we need to come to an agreement on what age group being a "child" consists of. Most studies however follow the ILO's convention No. 138 and treat a person under 15 years old as a "child" and estimate child labour by observing economic activity of children under the age of 15.

For the purpose of our study we will be looking at children between the ages 0-14.

The aim of this paper is to discover the impact globalisation has had and is having on child labour. As globalization is a broad topic, I will be focusing specifically on trade liberalization, which plays an essential role within the globalization process. Liberalised trade had been the engine of capitalistic

growth from colonial times; however globalization has led to a change in this pattern. Under colonialism, land conquest operated as a pre-condition and (foreign) capital and (foreign) labour converged on land to produce goods for trade (e. g. plantation production). But, with globalization, capital is seeking investment outlets globally, where, besides marketing opportunities, cheap labour is a key determinant. This has resulted in large scale foreign direct investment (FDI) with multi national corporations yielding the necessary structural change. LEDCs are keen to receive FDI and have gone to the extent of creating a suitable environment for such capital overlooking social issues. The policy had been conducive for cheap labour in the form of children and women (e. g. garment industries within the FTZ in Sri Lanka).

Economists argue that international trade is beneficial in terms of increasing the income of the country as well as creating job opportunities in the country. It is also one of the important sources of revenue for a developing country. But there is no denying that there may be losers from international trade too; for example the imports of cheap goods produced by low skilled workers may not only reduce the demand for those goods but also reduces employment opportunities for low skilled workers. Although trade can bring some disadvantages to a country's economy, it is necessary that it does not affect the younger population who will determine the future of the economy.

This paper investigates whether trade liberalization increases the incidence of child labour. Since our concern is working children, who are predominant in the developing world, my focus will be on developing countries specifically on India, Pakistan, Bangladesh, Nepal and Sri Lanka. The main reason for

why it is interesting to consider these South Asian countries is due to the high proportion (40%) of the world's child labour emerging from these countries as well as the rapid export growth monitored in these countries. One would expect a positive relationship between trade openness and child labour as more trade means more exports, which in turn means an increase in demand for labour; therefore, children enter the labour market. However this is an extremely generalised statement, the next section presents what the economic theory says about this matter. This study looks at a panel of 50 developing countries over a period of 4 decades to in order to observe the effect of trade on child labour. Another reason for the use of panel data is due to the fact that child labour is not a recent issue, it has been happening for several decades now, therefore it is interesting to see if there has been a trend over time. It also makes sense to observe the consequences of globalisation over time as there has been a rapid, continuous progress in information and technology which highly contributes to trade liberalization (Krugman 1995), especially in the 1980s when globalisation got in its stride.

In order to test the effect of trade liberalization on child labour, a multiple regression analysis will be carried out using economic activity rate of children between 10-14 as the indicator for child labour and the country's imports and exports (%GDP) as the measure of trade openness. In addition control variables such as GDP per capita and proportion of children between 0-14 as well as regional dummies are added to the regression. Data are mainly collected from the World Bank and UN common database.

The report proceeds as follows. Chapter 2 reviews the theory of trade and how it is likely to affect child labour. The methods used to carry out the

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empirical analysis along with the description of the data used is described in chapter 3. The results and findings are presented in chapter 4 followed by the conclusions and possible policy recommendations in chapter 5.

Theory

Parents make the decisions regarding whether to send their children to school; they make these decisions by comparing benefits and costs of education as well the opportunity cost of time spent in education rather than working. Ranjan (1999) says that credit market imperfections are the reason for the existence of borrowing constraints. Therefore when parents cannot borrow against their children's future earnings, the deep poverty forces them to send their children to work. When the country opens to trade in an unskilled labour abundant country (i. e. developing country) this may affect child labour in two ways. Firstly, the demand effect due to the increase in wage of the unskilled workers which in turn reduces the returns to skilled workers. Looking at it in this perspective makes it more likely that parents would send their children to work rather than to school. Another perspective is that households with unskilled workers become better off as they receive higher wages; therefore there is less of a need to send the children to work. The overall outcome will depend on which of these effects dominates (Ranjan 2001). However it is important to note that the impact of trade liberalization on child labour will be varied in different countries depending on the factor endowments of the country. Developing countries are relatively abundant in unskilled labour therefore trade growth may not have a significant impact on child labour.

Krueger(1996) says that trade between two countries is determined by comparative advantage. A country has a comparative advantage in producing a good if the opportunity cost of producing that good is smaller in that country compared to other countries. The country with a comparative advantage also uses its resources most efficiently in the production of that good. So for example if developing countries specialize in goods that make use of unskilled labour, more of those goods are produced. The country gains from trade due to its specialization in the products that uses its resources more efficiently. This in turn brings more income to the country which can then be used to buy the goods and services the country desires. Domestic workers also benefit from this as the family's real income increases from producing the good the country specializes in. This theory can be linked with the two possible implications trade has on child labour as discussed by Ranjan; income effect reduces child labour as the additional income helps parents reduce the work load of their children or the higher income to families may also mean parents would rather send their children to work. However Cigno et al (2002) found a negative relationship between trade and the incidence of child labour in their cross country study. The problems using a cross country study is that data collection methods in different countries may vary; therefore results may be less reliable when comparing. Also cross sectional studies are carried out at one particular point in time or over a short period of time, therefore it's only a snapshot. The results may be different if the study had been carried out in a different period. Findings of Shelbourne (2002) also supports the results derived from the study carried out by Cigno et al. Her reasoning was that the economy expands due to international trade which in turn increases per capita GDP reducing the need

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for child labourers. This is not necessarily true as an increase in the volume of production within the country might mean there is higher demand for cheap labour in order to maximize profits.

The Heckscher-Ohlin theory explains trade through differences in resources. For example let us now take a look at a simple framework where capital and labour are the factors of production. Under this framework a country will have comparative advantage in producing goods which intensively uses the factor with which they are abundantly endowed. According to this theory openness to trade increases demand for the good produced by the abundant factor which indirectly increases the demand for the abundant factor itself. This also increases the price of the abundant factor. In other words, countries that have a relatively high proportion of labour (labour intensive), which are mainly the developing countries will tend to export labour intensive goods and countries which are well endowed in terms of capital will export capital intensive goods. (criticize)

Brown (2000) and Dixit (2000) believe that when countries involve in trade the wages are determined by the prices of the products. In conjunction with Heckscher-Ohlin's model, this means the increase in price of the export products can actually reduce the incidence of child labour as adult wages rise. However according to Maskus (1997) the demand for child labour depends on the demand for export goods. In other words the higher the demand for export goods the higher the demand for child workers through higher equilibrium wages. His theory, however contradicts with Stolper Samuelson's theorem, which states that the expansion of the export sector increases adult wages and therefore it reduces the supply of child labour.

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These are two contradicting views as the expansion in the export sector can either increase or decrease child labour. However, all these theories are solely based on income and how child labour is affected due to the income effects triggered by trade. Perhaps other factors such as poverty and welfare benefits should be taken in to account. It is generally accepted that liberalization under globalization has led to a maldistribution of income, which has created relative poverty. The worst affected has been the LEDCs. It is also true that certain LEDCs, the least developed ones, are also affected by absolute poverty. When families are threatened to be below poverty lines, child labour becomes a convenient means to enhance family incomes.

Moreover part of the liberalized programme under globalization has been a reduction in welfare activities both in the developing and developed world. World Bank and IMF impose on LDCs welfare reduction as a pre-requisite for capital and any other form of assistance. It has led to privatisation in especially health and education driving a lot of families to lower income levels, eventually, culminating in denial of proper educational facilities and the creation of child labour.

Overall, the review of theory works seems to be more supportive towards a negative relationship between trade openness and child labour mainly due to the positive income effect trade brings to the country. We will now take a look at some empirical evidence to see if they support these theories.

Empirical evidence

The empirical evidence already found on the relationship between trade openness and child labour does not give us a clear picture. Most cross-
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sectional studies tend to show a negative relationship between trade improvement and the incidence of child labour. In fact in the panel study carried out by Cigno et al. (2002) there were no significant relationship between the two variables. The overall effect of trade liberalization on child labour seems to differ across countries. Kis-Katos (2007) carried out an empirical study using a panel of 91 countries measuring variables every decade from 1960-2000. However she only included the countries that reported a positive value of child labour; one needs to take into consideration that not all countries let out information about issues such as child labour and also countries tend to underreport work by children, therefore her results may have been different if these 'secretive' countries were also included. She found an overall increase in trade openness over the decades as well as a steady decrease in the incidence of child labour. However the reliability of the data should be taken into account as illegal work or household work carried out by children may not be reported, which affect the reliability of the results. Moreover in developing countries economic censuses are rare and the ILO often makes adjustments such as intrapolating or extrapolating data in order to get estimates. This means the actual values may be over or under estimated than the true value.

Cigno et al. (2002) found no empirical evidence that international trade raises child labour. In fact their cross country study shows that trade liberalisation actually decreases child labour. One of the indicators they used to measure child labour was primary school non-attendance rate. It is important to note that child not attending school does not necessarily mean the child is engaging in economic activity. It may for example be the case

that the family cannot afford to send the child to school or even that the child has health problems. Therefore using primary school non attendance rate is not as appropriate as an indicator. The other indicator used was economic activity of children between ages 10-14, which clearly excludes children younger than 10 who are more of a cause of concern. However considering there are only limited data available on child labour, these indicators do give us a broad brush picture of the evolution of child labour. Issues with the reliability of data are the same as those discussed for Kiskatos's empirical study above. As we have seen, most of the empirical findings are consistent with the theoretical considerations we discussed previously. In other words empirical work carried out so far mainly find a negative relationship between trade openness and child labour supporting most of the theories.

Methodology

Our empirical work is aimed at understanding whether the panel data evidence suggests a link between trade and child labour and whether there is any evidence to support our hypothesis of trade liberalization exerting an upward pressure of child labour.

Data and variables

In order to address the research question which is to observe whether trade liberalization increases child labour, a panel of 50 developing countries are used, where the variables are measured every ten years between 1960-2000. The focus of the regression is to observe child labour over time keeping in mind the current wave of globalisation progressed rapidly around <https://assignbuster.com/is-globalization-to-be-blamed-for-child-labour/>

the 1980s. However by looking at the data it is important to note that not all countries have experienced an increase in trade over each decade. There are a total of 250 observations for each variable considered over the years 1960, 1970, 1980, 1990 and 2000.

A panel data method has been carried out for this analysis for several reasons. Firstly the use of panel data increases the number of observations. For example in our case using data over 5 different time periods has increased the sample size by 5 times which will help increase the precision of the regression estimates. It also increases the degrees of freedom and reduces the collinearity among explanatory variables, again increasing the precision of the estimates. Moreover it allows us to analyse important economic questions which cannot be addressed using cross sectional analysis alone. For example in our case using a cross sectional analysis will not be appropriate as we are interested in observing a trend over time.

Data was taken from the World Bank development indicators (reference) and the United Nation common database. The dependent variable used is the economic activity rate of children between the ages 10-14 taken from the ILO estimates. Using this variable as an indicator for child labour has two main problems. Firstly children under the age of 10 who may be involved in child labour are excluded. Secondly this indicator does not include children working within the household, or children involved in illegal work such as prostitution. In developing countries economic censuses are rare and the ILO often makes adjustments such as intrapolating or extrapolating data in order to get estimates. This means the actual values may be over or under estimated than the true value, which also have an impact on the results.

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However considering the lack of data available on child labour and comparing with other indicators present, this indicator serves best available proxy for measuring child labour.

As we are looking at the impact of trade on child labour the main explanatory variable used in our analysis is trade (% GDP). The trade variable gives the sum of exports and imports of goods and services measured as a share of gross domestic product. In addition to this two other control variables have been included. The control variables are GDP per capita growth (%) and the age group 0-14 as a percentage of the whole population. The reason for the use of control variables is to see if there is actually a relationship between trade and child labour given that these control variables which also affect the dependent variable are kept constant. It would have been desirable to control for variables such as poverty and differences in income distribution, but the data available was not sufficiently consistent across the countries and years we are considering.

GDP per capita is used as a control variable because it controls for average income effects caused by trade liberalization. As we mentioned earlier increase in trade means countries gain new production opportunities which in turn increases GDP per capita. This positive income effect is most likely to reduce child labour. Therefore it is essential to control this variable. The other control variable used is age group 0-14 as a percentage of the whole population. This variable allows us to observe whether the increase in number of children in that given age group over the years affects child labour. The notion behind this is that the larger the families the higher the

demand for income therefore a higher chance of children entering the labour force.

As my main focus is on South Asian countries a regional dummy variable has been added to the regression which takes a value of 1 if the country is in South Asia and a value of 0 if not. This regional dummy helps to capture the change in child labour in the south Asian countries which is known to have a high prevalence of child labour.

Results

By looking at the data for every 10 years from 1960 to 2000, we can see a general increase in trade openness over time as well as a steady decrease in economic activity rates. We begin our analysis by considering the association between volume of trade (openness) and child labour for the years 1960, 1980 and 2000. This allows us to have a rough overview of how the relationship has changed (if any) before and after globalisation (considering globalisation occurred around the 1980s).

1980

This figure shows a scatter plot of the data for 1980 for the variables trade and child labour. A point on this scatter plot represents the volume of trade in 1980 and the economic activity rate of children between 10-14 in 1980 for a given country. The OLS regression line obtained by regressing these two variables is also plotted on the figure, which shows a slightly negative relationship; the estimated regression line is:

$$CL = 26.6601794934 - 0.0149024702066 * TRADE \text{ (1980 data)}$$

Because we have data for more than one year, we can re-examine this relation for another year. The scatter plots for the years 1960 and 2000 are given below.

$$CL = 36.3205247048 - 0.119594768169 * TRADE \text{ (1960 data)}$$

$$CL = 26.0540622351 - 0.109873185356 * TRADE \text{ (2000 data)}$$

All three scatter plots show a negative relation between trade and child labour although year 2000 has the highest coefficient on trade implying that the reduction in child labour was greater in the year 2000 compared to 1960 and 1980. Keeping in mind that globalization took its stride in the 1980s, these scatter plots show that globalization has in fact reduced child labour further. However these plots only show what happened in that specific year, there may have been fluctuations between the years (i. e between 1980 and 1990) and also we cannot tell the trend over time using these individual plots.

A better way of estimating the relationship is a regression approach that takes into account both the time and the cross section.

Estimation strategy

The estimation equation is of the following form:

$$CL_{it} = f(\text{Trade}_{it}, \text{GDP}_{it}, \text{Population 0-14}_{it}, \text{Regional dummy for South Asia}_{it}),$$

Where i = country x and t = time (decade t).

More formally:

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$$Y_{it} = \hat{\beta}_1 i + \hat{\beta}_2 X_{2it} + \hat{\beta}_3 X_{3it} + \hat{\beta}_4 X_{4it} + \hat{\beta}'(SA_{it}) + \hat{\mu}_{it}.$$

The anticipated signs of the coefficients:

The coefficient of trade ($\hat{\beta}_2$) which is what we are most interested in could either be positive or negative, although according to theory it is most likely to be negative. Coefficient of GDP ($\hat{\beta}_3$) is expected to be negative as the higher the GDP per capita the lower the incidence of child labour due to the positive income effect. The coefficient of the number of children aged 0-14 ($\hat{\beta}_4$) is expected to be positive as the larger the number of children per family the higher the demand for income in order to support the family. As south Asia has a high incidence of child labour, the coefficient of the dummy variable is expected to be positive and large.

Dependent Variable: CL

Method: Panel Least Squares

Date: 03/21/10 Time: 16: 24

Sample: 1 5

Periods included: 5

Cross-sections included: 50

Total panel (balanced) observations: 250

Variable

Coefficient

Std. Error

t-Statistic

Prob.

C

-1.326061

7.182926

-0.184613

0.8537

TRADE

-0.103054

0.031110

-3.312572

0.0011

GDP

-0.448464

0.186588

-2.403504

0. 0170

POP

0. 778480

0. 163337

4. 766091

0. 0000

SA

6. 023961

3. 378131

1. 783223

0. 0758

R-squared

0. 149969

Mean dependent var

25. 40160

Adjusted R-squared

0. 136091

S. D. dependent var

15. 99024

S. E. of regression

14. 86241

Akaike info criterion

8. 255344

Sum squared resid

54118. 32

Schwarz criterion

8. 325773

Log likelihood

-1026. 918

Hannan-Quinn criter.

8. 283690

F-statistic

10. 80618

Durbin-Watson stat

0. 152585

Prob(F-statistic)

0. 000000

$$CL = -1.32606116682 - 0.103053628312 * TRADE - 0.448464386734 * GDP + 0.778479521915 * POP + 6.0239606613 * SA$$

The results show the coefficients of $\hat{\beta}_2$, $\hat{\beta}_3$, $\hat{\beta}_4$ are as expected. For a given country i , when trade liberalization varies across time by one unit, child labour decreases by 0.103 units. Similarly when GDP and population vary across time by one unit child labour decreases by 0.448 and increases by 0.778 respectively. Looking at the results it is clear that trade liberalization does not have much of an impact on child labour as indicated by a very small coefficient, which we may even interpret as there being no impact of trade on child labour. It is important to note that being a South Asian country is associated with child labour that is 6.02 units higher, everything else held constant. This was also expected as we found out earlier that a large proportion of child labour comes from South Asian countries. Our previous theory discussion implied that the relationship between openness and child labour could be either positive or negative. Our results suggest that greater openness is associated with slightly less child labour or even no effect on child labour. In order to test the significance of the coefficients, t-tests have been carried for each variable:

Trade:

$H_0: \hat{\beta}_2 \neq 0$ (there is no relationship or a positive relationship between trade openness and child labour)

$H_1: \hat{\beta}_2 < 0$ (there is a negative relationship between trade openness and child labour)

$$t = b_2 = -3.313$$

$se(b_2)$

Under the 5% significance level the critical t-value is $t(0.05, 246) = -1.651$.

Since $-3.313 < -1.651$, we reject $H_0: \hat{\beta}_2 \neq 0$ and conclude that H_1 is more compatible with the data. The sample evidence supports our prediction that trade liberalization actually decrease the incidence of child labour.

GDP:

$H_0: \hat{\beta}_3 \neq 0$ (there is no relationship or a positive relationship between GDP and child labour)

$H_1: \hat{\beta}_3 < 0$ (there is a negative relationship between GDP and child labour)

$$t = b_3 = -2.404$$

$se(b_3)$

Since $-2.404 < -1.651$, we again rejects H_0 and conclude that increase in GDP per capita decreases child labour. This can also be seen by looking at the p-value: $0.000 < 0.05$, which also yields the same conclusion.

Number of children between 0-14:

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$H_0: \beta_4 = 0$ (there is no relationship between number of children and child labour)

$H_1: \beta_4 \neq 0$ (there is a negative relationship between number of children and child labour)

$$t = b_4 = 4.77$$

$se(b_4)$

Since $4.77 > 1.651$ we do not reject H_0 . In this case there is insufficient evidence in our sample to conclude that there is a relationship between number of children between 0-14 and child labour. Therefore we cannot be confident that this variable is actually has an impact on child labour. Perhaps further research into this will be useful.

Estimating the regression excluding the population variable yields similar coefficients for the trade and GDP variables however the dummy variable for south Asia has a much smaller coefficient compared to when population was included. This shows that population is an important variable when considering South Asian countries and excluding it leads to an omitted variable bias especially when south Asian countries are involved. This is true as countries like India have a very large population therefore the proportion of children between 0-14 is likely to be high. As discussed earlier large number of children per household means extra income is required to support the family, which may lead to a necessity for children to work. Although population is an important variable, regressing it with child labour may not yield extremely reliable results in our case. This is because we are only

taking into account children between the ages 10-14 as a measure of child labour, which is excluding the age group 0-9, whereas the population variables includes all ages between 0-14. This implies that the coefficient is likely to be much higher if we were to include economic activity rate of children between 0-14 as our dependent variable, which was not possible due to limited availability of data. This may be a reason why the coefficient of the population variable was insignificant as we found when carrying out the t-test.

These results interpreted above however did not control for the characteristics of the countries.

Fixed effect approach

An advantage of panel data is that we are able to hold constant individual differences which allow us to focus on marginal effects of the independent variables considered. It is reasonable to include the fixed effects model in our analysis as the data complies with the 2 basic requirements of using the fixed effects model; firstly dependent variable must be measured for each country for at least 2 periods and secondly the independent variable must change in value across the periods. There is no need to add the dummy variable in this case as the fixed effects are already controlling for location. Having the cross section as 'fixed' yield the following results:

As we can see from the table the coefficient of trade is more or less the same as before, however GDP now has a slightly positive coefficient. The regression R2 jumps from 0.0705 to 0.9097 when fixed effects are included. This shows that the country fixed effects account for a large amount of

variation in the data. Although fixed effect approach has an attractive feature that allows controlling for the variables that have not or cannot be measured, they only take into account within country differences discarding any information about differences between countries.

An F-test can be carried out to see if there is individual differences and if it is important to include cross section fixed effects in the model.

$H_0: \hat{\alpha}_1 = \hat{\alpha}_2 = \hat{\alpha}_3 \dots = \hat{\alpha}_N$ (no fixed effect differences)

H_1 : the $\hat{\alpha}_i$ are not all equal

$F = (SSER - SSEU) / J = 38.63$

$SSEU / (NT - N - (K - 1))$

Where the degrees of freedom $J = N - 1 = 50 - 1 = 49$ and $NT - N - (K - 1) = (50 \times 5) - 50 - (3 - 1) = 198$.

Under the 5% significant level the critical value is $F_c = 1.419$

We reject H_0 if $F \geq F_c$, since $38.63 \geq 1.419$ we reject the null hypothesis of no fixed effect differences between these countries, therefore it is good to include fixed effects in the model.

Overall, changes in trade over the decades had no impact or very little (decrease) effect on child labour. The other explanatory variables GDP and population also had the expected signs on the coefficients although under the fixed effects GDP had a small but positive coefficient. (what does this

mean?) These findings are consistent with the theory we discussed previously.

Policy interventions

What can the Government do to reduce child labour?

Some of the previous studies carried out on this topic have mainly mentioned improvements in schooling facilities as one of the main policy recommendations for combating child labour. For example Basu (2000) says that availability of good schools and provision of free meals for the children would be a way to reduce the number of children working. However, developing countries are generally poorer due to the lack of funds; therefore it may not be feasible to invest a lot on schooling. Moreover, attending school is only going to decrease full time work, whereas children could still be involved in part-time work after school. This shows that it is very difficult to abolish child labour completely by changes in schooling policy. Basu also mentions that a total ban on child labour may be a better option as a large scale of withdrawal