

# Trade Liberalisation and Intra-household Poverty in Vietnam: a Q2 Social Impact Analysis

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# 1. Introduction

Linkages between trade, growth and poverty reduction are coming under increasing global scrutiny by a broad array of policy and civil society actors. The collapse of the WTO Doha Development Round—which had once been heralded as an opportunity to advance a more equitable approach to trade reforms—in June 2006 starkly illustrated the contentious nature of these debates. An emerging body of empirical evidence suggests that although in the medium to long-term trade reforms may result in improved growth, trade liberalisation alone is insufficient to reduce poverty and inequality (e.g. Winters et al, 2004; Boussolo and Nicita, 2005). Instead complementary policies—not only policies on competitiveness, investment climate and infrastructure but also policies that consider the social dimensions of trade reforms such as social protection—are necessary (e.g. McCulloch et al., 2004). Attention to country contexts is particularly critical: case study research suggests that there is considerable scope to develop policies to mitigate the adverse impacts of trade liberalisation and promote a more equitable distribution of the positive effects but a one-size-fits-all approach is neither technically nor politically feasible (Edwards, 2001; Polaski 2006). Rather the development of effective pro-poor trade policy approaches necessitates an understanding not only of the diverse impacts of trade reforms on different households—depending on, for example, whether households are net producers or net consumers, their rural/urban location, poverty status, labour market positioning<sup>1</sup>—but also on different household members. Gender analysts have for instance underscored the gendered impacts of trade liberalisation, which are linked to the gendered composition of the labour market, (un)equal access to credit markets and legal rights regarding land title and ownership and cultural norms and practices related to the intra-household division of labour, assets and decision-making (Senapaty 2003; Kabeer, 2003). However, to date little attention has been paid to the potential impacts on child well-being.

This represents a significant lacuna for several reasons. First, a broader body of literature emphasizes that childhood poverty cannot simply be deduced from household poverty but is also shaped by intra-household distribution of power and resources (e.g. Tisdell, 2002; Marshall, 2003). Second, addressing the particular vulnerabilities faced by children living in poverty may be important for tackling life-course and intra-generational poverty transfers. Economic shocks experienced as an infant or child may have lasting impacts on human capital development (e.g. Waddington, 2004; Harper et al., 2003). Lastly, children under 18 years constitute approximately 37 percent of the population in developing countries and 49 percent of the population in least developed countries (UNICEF, 2005:12) so to consider the impacts of macro-economic reforms on poverty reduction without specific attention to childhood poverty effects risks neglecting a very significant proportion of the poor. Accordingly, the aim of this paper is to explore potential pathways through which trade liberalisation may impact intra-household poverty and to highlight related policy challenges. It pays particular attention to the heterogeneity of children as a social and demographic category, and attempts to identify groups of children who are likely to be especially vulnerable—based on their geographic residence, ethnicity and socio-economic status—and in need of tailored policy responses.

The analysis focuses on Vietnam, which is currently undergoing an important trade reform process. Although a low income country, Vietnam has experienced rapid economic growth and a substantial reduction in poverty over the last two decades

following the *Doi Moi* reforms of 1986. After 11 years of market restructuring and lengthy negotiations, the country became the latest member of the WTO in November 2006. However, few social impact analyses of this trade liberalisation process have been undertaken to date (e.g. Hague and Nguyen, 2005), but are urgently needed in order to inform policy debates on Vietnam's future post-WTO accession development trajectory. Moreover, although there have been few analyses of how these economic policy changes have impacted childhood poverty in Vietnam, existing evidence suggests though that:

*the poorest and marginalised groups in society benefit least from trade liberalisation and are at the highest risk of suffering further deterioration of their living conditions. Price fluctuations and subsequent changes in family income are important factors which determine fulfilment or non-fulfilment of child rights in this context (Salazar, 2006: 211).*

The article is structured as follows. Section 2 provides a brief discussion of existing literature on macro-economic policies, including trade, and their micro-level impacts on women and children, and identifies important pathways of influence. These impacts are explored through a mixed methods approach presented in Section 3. This methodology combines an econometric analysis of household survey data in order to identify broad patterns of impact, with complementary in-depth qualitative research from two provinces so as to unpack underlying intra-household and community dynamics.<sup>2</sup> Section 4 first presents the key quantitative findings, and then discusses the ways in which these insights are enriched by the qualitative findings. Section 5 discusses the policy implications of the results and the challenges involved in ensuring that trade policies are not just pro-poor, but also child and gender-sensitive.

## **2. Conceptualising linkages between trade liberalisation & child well-being**

### **2.1 Children and macro-micro linkages**

The mechanisms through which globalisation in general and trade liberalisation in particular affects poverty are complex. As Bird (2004) argues:

*Positive and negative, direct and indirect effects will result from a country opening its markets to a greater volume and range of traded goods and services and in easing restrictions on exports. Impacts will affect segments of the population and sectors of the economy differentially over the short, medium and long term...(1).*

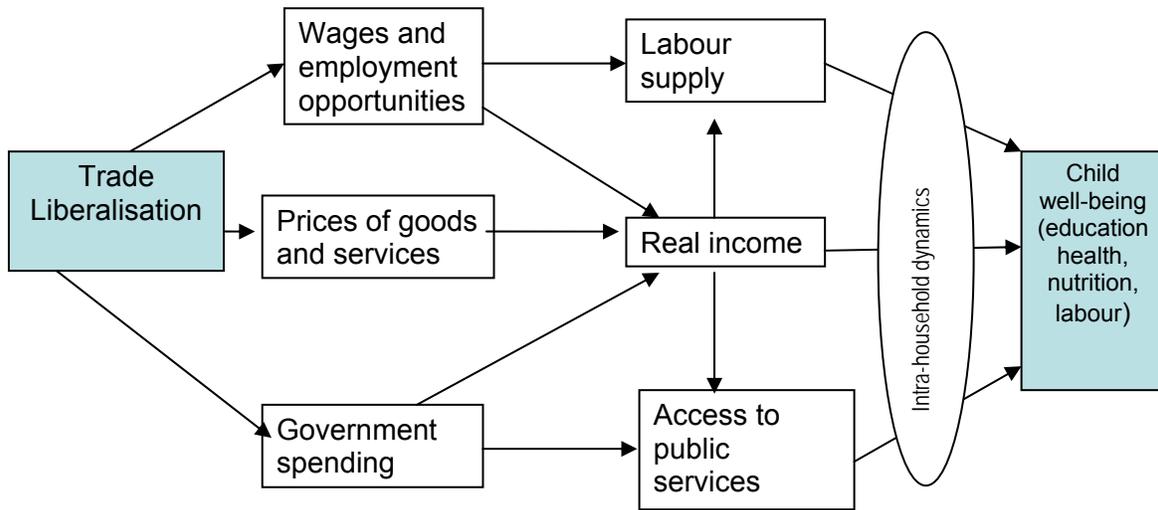
This complexity is compounded by the fact that neither trade liberalisation nor poverty are easily measured and trade liberalisation takes place in tandem with other macro-economic reforms (e.g. Winters *et al.*, 2002). Analysing the disaggregated effects of macro-policy changes within the household is even more challenging (Waddington, 2004; Anderson *et al.*, 2005). Measures that either aggravate or ameliorate aggregate household poverty may have diverse impacts on men and women, girls and boys. Intra-household differences are dependent upon social and legal factors including the gendered composition of the labour market, (un)equal access to credit markets and legal rights regarding land title and ownership, inheritance, etc and cultural norms and practices surrounding the intra-household division of labour, assets and decision-making (e.g., Ansell, 2005; Kabeer, 2003, Folbre, 2002).

In order to capture some of these complexities, this paper employs a modified version of a framework elaborated by Waddington (2004) and Andersen et al., (2005). The framework identifies three key pathways of influence between trade liberalisation and child well-being: (a) the effects of policy changes on a country's trade regime and, in turn, on wages and employment opportunities, prices of goods and services and government expenditure patterns; (b) the effects of these macro-economic variables on household income, labour supply, and access to public services; and (c) the impact of these household-level variables on child well-being (mediated by the intra-household division of power and resources, the division of labour and preferences/values) (See Figure 1 below).

First, household consumption patterns may be affected by changes in prices of goods and services.<sup>3</sup> In the case of children, particular concerns relate to modifications in the household food basket and children's nutritional intake (e.g. Wagstaff and Ngyuen, 2002; Glewwe et al., 2003); as well as families' ability to afford education and healthcare. Second, impacts on employment opportunities and wages have implications for the household labour supply. The effects may differ among men, women and children, with changes in primary care-givers' time use in particular likely to have a spill-over impact on children. Research to date suggests that especially girls may have to help women shoulder both productive and caring work responsibilities, with possible negative consequences on their schooling and leisure time (e.g. Kabeer, 2003). Third, while higher growth in the medium term may increase fiscal revenue, reductions in tariffs may have a negative short-term impact on fiscal revenue and translate into social expenditure cuts.<sup>4</sup> This could have a negative impact on children's access to quality services, especially children from rural and poor households (e.g. Mehrotra, 2002).

In addition to these three direct pathways, there are also a number of potential indirect or secondary mechanisms through which trade can affect poverty and vulnerability. These include effects on competition and investment policies, spill-over effects on social identity and barriers to market participation, second round impacts of changes or anticipated changes in a country's trade regime etc. (see Bird, 2004). However, due to space and data constraints, such variables are beyond the scope of this paper.

**Figure 1: Linkages between trade liberalisation and child welfare**  
Adapted from Waddington (2004) and Anderson *et al.* (2005)



## **2.2 Children and liberalisation in Vietnam**

Trade liberalisation and the pursuit of integration into the regional and world economy have played a pivotal role in Vietnam's rapid and successful economic reform process. Since the inception of the *Doi Moi* policy in 1986, the trade policy regime in Vietnam has undergone significant changes, in terms of (a) lifting restrictions on trading rights (the right to import and export); (b) reductions in non-tariff-related trade barriers and (c) tariff reductions.<sup>5</sup> Although trade liberalisation has led to improved welfare for the poor (Benjamin and Brandt, 2002) and has not significantly exacerbated inequality (Seshan, 2004, 2005; McCarty and Tran, 2003), Salazar (2006) argues that in the context of WTO accession we need to pay particular attention to i) the Agreement on Agriculture aimed at liberalisation of the agricultural sector due to its potential impacts on children's right to an adequate standard of living and the right to food and nutrition, ii) the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) which may reduce poor families access to inexpensive medical drugs and thus jeopardise their right to health and iii) the General Agreement on Trade in Services (GATS) which could lead to a dual tier of basic social service provision that disadvantages poor children's access to their social rights (200).

This section therefore briefly outlines what is known about children and the transition to a market economy in Vietnam, and presents a set of hypotheses based on the general and Vietnam-specific literature which are then examined through our mixed methods approach.

### *Child work*

Analysts who have sought to understand linkages between trade liberalisation and child poverty have focused primarily on the effects on the incidence of child labour (e.g. Edmonds 2003a/b). This literature has emphasised household poverty (Basu, 2004, Neumayer and Soysa, 2005), parental schooling levels (e.g. Edmonds 2003a), and family composition (especially female-headed households and the number of siblings per household (Rosati and Tzannatos, 2000) as critical mediating variables between liberalisation and child poverty. Drawing on Becker's (1962) model of household utility maximisation, analysts assume there is a trade-off between child quality and quantity. A reduction in the number of children will free resources for current consumption (of both parents and children), and if large enough, parents will transfer some surplus resources to future consumption, by reducing the labour supply of their children. However, a growing body of evidence suggests that only after a certain threshold will children's engagement in work decline and it may even increase as household income increases up to a certain level (e.g. Woldehanna et al., forthcoming).

### *Child education*

Trade policy changes not only influence poverty levels through altered opportunities for enterprise, but also shape the incidence and severity of poverty by altering the cost of the basket of goods and services, including education, consumed by households around the country (Bird, 2004). Vietnam has a long tradition of respect for education and its 90 per cent literacy rates and school enrolment levels were among the highest in Southeast Asia in the 1980s (Swinkels and Turk, 2003). However, during the mid-1990s, school enrolment levels declined and drop-out rates rose, at least in part due to a shrinking education budget and a decline in the quality of education and training systems (Liu, 2001a; Hong, 2000). More recently, though, due to increasing public (and private investment) there has been significant improvement in drop-out rates, which have decreased from 27.7 per cent in 1993 to 12.4 per cent in 2002 (Vo and Trinh, 2004).

### *Child health*

Greater openness to the international economy may lead to increased competition among healthcare providers and in turn improved healthcare quality, and/or an increase in public demand for government social insurance programmes targeting health. Higher economic growth might also increase the government's tax revenue, which could facilitate an increase in spending on children's health. Conversely, trade liberalisation might negatively affect children's health by influencing the degree to which the government is willing and able to fund public health (e.g. Perezniето and Jones, 2006). In Vietnam, before the *Doi Moi* reforms, district hospitals and commune-level health centres provided medical services and essential drugs free of charge. However, as a consequence of liberalisation of the health sector (with the emergence of private hospitals and clinics) and a decrease in government budget support, the public health system deteriorated dramatically in the early 1990s because of the exodus of thousands of doctors and health workers (Hong, 2000). However, the situation has gradually improved thanks to high sustained GDP growth and the 2004 State Budget Law which prioritise improvements in the rural healthcare system, including six per cent of GDP on healthcare expenditure (Adam, 2005).

### *Hypotheses*

Our hypotheses regarding the possible impacts of trade liberalisation on child poverty are as follows:

- 1) **Parental income:** Trade liberalisation will lead to an increase in child labour if the effect of liberalisation is to increase demand in labour-intensive sectors. However, there is also likely to be an income effect above a certain threshold – if household incomes rise sufficiently, this surplus income may be used to invest in child schooling and to substitute child labour (e.g. Edmonds and Pavcnik, 2004).<sup>6</sup>
- 2) **Household composition:** If trade liberalisation leads to increasing demand for women's paid labour, children's—especially daughters'—involvement in care economy work may increase, and potentially at the expense of their educational achievement. This will in part depend on the number of siblings in the household and an individual child's birth order – parents tend to rely on older children for paid and household work and to have more surplus resources to invest in younger offspring. It may also be mediated by the gender of the household head: due to the feminisation of poverty we would expect that children would be more likely to be involved in chores or extra-household work in female-headed households in times of economic downturn.
- 3) **Economic shocks:** Trade liberalisation may lead to a decline in child wellbeing outcomes if it results in declining household living standards and no alternative coping strategies are available – e.g. diversification or credit or social protection. However, although such negative events may result in reduced expenditure on children's education and health services and/or compel a child to move from schooling to work activities, parents may first seek to shield their children from the effects of negative events by re-allocating domestic resources (Rosati and Tzannatos, 2000).
- 4) **Access to services:** Trade liberalisation may exacerbate social disparities and unequal access to services for children as liberalisation tends to generate both winners and losers. We hypothesise that 'losing groups'—i.e. those that are less likely to benefit from new market opportunities and greater income generation potential needed to cover increasing costs of basic services—are likely to be those that are already socially excluded, i.e. poor rural communities, ethnic minority communities and families with unskilled labour/ low education levels.

### 3. Research data and methodology

#### *Mixed methods approaches*

Mixed methods approaches are gaining increased currency in development studies based on the premise that the use of all available insights is likely to facilitate a better understanding of phenomena (e.g. Carvalho and White, 1997; Brannen, 2005).<sup>7</sup> Although labels such as ‘qual-quant’ or ‘q-squared’ or ‘q-integrated’ might suggest that mixed methods entails assigning equal weight to quantitative and qualitative methods, there are numerous possible combinations, each with assumptions regarding the respective roles, relative importance and desired sequencing of qualitative or quantitative methods. Mixing might have different functions – to enrich or explain, initiate new hypotheses or even contradict rather than confirm or refute, perhaps even telling ‘different stories’ on the same subject because quantitative methods are good for specifying relationships (i.e. describing) and qualitative for explaining and understanding relationships (Thomas and Johnson, 2002:1). Combination may take place at data collection and/or data analysis stages. In order to decide on the most appropriate approach, the researcher needs to consider two questions both informed by the type of research problem, question (and/or hypothesis) under investigation. First, which is the ‘dominant’ method - that which will yield most of the data – qualitative or quantitative methods? Second, are methods to be mixed sequentially or simultaneously?

The analysis in this paper adapted a sequential approach, drawing its core findings from quantitative household survey data from the *Young Lives* Project, an international longitudinal policy-research project on childhood poverty.<sup>8</sup> It then seeks to address some of the puzzling or surprising findings that emerge through in-depth qualitative analysis of case studies of two under-investigated export commodities which the Vietnamese government has been promoting as part of its poverty reduction strategy: shrimp aquaculture and sugarcane production.

*Quantitative data and methods:* Drawing on a sample of 1000 8-year old children from the Vietnam *Young Lives* 2002 survey<sup>9</sup>, three separate econometric multinomial logit models incorporating individual child, household and community characteristics were run to analyse the impacts of changes in household income and exposure to economic shocks (proxies for trade liberalization effects) on child educational attainment<sup>10</sup>, health (recent illness) and work (both paid work and unpaid household chores).

*Qualitative data and methods:* In order to better understand the underlying household and community dynamics underpinning these quantitative results, two in-depth qualitative case studies of the sugar cane and shrimp aquaculture sectors—both of which are likely to be substantially affected by the WTO accession—were conducted in 2005. The research sites were purposively selected due to their poverty status and high levels of household involvement in these two export commodities. International market integration was initiated in the late 1990s in both cases and thus the study communities have already experienced the effects of new market opportunities and threats, which are expected to continue and/or accelerate in the post-WTO accession period. In other words, while we lacked two quantitative datasets pre and post-WTO accession, we were able to explore some of the possible effects through qualitative community histories. In addition, the provincial level governments of Ben Tre and Phu Yen were already receptive to arguments about the importance of focusing on childhood poverty (due to a

longer-term involvement in the broader *Young Lives* Project), suggesting some demand for the research findings from a key policy audience from the outset.

In each site a range of qualitative research tools were employed. Key informant interviews with provincial and district leaders were undertaken in order to understand key policy shifts that have impacted household livelihood patterns over the last decade. These were triangulated with focus group discussions that sought to construct a community economic history, including changes in income-generating opportunities and challenges over time. In order to explore the way these changes were experienced at the household level, 25 individual and 3 small group semi-structured interviews were held separately with women, men and children/young people in each site. Interviewees involved in the study's focus agricultural commodities as well as those who were not were selected in order to understand the ways that diversification into new export-oriented sectors affected children's time use and well-being outcomes.

## 4. Economic liberalisation and child well-being impacts

### 4.1 Quantitative findings

#### 4.1.1 Child labour – household chores and extra-household work

In order to ascertain which groups of children are likely to be most vulnerable to greater involvement in work activities as a result of any negative spill-over effects of trade liberalisation (due to falling family incomes, rising prices for goods and services and/or declining government investment in social service provision), we modelled the effects of an array of a) individual child (gender, ethnicity and birth order), b) household (family income<sup>11</sup>, family structure<sup>12</sup>, parental schooling, occupations, employment status and experience of household shocks) and c) community (cost of primary education, distance to school, presence of a factory, percentage of poor families in the commune, provincial dummy variable) level variables on children’s labour incidence (see estimation results in Table 4.3, Appendix A). Whereas most research on child labour to date has focused on ‘work for pay, work in formal household and work in agriculture’ (Edmonds, 2005b) and ignored household domestic chores, our multinomial logit model<sup>13</sup> includes children’s involvement in work and household chores because the latter may be equally taxing on children’s physical and mental health and constrain children’s available time for education and leisure (e.g. Van, 2005).<sup>14</sup> Table 4.1 depicts the distribution of children in our sample by their work–chore status, and highlights differences between male and female children’s average work patterns.

**Table 4.1: Work–chores status of 8-year-old children (total N=1000)**

		No work or chores	Chores but no work	Work and chores	Work, no chores
Male	No.	93	318	83	8
	%	18.53	63.35	16.53	1.59
Female	No.	35	370	90	3
	%	7.03	74.3	18.07	0.6
<b>Total</b>	No.	128	688	173	11
	%	12.8	68.8	17.3	1.1

In terms of **child characteristics**, statistically there is some evidence of preference towards boys. Boys are 11 percentage points more likely than girls to be involved in neither work nor chores and less likely to do domestic work. Ethnic differences also emerged from the data but in a surprising direction. Kinh children were found to be more likely to be involved in domestic chores than ethnic minority children, but less likely to be involved in neither work nor chores. Birth order also emerged as statistically significant – so younger children are less likely to be involved in work activities than their older siblings and more likely to engage in domestic chores.

Turning to the effects of **household characteristics** on children’s work–chore combination, children in female-headed households were found to be less likely to do domestic work (chores) only, but more likely than children from male-headed families to combine chores and extra-household work. Higher parental education levels were

associated with lower child engagement in work activities, except in the case of paternal education where rising education attainment was linked to children’s greater involvement in household chores. Contrary to our hypothesis and the literature, the number and sex of siblings did not have any significant effect. Similarly, the wealth index – which we used to proxy the impact of poverty on child labour – did not emerge as statistically significant, suggesting that family wealth does not affect the work–chore choice of children, perhaps due to a threshold effect.<sup>15</sup>

Economic shocks may influence the child work–chore decision through their impacts on the household. However, the two variables included to control for such effects – whether there is any negative event and whether that event caused income/job loss – were not statistically significant. This suggests that in the face of negative events, families may take measures to shield their children from the adverse consequences of such shocks. This is corroborated when we disaggregate household responses to various shocks (see Table 4.4): taking children out of school to cope with economic shocks emerged neither as a first- nor a second-choice coping response. Similarly, only a very small proportion of households considered sending their children to work as their response strategy to an economic shock.

**Table 4.4 Response strategies by family in event of economic shocks**

	Response Strategy 1		Response Strategy 2		Response Strategy 3	
	Freq.	Per cent	Freq.	Per cent	Freq.	Per cent
Nothing	28	4.66	355	59.07	561	93.34
Sell things	17	2.83	9	1.5	-	-
Use savings	44	7.32	8	1.33	2	0.33
Use credit	226	37.6	41	6.82	2	0.33
Eat less	11	1.83	19	3.16	10	1.66
Buy less	11	1.83	14	2.33	9	1.5
Work more	174	28.95	85	14.14	6	1
Take children out of school	-	-	-	-	<b>2</b>	<b>0.33</b>
Send children to work	<b>1</b>	<b>0.17</b>	<b>3</b>	<b>0.5</b>	-	-
Fled/moved away from problem	1	0.17	1	0.17	1	0.17
Migrated to find work	14	2.33	3	0.5	2	0.33
Received help from relatives/friends	37	6.16	38	6.32	3	0.5
Received help from Government/NGO	11	1.83	12	2	1	0.17
Insurance paid	-	-	1	0.17	2	0.33
Other	26	4.33	12	2	-	-
Total	601	100	601	100	601	100

In the model, we also included indicators as to whether the living standard of the household has increased or decreased during the last three years. The estimated coefficient of the improved living standard variable is not statistically significant, which implies that increased household living standards do not affect choices relating to children’s engagement in work activities. However, the coefficient of the declining living

standard variable was statistically significant for alternatives 1 and 3, indicating that if household living standards decrease, children are less likely to be not working or involved in chores, but at the same time the probability of children combining chores and extra-household work increases.

Turning to **community-level variables**, the estimated co-efficient for accessibility to schools (measured by physical distance and financial expenses) was not statistically significant. This may be largely attributed to the fact that only 1.2 per cent of the sample children had never attended school and just 3.3 per cent did not attend school the previous year. The proportion of poor households per community had a statistically significant effect on the probability of a child doing domestic chores, but decreased the probability of a child working outside the household. The reason may be that children in poorer communes may have fewer employment opportunities, and thus the only way they can contribute to the household livelihood is through involvement in domestic chores. We also hypothesised that the presence of a factory close to the commune may induce children into work (either in the factory or in related supporting units), but this variable emerged as statistically insignificant.

#### 4.1.2 Children’s schooling and academic attainment

Due to negligible variance in enrolment rates in our sample<sup>16</sup>, this section focuses on possible effects of trade liberalisation on children’s educational achievement.<sup>17</sup> We look at two dimensions of achievement: 1) as measured by simple reading, writing and numeracy skills tests (see Table 4.2.1) and 2) children’s involvement in private tuition. The latter is an important and idiosyncratic feature of the Vietnamese schooling system. Investing in private tuition is increasingly common even among poor households (see Table 4.2.2) and is thus a useful indicator of households’ willingness to invest in the human capital development of their children. We assume that the impacts of trade liberalisation on child welfare will be channelled through household- and/or community-level variables. If trade liberalisation leads to income growth and increased fiscal spending on educational facilities, then we expect positive impacts on child well-being, and vice versa. Table 4.2.3 in Appendix B provides summary statistics of the individual, household and community level variables used in this regression.

**Table 4.2.1**  
**Educational achievement as measured by writing, reading & numeracy skills tests**

	Writing skills (ordinal 1–3)		Reading skills (ordinal 1–4)		Numeracy skills (Binary)			
	No.	%	No.	%	No.	%		
Cannot write	82	8.26	Cannot read	43	4.33	Incorrect	337	33.7
Writes with mistakes	170	17.12	Reads letters	34	3.42	Correct	663	66.3
Writes well	741	74.62	Reads words	45	4.53			
			Reads sentences	872	87.73			
<b>Total</b>	<b>993</b>	<b>100</b>		<b>994</b>	<b>100</b>		<b>1,000</b>	<b>100</b>

**Table 4.2.2 School attendance and private tuition**

<b>Ever attended school</b>		<b>Attended school last year</b>		<b>Received private tuition</b>	
Frequency	Per cent	Frequency	Per cent	Frequency	Per cent
12	1.2	33	3.31	525	52.5
988	98.8	964	96.69	475	47.5

Source: *Young Lives Vietnam 2002*

### Extra tuition

Table 4.2.4 in Appendix B presents the estimation results for the model of receiving extra tuition. In terms of child **characteristics**, no significant differences emerged between boys and girls nor among children from different ethnic groups. This latter finding is interesting as the raw data indicate a marked difference between the two groups. It points to the importance of controlling for family background variables when considering differences among ethnic groups. However, children's labour status emerged as an important variable. The variable chores only is negative and statistically significant, indicating that the more a child is involved in domestic chores, the less likely she/he would attend private tuition classes. In short, this suggests that if trade liberalisation results in an increase in child labour it may lower children's longer-term scholastic performance by lowering their chance of attending extra classes.<sup>18</sup>

Turning to **household level** variables, the wealth index variable was statistically significant with a large magnitude, indicating that household prosperity is an important determinant of parental investment in children's educational development. The variables for economic shocks and changes in household living conditions, however, were not, strengthening the argument that families seek to shield children from the negative effects of economic shocks.

At the **community** level, the proportion of poor households per commune was statistically significant. This implies that in poor communes, the trend of investing in private tuition is weaker. Other variables (distance to school and the cost of primary education) were not significant statistically.

### Educational attainment

Appendix B Table 4.2.5 presents the estimation results for children's achievement in basic academic skills tests.<sup>19</sup>

#### a) Numeracy skills

With respect to **children's individual** characteristics, there are no gender or ethnic differences on the numeracy skills test. Additional tuition also did not have any beneficial effect on numeracy skill acquisition. Surprisingly, however, the involvement of children in labour and chores was correlated with superior numeracy skills. An explanation for this counter-intuitive finding might be that a more able child may be more likely to be asked by his/her parents to help with work activities and/or be more likely to find a job. The argument here would be that a self-selection process is in operation, with more able children juggling both work and education.

Turning to **household** variables, the gender of the household head and birth order were not statistically significant. Parental schooling, however, was found to have a positive impact on children's numeracy skills, although maternal education alone was not statistically significant. In terms of family structure, the number of siblings was negative

but statistically insignificant, thus not supporting the quality–quantity trade-off hypothesis. The variables indicating a decreased living standard were statistically significant but the variable indicating increased living standard was not. The single most important determinant of child’s numerical skill attainment was the wealth index variable, reaffirming the importance of economic background in shaping children’s educational achievement. Nevertheless, economic shocks did not have an impact on numeracy test scores.

At the **community** level, distance to school, the proportion of poor households and the average cost of education in the community were all statistically insignificant.

*b) Writing skills*

In Table 4.2.6 (Appendix B) we report our estimation results for three writing skills specifications. In terms of **individual child** characteristics, there were no significant gender differences in writing skills, but Kinh children performed better than ethnic minority children. As expected, receiving extra tuition emerged as positive and statistically significant, indicating the beneficial effects of attending extra classes on children’s writing skills. However, as with the numeracy skills results, the work–chore variable was statistically significant, suggesting that able children are able to cope with work and school at this age.

Among the **household** level variables, later birth order was correlated with superior writing skills, perhaps because these children are being helped by their older brothers or sisters. Parental schooling – both paternal and maternal – was also found to be an important determinant of children’s writing abilities. There was no evidence, however, of a trade-off between quantity and quality, i.e., the number of children per family was statistically insignificant. Nevertheless, the estimated effects of the number of boys and girls born within the household are negative and statistically significant. The wealth index variable again emerged as significant, but changes in household living standards, although negative, were statistically insignificant.

At the **community** level, proximity to school was positively correlated with better writing skills. Higher average costs of schooling also improved performance but we believe this is likely to be capturing the broader economic well-being of the community which may be correlated with greater parental investment in their children’s educational development.

*c) Reading skills*

The estimated results for reading skills are presented in Table 4.2.7. In terms of **individual child** characteristics, boys and girls performed equally well, but Kinh children outperformed their ethnic minority counterparts. Private tuition improved children’s reading skills, but there was no statistically significant correlation with child work was found, suggesting that at this age there is no negative impact on their basic reading abilities.

At the **household** level, maternal education was found to be important in positively influencing children’s reading skills. The wealth index was again significant, but the variable indicating perceived changes in household wealth were not. Negative events counter-intuitively emerged as positive and significant and we are unable to offer an explanation for this, but economic shocks leading to loss of income has the expected negative sign and were statistically significant.

### 4.1.3 Children's health status

In order to assess the possible effects of trade liberalisation on child health outcomes, we employed a measure of acute illness (i.e. incidence of illness in the last two weeks). To model the health of a child, which is unobserved, we adopted a latent variable framework, whereby a child's health status is determined through a production function which converts inputs into health. The variables that may influence a child's health status include: (a) children's individual characteristics, (b) household-level variables and (c) community-level characteristics (the proportion of poor families per commune, access to health facilities, provincial dummy variables). We also included children's work status variables and assessed their interaction effect as in the previous section on education. (See Table 4.3.1 in Appendix C for these descriptive statistics).

Table 4.3.2 in Appendix C presents the estimation results for these three specifications. In terms of **individual child** characteristics, overall Kinh children are found to be more likely to be ill.<sup>20</sup> However, a child's involvement in labour and domestic chores does not increase the probability of falling ill. At the **household** level, birth order and the number of siblings are found to be statistically insignificant, ie, having no influence on the probability of children falling ill. Parental education – especially maternal education – is found to be important for a child's health, suggesting that the caring practices of better-educated parents may be superior. In terms of the household's economic status, only the number of rooms was found to be a statistically significant determinant of a child's health. The two variables capturing changes in household living standards over time were not statistically significant and nor was the wealth index.

Lastly, in terms of **community** level factors, distance to a public health centre emerged as statistically significant, suggesting that access to public healthcare plays an important role in children's health. This is also consistent with findings by Wagstaff and Nguyen (2002) on the importance of health service coverage on a child's survival. The implication of this finding is that if trade liberalisation leads to decreased coverage of commune health centres, owing to declining tariff revenues and increased reliance on private health services, then poor children's health is likely to be negatively affected.

## **4. 2. Export commodities and childhood poverty: exploring macro-micro linkages through qualitative data**

As the proceeding section demonstrated, shifts in household livelihood patterns, experience of economic shocks and in turn households' ability to afford basic social services may have diverse impacts on child well-being outcomes depending on a variety of child, household and community characteristics. In order to better understand the underlying intra-household and community dynamics which the at times puzzling quantitative findings identified, we combine an in-depth qualitative analysis of two agricultural commodities that already involve significant poor populations and which are likely to be affected by the WTO accession: shrimp aquaculture and sugarcane.<sup>21</sup> These two case studies analyse the micro-level impacts of changing trade dynamics over time in these sectors in two provinces in order to provide insights into the possible implications of greater market integration going forward. The aim is to highlight the potential changes the government will need to consider as it debates and develops pro-poor and child-sensitive policy responses to the country's accelerating trade liberalisation. This approach is also in line with Fujii and Roland-Holst (2007)'s recent spatial poverty analysis which argued that social impact analyses of trade in Vietnam need to better account for microeconomic heterogeneity due to high expected divergences in provincial-level poverty reduction after full liberalisation.

### **4.2.1 Case selection**

**Shrimp aquaculture** is an export sector which the Vietnamese government has heavily promoted since the 1990s. Output from aquaculture doubled between 1998 and 2001, with seafood farms covering over a million hectares in 2001, of which 446,000 hectares were for shrimp. Vietnam is now the world's fifth largest producer, with rapidly expanding market shares in both the lucrative Japanese and US markets (Burmeister, 2004). Seafood farms have been identified as a key part of the government's poverty reduction strategy, and poor farmers in the Mekong Delta region have been actively encouraged to diversify into shrimp farming and processing. The sector has however experienced considerable volatility—due to anti-dumping suits by the US, the challenges of meeting stringent quality standards and fluctuating world prices. Moreover, a growing number of analysts are warning that although sustainable growth of seafood production may aid poverty reduction by providing a new growth area for especially poor farmers to diversify into, the current massive growth, particularly if at the expense of food security, may pose considerable risks, especially due to its deleterious environmental impacts (e.g. Kirkbride, 2005).

Our research site (two poor communes from Binh Dai district in Ben Tre province where shrimp farming is one of the dominant livelihood sources) was selected from the *Young Lives* study sentinel sites in order to allow for the possibility of subsequent longitudinal analysis (see Table 5 Appendix C for further details)<sup>22</sup>. A traditional rice growing area, shrimp farming and shrimp processing both represented opportunities for significantly more lucrative income-generating opportunities. As a result, it is estimated that more than half of all available land in both research communes is now occupied by shrimp ponds and as many as 75% of the households are involved in the sector in some way. However, while successful farmers and especially middle-men had augmented their incomes considerably, an estimated 30% of households who had diversified into the sector had failed and suffered from high rates of indebtedness.

**Sugarcane** is another agricultural commodity that has expanded rapidly in Vietnam, especially since the 'One Million Tonnes of Sugar' programme was launched in 1995 in order to reduce the country's dependence on sugar imports. There are approximately 300,000 hectares of sugarcane in the country, and the sector employs more than a million farmers and tens of thousands of workers. However, due to the subsidisation of sugar industries in many sugar producing countries, high local unit costs and low productivity (due to the small scale of production), the Vietnamese industry faces formidable competition. A number of sugar cane processing factories are facing bankruptcy and closure, and this trend is expected to be exacerbated by commitments under the ASEAN Free Trade Agreement and the WTO whereby by 2012 Vietnam will have to cut tariffs from 85% to 6% (the highest rate) (VietNamNetBridge, 2006).

Our research site (two poor communes from Son Hua district in Phu Yen province where sugarcane production is one of the dominant livelihood sources) was also selected from the *Young Lives* study. Due to the site's ethnic diversity, it offers a valuable opportunity to better understand the intersection between poverty and social exclusion. The government has sought to encourage involvement in sugarcane growing and production among ethnic minority groups (especially Cham and Bana) whose traditional slash and burn agricultural methods were banned in 1993 in the interests of environmental protection. However, although the designation of the district as a sugarcane production zone and the establishment of a sugarcane processing factory in Suoi Bac commune in the late 1990s encouraged many households to shift from rice growing and animal husbandry to sugarcane cultivation and related services, significant price fluctuations and dependence on rain-fed agriculture had led to unsustainable losses and compelled many families to change crops – either to sesame or back to rice (see Table 5 Appendix C).

#### **4.2.2 Key findings**

The qualitative findings highlighted the differential impacts of shifting livelihood patterns brought about by the promotion of export-oriented agriculture and aquaculture on different household members (men, women, children and grandparents); the emergence of new individual and community-level risks (as well as opportunities); the importance of social capital in accessing new trade-related opportunities; linkages between social exclusion and livelihood patterns; and the effects of service access on child well-being outcomes.

##### *a) Intra-household dynamics*

Our qualitative findings underscored the complex intra-household effects of export commodity boom-bust cycles. Overall, men were taking the lead in diversifying into these new sectors and when successful were able to take the credit for having significantly augmented household incomes. Women were also becoming increasingly active in income-generating activities, but in lower paid and less-risk prone areas. Whereas many had previously been involved in traditional agricultural, especially rice, they were increasingly taking on daily wage labour work in fruit picking, agro-food processing and restaurants because rice cultivation areas were shrinking as paddy fields were converted to other crops or shrimp ponds.<sup>23</sup> Women were widely perceived as fulfilling an auxiliary role in terms of household livelihoods, although a number of female key informants pointed out that their contribution became critical in the event of household economic shocks. As one Ben Tre woman noted whatever income she earns has to be split between covering basic food staple costs and repairing the machinery necessary for her husband's shrimp breeding farm:

*When his vehicle and his machinery don't give him trouble, he boasts that he is the family breadwinner. But when his vehicle and machines breakdown or when he can't sell all his shrimp, I have to pay for the repairs and the oil. Sometimes I even have to take out a loan to juggle these expenses.*

Parents' shifting time use in turn had a spill-over impact on their children. Most typically, children—especially older daughters—were expected to shoulder more of their mothers' caring and domestic tasks. Daughters (and some sons) of working mothers often took care of their younger siblings and meal preparation after school. Although this did not lead to school dropouts, many children complained that they did not have enough time for homework and to study, which in turn was taking a toll on their educational performance and enthusiasm.

A number of families also expected teenage children to contribute to income-generating activities. This was especially common in the case of less scholastically successful children who were commonly taken out of school (either temporarily or permanently) to help out with labour-intensive shrimp feeding and sugarcane cultivation activities. In several cases, families had not anticipated the costs of regular inputs into these new livelihood enterprises and had encouraged teenagers to take up seasonal work in factories or restaurants to help buy high-cost inputs (such as fertilisers or chemical pesticides). Moreover, although parents stressed that relying on children's labour as a coping strategy during times of household economic downturn tended to be a last resort, and that parents (especially women) were more likely to take on additional work first, the involvement of teenage boys in particular in farming activities was not uncommon in both community districts. Peer pressure and demonstration effects of greater consumption power provided children with additional impetus to take up work activities at the expense of schooling, especially in the Ben Tre site.

Care-givers' increasing productive work burden was found to impact the quantity and quality of caring time they could offer their children. Greater absence from the home meant that parents were less able to supervise their children's school attendance and after-school activities. Although this role was sometimes taken on by co-habiting grandparents, several families had suffered serious or even fatal accidents among unsupervised children. The perceived risks were sufficiently concerning that several mothers mentioned that they had decided against taking on paid work activities as they did not want to leave their children without adult supervision. A more subjective but equally troubling impact of new work pressures was a sense of growing family disunity. This was being exacerbated by increasing numbers of male family members leaving rural villages to take advantage of income-generating opportunities in new economic zones and large urban cities (especially Ho Chi Minh City). Children themselves complained that they had too little time with their parents, including a lack of help with their homework.

#### *b) Risks and vulnerability*

Although study participants recognised the significant potential benefits of diversifying into export commodities, there was an overwhelming sense that the risks were very high and could impact the entire household due to a dearth of fallback options. This was particularly the case in shrimp aquaculture. In order to start a shrimp breeding farm, many families struggled to secure a sufficiently large loan with reasonable payback times and rates. In cases of failure, the differential in returns to other agricultural crops or

daily wage work was stark. A number of families had become mired in indebtedness as a result:

*Living standards have improved here after shrimp breeding started and some people are now building houses with mortar walls. When successful a shrimp harvest can bring in 10-100 million dong, compared to just 3-5 million for agricultural crops. But if one fails, the losses are equally dramatic! It can make the poor rich, or just as easily ruin you (Ben Tre, male key informant).*

Moreover, returning to more traditional crops, especially rice, was often impossible as land salination and environmental pollution had rendered land infertile. Similarly, in the case of sugarcane few families in the study communes were able to ride out slumps in sugar prices and a sizeable number of households had destroyed their sugarcane plantations in order to plant new crops such as sesame.

*Some people had to borrow to plant sugarcane. When the factories didn't buy their crops, they had to hire labour to destroy it all. When sugar prices rose again, they had no sugarcane to sell. So it is very difficult for people who lack price information, capital, news about the market and whether or not the factories will buy their products. Many people are suffering (Phu Yen, male key informant).*

Due to small land plots there was little option to experiment, meaning that many families tended to put all their eggs in a single basket. Some respondents also recognised that because of the emphasis on export crops rather than food staples, in times of crisis family nutrition suffers. Unless they are able to borrow rice from neighbours or relatives, impoverished families have to feed their children on nutritiously poor foodstuffs such as manioc.

Vulnerability to risk was in turn exacerbated by a lack of information on market conditions and crop information (e.g. disease control methodologies, guidelines to comply with hygiene and quality control standards, environmental pollution etc.). A number of respondents complained that they did not receive adequate information from local government officials, suffered the consequences of weak governmental enforcement of environmental protection standards (especially spread of livestock disease) and were often at the mercy of exploitative middle agents due to limited market linkages and transport infrastructure.

### *c) Social capital*

Social capital emerged as a key mediating variable between new economic opportunities and household impacts. In Phu Yen province, although factory jobs at the sugar processing plant provided more lucrative income-generating opportunities, interviewees complained that this was generally only possible for households with good contacts and/or relatives working in management roles. There was also a perception that receiving a fair price for one's sugarcane crops was also shaped by one's social contacts as petty corruption tended to be widespread. In Ben Tre, the importance of social capital was most closely linked to access to loans. Households with good connections to local government or the women's association leaders were more likely to be able to borrow the money needed to cover the start-up costs of a new aquaculture enterprise. Overall this suggests that poverty and social exclusion tend to be mutually reinforcing and mediate whether or not the poor are able to access new economic opportunities provided by market liberalisation.

*d) Ethnicity and social exclusion*

Our quantitative findings identified complex linkages between ethnicity and child well-being impacts in the context of shifting livelihood patterns. Only our Phu Yen site involved ethnically diverse communities and clearly it is not possible to generalise these findings to other provinces or ethnic groups. However, our qualitative results suggest that understanding historical livelihood patterns of different ethnic groups may help to design more effective social protection mechanisms to help mitigate against the potentially negative effects of trade liberalisation. Although both Kinh and non-Kinh groups were involved in the sugarcane sector in the study district, non-Kinh groups—unlike their Kinh counterparts—had not diversified into processing or service aspects of the sector. Ethnic minority respondents emphasised that they preferred to have their whole family working together on farming activities and were reluctant to allow their children to leave the village for fear of the risk of ‘social evils’ (drug use, HIV/AIDS infection etc.). Moreover, whereas some Kinh households had established small stores near the sugarcane factory and several were engaged in middle-men activities, non-Kinh groups preferred to remain closely connected to the land, perhaps due to their cultural traditions of semi-nomadic agriculture.

*e) Access to social services*

Although access to basic social services was not a primary focus of this qualitative research, our findings confirmed the fact that rising costs of education and health services risk jeopardising the educational and health outcomes of poor children whose households face sustained downturns in their economic situation. Whereas families often seek to weather a single shock, the cumulative effects of falling incomes and erosion of their asset base can include the inability of families to afford their children’s schooling costs and/or healthcare costs.

## 5. Conclusions and policy challenges

Although Vietnam's extensive economic reforms – including trade liberalisation – over the last two decades have resulted in a significant reduction in national poverty rates, understanding of the differentiated social impacts of these reforms is still in a fledgling state. This paper has sought to contribute to an important dimension of this debate by tracing the potential effects of trade liberalisation on childhood poverty through a mixed methods approach. By combining quantitative research, policy entrepreneurs will be better placed to establish credibility with policy-makers persuaded by statistical or econometric models, but the qualitative findings are important for creating sellable and culturally-resonant policy narratives.

Overall our econometric analysis suggested that girls as well as children from ethnic minority group households, female-headed households, households with low levels of maternal education, impoverished households that are susceptible to economic shocks, as well as communes with a high concentration of poverty are likely to be the most vulnerable in the context of greater economic liberalisation, assuming that trade liberalisation typically generates both winners and losers. As our quantitative results were unable to shed light on the underlying household and community dynamics underpinning these findings, however, their policy relevance was relatively limited in terms of identifying possible policy interventions. In-depth qualitative case studies of export commodities where study communities had experienced the opportunities and threats of market integration, were therefore critical for unpacking underlying intra-household and community dynamics and creating a sellable and culturally-resonant policy narrative.

### ***Policy challenges***

While we acknowledge the complexities of tracing the impacts of macro-economic policy shifts down to the micro-household and intra-household levels, and the limitations of our sample, we nevertheless believe that this exercise serves to highlight some important policy challenges that the Vietnamese government will need to consider in order to maximise the poverty reduction potential of WTO accession and mitigate against potentially negative impacts on a large but highly vulnerable segment of the population, i.e. children. These include designing and implementing complementary social and social protection policy measures that take into account:

- the multi-dimensionality and heterogeneity of childhood poverty;
- the potentially negative longer-term effects of children's involvement in extra-household work as well as domestic chores on their educational attainment;
- the importance of facilitating women's productive-care work balance so as to ensure adequate quantity and quality of care for especially young children, and to minimise older children's (especially daughters') care-work burden;
- the linkages between social exclusion (both geographic and due to ethnic minority status) and poverty, and the need to adopt targeted programmes towards specific ethnic minority groups so as to facilitate access to better income-generating and market access opportunities;
- the need to address the cumulative impacts of economic downturn and vulnerability on children's access to basic services, especially if poor households and communities are already starting from a low base-line; and
- the importance of access to affordable public services, especially education and health.

It is critical that these issues are put on the policy agenda and debated as part of the complementary social policy agenda in the government's new post-WTO accession Action Plan announced in a February 2007 government resolution.<sup>24</sup> Although the current Action Plan pays scant attention to intra-household dynamics and resource allocations and makes no mention of the distinctiveness of childhood poverty, it can be hoped that the combination of econometric analysis on the one hand and in-depth qualitative case studies on the other will go some way in persuading decision-makers from not only trade and economic ministries but also those responsible for social development of the need to take concerted action to ensure the potentially positive impacts of trade-related growth are harnessed for children and youth and the negative impacts minimised.

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<sup>1</sup> Households are likely to be differentially impacted depending on whether they are employed in the formal or informal sector, agricultural or non-agricultural sectors, are skilled or unskilled labourers.

<sup>2</sup> Field research was undertaken as part of Save the Children UK's *Young Lives* Project. Permission to use this data was provided by the Child Poverty Manager, Pham Thi Lan, which is gratefully acknowledged. The quantitative analysis is based on a longer paper by Nguyen and Jones (2006).

<sup>3</sup> According to Winters (2000a/b), the direction and strength of these effects will depend on whether the household is a net buyer or seller of the goods and services concerned.

<sup>4</sup> Cuts in social spending constitute a risk but are not a given. In the Ethiopian case, Ferede (2005) found that social spending increased following trade liberalisation reforms in the mid-1990s and that at least part of this can be explained by political will – i.e. governmental and/or donor commitment to poverty reduction.

<sup>5</sup> See Nguyen and Jones, 2006 for an overview of the key trade policy regime changes over the last 20 years.

<sup>6</sup> Research by Edmonds and Turk (2004) suggests that once a country reaches an average gross domestic product (GDP) per capita of US\$5,000, child work falls rapidly.

<sup>7</sup> Note this section borrows from Jones and Sumner, 2007.

<sup>8</sup> See [www.younglives.org.uk](http://www.younglives.org.uk) for further information.

<sup>9</sup> To evaluate the impact of trade liberalisation on child well-being, ideally we would have two datasets collected in the pre- and post-reform periods but unfortunately such a dataset is not available. This paper therefore employs a Q2 approach to tackle this lacuna.

<sup>10</sup> Educational attainment rather than enrolment was used as there was little variation in school enrolment rates among the 8-year old children surveyed.

<sup>11</sup> The Phase 1 *Young Lives* Vietnam dataset did not collect income data but instead used a wealth index as a proxy constructed as follows:

Components of index and score	Contributing variables
H = Housing quality (/4)	Rooms/person, wall, roof, floor durability.
CD = Consumer Durables (/10)	Radio, fridge, bicycle, TV, motorbike/scooter, car, pump, mobile phone, landline phone, sewing machine
S = Services (/4)	Electricity, water, sanitation, cooking fuel.
Wealth Index = (H+CD+S)/3	Range = 0.0 – 1.0

<sup>12</sup> We control for the number of siblings as well as the number of boys and girls born.

<sup>13</sup> In the *Young Lives* dataset there are four child-work decision alternatives: J=1: Neither work nor chores; J=2: Chores only, ie, domestic work only; J=3: Work and chores; J=4: Work but not chores. Ideally we should estimate a 4-state multinomial logit model. However, owing to the small number of children observed in the alternative J=4, we instead estimate a 3-way multinomial logit model.

<sup>14</sup> By International Labour Organisation standards of child labour, the eight-year-old children in the *Young Lives* Vietnam data are quite 'young'. Although we have data on older children's work activities, we have no data on their involvement in household chores, so they are not included in the analysis.

<sup>15</sup> Edmonds (2005b) reports that improved household income during 1992–98 explained up to 80 per cent of the decline in child labour during the same period. Similarly, in other micro-econometric studies by Woldehanna *et al.* (2005) for Ethiopia and by Dammert (2005) for Peru, there is strong evidence of nonlinearity in the relationship between wealth/income and child labour and schooling.

<sup>16</sup> In Vietnam school attendance is compulsory in primary school, as is reflected by the 98.9 per cent of children enrolled in our sample, despite *Young Lives* over-sampling of the poor.

<sup>17</sup> The educational production function is employed in the economics literature to identify the relative importance of measurable educational inputs (e.g. Becker, 1962).

<sup>18</sup> Tran *et al.* (2006) found that involvement in private tuition was linked to superior educational skills development only in terms of reading and not for mathematics or writing.

<sup>19</sup> We estimated three specifications which differ with respect to the inclusion of three variables, extra tuition, combining work and chores, chores only, using a latent variable model.

<sup>20</sup> This result may seem counter-intuitive but it could be partly due to greater awareness of and willingness to report ill health among Kinh rather than families from minority ethnic groups.

<sup>21</sup> Although rice involves a greater number of poor households, analytical work on shifting world prices and their impact on child labour in Vietnam has already been undertaken (e.g. Edmonds and Turk, 2004).

<sup>22</sup> Ethical approval was obtained from the provincial and district level officials affiliated with the project in advance.

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<sup>23</sup> This trend was accelerating due to salination of traditional agricultural land and the resulting inability to revert back to rice plantations.

<sup>24</sup> The Vietnamese Government passed Resolution 16/2007/NQ-CP committing itself to the development of an Action Plan to ensure pro-poor, and socially and environmentally-sensitive economic growth in the post-WTO accession period. However, although the plan underscores the importance of complementary social protection policies, it makes no specific mention of children and the ways in which they may be differentially impacted by shifting household livelihood patterns brought about by new macro-economic policies.