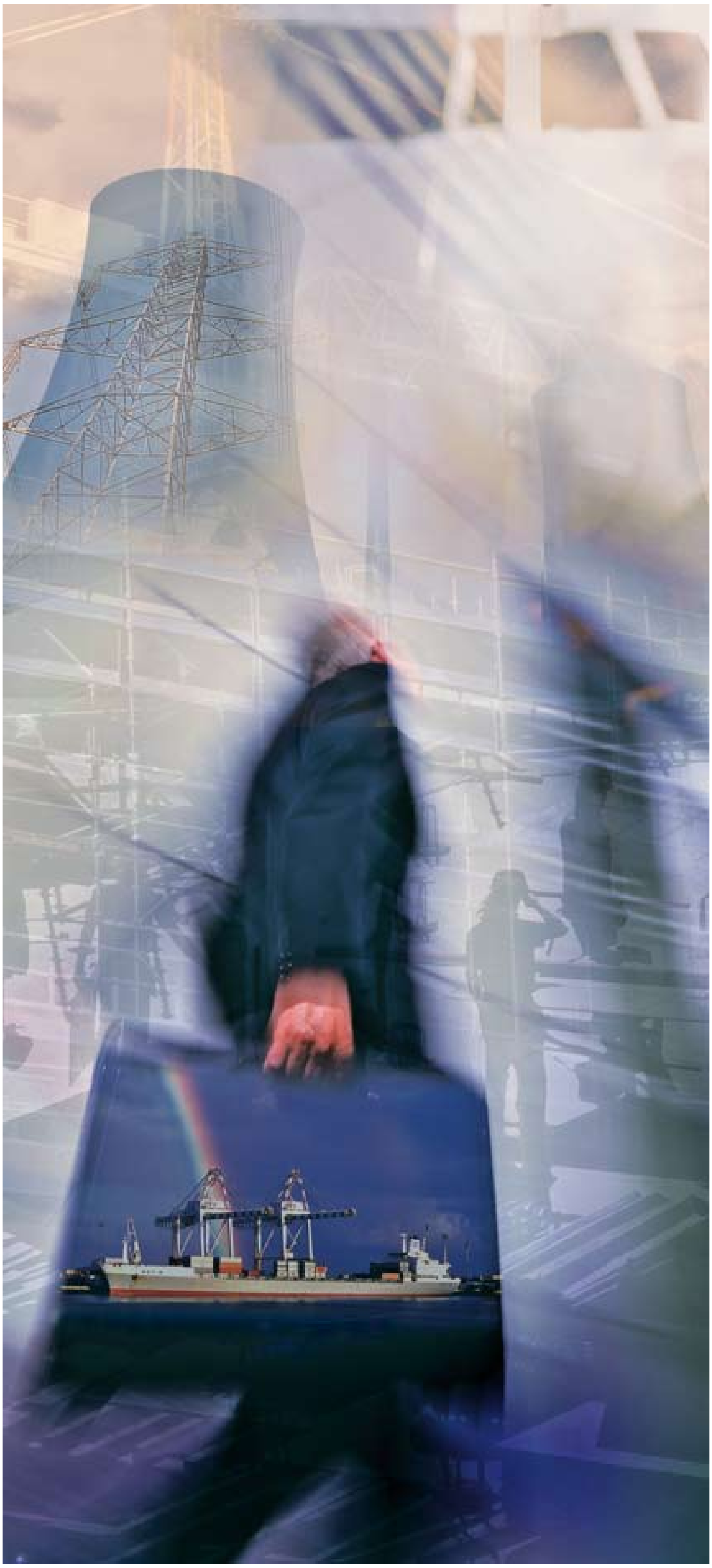

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The Paper following forms part of - *Proceedings of the 37th Australian Conference of Economists*
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Trade Liberalisation and Poverty: The South Asian Experience

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Trade Liberalisation and Poverty: The South Asian Experience

1. Introduction

The link between trade liberalisation (or, more broadly, globalisation) and poverty has arguably become one of the most debated topics in international trade and development in recent years, for a number of reasons. Firstly, poverty reduction has become a main priority of national governments and global institutions such as the UN and the World Bank since the setting of millennium development goals (MDGs) by the United Nations (UN). According to MDG 1 (the poverty goal), the world needs to reduce absolute poverty by half between 1990 and 2015 on the basis of the international poverty line (using a US$1-a-day poverty line). Secondly, poverty has become an important issue as a result of the social and political consequences of rapid globalisation (UNCTAD, 2004, p.68). In a recent report, UNCTAD (2004, p.67) argue that trade can play an important role in reducing poverty in both least developed and developing countries, although the link between trade and poverty is not clear and automatic. Finally, recent food price rises have made achieving MDG 1 even more challenging for policy makers in developing countries and international organisations.

The current debate on this topic centres on the question of how trade liberalisation affects poverty. Some argue that trade liberalisation is good for the poor; others, that it is not. In between there are some who argue its goodness if implemented with correct complementary policies.

Concerns on the effects of trade liberalisation have generated extensive literature on the topic. Not long ago Hertel et al., (2003, p.1299) noted that "the analysis of links between trade reform and poverty is in its infancy, but considerable progress has been made in recent years". In fact, the literature has grown rapidly over the last few years. Research projects launched by well-known economists around the world have mainly resulted in this rapid growth of literature. Several edited book volumes (for example, Bussolo and Round, 2006; Hertel and Winters, 2006; Nissanke and Thorbecke, 2007; Harrison, 2007), as well as book chapters and a large number of research papers, have been published on this link between poverty and either trade liberalisation or globalization. With this increasing body of literature, a number of literature reviews have also emerged in recent years (Bannister and Thugge, 2001; Hertel and Reimer, 2002; Goldberg and Pavcnik, 2004; Winters, et al., 2004; Goldberg and Pavcnik, 2007).

Among policy analysts and policy makers there is widespread concern that trade liberalisation has an adverse impact on poverty in developing countries, such as in South Asian countries. Round and Whalley (2006) have already highlighted for wider debate the implications of the South Asian experience in terms of globalisation and poverty. Recently, the link between liberalisation and equality has also been examined using evidence from South Asia by Wagle (2007). However, there has not been a comprehensive review of evidence on the link between trade liberalisation and poverty in South Asia.

The main objective of this paper is, therefore, to examine the link between trade liberalisation and poverty using the South Asian experience. Countries in the South

Asian region have implemented significant trade policy reforms over the last two decades or so, moving away from protectionist trade regimes. In the last two decades, the region has also grown faster than many other regions (except for South East Asia). The overall absolute poverty ratio has also fallen in the region, despite the fact that it is still home to around 46 per cent of the world poor. These considerations make it worth evaluating the trade-poverty link using the experience in this region.

To evaluate this link, the remaining five sections of this paper examine first the stylised facts on poverty in South Asia, in an overview presented in Section 2. A literature review on the channels or different mechanisms through which trade liberalisation affects poverty forms the basis in Section 3 for a discussion on empirical evidence regarding the trade and poverty nexus in South Asia. The empirical literature relating to South Asia concerning this link is reviewed in Section 4, while Section 5 attempts to bring the major findings of studies in other countries into the discussion. The final section summarises findings, draws lessons from the South Asian experience and presents policy options available for South Asian countries.

2. The Trade-Poverty Nexus in South Asia: Some Stylised Facts

Despite the long delay and the slow progress in trade liberalisation (except in Sri Lanka), countries in the South Asia region have embarked on trade liberalisation programs since the 1980s (Sri Lanka since the late 1970s). As shown in Table 1, economies in the region have grown rapidly in recent years compared with other regions in the world. The region has entered the second decade of rapid economic growth (World Bank, 2006). As the World Bank (2006, p.4) further observes in a recent report, South Asian countries need to maintain a faster economic growth to end poverty in one generation. According to this report, income poverty in the region will fall to single-digit level "if growth can be accelerated and sustained at 8 percent a year, and the fast response of poverty to growth is maintained". Figures shown in Table 1 demonstrate that South Asia performed poorly during 1960–1980, well during 1980–2000 and very well during 2000–2005, in terms of growth, according to Salvatore (2007, p.637). However, poverty reduction remains the main challenge in the region, which, as shown in Table 1, is still far behind the other regions in the world (except Sub-Saharan Africa) in terms of the average purchasing power parity (PPP) per capita income. It is also home to the largest proportion of the poor in the world (46.0%). Within this context, this section of the paper highlights important recent trends in poverty.

Although poverty is a multi-dimensional concept with longstanding controversial complexities related to its measurement, absolute poverty (at individual level) has now become a widely accepted yardstick for assessing the overall performance of poverty reduction in developing economies (Chen and Ravallion, 2007, p.2). Because of these complexity and measurement problems, different estimates are available in the literature. Data on absolute poverty have always been questionable. There are two ways of measuring absolute poverty; by using either national accounts data or data from national surveys.

Different studies and estimates using different methods have provided different numbers for poverty (see Kapalinsky, 2005 for a comparison). In this paper, internally consistent estimates of a time series (for nine "reference years") based on survey data for regions developed by Chen and Ravallian (2007) are used to explain the stylised facts related to South Asia in comparison with other regions in the world. Figures 1 to 4 demonstrate the following salient features related to poverty in South Asia:

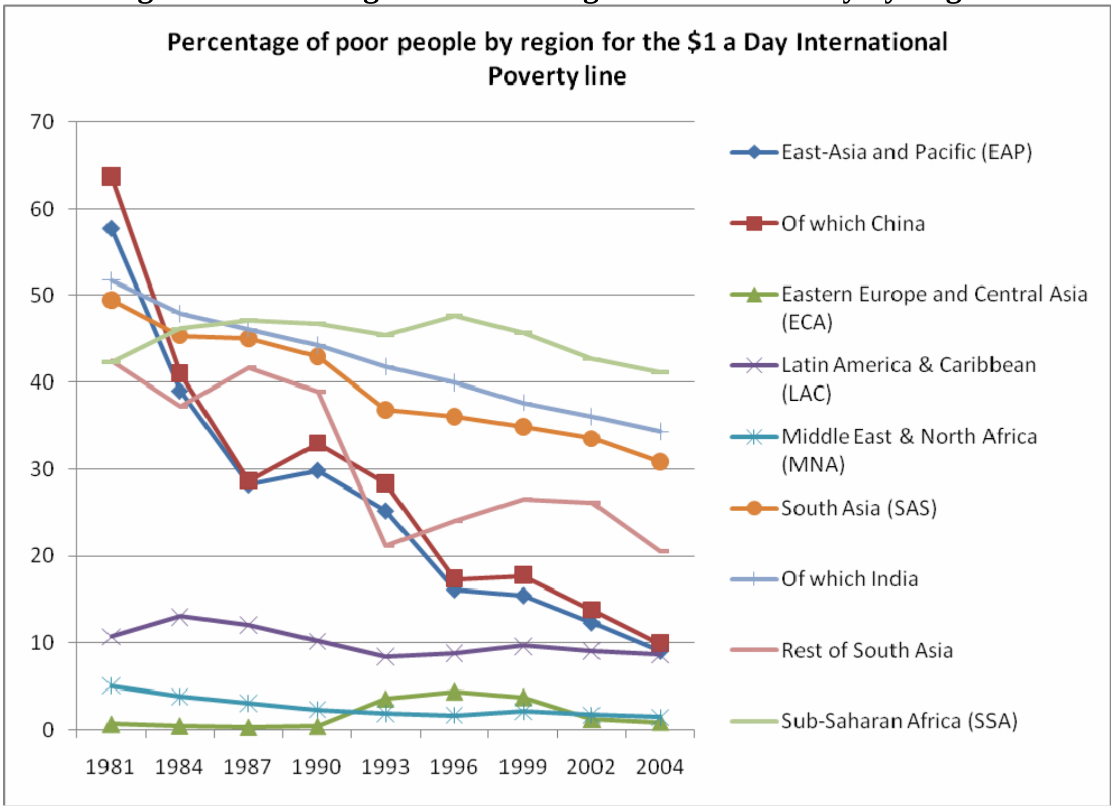
- Poverty in South Asia has always been consistently high compared with other regions in the world except for Sub-Saharan Africa.
- According to recent estimates, there has been steady decline in poverty in South Asia, particularly in India, in terms of the proportion of population living on less than US$1 a day. However, India is still a home for more than 370 million poor people: it is the only country in the world to provide a home for such a large number of poor.
- Although the proportion of poor is falling in the region, the number of people living on less than US$1 a day is fairly constant, compared with the falling numbers in some other regions. For example, the number of poor people in the region fell by only about 9 million between 1981 and 2004, while the world poor fell sharply from around 1470 million to 970 million during the same period.
- The progress in poverty reduction, however, has been slower in South Asia in terms of the US$2-a-day poverty line. In terms of this poverty line, more than 75% people in South Asia live in poverty.
- In fact the number of poor living on less than US$2 a day is increasing in South Asia, compared with some other regions like East Asia and the Pacific.
- In comparison with East Asia and the Pacific, in which the proportion of poor in terms of both poverty lines fell sharply, the South Asia region does not perform well.
- As noted by Chen and Ravallion (2007, p.10) in their comments on overall poverty reduction in the world, the slow progress in reducing poverty in South Asia on the basis of the US$ 2-a-day poverty line indicates the increasing number of people who are living between $1 and $2 in South Asia. In other words, those people who escape poverty in the region cannot rapidly enter the "middle-class".
- The most striking trend is that the highest proportion of the world poor is living in South Asia and this proportion has increased from 31% in 1981 to 46% in 2004. In contrast, the same proportion has fallen from 54% to 17% in East Asia during the same period.

Table 1: Weighted yearly average of PPP per capita income growth and population below poverty line

Regions	1960–1980	1980–2000	2000–2005	Per Capita Income – 2005		Number and percentage of people living in poverty – 2004 (Using $1-a-day poverty line)		
				Dollars	PPP	Proportion of poverty (%)	Number of people in poverty (millions)	Percentage of poverty across regions
East Asia and Pacific	2.9	6.1	8.0	1627	5914	9.05	169.13	17.45
South Asia	**0.6**	**3.0**	**5.9**	**684**	**3142**	**30.84**	**446.20**	**46.02**
Middle East and North Africa	3.2	0.2	3.6	2241	6076	1.47	4.40	0.45
Sub-Saharan Africa	1.3	-0.6	3.7	745	1981	41.10	298.30	30.77
Latin America and Caribbean	3.1	0.1	3.7	4008	8111	8.64	47.02	4.85
Europe and Central Asia	-	1.1	5.2	4324	9142	0.94	4.42	0.46
High Income Countries	3.9	2.3	2.0	32,893	32,524	n/a	n/a	n/a
World	2.5	2.9	4.4	6987	9420		969.47	100.00

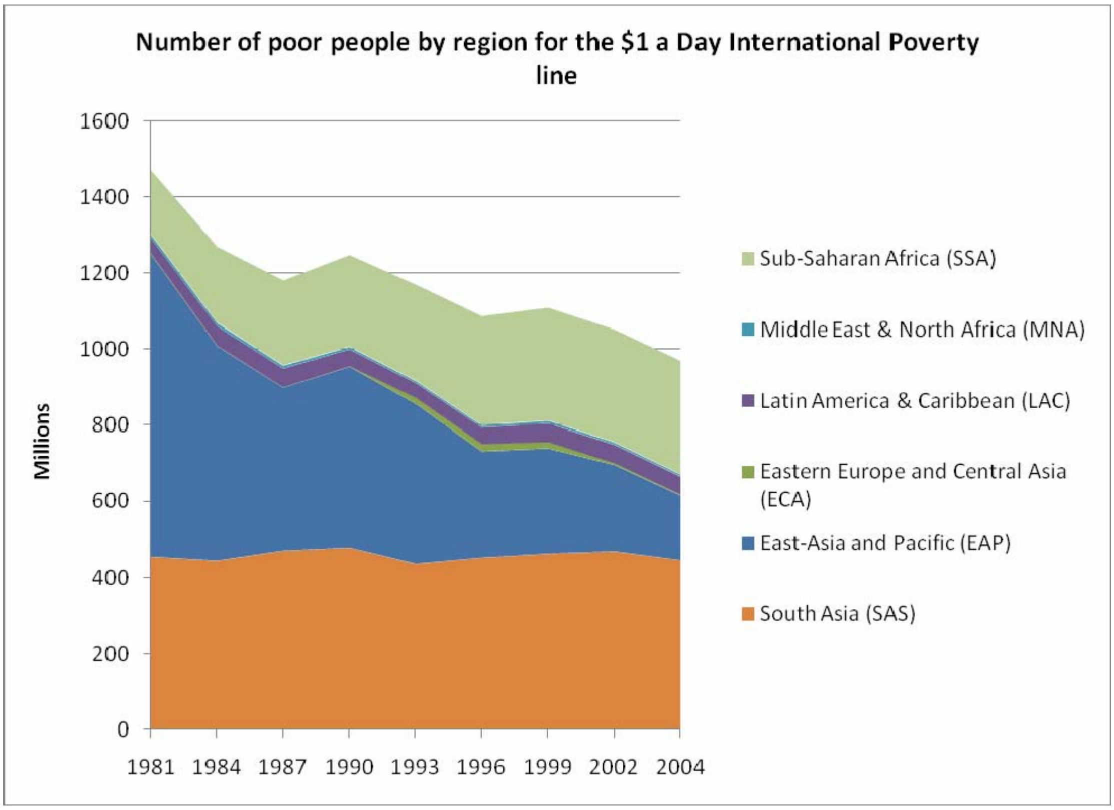
Source: Salvatore (2007) and Chen and Ravallion (2007)

Figure 1: Percentage of Poor Living Below US$1 a Day by Region



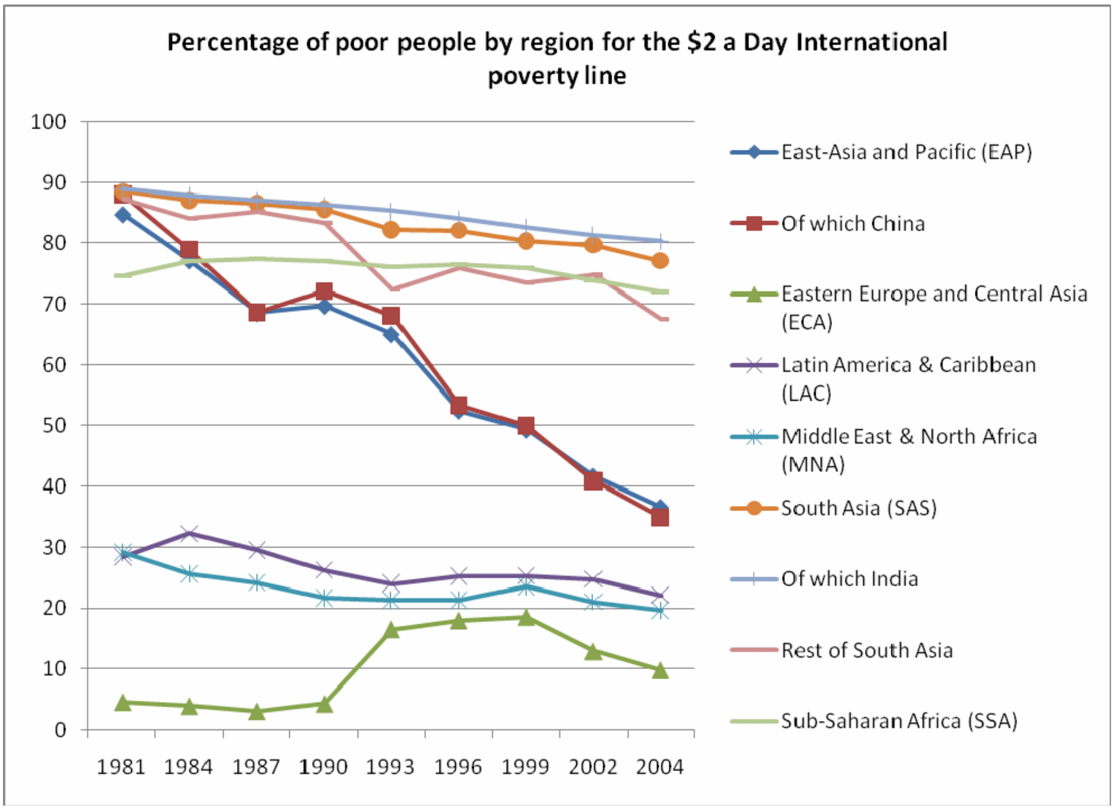
Source: Chen Ravallion (2007)

Figure 2: Number of People Living Below US$ 1 a Day by Region



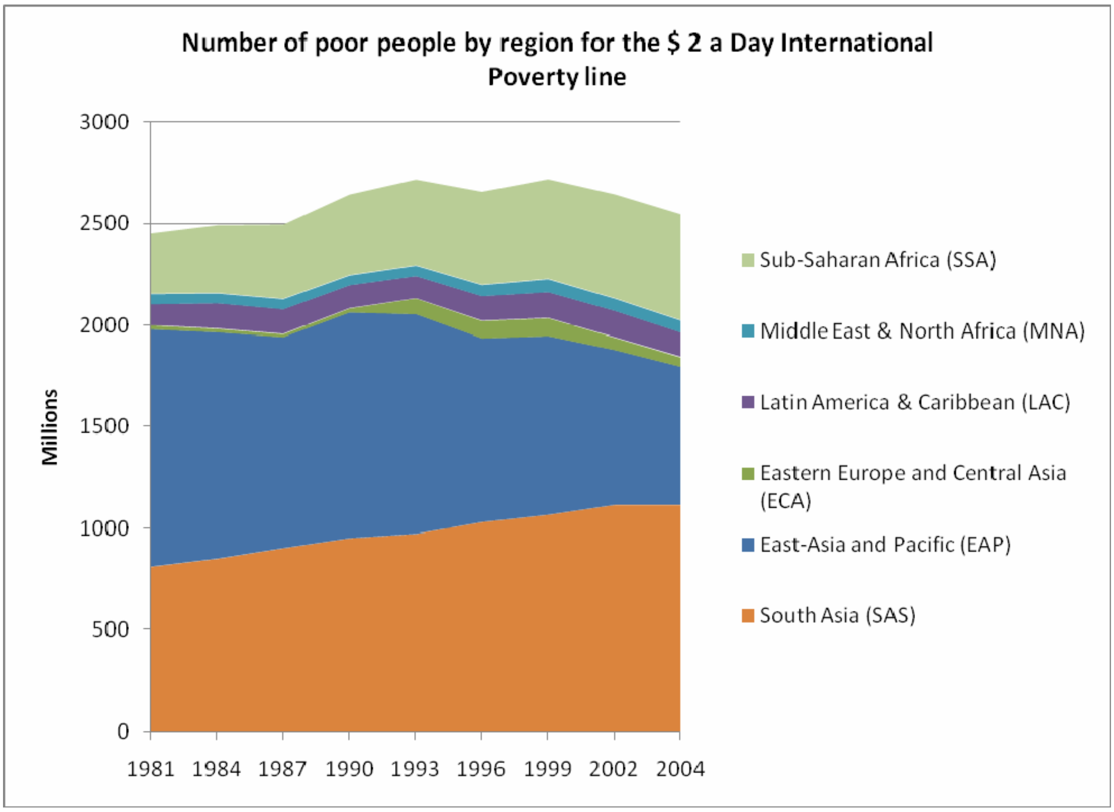
Source: Chen and Ravallion (2007)

Figure 2: Percentage of Poor Living Below US$2 a Day by Region



Source: Chen and Ravallion (2007)

Figure 4: Number of People Living Below US$ 2 a Day by Region



Source: Chen and Ravallion (2007)

Looking beyond the aggregates, it is important to examine the composition and geographical distribution of the poor in South Asian countries. While appreciating the decline in the proportion of the poor in these countries over the last two decades, some observers have raised concerns on rising inequalities among different segments in these countries. For example, observing the recent Indian experience, Rajan (2006, p.55) notes that "rising inequality between rural and urban areas, fast-growing and slow-growing states, forward castes and backward castes" has been a major concern in India. A recent World Bank (2006, p.9) study has further emphasised this point, stating that "poverty in South Asia will increasingly be concentrated in lagging regions, stagnant sectors, disadvantage ethnic and caste groups and vulnerable populations".

Poverty in rural areas has long been a concern in these countries. Table 2 demonstrates the existence of wide disparities between rural and urban areas. The poverty ratio in the rural sector is higher than that of the urban sector in all countries. Further, the number of people living in rural poverty has increased over the time, compared with the falling trend in East Asia, particularly in China. According to the estimates of Ravallion, et al., (2007), the number of poor living in the rural sector has increased from 384.99 million to 407.03 million between 1993 and 2002 in the region. According to their estimates, South Asia is also one of the two regions with the highest urban poverty across regions, with its approximately 46% of the total world urban poor in terms of the US$1-a-day poverty line.

There is a huge variation in the poverty ratio across states or provinces in these countries. For example, five poor states in India (Bihar, Uttar Pradesh, Madhya Pradesh, Orissa and Rajasthan) are lagging behind states in South and West India; creating regional disparities (see Datt and Ravallion, 2002 and World Bank, 2006). Similarly, Balochistan and the North West Frontier province are poorer than the rich Punjab province in Pakistan. In Sri Lanka, Southern, Northern, Eastern, *Sabaragamuwa* and *Uva* provinces are lagging behind the Western province (see World Bank, 2007b). In all of these countries, poverty is a major problem in poor states and provinces.

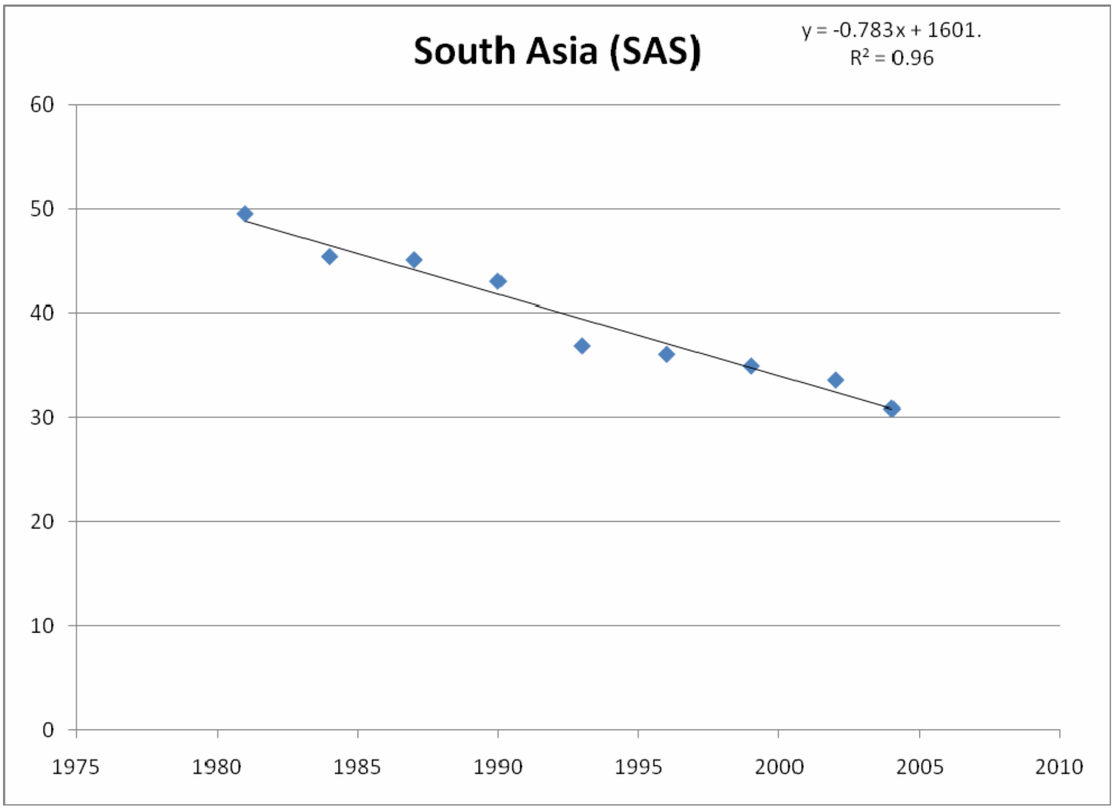
Table 2: Rural and Urban Poverty in South Asia

Region/Country	Population below the poverty line				Population below the poverty line			
	Year	Rural %	Urban %	National %	Year	Rural %	Urban %	National %
South Asia	1993	43.74	37.37	36.87	2002	40.31	34.61	33.56
Bangladesh	1991/92	46.00	23.30	42.7	1995	39.8	14.3	35.6
India	1993	49.13	42.70	41.82	2002	43.61	39.33	36.06
Nepal	1995/96	44.00	23.00	42.00	2000/01	39.00	N/A	N/A
Pakistan	1991	36.90	28.00	34.00	1998/99	34.7	20.9	30.6
Sri Lanka	1990/91	22.00	15.00	19.9	1995/96	27.00	14.7	25.2

Source: ESCAP (2000), Naranpanawa (2005) and Chen and Ravallion (2007).

The above stylised facts reflect that poverty is a serious concern in South Asia despite the fall in poverty in terms of the US$1-a-day poverty line. What are the prospects of achieving the MDG of halving the proportion of people in extreme poverty between 1990 and 2015 in South Asia? Figure 5 reflects that South Asia is likely to reach the MDG target (halving poverty) or exceed it by 2015 if the current economic growth continues. However, this shows only the aggregate picture: there is no reason for the region to be complacent. Firstly, although the proportion of people living below the US $1-a-day poverty line declined over the past two decades, the number of people living in poverty did not fall in the region. There are still many people in poverty. Secondly, the region has performed poorly in reducing poverty below the US$2-a-day poverty line (in fact, poverty under this measure has increased in South Asia). Thirdly, rural poverty and regional disparities have become serious problems in the region. Finally, the countries in the region are already experiencing the 'twin shocks' of high oil and food prices. As warned by the president of the World Bank recently, rising food prices may delay achieving the poverty goal (MDG) and many people may fall back below the poverty line. The South Asian region particularly is facing this challenge, considering the food crisis faced by countries like Bangladesh, Sri Lanka and Nepal.

Figure 5: The Overall Trend in the Poverty Ratio ($1-a-day poverty line)



3. The Channels through which Trade Affects Poverty: An Overview

As noted previously, poverty is heterogeneous with many dimensions and there are many reasons which contribute to poverty. Therefore it is difficult to define and measure such a complex and multidimensional concept, as acknowledged in some recent excellent surveys (for example, Winters, et al., 2004; Goldberg and Pavcnik, 2004; Aisbett, 2007). Measuring the effects of trade liberalisation on poverty is complex because of the indirectiveness of the different mechanisms through which trade liberalisation affects poverty. For instance, trade liberalisation affects both relative prices of goods and services and factors of production, and in turn both aggregate income of household and investment and saving decisions creating inter-temporal effects. It may also alter government income and expenditure. The effects of trade liberalisation also depend on rural infrastructure and market structures (see Coxhead, 2003). Because of all of these complexities, there is a heated debate over the trade-poverty link in the literature. As reviewed by many authors, establishing the trade and poverty nexus is an even more difficult task. As Goldberg and Pavcnik (2004, p.250) note:

> … perhaps a more manageable approach is to relate changes in trade policy to particular phenomena that are highly correlated with poverty. To this end, it is instructive to first understand through which channels poverty can be affected.

Following the conceptual framework in decomposing the trade and poverty links provided a few years ago by Winters and his colleagues (see for example, Winters, 2000a, 2002; Winters, et al., 2004), a number of researchers have identified the channels through which trade liberalisation affects poverty (for example, Bannister and Thugge, 2001, Hertel and Reimer, 2002, UNCTAD, 2004, Goldberg and Pavcnik and Nissanke and Thorbeke, 2007). To my knowledge, different authors have identified these channels in different ways following the introduction of the main conceptual framework by Winters and his co-authors. For example, Goldberg and Pavcnik (2004, p.250) have identified three main channels: "the participation and earning of household members in labour markets, household consumption, and household production". As well, Bannister and Thugge (2001) have identified five main trade-poverty channels, while Nissanke and Thorbecke have identified seven channels focusing on globalisation. Rather than repeating what has already covered in the above studies, this section provides a brief overview of these channels in order to set a background for the remaining sections of this paper. In general, the literature identifies the following main channels through which trade liberalisation affects poverty (see details in Bannister and Thugge, 2001, pp.5–14; Nissanke and Thordecke, 2007).

(i) *Prices of tradeable goods*: Trade liberalisation leads to a change in prices of imports and exports. These price changes affect the poor.

(ii) *Factor prices, income and employment*: Trade liberalisation gives rise to a change in the relative prices of factors of production such as skilled and unskilled labour and capital. These changes affect the income and the employment of the poor.

(iii) *Government income and expenditure:* Trade liberalisation may lead to a decline in government revenue affecting government expenditure, with direct transfers to the poor.

(iv) *Incentives for investment and innovation:* Trade liberalisation can affect the long-run economic growth through its incentive effect.

(v) *External shocks:* Integration through trade liberalisation makes an economy vulnerable to external shocks which will have impact on the poor.

(vi) *Short-run risk and adjustment costs*: During the liberalisation process economies face certain adjustment costs which will create effects on the poor.

(vii) *Flow of information:* Trade liberalisation facilitates the flow of information and knowledge globally, impacting on the poor.

(viii) *Institutions:* Institutions at global, national, regional and local levels mediate various channels and mechanisms linking liberalisation and poverty, creating effects on the poor.

As Nissanke and Thorbeke (2007, pp.23–24) note:

> …these channels can be compared to rivers and canals flowing into a common sea or a lake. Some of the rivers may be muddy and even polluted, while others may be crystal clear. The resulting quality of the lake or sea water depends on how these various flows combine, and similarly, the ultimate net effects of the different globalization-poverty channels depend on their combined individual effects.

It is, however, difficult to examine the combined effects of trade liberalisation on poverty under all the above channels in a single empirical study. Therefore, many studies covered in recent surveys have focused on only one or a few of these channels while ignoring others. Since the first two channels through which trade liberalisation affects poverty are the most important, many empirical studies have focused on them. Many analysts have used household survey data to examine the effects of the changes in prices of tradeable.

Any empirical analysis of the impacts of trade liberalisation on poverty involves two major steps. In the first step, trade liberalisation is linked to the price changes faced by the household. In the second step, the price changes are linked to household choices and characteristics (Porto, 2007, p.1436). Similarly, there are attempts to establish the links between trade liberalisation, factor markets and factor income. Emphasising the role of adjustment to trade liberalisation Porto (2007, p.1432) further points out that "after trade reform, consumers may switch to cheaper goods; producers may shift to more profitable activities; firms may expand employment; individuals may increase their labour supply". This reinforces the observation that the first two channels of the above list are important when examining the trade-poverty link.

The income effects of trade liberalisation play an important role in the trade-poverty debate. Some researchers have attempted to study links between trade liberalisation, labour market and factor income (see Goldberg and Pavcnik, 2004). The well-known Hechscher-Ohlin (HO) and Stolper-Samuelson (SS) theorems have provided the theoretical bases for the pro-poor trade liberalisation argument. According to the HO model, countries have comparative advantage in producing goods that intensive in the relatively abundant factors of production since they are relatively cheaper. Therefore, countries with abundant capital have comparative advantage in producing capital intensive goods and countries with abundant labour have comparative advantage in producing labour-intensive goods. On the basis of this model, developing countries gain from trade by specialising in labour-intensive goods since they are labour-abundant countries. With the theoretical foundation of the HO model, the SS model establishes the link between free trade and income distribution among the factors of production, suggesting that real income of the abundant factor increases when a country liberalises trade. Since unskilled labour is the abundant factor in many developing countries, the poor in developing countries gain when developing countries liberalise their trade regimes according to the SS model. The HO and SS models indicate that structural changes take place in favour of labour-abundant industries when developing countries open their economies. As a result the demand for unskilled labour will increase, leading to an increase in real income. Many economists have used this theoretical base to argue that trade liberalisation is good for the poor (for example, Krueger, 1983). There have been many empirical studies covering labour market and wages channels which link trade liberalisation and poverty. The next section deals with a selected list of empirical studies related to South Asia.

4. The Trade–Poverty Nexus in South Asia: What does the Empirical Literature really tell us?

As cited in Harrison (2007, p.2), Winters, et al., (2004, p.73) in their comprehensive surveys observe that “there are no direct studies of the poverty effects of trade and trade liberalization” and Goldberg and Pavcnik (2004, p.231) find that “while the literature on trade and inequality is voluminous, there is virtually no work to date on the trade liberalisation and poverty”. The above observations reflect the lack of solid empirical studies on the link between trade and poverty until very recently. In the last few years, however, more empirical studies have focused on the question of whether trade liberalisation leads to a reduction in poverty or not.

As highlighted in the introductory section in this paper, there is now a growing body of literature on this topic. Following recent surveys by Hertel and Reimer (2002, 2005), Goldberg and Pavcnik (2004) and Aisbett (2007, pp.38–39), all the methods employed in empirical studies can be categorised under the following six categories.

- Cross-country regression analyses (using aggregate data sets) which examine the link between trade, growth, income, poverty, and inequality measured at the national level.
- Partial equilibrium/cost-of-living analyses based on household expenditure data which focus on commodity markets and their role in determining the effects on poverty.
- General Equilibrium studies using single-country computable general equilibrium (CGE) or applied general equilibrium (AGE) models and global CGE models.
- Micro-macro simulation studies (known as “micro-macro synthesis”) combining CGE modelling and micro simulation models.

- A macro-meso-micro approach in analysing the impact of a particular value chain on poverty.
- Microeconomic studies that analyse micro level data from household or plant-level surveys and other micro-level studies linking trade liberalisation and poverty.

The empirical studies under above categories have used different channels (one or a few) through which trade liberalisation affects poverty considered in the previous section. Although a great deal of empirical work has been carried in other parts of the world, such as Latin America and Sub-Saharan Africa, to examine the link between trade and poverty, the empirical work focusing on the South Asian region or individual countries in the region is limited, but growing. Round and Whalley (2006) have already surveyed a small number of CGE studies focused on South Asian countries and highlighted some lessons from the South Asian perspective. However, their survey is limited to only 4 CGE studies. This section will undertake a more detailed review of a number of empirical studies under different categories, including those covered by Round and Whally (2006).

Cross-Country Studies

As Bhagwati (2004, p.53) points out, the analysis of the link between trade and poverty is based on “a two-step argument: that trade enhances growth, and that growth reduces poverty”. A number of cross-country or multi-county studies have been carried out to examine this two-step link between trade liberalisation, growth and poverty. The early studies of Dollar and Kraay (2002, 2004) have established the positive link between trade and poverty by relating trade liberalisation with growth and growth with poverty. South Asian countries are included in this analysis and therefore the findings of these studies are relevant to South Asian countries as well. Their main conclusion is given below:

> The increase in growth rates leads on average to proportionate increases in incomes of the poor. The evidence from individual cases and cross-country analysis supports the view that globalisation leads to faster growth and poverty reduction in poor countries” (Dollar and Kraay, 2004, PF22).

According to their findings, trade liberalisation is good for the poor: trade liberalisation in countries around the world including South Asia leads to a reduction in poverty. However, their published studies and findings attracted criticisms from different directions (for examples, Rodrik, 2000). Much has been written in the literature on this debate: unnecessary repetition is avoided in this section. A brief summary of the main problems of these studies is given below using recent literature. Ravallion (2001, p.1803) argues that “crosscountry correlations are clouded in data problems, and undoubtedly hide welfare impacts; they can be deceptive for development policy”. Very often, there has been broad generalisation that trade leads to growth and growth leads to a reduction in poverty. Harrison (2007, p.15) and Nissanke and Thorbecke (2007, p.5) point out that the evaluation of the trade and poverty nexus using cross-country studies remains problematic for the following reasons:

1. Finding precise measurements for globalisation;

2. Problems associated with definitions of globalisation and poverty;
3. Difficulty in finding appropriate instruments for trade policy at the country level and adequately controlling other changes that are occurring at the same time;
4. Technical problems associated with econometric techniques used in these studies;
5. The quality of data on the incomes of the poor;
6. Growth potentially leading to unequal gains across different income levels even if cross-country studies establish a positive link between trade and growth; and
7. The heterogeneity across different segments of the population including spatial dimensions.

Harrison (2007) has revisited the evidence on the link trade and growth and highlights the problems of previous multi-country regression analysis. She finds that "there is no evidence in the *aggregate* data that trade reforms are good or bad for the poor" (Harrison, 2007, p.13). Rather than focusing on trade only (as an approximation to openness), Heshmati (2007) has recently developed two composite indices of globalisation – the Kearny index and his own index with four components (economic integration, personal contact, technology and political engagement) – to indicate the level of globalisation of 62 countries including some South Asian countries. Using these indices he has undertaken a multi-country regression analysis to examine the impact of globalisation on poverty. In this study, which also included South Asia as a region, Heshmati (2007) finds a weak link between globalisation and poverty. Ravallion (2007) has also attempted to contribute to the debate using a multi-country data base ('macro lens'). He finds that "based on cross-country comparisons, it is hard to maintain the view that expanding external trade is, in general, a powerful force for poverty reduction in developing countries" (Ravallion, 2007, p.138). All these other cross-country studies demonstrate that there is no clear and strong evidence to suggest that trade liberalisation reduces poverty in South Asia.

As a result of recent dissatisfaction with using cross-country studies to evaluate the trade and poverty link, some policy analysts have emphasised the need for case studies. For example, Ravallion, (2004) emphasises the need for more detailed and deeper micro empirical research in the area. Echoing similar sentiments, Nissanke and Thorbecke (2007, p.5) note that "while a number of studies have been conducted to investigate the globalisation-poverty relationship through cross-country regressions, a deeper insight into this critical nexus cannot be obtained by regression studies alone, as it requires detailed empirical research in a country and region-specific context". This claim has been supported by a number of recent studies and surveys (for example, Hertel and Winters, 2006; Harrison, 2007).

Partial Equilibrium/Cost-of-Living Analysis

Hertel and Reimer (2002 and 2005) identify that these studies focus on only one or a limited number of markets using mainly survey data. Their survey covered a number of such studies related to several South Asian countries including India and Bangladesh. These studies have focused on different channels (previously listed) through which trade liberalisation affects poverty. For example, Ravallion (1990), in examining the welfare effects of food price changes in Bangladesh, finds that while an increase in the price of rice will be likely to have adverse effects on rural household in the short run, the poor households are likely to benefit from such price changes in the long run. Using expenditure data from the 1987–88 and 1993–94 Indian National sample surveys, Deaton and Tarozzi (2000) have examined the link between price and poverty, focusing mainly on the price indices and poverty lines. In their study they find that, although there are problems with the current procedure in calculating official poverty lines, their results agree with the trends in official price indices over the time.

CGE Studies

Chen and Ravallion, (2004, p.31) observe that "although partial equilibrium analysis requires little or no aggregation of the primary household data, it misses potentially important indirect effects of prices and wages". Similarly, after evaluating a number of studies presented to a recent conference, Coxhead (2003, p.1308) comments that "a complete picture of poverty changes can only be obtained in a general equilibrium context; partial equilibrium estimates (based only on output prices, for example) will be misleading". Some analysts argue that a general equilibrium approach is more suitable for capturing economy-wide effects (through different channels) of trade liberalisation on poverty. This view has given rise to a number CGE studies on trade and poverty in South Asia. Many trade and poverty analysts have used both global and single-country CGE models to examine the link between trade and poverty. What do these studies tell us? Not all of them demonstrate that trade liberalisation reduces poverty; some even show a negative relationship between trade and poverty. In this section, a survey of a selected number of studies is presented.

In recent years, the global CGE modelling technique (particularly using the GTAP database and the modelling frame work) has been used to estimate the effects of global trade liberalisation on poverty in different regions and individual countries, since these models are capable of capturing different trade-poverty channels including product and factor price changes. A summary of the results of a few selected studies is given in Table 3.

Anderson, et al., (2006) have found that for poverty reduction, full merchandise trade liberalisation with domestic reforms (increasing productivity) is more effective than trade liberalisation under Doha is, although in both cases, trade liberalisation reduces poverty in South Asia, according to that study. UNESCAP (2008) has also attempted to evaluate the effects of trade liberalisation on poverty, finding that poverty in countries in South Asia is projected to increase under the Doha scenario in the short run as well as in the long run. However, the ESCAP study suggests that comprehensive agricultural trade liberalisation may reduce poverty in Bangladesh and India, but not in Sri Lanka in either the short or the long run. Hertel, et al., 2007 (reported in World Bank, 2008) find that Bangladesh gains from trade liberalisation in terms of poverty reduction. These multi-country CGE studies, therefore, do not provide a clear view on the trade-poverty nexus in South Asia: their results provide some inconclusive mixed messages.

Table 3: Empirical estimates of global CGE studies: Change in poverty

Study	South Asia (change in millions)	Bangladesh (change in millions)	India (change in millions)	Sri Lanka (change in millions)
1. Anderson, et al., 2006				
Full Doha simulation (with productivity effects)	- 2.6			
Full liberalisation (with dynamic effects)	- 12.5			
2. ESCAP (2008)				
Under Doha reforms (short run)		0.4	5.9 (rural) 1.3 (urban)	0.0
Under Doha reforms (long run)		0.3	5.9 (rural) 1.3 (urban)	0.0
Under comprehensive agricultural reform (short run)		-2.5	-10.2 (rural) -2.2 (urban)	0.1
Under comprehensive agricultural reform (long run)		-2.4	-10.0 (rural) -2.1 (urban)	0.1
3. Hertel and Others, 2007 (reported in World Bank (2007a, p.108)				
Under agricultural liberalisation-developed countries (percent)		-0.1		
Under agricultural liberalisation-developed countries (percent)		-0.2		
Under agricultural liberalisation-both developed and developing countries				
Poverty at $1 a day (percent)		-0.3		
Poverty at $1 a day (thousands of people)		-128		

In addition to the poverty impact of trade liberalisation obtained from global CGE studies for the South Asia region and for some individual countries in the region, there have been a number of attempts to undertake single-country CGE studies in relation to all five large South Asian countries. A summary of these studies is presented in Table 4. Some of the early CGE studies carried out related to Bangladesh, India and Pakistan under the Micro Impact of Macroeconomic Adjustment Policies (MIMAP) project funded by the International Development Research Centre (IDRC). Iqbal and Siddiqui (2001) have surveyed these studies. The general message emerging from these country studies is that trade liberalisation favours high-income groups compared to low-income groups. To avoid repetition, these early studies are not included in this survey.

Other South Asian CGE studies on the trade and poverty link found in the literature were carried out as components of recent multi-country research projects on trade liberalisation (or globalisation) and poverty. The results of four of these studies (case studies of Bangladesh, India, Pakistan and Sri Lanka) have been summarised by Round and Whalley (2006). The main features and a summary of the results of selected studies, including the four studies covered in Round and Whalley (2006), are shown in Table 4.

The results of four CGE applications applied to Bangladesh are summarised in this table. The first three of these four studies were undertaken by a small group of researchers as components of multi-country trade-poverty related projects. These three studies show some mixed results. The authors of these studies find that trade liberalisation plays a minor role in reducing poverty in Bangladesh and that unskilled rural workers do not benefit. They also observe that domestic trade liberalisation and migrant remittances are powerful tools in reducing poverty in Bangladesh. The fourth Bangladeshi case study focuses on the impact of trade liberalisation on income distribution rather than on poverty itself. The results of this study also indicate that urban educated skilled labourers benefit more from trade liberalisation than do rural unskilled labourers.

Using the same CGE methodology applied in the first Bangladesh case study as a part of a multi-country study, Pradhan (2002) has attempted to examine the link between trade liberalisation and poverty in India. He finds that trade liberalisation has only a minor impact on poverty in India. Cockburn (2006) has used a more sophisticated CGE study to examine the trade-poverty nexus in Nepal. Although many CGE models contain representative households, this study has attempted to replace the conventional CGE modelling approach of representative households by a sample of actual households (3,373) and to incorporate them into a CGE micro simulation model. The results of this study demonstrate that trade liberalisation favours urban households in Nepal. According to this study, trade liberalisation leads to a fall in urban poverty and a rise in rural poverty in Nepal.

There have been some attempts to examine the trade and poverty link in Pakistan using CGE models, after the early attempts under the MIMAP project, covered in the survey by Iqbal and Siddiqui (2001). Siddiqui and Kemal (2002) have shown that non-globalisation variables are important to understanding how globalisation affects poverty. They have also shown the positive role that remittances play in reducing poverty. In a recent study, Butt and Bandara (forthcoming) have examined the link between trade and poverty within a regional context using a regional CGE model. This study finds that while large states benefit from trade liberalisation, small states are affected by trade liberalisation, which allows room for regional conflicts.

The last four studies summarised in Table 4 are Sri Lankan CGE case studies. Weerahewa (2001) attempted to examine the link between trade and poverty using a very simple CGE model. The results of this study show that trade does not play a role in explaining poverty changes and that technical changes and endowments are the main drivers of poverty changes. Weerahewa (2006) attempted to examine the effects of the removal of the import ban on rice and of its related subsidies in agriculture. This study finds that liberalisation in the rice sector improves household welfare. Government transfer payments play an important role in reducing poverty. Naranpanawa (2005) has developed a poverty-focused CGE model to examine the trade-poverty link in Sri Lanka. This study observes that the effects of trade liberalisation on low-income groups are insignificant in the short run, but that the situation would change in the long run.

Naranpanawa and Bandara (forthcoming) have also attempted to examine the trade-poverty link focusing on income distribution. This study demonstrates that trade liberalisation in the manufacturing industries tends to widen the gap between broader groups of low-income and high-income earners. However, tariff reduction may help to reduce the absolute poverty within low-income groups.

Micro-Macro Simulation Models

Apart from Cockburn's (2006) study considered in the previous section, there have not been, to the author's knowledge, attempts to examine the trade-poverty link under the category of micro-macro simulation models in South Asia. In fact, one of the most advanced and sophisticated ways of capturing the effects of trade liberalisation on poverty has been the combination of CGE and micro simulations models. Unfortunately, it is difficult to find such a study for South Asian countries.

Macro-Meso-Micro Studies

There are some studies carried out to examine the impact of a global value chain on poverty in developing countries. Recently, Jenkins (2007) has used this maro-meso-micro approach to examine the impact of globalisation (not only trade liberalisation) on poverty. Bangladesh has been included in his study. Jenkins (2007) finds that the growth of labour-intensive exports of manufactures such as ready-made garments which has resulted from globalisation has provided employment to low-income rural women. This has established a positive link between globalisation and poverty in Bangladesh. Thus, in contrast to the CGE studies related to Bangladesh, this study finds some positive effects of trade liberalisation on unskilled labour.

Microeconomic and Other Partial Equilibrium Studies

Under this category, varied studies have attempted to examine the link between trade and poverty by focusing on different poverty channels. Some examples can be considered in this section. For example, Dorosh and Valdes (1990) have studied the link between farm gate prices and trade policy reforms. They observe that farm gate prices received by farmers have increased significantly in Pakistan because of trade reform. Similarly, Gisselquist and Grether (2000) show that trade liberalisation creates benefits to agricultural producers in Bangladesh as a result of increased availability of inputs. Consumers are also benefited from the increased availability of goods. Ninno and Dorosh (2001) have demonstrated how trade liberalisation assisted to mitigate the post-flood food crisis in Bangladesh in 1998, with private imports of rice stabilising market prices and increasing supply. Kabeer (2000) has shown how trade liberalisation has assisted in creating jobs for women in the clothing industry in Bangladesh.

Krishna (2004) has undertaken a micro-level study focusing on 35 North Indian villages using household surveys. According to this study, while members of 11.1% of 6,376 households in these villages have escaped from poverty, 7.9% have fallen into the poverty trap in the last 25 years. He finds that different sets of factors are associated with escaping poverty and falling into poverty. Therefore, this study advocates distinct sets of policies to promote poverty reduction and to arrest falling into poverty.

Topalova (2007) has undertaken a study to examine the impact of trade liberalisation on poverty and inequality in Indian districts using a regression analysis. Using household survey data before and after trade policy reforms in India, Topalova suggests that the poor in rural areas gained less from trade liberalisation than other income groups or the urban poor. Further she demonstrates that the progress in poverty reduction in rural areas has been slow. According to her study, Indian states with more flexible labour laws have been able to minimise or eliminate adverse effects of trade liberalisation on the poor. In a previous study, Topalova (2004) also finds that the factor mobility is extremely limited in India because of inflexible labour laws. Sharma, et al., (2000) examine the link between liberalisation and productivity in the manufacturing sector in Nepal and they argue that the effects of liberalisation on productivity is small because the lack of complementary policies such as policies on investment in infrastructure.

What are the messages that emerge from the studies surveyed in this section? Although the studies are not comparable and the link between trade and poverty is complex, some broad findings are emerging. Firstly, the empirical evidence from South Asia on the trade-poverty link shows some mixed results. Many of these results indicate that trade liberalisation is not good for the poor. For example, the results of a number of multi-country and single-country CGE models indicate that the poor in Bangladesh are affected by trade liberalisation. In contrast, three other studies (general equilibrium, partial equilibrium and miro-meso-macro) show that trade liberalisation provides opportunities for the rural women in Bangladesh and therefore trade liberalisation is good for the poor. Secondly, some studies demonstrate that trade liberalisation is not the only reason for the fall in poverty in South Asian countries. They find that the increase in remittances has played a major role in reducing poverty in some of these countries, like Bangladesh, Pakistan and Sri Lanka. Thirdly, the evidence shows that different segments and geographical locations are not benefited from trade liberalisations. For example, the rural poor and poor provinces with poor infrastructure are lagging behind the rich provinces and the urban rich. Finally, it is clear from the empirical evidence that countries in the region need to implement complementary policies with trade liberalisation to reduce poverty in these countries.

5. Lessons from Other Countries

Although there have been a limited number of empirical studies focusing on the trade liberalisation and poverty link using the South Asian experience, a large number of empirical studies have been carried out to investigate this link using many other countries. The findings of these studies have been summarised and reviewed by a number of recent surveys. In order to avoid repetition by considering the individual studies on other countries, only the main findings of these surveys have been summarised in Table 5. A brief overview of these finding across countries is presented in this section.

Berg and Krueger (2003) have focused on the micro evidence from a large number of individual trade liberalisation episodes in many developing countries and they find that there are no systematic effects of trade on the poor beyond its overall effects on the poor. After surveying large number of studies, they observe that trade policy is not a “magic bullet” of growth and poverty reduction – rather, it is only one of many determinants. They further emphasise that there is little evidence that there are other reforms that must precede trade reforms although there are many reforms that are complementary.

One of the most prominent surveys on trade liberalisation and poverty has been Winters, et al., (2004). This comprehensive study has reported the findings of many studies of *ex post* data related to actual episodes of trade liberalisation, and surveys the evidence on trade liberalisation and poverty under four headings (covering many trade-poverty channels): macro-economic aspects; households and markets; wages and employment; and government revenue and expenditure. Winters, et al., (2004) offer the following conclusions after surveying the large amount of empirical evidence.

- There is no evidence to reject the traditional view that "growth, on average, benefits the poor".
- The recent evidence suggests that openness and trade liberalisation have strong positive impacts on productivity and its rate of change.
- There is plenty of evidence to suggest that households respond to the impact of trade liberalisation as consumers or producers, to take advantage or protect from the adverse effects of trade liberalisation. However, the ability to respond varies across households and supplementary policies are needed to make sure both the poor and the rich take advantage of the opportunities created by trade liberalisation.
- There is little evidence to establish a direct link between trade liberalisation and vulnerability at the household level.
- There is no simple general conclusion on the direct link between trade liberalisation and poverty.
- There is no empirical evidence to support the view that trade liberalisation has an adverse impact on poverty.
- The impact of trade liberalisation on poverty depends on the environment in which it is implemented.
- Trade liberalisation is not the only instrument available to address the issue of poverty. However, it is the easiest one to change.
- Trade liberalisation can be an important ingredient of a "pro-poor' development strategy.

Goldberg and Pavcnik (2004) have surveyed the evidence on the trade-inequality–poverty link focusing on the Latin American experience. They have focused mainly on country studies that used micro-level or firm-level data, with poverty impacts (or channels) via changes in wages and labour markets their particular focus. Their survey summarises a number of findings, as follows:

- In developing countries, the most heavily protected industries tend to employ a large proportion of unskilled labour. Therefore, trade liberalisation can have negative impacts on unskilled labour and their income in the short and medium run.
- The documented empirical literature related to developing countries using the experience of the 1980s and 1990 suggests that there is a lack of major labour reallocation across sectors.
- According to some evidence, trade liberalisation leads to a decrease in industry wage premiums in those sectors that experience the largest tariff cuts.

- The price and wage response to trade liberalisation is more significant that the quantity response reflecting market rigidities in developing countries in the short run.
- Some firm-level empirical evidence suggests that productivity increases in those industries that experience more liberalisation because there is significant reallocation of output towards more productive firms within an industry.
- Establishing the link between trade liberalisation and absolute poverty is a difficult task in rural areas. However, it is relatively promising in documenting correlation between trade liberalisation and certain indicators of urban poverty.
- Trade liberalisation affects poverty through relative price changes and their effects on consumption.

Goldberg and Pavcnik (2004, p.257) indicate that the existing empirical evidence does not provide a clear message on the trade-poverty link and "a direct connection to an increase—or reduction—in poverty is naturally even more tenuous".

Hertel and Winters (2006), in their edited book volume, summarise some empirical evidence from a number of country case studies that are based on a multi-country research project conducted on the link between the Doha Round trade liberalisation and poverty. This project has covered some countries in Asia, Africa, Latin America and Russia. The country case studies have been carried out using a standard methodology (CGE models). The summary of their results indicates that the poverty impacts of trade liberalisation are mixed, with negative impacts on poverty in some countries and positive impacts on poverty in other countries. In general, the case studies in this research project suggest that, in terms of poverty reduction, countries exporting agricultural products (e.g., Brazil) are benefited and net food importers like Bangladesh are affected under the Doha trade liberalisation. The most important message emerging from this project is that complementary domestic reforms enhance the impact of trade liberalisation on poverty (positively) and such reforms provide opportunities for households to take market advantages created by agricultural trade liberalisation.

As shown in Table 5, Harrison (2007) has summarised the main findings of another research project involving cross-country studies as well as country case studies. Harrison (2007, p.13) concludes that "there is no evidence in aggregate data that trade reforms are good or bad for the poor". As listed in table 5, the poor in unskilled labour abundant countries are not always benefited from trade liberalisation as predicted in HO and SS models and they are benefited from trade liberalisation when there are complementary policies in place. Case studies of India and Colombia in this volume clearly demonstrate the need for such complementary policies with trade liberalisation to reduce poverty. Further, the evidence in Mexico, India, Zambia, Colombia and Poland demonstrates that export growth and inward FDI flows are associated with poverty reduction. According to different countries' experiences, while poor wage earners in export sectors and sectors associated with FDI gain from trade, the poor farmers and workers in protected sectors that are exposed to import competition lose from trade liberalisation. Further, the Mexican case study in this volume shows that trade liberalisation produces opposite effects on two set of farmers within a single region.

Recently Porto (2007) has attempted to examine some channels and evidence on trade and poverty using the Latin American experience (particularly using Guatemala and Argentina). This study shows that higher export prices resulting from trade liberalisation make food items expensive while creating higher wage income and labour demand to reduce poverty. In this analysis, the positive income effect is higher than the negative consumption effect on poverty. The case studies in this paper further demonstrate that the impacts on poverty are heterogeneous and that different countries and different households are affected by trade liberalisation in different ways.

In addition to the above major studies, several recent studies have concluded that the poor are more likely to gain from trade when complementary policies are implemented together with trade liberalisation. Nissanke and Throbeke (2007, p.45) argue that agrarian economies during transformation should provide a flow of resources to agriculture continuously, in terms of irrigation, inputs, research and credit, drawing lessons from Korea and Taiwan. The key role of agriculture in reducing poverty has also been highlighted by Ravallion and Chen (2004, p.31), who argue that the bulk of poverty in China declined before the 1980s as a result of decollectivisation in agriculture:

> While the country's success in trade reforms may well bring longer term gains to the poor … the experience of 1981-2001 does not provide support for the view that China's periods of expanding external trade brought more rapid poverty reduction.

The overall message emerging from the empirical studies covering cross-country and single-country studies reviewed in the previous section and this section is that the effects of trade liberalisation on poverty vary widely from country to country and region to region depending on domestic economic structure, flexibility of resource mobility, domestic infrastructure and complementary reforms.

6. Concluding Remarks

This paper has provided an overview of stylised facts on poverty in South Asia in general and has surveyed empirical evidence on the link between trade liberalisation and poverty in general and in South Asia in particular. Although South Asian countries have been slow and late to embark on trade policy reforms, all countries in the region have made considerable progress in liberalising their trade regimes. As identified in this paper, the South Asian region has been the second fastest growing region in the world. The stylised facts on South Asia demonstrate that although poverty in South Asia as a proportion to population has fallen in the last two decades, the total number of people below the poverty line has remained more or less constant. Therefore, the South Asian region is still facing a major challenge in poverty reduction. This has become an even more daunting task considering the adverse effects of food price rises in recent months.

A number of messages and lessons have emerged from this survey. Firstly, the paper demonstrated that the link between trade and poverty is not clear and it is difficult to test empirically because of its complexity. Therefore, finding accurate empirical answers to the question whether trade liberalisation reduces poverty in the South Asian region has proved elusive. Secondly, different empirical studies provide contradictory results (or mixed results), with some studies demonstrating that trade liberalisation reduces poverty and others showing that trade liberalisation increases poverty. Thirdly, there are some winners in countries in the region: some segments and regions have managed to reduce poverty. Fourthly, in the region there are losers among the poor from trade liberalisation: for example, a case study of India demonstrated that trade liberalisation has been associated with a rise in poverty in regions where inflexible labour laws exist. Fifthly, trade liberalisation is not a so-called "magic bullet" in reducing poverty; indeed, it may well be one determinant of poverty.

Finally, as advocated by many, it is important to have complementary policies to reduce poverty while implementing trade policy reforms. This agrees with a view in a recent UNCTAD report that stated: "The controversy about the effects of openness has now seesawed between 'it is good' and 'it is bad' to reach the more nuanced position that 'it is good if the right complementary policies are adopted'…" (UNCTAD, 2004, p.70).

What are the policy options available for countries in South Asia for reducing poverty? Firstly, the evidence reviewed in this paper demonstrates that trade liberalisation can play an important role in reducing poverty, although it is not the only policy variable available for policy makers. Secondly, the evidence covered in this paper shows clearly that policy makers in these countries need to implement a raft of complementary policies with trade policy changes, including safety nets for affected segments, proper public service delivery in rural areas, investment in rural infrastructure and domestic commodity and factor market reforms. Finally, above all, maintaining good governance is important to spread the benefits of trade liberalisation across different segments of the society and regions of these countries.

Table 4: Recent Numerical Evaluations on Trade and Poverty Nexus in South Asia

Author(s)	Country	Type of Model	Type and source of data	Main findings
Mujeri and Khondker (2002)	Bangladesh	Static 2-sector Ricardo-Viner type model	Double calibration to 1985 and 1996 data	Trade plays a minor role in changing poverty. Technical and endowment changes are the main drivers of changing poverty.
Khondker and Mujeri (2006a)	Bangladesh	CGE model with 25 sectors, 7 factors of production (including 6 labour categories) and 7 types of households	Calibrated to a SAM for 1995/96 and double calibration to 1985 and 1996.	Trade reforms have neither readily nor necessarily benefited the poor in Bangladesh. Few skilled categories of workers are benefited while the rural unskilled are not benefited.
Annabi, et al., (2006)	Bangladesh	Sequential dynamic CGE model with 15 sectors, 4 factors of production and 9 household groups	Calibrated to a SAM for 1999/2000 and used data from the 2000 household survey	The Doha scenario has negative welfare and poverty impacts. Free world trade scenario has similar but larger welfare and poverty impacts. Domestic trade liberalisation produces positive welfare and poverty effects in the long run even though it produces some negative effects in the short run. Domestic liberalisation effects far outweigh those of free world trade when free world trade is combined with domestic trade liberalisation. Remittances are a powerful tool of reducing poverty.
Hoque (2006)	Bangladesh	Comparative-static CGE model of the ORANI tradition with 86 industries/sectors, 94 commodities and 3 factors of production (including 8 types	Used I-O tables for 1999/2000 plus household survey data	Urban high-educated households are mostly benefited from trade liberalisation in terms of real consumption. Urban skilled labour benefit from trade liberalisation.

		of labour) and 9 household groups.		
Pradhan (2002)	India	Static 13-sector Ricardo-Viner type model	Single calibration to data for 1994 and forward projections.	Trade liberalisation has a minor impact on poverty
Cockburn (2006)	Nepal	CGE-micro-simulation model with 15 sectors, 5 factors of production and 3 regions	Model is based on a previously developed CGE model and the Nepalese 1995 Living Standards Survey (NLSS).	The trade liberalisation favours urban households as opposed to Terai (fertile plains) and hills/mountain households. The impacts of trade liberalisation on income distribution appear to be small. Urban poverty falls and rural poverty increases.
Siddiqui and Kemal (2002a)	Pakistan	Static 11-sector Ricardo-Viner type model	Single calibration to data for 1989-90 and forward projections	Simulations with and without remittances produce different results on poverty. Non-globalisation variable are key in understanding the link between trade and poverty
Butt and Bandara (forthcoming)	Pakistan	`Top down' regional CGE model with 4 regions and 38 sectors.	Calibrated to data for the year 1991.	While large regions are benefited from trade liberalisation, small regions are affected.
Weerahewa (2002)	Sri Lanka	Static 2-sector Ricardo-Viner type model	Double Calibration to pairs of years (1977, 1994, 2000)	Trade liberalisation does not essentially affect poverty; technical changes and endowment changes are the main drivers in changing poverty
Weerahewa (2006)	Sri Lanka	A comparative static CGE model with 5 sectors, 2 factors and 8 provinces	Single calibration to I-O data for 2000	Import ban on rice reduces household income and welfare. Removal of tariff on rice along with removals of the import tariff on fertilizer and or/subsidy payments on other agricultural sectors would improve economic welfare and

				household efficiency across provinces. The key channel of transmission of trade shock to households appears to be through government transfer payments that are influenced by change in government expenditures on subsidy payments.
Naranpanawa (2005)	Sri Lanka	Poverty focused ORANI type CGE model with 8 types of labour and 5 types of household sectors. Poverty has been linked with the model indirectly with FGT measures	Single calibration to SAM data for 1995	In the short run, the effects of overall trade liberalisation on low-income groups are insignificant. This situation would change in the long run. Compared with agricultural trade liberalisation, liberalisation of manufacturing sector is pro-poor. Reduction in tariff revenue plays an important part.
Naranpanawa and Bandara (forthcoming)	Sri Lanka	ORANI tradition CGE model focusing on income distribution with 18 sectors, 8 labour categories and 14 groups of households	Single calibration to SAM data for 1995	Trade liberalisation may lead to widening the income gap between the rich and poor. However, liberalisation in manufactures may reduce absolute poverty within low-income households.

Table 5: A Summary of Selected Previous Reviews and Surveys on the trade and poverty Nexus

Study	Focus and links	Coverage of Studies	Findings (or conclusions)
Berg and Kruger (2003)	Surveying evidence on the trade, growth and poverty link	This covers cross-country studies, industry and firm-level research and case studies.	Trade openness contributes greatly to growth. Trade openness does not have a systematic effect on the poor beyond its effects on overall growth. Trade is only one of many determinants of growth and poverty reduction. There is little evidence that there are other reforms that must precede trade reforms although there are many reforms that are complementary.
Winters, et al., (2004)	Review of empirical evidence on links between trade and poverty developed in the conceptual framework by the authors in their previous studies.	This covers mainly studies of *ex post* data with actual data and a few CGE studies. It surveys evidence under the following headings: (i) macro-micro aspects (growth fluctuations); (ii) households and markets; (iii) wages and employment, and (iv) government revenue and spending.	The impact of trade liberalisation depends on the environment in which it is carried out and additional policies are needed to enhance impact on poverty. The poorer may less be able than the rich to protect themselves against adverse effects or take advantage from the opportunities generated by trade reforms. Although trade liberalisation may not be the powerful tool or direct mechanism to reduce poverty, it is one of the easiest to implement.
Goldberg and Pavcnik (2004)	Empirical evidence on the link between trade, inequality and poverty based on analysis of micro data	Country case studies using some Latin American countries that underwent significant trade reforms.	Trade liberalisation has a negative impact on unskilled workers in the short and medium term. Despite significant trade liberalisation attempts in many developing countries, there is a lack of major reallocation of labour across sectors. Trade liberalisation affects relative prices and in turn affects poverty via the effect of price changes on consumption.
Hertel and Winters (2005)	Empirical evidence on the link between Doha round trade liberalisation and poverty.	Country case studies using a number of CGE models.	Impacts of agricultural trade liberalisation are mixed and complementary domestic reforms enhance the benefits of trade liberalisation.

	Focus and links	Coverage of Studies	Findings (or conclusions)
Goldberg and Pavcnik (2007)	To examine whether there is a causal link between the increase in inequality and globalisation using empirical evidence from developing countries.	Cover a large number of county studies	Although it is a challenging and difficult task to examine the causal link between trade and inequality, there is little support for the conventional wisdom that trade openness in developing countries would favour the poor (at least in relative terms).
Harrison (2007)	Examine the link between globalisation and poverty	This book volume covers cross-country studies (using aggregate data) as well as country case studies. Using household or firm level data, country studies have attempted to measure the impacts of globalisation on poverty via employment and labour income and prices of goods produced and consumed.	The following broad themes emerge from this research project. The poor in countries with an abundance of unskilled labour do not always gain from trade. The poor are more like gain from globalisation when there are complementary policies. Export growth and FDI have reduced poverty. The poor are affected by financial crisis. There are winners and losers among the poor.
Porto (2007)	Empirical evidence from Latin America	Focuses on impacts of globalisation on poverty and household welfare in Latin America.	The case studies of Guatemala and Argentina indicate that the impacts of trade on developing countries are heterogeneous. Different household in different countries can be affected in different ways. Household adjustment to trade liberalisation and complementary factors are important in evaluation the welfare impacts of trade reforms.

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