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**Estimating the Impact of
Trade Specialization and Trade Policy
on Poverty in Developing Countries**

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Estimating the Impact of Trade Specialization and Trade Policy on Poverty in Developing Countries

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Abstract

The paper investigates the impact of trade specialization and trade policy on poverty. The empirical findings show that manufacturing exports contribute to poverty reduction in developing countries in general while agriculture exports have a more significant impact in low income countries. The results also show that the impact of tariffs is ambiguous for all countries. The investigation confirms that trade specialization reduces poverty but only if the right complementary policies and institutions are in place.

Note

The aim of the *Trade and Poverty Paper Series* is to disseminate the findings of research work on the inter-linkages between trade and poverty and to identify policy options at the national and international levels on the use of trade as a more effective tool for poverty eradication.

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1. Introduction

Trade can play an important role in the development process; however the linkages can be direct or indirect and the benefits are not necessarily instantaneous. International trade can impact welfare directly, in a number of ways, via changes in relative factor and good prices, factor movements, and the nature of technological change and knowledge spillover. Trade policy has the potential to generate benefits in terms of both resource allocation and economic growth. But trade policy is not neutral and trade liberalization is unlikely to produce widespread beneficial results for all countries (Winters et al 2004; Goldberg and Pavnick, 2007).

In the short run, trade liberalisation can put great stress on certain actors in the economy, and in the long run open regimes may leave some behind in poverty (Winters, 2000).[1] Many studies suggest that globalization has been associated with rising inequality and that the poor do not always share in the gains from trade. The links between trade, trade policy, and poverty depend on a range of factors including a country's domestic policies and institutional capacities (Winters et al, 2004; UNCTAD, 2004). For instance, Chang et al (2009) observe that although trade openness appears to, on average, be beneficial for economic growth the effect varies considerably across countries. Importantly, complementary reforms can boost the growth effects expected from pursuing a more open trade regime.

The literature on trade, trade policy and poverty is voluminous but studies focusing on low income countries are scarce. This paper aims to contribute by analyzing the link between trade specialization and poverty with special focus on low income and least developed countries. The paper also analyses the relative impact of trade policy measures on poverty dynamics. Looking at poverty incidence by specialization patterns, for example, LDCs that specialize in food and agriculture have higher poverty ratios than countries specializing in manufactures (Figure 1). Fuel exporting LDCs have lower poverty incidence than their peers, regardless of the chosen poverty line or period of time, mostly due to the income value of their exports and lower financial constraints.[2] Moreover, there is evidence that the poorest and most vulnerable countries face more challenges in adjusting to openness in comparison to countries that have achieved a relatively more sophisticated level of industrialization (e.g. Pattillo et al., 2005; Hausmann, et al 2007).

The rest of the paper proceeds as follows. Section 2 discusses the link between trade and poverty. Section 3 describes the empirical specification. Section 4 presents the results. Section 5 concludes.

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[1] Countries are considered more outward-oriented if their trade reforms become more neutral or liberal. Specifically, a shift towards neutrality involves equalising incentives (on average) between the exporting and importing competing sectors. A trade regime is regarded as more liberal when the general level of policy intervention is limited, by a reduction in import barriers, or via the introduction of a symmetric system of export subsidies. However, the first policy implies a reduction in the intervention of the trade policy whilst the latter implies an increase (Edwards, 1989, for a detailed discussion on this issue).

[2] See Figure 1 and the Descriptive Statistics in the Appendix. The difference is smaller between sectors when setting the poverty line at $2/day.

2. Literature Review

The transmission mechanisms between trade and poverty involve macroeconomic and microeconomic channels expected to impact development and welfare, and ultimately households and individuals. The trade-poverty link is expected to operate via various channels including (Winters et al, 2004): changes in relative prices (both product and factor prices); factors income; the nature of specialization, technical progress and the technological diffusion process; and impact on volatility and vulnerability, including export earning, terms of trade, and other factors that influence both the demand for exports and supply capacity. The globalization-trade-poverty channels are related and the net effect on poverty depends on the relative strength of the positive and negative forces. Importantly, the impact of trade and trade policy is mostly associated with the price transmission mechanisms, and will depend on the individuals' sources of income and employment conditions (Winters et al. 2004; Porto 2006).[3] However, the empirical analysis has mostly focused on the indirect linkages, particularly on how the households adjust to the price shocks, whether adverse or positive (Harrison, 2007; Winters et al 2004).

The link between trade and poverty reduction would also be determined by the implications for income levels and economic growth, which have been a major concern of empirical studies of the welfare implication of trade reforms. However, the poverty implications will further depend on whether trade policies will also change the distribution of income. More trade and higher trade opening on balance tends to generate positive aggregate income effects, but not all countries and groups within countries benefit to the same degree and some lose in the process. The employment-distribution-poverty effects tend to show more mixed evidence, depending on the country case, especially on the initial production structure and options for finding new "specializations" and on the functioning of the labour markets.

UNCTAD (2004) examines the trends in average private consumption per capita - the most common used measure of welfare - and exports specialization, demonstrating that export expansion, has not generally been associated with poverty reduction. The Report discusses three types of trade-poverty relationships across countries:

- A virtuous trade effect, where average private consumption per capita is rising along with export growth;

- An immiserizing trade effect, where average private consumption per capita is falling along with export growth; and

- An ambiguous trade effect, where there is no clear association between changes in average private consumption per capita and increased export growth.

Thus, given the trends and relationship between exports and average private consumption per capita, it is evident that the links between trade and poverty are not unambiguously pro-poor in the LDC context. This also challenges the usual view of the relationship between trade, liberalization and poverty. It is evident that trade liberalization is likely to have adverse effects in the short run -

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[3] See also Hanson and (1999), Harrison (2007), Goldberg and Pavnick (2007), Ravallion (2007), and Nissanke and Thorbecke (2006, 2007). There are numerous studies looking at important channels such as skill-biased technological change and the trade-employment-poverty channel, but these issues are beyond the scope of this paper (see for instance Feenstra, 2008; Wood, 1995).

particularly as social groups that formerly benefited from a protectionist tariff regime are exposed to international competition – but that in the long run, the effects will depend on the growth potential of the economy and the role that national policies play.

In this regard, policies and institutions play an important role in cushioning the effects, and providing the safety nets to counteract the impacts of globalization on income distribution and poverty (Ali and Thorbecke, 2000; and Fosu, 2010). Research shows that the gains from trade are highly unequal, and the poor do not always benefit from globalization (e.g. Harrison, 2007). Much of the benefits expected from reforming the trade policy regime can be realized only if trade liberalization is accompanied by policies aimed at absorbing shocks, if there is adequate economic management and governance. This underscores the need for carefully targeted safety nets, such as income support from the governments to corn farmers in Mexico and food aid in Ethiopia (Thorbecke, 2014).

Empirical studies reaffirm the importance of balancing policy choices. In cases like India and Colombia, complementary policies such as labour mobility schemes were implemented in conjunction with trade reforms (Goldberg and Pavnick, 2007). For Sub-Saharan Africa, Fosu and Mold (2008) show limited or negative impact of liberalization on poverty due to the sharp contraction in the import competing sector, and a lack of compensating policies.

As shown by Nicita (2006) for the case of Madagascar, export-led growth in the textile and apparel sector had only a small positive effect on overall poverty because a large majority of the poor are unable to benefit from the new employment opportunities due to their lack of skills required by the expanding textile and apparel export industry. Also, most of the poor reside in rural areas, where the employment effect is very small. The results indicate that the effects of an increase in exports of textiles for poverty reduction are observed only in urban areas, mostly through creation of employment rather than increases in wages. Accordingly, the poor must be assisted in obtaining the skills demanded of the growing industries.

In the context of the employment channel, manufacturing activities are more likely to be conducive to specialization and the division of labour, and offer greater potential for innovation and increasing returns to scale. Provided that labour and social protection policies are in place, productivity growth has the potential to benefit a large proportion of the population, and hence lead to welfare gains, including poverty reduction (UNCTAD, 2014b).

In addition to the welfare impacts, trade has a crucial role in the improvement and full utilization of productive capacities via accumulation of physical, human and organizational capital; structural transformation and dynamic change in trade specialization; and technological progress. Trade can enable more efficient use of a country's resources if it specializes in the production where it has a comparative advantage. Some empirical studies argue that countries exporting high-productivity goods grow faster and experience better social economic outcomes than countries with comparative advantages in lower-productivity exports (Hausmann et al 2007). Trade can also help in lifting the balance-of-payment constraint which can inhibit developing countries' growth, and can also improve returns on investment by lowering production costs or enabling economies of scale, and can be associated with the acquisition of technology (UNCTAD 2004, p. 80). The positive effects from international trade, via the development of a country's capacity to produce and export, have the potential of enhancing economic performance and in doing so reducing poverty. However, the link between trade, the development of productive capacities and poverty is also complex.

Export sophistication and higher technology intensity are likely to act as a catalyst for broad-based economic growth, provided certain economic conditions and right macroeconomic policies are met, such as an open economy regime, the exchange rate is not overvalued, and there are good

information flows about trade and market opportunities (see for example, Hausmann et al, 2007 and Anand et al, 2012). However, the trend has been less obvious in low income countries, where challenges such as low skilled labor force, poor macroeconomic management and unrelenting institutional constraints persist. The literature confirms a shift in goods and manufacturing sophistication mostly in Asia, away from resource-based production into more medium and high-tech manufacturing. In developing countries such as China and India the level of sophistication and technology intensity of exports has increased over time (Hausmann et al, 2007; Santos-Paulino, 2012), yet, the levels of export sophistication are in general relatively low in low income countries, and in particular in Sub- Saharan Africa.

Songwe and Winkler (2012) estimate the impact of exports and export diversification on value added, labor productivity, and conditional and unconditional labor demand using a panel of 30 sub-Saharan African countries over the 1995-2008 period. They show that exports have a positive impact on value added, labor productivity and labor demand. The results also suggest that sub-Saharan African countries, particularly resource-based economies, need to concentrate on improving productivity in areas where they have a comparative advantage and on moving up the value chain in those commodities. Some studies also identify the role of exports and diversification, or export growth, in growth accelerations, for example Pattillo et al. (2005).

Finally, Le Goff and Singh (2014) look at the connection between trade liberalization and poverty in 30 African countries between 1980s-2000s using panel data. Their results suggest that trade does tend to reduce poverty, but only under specific conditions that would allow to take advantage of the possibilities offered by trade, that is: in countries where financial sectors are deep, education levels are high and governance is strong.

3. Empirical Framework

The paper estimates the link between trade specialization and poverty in a sample of developing countries using panel data econometric techniques, and data for the period 1980-2011.[4] Limiting the sample to developing countries aims to avoid unwanted heterogeneity concerning the determinants of poverty between advanced and developing economies. The panel is unbalanced. The missing data is not random, that is, missing observations are due to data constraints in some LDCs or low income countries. However, there is no significant efficiency loss due to the unbalanced nature of the panel given the long time dimension of the data and the number of countries considered.

The main objective is to estimate the impact of trade specialization on poverty, also controlling for a set of trade-related factors.[5] The channels through which export expansion enhances aggregate