

## WTO's contribution to sustainable development governance: balancing opportunities and threats

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### Does Trade Matter? Impact Channels from Trade down to Workers and Farmers

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The aim of this presentation is to provide a broad framework of the likely consequences of trade openness on inequality and poverty, and to confront it to the empirical results measuring the relative magnitudes of the different channels involved. Due to time constraints, we will mainly focus on the direct link between poverty, inequality and trade openness, and will only marginally touch upon the evidence on the link between trade and growth.

#### ***Definitions***

Poverty and inequality are two debated concepts that have contrasted theoretical and operational definitions. Conforming with the rest of the literature, we define poverty as the number of people whose utility measured by some metric (money metric utility, or approximated by real income) falls under an absolute poverty line (defined in terms of minimal caloric intake or equivalent income) and inequality as the relative distance between welfare levels of the different members of society. This distance is measured either on an ordinal basis (thanks to Lorentz curves) or on a cardinal basis (thanks to the Gini coefficient or the ratio between wages of skilled and unskilled workers).

As for trade openness, we distinguish between unilateral openness (elimination of tariff barriers and export taxes or subsidies in a country) and multilateral openness (total or partial elimination of these barriers all around the world). This second scenario emphasizes the role of developed countries agricultural policies (DCAP) and barriers to trade in manufactured goods.

#### ***Theoretical Channels and methodological options***

A reduction in tariffs (unilateral or multilateral) first translates into a variation in domestic prices of tradable goods. Transmission from tariffs to prices is far from perfect, and estimation of the extent of the pass-through is important to assess the distributional consequences of trade liberalization. The price variation due to trade openness can affect poverty and inequality via different channels:

1. A direct effect on each household's consumption spending.

2. A direct effect on household's income for those who produce the tradable goods affected by the reform. As an important part of the world's poor derives income from an agricultural activity, and as food consumption represents the major part of their spending, liberalization of agricultural markets can have important consequences on poverty.
3. In the longer run, variation in the prices of tradable goods translates into factor price changes (wages, capital and land returns) and changes in the prices of non tradable goods.
4. Finally, workers react to changes in factor prices by changing sector, exiting unemployment or entering or exiting the informal sector.

Two different methodological approaches are used to estimate the impact of trade liberalization on poverty and inequality. The first one uses household surveys and basic household behavior theory to infer the likely distributional consequences of price variations due to trade openness. This is an “ex ante” approach, but it can be used to estimate the distributional consequences of past changes in trade policy. This “micro” approach is based on hypotheses on the extent of the pass-through from tariffs to prices.

The second approach directly tries to estimate the link between tariffs changes and wage or Gini inequality, either using repeated samples of wage workers in a particular country, and variation in trade protection across industries, or using cross country variation in tariff protection and inequality. This “macro” approach will be presented in a second part of the text.

The “micro” approach decomposes the effect of the first three channels, while the “macro” approach takes into account the overall effect of the four channels.

### ***The micro approach***

Theoretically, a decrease in the prices of tradable goods transiting through channels (1) and (2) increases the welfare of net consumers of the goods concerned, whereas it decreases the welfare of net producers.

Empirically, one has to locate net producers and net consumers within the income spectrum to infer the likely consequences of trade liberalization. The literature studying these channels thanks to household surveys concludes that even if the poor are agricultural producers, they are mainly net consumers (because of insufficient production assets, the main part of their income is derived from off-farm agricultural work): they will then benefit from a decrease in the prices of tradable goods.

Unilateral liberalization through domestic tariff reduction will normally translate into a decrease in the prices of the previously protected goods, and will then be beneficial to the poor.

As for primary commodities that are produced by the poor (cocoa and coffee in Côte d'Ivoire, cotton in Mali, Burkina and Zambia), elimination of export taxes can translate into an increase in domestic prices and then a decrease in poverty.

Multilateral liberalization (and elimination of DCAP) will translate into higher prices of imported goods and will increase poverty, unless the poor can engage in the production of exported primary commodities. Cotton in sub-Saharan Africa is the only commodity whose price increase following DCAP removal will really be poverty reducing. In Latin America, the main exported crops are produced by rich households. In Brazil, for example, sugar, bovine meat and soybean are produced by the richer households.

In the longer run, a change in the prices of tradable goods can have general equilibrium effects by changing factor returns and the prices of non tradable goods (channel (3)). These effects are either studied by coupling computable general equilibrium (CGE) models to household surveys, or by directly estimating general equilibrium relationships on time series of data. Conclusions of CGE studies are difficult to interpret because of the numerous ad hoc behavioral hypotheses they contain.

The second strand of the literature is more promising. It shows that wages have a magnifying effect: their elasticity to changes in the price of tradable goods is superior to one. This impact will thus dominate the direct consumption and profit effects (channels (1) and (2)). In Argentina, Porto has shown that wages of skilled (respect. unskilled) workers are negatively (respect. positively) related to the prices of agricultural commodities and clothing.

Unilateral trade liberalization will thus induce a decrease in agricultural and clothing prices, that will translate in lower wages for unskilled workers. This effect along channel (3) will dominate the first two effects and the overall consequence of unilateral liberalization will be an increase in poverty. On the contrary, DCAP removal is estimated to have poverty decreasing consequences, because it increases wages through an increase in food prices.

The same conclusions hold for Mexico, where Porto shows that an increase in Maize price will have short run negative consequences (channels (1) and (2)) and positive consequences in the long run (channel (3)).

Unilateral liberalization seems thus detrimental to the poor in the longer run, while DCAP removal seems to favor the poor, because of the domination of wage effect on consumption and profit effects.

### ***The macro approach***

The macro empirical evaluation of the impact of trade liberalization on income inequality this last decade provides interesting but no clear cut results. The two main approaches on this subject, e.g. the impact on wage inequalities (channels (3) and (4)) or on aggregate inequality (all the four channels), had as initial point an insight from the HO theorem that trade liberalization should decrease income inequalities in developing countries. The initial tests did not conform to the theory: namely the wage skill gap and overall inequality increased in developing countries when they liberalized their trade. Faced with this puzzling result, authors have improved their empirical assessment and their theoretical approach to studying the consequences of trade liberalization.

Whatever the approach we can discern five main aspects to explain these unexpected results:

- First authors have accounted for heterogeneity in developing countries in human capital, arguing that some developing countries did not present a comparative advantage in unskilled labor. The timing of trade policy reform is important in making this point: when Latin American countries liberalized, they were no longer unskilled labor abundant, because India and China had already accessed to international markets. East Asian countries liberalized before, at a time when they were unskilled labor abundant.
- Authors claim also that there are different types of unskilled labor (namely basically educated or uneducated) that benefit differently from trade liberalization. With increased openness, there will only be an increase in basically qualified unskilled labor, and so in its remuneration, while the demand for uneducated labor will fall, therefore increasing the skill gap.
- In the literature on global inequality, natural resource endowment is viewed as a possible means of inverting the basic HO prediction: openness can lead to an

increase in natural resource remuneration. In countries like Brazil where land is unequally distributed, openness can thus lead to an increase in inequality. Such a phenomenon is much less likely to occur in countries where land is equally distributed (Korea for example).

- Moreover, capital mobility could explain that capital abundant countries did not experience an increase in inequality with liberalization. A capital inflow can prevent an increase in returns to capital.
- Finally trade patterns not only depends on differences in factors endowment but also on differences in factor productivity. Developing countries can have no comparative advantage in labor due to weak labor productivity compared to developed countries. Liberalization in such a setting can provoke an increase in inequality in developing countries. Moreover, increasing demand for skilled labor due to technological progress can be linked to liberalization, either through import of intermediate goods necessitating skilled labor, or through increased competition on export markets.

## **Conclusion**

In this communication, we have focused on the direct links between trade liberalization, inequality and poverty. Results of the “micro” approach show, thanks to household surveys, that if unilateral trade liberalization seems detrimental to the poor because of dominating adverse wage effects, multilateral liberalization, and mainly DCAP removal, would be poverty reducing for the same reason. The “macro” approach shows that the expected simple theoretical results of a decrease in poverty and inequality in developing countries due to increasing returns to abundant unskilled labor are not confirmed by empirical work. In fact, this strand of the literature has had to develop a bulk of alternative explanations to account for inequality increasing unilateral trade openness.

We insist that one has to be cautious in using these results to infer policy recommendations. If some degree of trade protection can seemingly decrease poverty and wage inequality, it is very unlikely that such a policy can be sustained in the long run. Trade protection has indeed negative growth consequences: even if the results from the trade and growth literature are still controverted, one has never seen a country closed to international markets experiencing sustained episodes of long run growth.

Our results can have the following policy conclusions:

- Unilateral trade liberalization could increase inequality and poverty in developing countries. Compensation mechanisms have to be designed to transfer growth benefits to those negatively hurt by trade openness.
- Negative effects can be attenuated in building a sufficient stock of human capital or at least basically educated people.
- Multilateral liberalization, and mainly DCAP removal would have beneficial consequences if agricultural wages in developing countries can adjust to price increases. A “development” round of WTO negotiation should take such a fact into consideration.

Finally, sound government policies and “good” institutions are crucial to allow a country to reap the likely positive effects of trade liberalization on growth. The countries with adequate institutions and policies are the more likely to be able to design compensation mechanisms to attenuate the negative effects of trade liberalization on poverty. The difficult task for international organisations is to deal with countries where institutions are weak and compensation mechanisms do not exist or are inefficient.



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