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Working Paper

An updated assessment of the trade and poverty nexus in Latin America

IDB Working Paper Series, No. IDB-WP-383

Provided in Cooperation with:
Inter-American Development Bank (IDB), Washington, DC

Suggested Citation: Giordano, Paolo; Li, Kun (2012) : An updated assessment of the trade and poverty nexus in Latin America, IDB Working Paper Series, No. IDB-WP-383, Inter-American Development Bank (IDB), Washington, DC, https://hdl.handle.net/11319/4209

This Version is available at:
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IDB WORKING PAPER SERIES No. IDB-WP-383

An Updated Assessment of the Trade and Poverty Nexus in Latin America

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November 2012

Inter-American Development Bank
Integration and Trade Sector

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Inter-American Development Bank
2012

Cataloging-in-Publication data provided by the
Inter-American Development Bank
Felipe Herrera Library

Giordano, Paolo.
An updated assessment of the trade and poverty nexus in Latin America / Paolo Giordano, Kun Li.
p. cm. (IDB working paper series ; 383)
Includes bibliographical references.
1. Latin America—Commerce. 2. Latin America—Social conditions. 3. Latin America—Economic conditions. 4. Poverty—Latin America. I. Giordano, Paolo. II. Li, Kun. III. Inter-American Development Bank. Integration and Trade Sector. IV. Title. V. Series.
IDB-WP-383

http://www.iadb.org

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Abstract*

Despite the growing political priority given to making trade work for the majority in Latin America, a notable gap exists in the knowledge about the distributive impacts of trade integration. This study attempts to fill this gap: it surveys the most recent contributions to the mainstream trade economics literature, assesses their relevance for Latin America and concentrates on specific quantitative empirical available on the region. It concludes that despite the impossibility to rigorously and unambiguously assert that trade openness is conducive to growth and poverty reduction, the preponderance of evidence supports this conclusion. However, the majority of empirical studies also show that the impact of trade on growth and poverty is generally small and that the causes of indigence are to be found elsewhere. Likewise, it is extremely arduous to find evidence that supports the notion that trade protection is good for the poor.

JEL Classification: F14, F15, F16

Keywords: Trade, Trade Policy, Poverty, Inequality, Latin America

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1. Introduction

In the last two decades, Latin American countries undertook significant structural reforms with the objective of facilitating economic growth, development and poverty reduction. Trade liberalisation featured prominently in the reform process and was pursued through a multi-polar integration strategy including unilateral liberalisation and reciprocal negotiations at the multilateral, regional and bilateral levels (IDB 2002).

Trade liberalisation initiatives are not new for the region. Indeed, they materialised in two successive waves of reforms documented by Devlin and Estevadeordal (2001) and Giordano and Devlin (2011). However, in both episodes trade liberalisation were not systematically accompanied by complementary policies to help countries maximise and better distribute the benefits of trade reforms. Therefore, making trade work for poverty reduction is emerging as a key priority for the region.

Latin America is one of the most unequal regions of the world. Most of the wealth is concentrated on the richest tenth of the population, earning around half of total income, while the poorest tenth earn only less than 2%. Inequality holds not only with respect to income distribution but also with regards to access to education, health, credit and other assets that are crucial determinants of national development, social cohesion and individual well-being. This explains why Latin America, despite of being comprised mostly of middle-income countries, suffers from high levels of poverty. Indeed, high inequality in the region is one of the main causes of persisting poverty.

Income inequality has on average been growing during the last three decades. The pace of this increase, however, slowed slightly during the 1990s and reversed in the 2000s. This trend was the result of inequality rates falling in the most unequal economies such as Brazil, but rising for some of the less unequal economies, including Uruguay, Venezuela and, most strikingly, Argentina. It is therefore of the utmost importance to understand what has been the contribution of trade liberalisation to these changing patterns of growth, inequality and poverty. Even more so, if due consideration is given to the fact that on average Latin American countries are still relatively closed to international trade and that, in the coming decades under the pressure of globalisation, they are expected to open up even further, and adjust to compete in an increasingly dynamic global environment.

Meanwhile, putting trade integration at the service of development has also emerged as a priority at the multilateral level. The name of the ongoing round of multilateral trade negotiations, the Doha Development Agenda, is indeed very telling of the importance of making trade work for the poor. The launching of the Aid for Trade initiative at the 2005 Hong Kong Ministerial Conference underscores the consensus of the members of the World Trade Organization (WTO) about the need to formulate and monitor policies aiming at better distributing the benefits of trade liberalisation. For Latin America, mobilising aid for trade and harnessing trade liberalisation for development is a centerpiece of the development strategy (IDB, 2006).

Despite the growing political priority given to making trade work for the majority in the region, a notable gap exists in the knowledge about the distributive impacts of trade integration. As Bardhan (2006) puts it: "Many people have strong opinions about globalization and all of them are concerned with the well-being of the world's poor. The strength of their conviction is often in inverse proportion to their robust factual evidence". Giordano (2007) highlights some of the most striking knowledge gaps prevailing in Latin American policy circles.

This study attempts to fill this gap by reviewing the relevant literature on the distributional effects of trade liberalisation in Latin America. It focuses more specifically on the impact of trade on growth, employment, wage inequality and poverty. Macro methods focus on cross-country comparisons to evaluate the impact of trade on growth and its effects on income distribution and poverty at the national level. But emphasis will be put on the newest micro-based approaches that rely on household level data to evaluate the impacts of specific trade reforms on relative prices and wages and to assess how this translates into changing inequality and poverty outcomes. The study is organised as follows:

Section 2 reviews some of the most renowned surveys on trade, inequality and poverty. As stated by Goldberg and Pavcnik (2004): "the number of literature reviews alone is so large by now, that it seems that a review of the literature reviews would be appropriate". Given this state of affairs, the following sections will only cover a selective illustrative sample of the literature, essentially the newest empirical contributions that focus on Latin America, restricting the scope of the investigation to the analysis of trade liberalization, in an attempt to disentangle this discussion from the wider debate on globalization.

Section 3 discusses the methodological foundations of the analytical debate. It first reviews the concepts of globalisation, trade integration, inequality and poverty and discusses issues related to their measurement. Subsequently it examines the causal links among them and illustrates the main mechanisms through which trade liberalisation can affect poverty.

Section 4 reviews the empirical evidence on trade, growth, inequality and poverty. It starts by briefly sketching the cross-country evidence and the wider debate on trade and growth. This controversial empirical literature based on aggregate data found it problematic to identify a robust relationship between trade reforms and poverty reduction. The remainder of the section therefore focuses on the micro evidence on trade, inequality and poverty in Latin America.

Finally, section 5 discusses some of the recent literature on trade and complementary policies.

2. An Overview of the Literature

In setting out the range of analytical tools available for evaluating the poverty impacts of economic policies, Bourguignon and Pereira da Silva (2003) noted that: "while there is a wide range of methodologies available for assessing the micro-economic impacts of micro policies and similarly many tools for assessing the impact of macro policies on macro-economic

variables, there is a gap in understanding the micro implications of macro policies, including trade policy". Accordingly literature surveys have recently moved from macro/top-down to micro/bottom-up approaches.

Bhagwati and Srinivasan (2002) and Berg and Krueger (2003) assess the importance of trade policy for poverty reduction from a macro perspective. The latter focus mainly on the links between trade and growth to determine the changes in poverty by evaluating the variations in per-capita income. They conclude that generally openness to trade is an important contributor to growth and that growth associated with trade liberalisation is as pro-poor as growth in general.

Winters, McCulloch and McKay (2004) and Ravallion (2004b) deepen the scope of the debate. They conclude that, although there are many causes for optimism that trade liberalisation will contribute to poverty reduction, once it is properly measured, the impact is not expected to be substantial. They stress that it is hard to make an explicit theoretical or empirical generalisation on whether trade liberalisation can facilitate poverty alleviation. The ultimate outcome depends on a wide set of country-specific factors, such as the importance of local institutions in determining the transmission of border prices to local levels, the rigidities of labour markets, the strategic responses of households at the micro level and the existence of concurring factors that need to be controlled with a wide set of complementary policies.

Hertel and Reimer's (2004) survey places particular emphasis on a new generation of empirical studies, which strive to elicit the disaggregated micro household and firm impacts of macro trade policy. They highlight the critical role of factor market adjustment. Most of the evidence points to the dominance of earning-side impacts over consumption impacts, which is problematic since household surveys are notable for their under-reporting of income. From the perspective of the poor, the market for unskilled labour is the most important. In fact, they argue that the poverty impacts of trade policy often hinge crucially on how well the increased demand for labour in one part of the economy is transmitted to the rest of the economy via increased wages, employment or both. Therefore, the authors recommend further econometric research aimed at discriminating between competing factor mobility hypotheses.

Goldberg and Pavcnik (2004) shed more light on trade-related labour market adjustment. Their survey focuses on the short- to medium-run changes in relative prices and wages, rather than on the dynamic indirect relation linking trade, growth, income inequality and poverty. They also narrow the appraisal of the empirical evidence, concentrating on recent major trade liberalisation episodes that occurred in developing countries. They find that, despite measurement problems, identification difficulties and conflicting evidence on some issues, the empirical literature has established some consistent patterns that seem common across countries and trade liberalisation episodes. Given the fact that the most heavily protected sectors in developing countries employ a heavy proportion of unskilled labour, it should not come as a surprise that trade liberalisation has a negative impact on unskilled workers in the short and medium run. The empirical work surveyed consistently documents a lack of major labour reallocation across sectors. Nevertheless, they confirm that the effects uncovered are small and can explain only a small fraction of the general increase in wage inequality.

Harrison (2005) summarises the results of a research project that gathers cross-country and country-specific case studies on the two faces of globalisation, *i.e.* trade and financial integration. The conclusion succinctly summarises the emerging consensus on the indirect relation between trade and poverty and its policy implications. Since the poverty outcome of trade integration depends from a broad set of interrelated factors, a wide set of complementary policies should flank trade liberalisation initiatives. Considering that trade liberalisation generates winners and losers, it is crucial to provide opportunities to potential winners, particularly through the generation of expanded market access and policies aiming at sustaining their competitiveness. Likewise, it is crucial to provide transitional support to potential losers, particularly in the form of measures facilitating the exit from contracting sectors and the relocation to expanding ones, along with safety nets aiming at protecting the most vulnerable.

Turning to *ex-ante* evaluations, two international research projects led by Cline (2004) and Hertel and Winters (2005) offer comprehensive assessments of the poverty impacts of the Doha Development Agenda negotiated under the WTO. Both projects are illustrative of the most recent vintage of macro-micro methodologies that couple computable general equilibrium (CGE) evaluations accounting for commodity, terms of trade and factor market effects with poverty incidence analysis based on household surveys. Bouët (2006) aptly summarises the results of eleven studies pertaining to this new generation of models. He shows that the welfare gains that may be expected from a highly hypothetical "full" liberalisation scenario (the complete removal of trade distortions across the board) vary from 0.2% to 3.1% and that the number of people who may be lifted out of poverty ranges from 72 million to 446 million. These rather contrasted figures have spurred some criticism on the efficiency of CGE models to produce reliable *ex-ante* predictions of the poverty impacts of trade reforms (see for example Ackerman, 2005). A careful analysis of the underlying factors explaining diverging results from these "black-boxes" reveal the crucial importance of assumptions relating to simulated scenarios, underlying data, behavioural parameters and theoretical specifications of the models.

There are only a handful of essays that attempted to summarise the literature on trade and poverty in the region. Their conclusions are generally aligned with those of global studies.

Bouzas and Ffrench-Davis (2003) review the literature on globalisation and equity, placing emphasis on financial and macroeconomic issues. They conclude that there is little consensus in the literature as to what accounts for the increase in inequality and poverty in Latin America. More generally, they underline the importance of country-specific analysis as they show that the empirical work reviewed frequently reaches opposite conclusions, as in the case of Morley (2000 and 2001) who finds a negative correlation between trade and equity and Behrman, Birdsall and Székely (2003) who do not find any correlation between these two phenomena. There seems to be more consensus on the importance of domestic policies and institutions in transmitting the effects of globalisation. The authors advocate for the need of more research and suggest to adopt a more balanced and careful approach than the one that prevailed in academic and policy circles in the last two decades. A similar conclusion is reached by

Ventura-Dias (2005) in the case of Brazil, which focuses on the narrower issue of trade liberalisation.

Nissanke and Thorbecke (2010) discuss nine case studies regarding the impacts of globalisation on inequality and poverty in Latin America, ranging from broad macroeconomic regional analyses to micro-oriented specific studies of Central and South America. They conclude that the impacts of globalisation on poverty and inequality are extremely complex and context specific. Gasparini and others (2011) systemically review the patterns and recent trends on income inequality in Latin American countries for the period between 1992 and 2006 using survey data from Socioeconomic Database for Latin America and the Caribbean. They conclude that unequal income distribution was and still is a pervasive and crucial problem facing countries in the region. Despite the difference among different countries, one pattern shared by most countries in the region is the increase in income inequality in the 1990s and the decrease in the 2000s. The recent fall in income inequality is significant and widespread, but it seems that no fundamental or policy changes can account for this new trend.

This overview of the literature reviews on trade and poverty at the global and regional level reveals a gap in the knowledge base with which policymakers address this emerging priority (Giordano, 2007). The starting point to elucidate the trade-poverty nexus is therefore to shed some light on the complex phenomena under study and to sketch an analytical framework that links all the variables at play. This is the objective of the next section.

3. Defining the Scope of the Trade-Poverty Nexus

Most economists accept that in the long run open economies tend to produce better outcomes than closed ones. But a consensus has not been reached on how exactly economic openness should be measured and on the exact meaning of better outcomes from an equity and poverty perspective. Even less clear is the causal direction of the relationship between these two sets of variables.

Measuring trade, inequality and poverty

The concept of trade openness is the object of an unsettled debate. In fact the impact that trade might have on poverty and inequality highly depends on how each variable is measured. As Harrison (2005) points it out, measures of export activity are generally associated with poverty reduction, while removal of protection or import shares are frequently associated with increasing poverty.

Trade integration - Openness to trade can be measured using direct policy measures such as tariffs and equivalents of other trade protection instruments or indirect outcome-based measures such as trade openness, *i.e.* the share of imports plus exports on GDP (see also Hausmann and Klinger, 2006). Most of the recent studies favour the use of direct policy measures considering that trade shares are determined by trade policies, geography, country size and macro-economic policies (Harrison 2005). However, Berg and Krueger (2003) point out

several problems that arise in measuring openness looking directly at instruments that restrict trade, such as tariffs and non-tariff barriers (NTBs). Simple and aggregate averaging does not capture the relative importance of different categories of goods. At the same time, NTBs are extremely hard to measure. Measures of trade protection in the services sector are often not available.

Goldberg and Pavcnik (2004) argue that the use of tariffs provides advantages as they can be comparable across time and vary substantially across industries during trade reforms. They maintain however, that even though the measurement of openness through tariff changes represents improvements over previous measures, it depends strongly on the specific country and its use of tariffs.

Ad Valorem Equivalent (AVE) tariffs have therefore been considered a more accurate measure of openness than nominal *ad valorem* tariffs as they provide reliable estimates of price or quantity distortions caused by trade policies. This issue is particularly relevant for CGE models that rely heavily on the correct measurement of trade protection. Indeed, the shrinking gains from trade liberalisation documented by Bouët (2006) are in large part due to the incorrect measurement of trade protection, the lack of consideration of trade preferences and the use of *ad-hoc* aggregation procedures. A robust identification procedure of AVEs, such as that used in Giordano (2007 a and b) reveals a high sensitivity of CGE model results to the assumptions made on trade protection measures, particularly in the agriculture sector.

Kee, Nicita and Olarreaga (2005) made a valuable contribution to overcome aggregation problems in both tariff and NTBs. They built two average *ad-valorem* measures of protection for each trade restrictive policy instrument, which combined totalise the level of protection that a given country imposes on imports. Accordingly the Tariff Trade Restrictiveness Index is a weighted sum of protection levels built upon tariff rates and NTBs, import level data and the elasticity of the demand for imports. By taking into account the sensitivity of imports to changes in protection levels, the approach goes beyond the conventional methodology used in the calculation of import-weighted tariff rates and reduces the possibility of trade protection underestimation. However, this index has not been used in poverty related studies so far.

Inequality - Turning to the next variable at hand, the effects of trade liberalisation on inequality also depend on how this is measured, which is not an easy task considering that the concept is in itself controversial. Ravallion (2003) emphasises the importance of distinguishing the concepts of relative and absolute inequality. Relative inequality depends on the ratios of individual incomes to the overall mean: if all incomes grow at the same time, relative inequality remains unchanged. Absolute inequality, on the other hand, depends on absolute differences in levels of living standards.

The perceptions that inequality raises because of trade openness often referred to inequality measured in absolute terms. However, as illustrated by Goldberg and Pavcnik (2004), most of the recent work on developing economies has focused on the relative version of

inequality and still found that trade reforms coincide with an increase in relative inequality, which implies an even larger increase in absolute inequality.

In addition to the debate on the correct measurement of inequality at the individual, household or national level, a recent debate has underlined the lack of consensus on how to measure inequality at the global level (see for example Lindert and Williamson, 2001; O'Rourke, 2001; Cornia, 2003; Wade, 2004 and Sala-i-Martin, 2006). Three different measures are commonly used: i) inequality among countries considering each country as a single observation; ii) weighted inequality between countries, considering the size of the population as weights; and iii) inequality among individuals without considering their country of origin. Conflicting measures have produced contrasting views on the impact of trade integration on inequality, as reported by Milanovic (2005).

Poverty - Finally, there is an unsettled debate on how to measure poverty, which generally focuses on three alternative measures: the head-count, the poverty gap and the severity of poverty index. The head-count is defined as the prevalence or incidence of poverty and is measured by the fraction of the total population living below the poverty line (defined either as a minimum income or a consumption level). The poverty gap is the mean shortfall from the poverty line, expressed as a percentage of the poverty line and reflecting the depth of poverty as well as its incidence. The severity of poverty index is computed as the degree of inequality among the poor.

The measurement of poverty and its association with macro phenomena such as growth or trade openness is also controversial for the very nature of the underlying data. Poverty measures are usually extrapolated from household surveys. As stressed by Deaton (2003), national accounts and micro household data are oftentimes difficult to reconcile, and the latter are in most of the cases plagued by errors, omissions and under-reporting bias. Synthetic measures, such as the poverty elasticity of trade opening often touted to support strong arguments about the distributive impact of trade liberalisation should therefore be considered with caution.

Deaton (2003) and Ravallion (2003, 2004a) point out that an operational definition of poverty raises not only important measurement issues but also philosophical questions. Defining and measuring poverty is a very controversial issue because, besides being a subjective notion, the perception of poverty varies among and within countries. According to Ravallion (2003), those who say that globalisation is good for the poor tend to be absolutist while many of the critics of globalisation appear to think of poverty in more relative terms, which is by nature similar to a measure of inequality. Recent contributions to the literature are therefore progressively adopting alternative conceptualisations of well-being, deprivation and poverty, which increasingly capture the multi-dimension characteristics of poverty.

How to measure trade openness, inequality and poverty is therefore a very controversial issue in itself. Each measure entails a number of assumptions that may have an impact on the results of the empirical analysis. In fact, each measure provides information on a specific aspect

of the multifaceted and multidimensional poverty phenomenon. It is therefore useful to precisely track the links among trade integration and the complex dimensions of inequality and poverty.

Sketching a conceptual causal framework

Standard international trade theory provides several explanations of how trade liberalisation can stimulate growth. Once a country opens up its economy, it has the possibility to access new markets, new technologies and appropriate intermediate and capital goods, which in turn cause increases in production, scale economies and competitiveness. The workhorse of the theory of long-run economic growth is the neoclassical model based on Solow (1963). In this framework, the level of GDP *per capita* in the steady state depends on anything that affects the level of productivity, such as distortions that affect the allocation of resources, as well as the determinants of the level of steady-state capital stock, such as the savings rate. By allowing a more efficient allocation of resources, openness raises the steady-state level of income and the growth rate for any country out of equilibrium.

Endogenous growth theory emphasises that trade liberalisation can promote economic growth in the long run through dynamic effects (Wacziarg, 2001; Wacziarg and Welch, 2003). This theory highlights the importance of technology diffusion that brings together trade and learning by doing. Moreover, it stresses that openness allows specialisation of industries with scale economies and therefore boosts growth in the long run (see for example Lucas, 1988, Grossman and Helpman, 1991 or Krugman and Venables, 1993).

Despite the effort found in the literature to demonstrate that openness leads to economic growth, empirical findings are ambiguous. From the static point of view, general second-best theory suggests that in presence of other distortions in the economy, free trade may not be the best option for growth. Open economies may also have a tendency to stagnate in industries without learning by doing; for example, when comparative advantages reside in activities of little value added. At the same time, economic models with increasing returns to scale and externalities may generate situations in which factors of production flow out of the poor areas to the rich ones, generating the so called “growth traps” (Easterly, 2001).

Nevertheless, it is widely agreed that the best way for a country to reduce poverty rates is to grow. Trade liberalisation might have an impact on growth and thereby an indirect effect on poverty reduction. As Sala-i-Martin (2007) puts it: “growth of *per capita* GDP shifts the mean of the income distribution to the right. If the dispersion (or inequality) of the distribution does not change, the poverty rate automatically declines. Poverty can also decrease if, for a given mean income, the dispersion of the distribution, that is inequality, declines”. In other words, even though trade-induced growth can worsen inequality, it has to be very strongly so if it is to increase poverty.

Winters (2000a) developed a conceptual framework decomposing the links between trade policy and poverty through changes in relative prices, wages, public finance and other general equilibrium effects.

Prices, income and consumption patterns - Trade liberalisation policies can affect households and markets through the effect that tariff changes have on relative prices. If the price of a given good increases, this would have a positive effect on the households that produce such good and a negative effect for the ones that consume it. Thus, the net effect will ultimately depend on whether household members are net consumers or producers. Several studies, which are discussed in greater detail later, show how changes in prices due to trade reforms can affect the poor. In the case of Mexico, Nicita (2004) shows how international prices affected domestic prices differently depending on the household income level and geographical location. De Janvry *et al.* (1995) use a household survey of the *ejidos* (common lands) in Mexico and find that a significant number of maize producers do not produce for the market and consequently have not been directly affected as producers by falling prices following the implementation of NAFTA. On the contrary, significant gains accrued to consumer who benefited from falling food prices. The extent to which the majority of the poor in Latin America are connected to local and international markets is just beginning to be explored (IDB, 2007)

Wages and employment - Another mechanism by which trade liberalisation can directly affect the poor is through the effect it has on wages and employment. In theory, developed countries are relatively abundant in skilled labour, while developing countries are relatively abundant in unskilled labour. According to a simple version of the standard two-factor, two-country Heckscher-Ohlin model, developing countries will specialise in the production of unskilled-labor-intensive products, while developed countries will specialize in skilled-labour intensive products. According to the Stolper-Samuelson theorem that links product prices to factor returns, the price decrease in the import sector will reduce the wages of skilled workers (used intensively in the import-competing sector) and benefit the unskilled workers (used intensively in the export sector). Because the model assumes that the factors of production can move across sectors within a country, the price changes affect only the economy-wide returns to factors of production. Thus, trade liberalisation should be associated with reductions in poverty and inequality in the developing countries. However, the increase in the skill premium and evidence of rising wage inequality in many developing countries in the aftermath of trade liberalisation, contradicts the prediction of the Stolper-Samuelson theorem.

Several explanations have been offered to reconcile empirical findings with the theory in Latin America (Perry and Olarreaga, 2006). On one hand, labour in developing countries is not as mobile as the model assumes. Trade specialisation according to comparative advantage causes an increase of unskilled labour income only if unskilled workers are able to move out of contracting sectors into expanding ones. Labour market rigidities may have prevented this outcome (Goldberg and Pavnik, 2004).

Another reason is that Latin American countries, Colombia and Mexico for instance, protected the sectors that employed mainly unskilled labour prior to the liberalisation episodes. Many studies in the literature point at this last argument as one of the reasons why Latin American experiences do not match the theory (see for example Revenga (1997), Harrison and Hanson (1999a), Attanasio, Goldberg and Pavcnik (2004), among others).

In the presence of extreme factor endowments, Davis (1996) shows that the distributive impact of trade liberalisation depends on the correct comparison of factor endowments, which is not the global economy but the cone of diversification within which one produces. In the face of the emergence of countries like China and India which export a great amount of goods produced with an intensive use of unskilled labour, Latin America may no longer have a comparative advantage based on a relatively abundant unskilled labor force (see for example Wood, 1997; Leamer *et al.*, 1999 and Gourdon, Maystre and de Melo, 2006).

Likewise, the initial unequal distribution of factor endowments and the endogenous emergence of institutions that advantage the elite class may explain the persistence of inequality and poverty in the region (Engerman and Sokoloff, 2002).

Government Revenue and Expenditure - Trade liberalisation can also affect poverty through government revenue and expenses. Given that in developing countries a considerable amount of government's revenues comes from trade taxes, trade reforms may produce an important fall in net revenues, thereby restricting the fiscal policy space. But trade reforms can also have a positive effect on government revenues through the expansion of the taxation of increased production driven by exports. The question is therefore how the fiscal effects of trade reforms translate into inequality and poverty. As maintained by Emini, Cockburn and Decaluwe (2005), the impact of the adoption of an alternative tax may be detrimental for the most vulnerable groups, particularly the poor. The authors evaluate the effects of replacing tariffs with value added or consumption taxes and in, both cases, the substitution effects cause an increase in poverty. This issue is particularly important in Latin American where several countries are facing the challenge of adapting their fiscal policies to a more open trading environment, while trying to preserve or even increase the progressiveness of the fiscal regime (see Pauvonic, 2005; Barreix, Villela and Roca, 2004 and 2006).

Firm heterogeneity – The incorporation of heterogeneous firms and monopolistic competition into international trade models has changed the way scholars conduct empirical research in international trade (Melitz, 2003). Harrison and others (2011) focus on the recent theoretical and empirical literature that explores the impacts of trade on inequality using these new models, extended approaches of comparative advantage, models taking into account labour market frictions and models of incomplete contracts. They find that the new mechanisms help to explain the well-documented rising inequality in low-income countries, which is in contradiction to the implication of the traditional Heckscher-Ohlin model. Likewise, Singh (2010) reviews the literature on the links between trade and economic growth undertaking an extensive account of the microeconomic evidence based on firm or industry level data. He concludes that most macroeconomic studies find supportive evidences for the positive and significant impacts of trade on output and growth. However, microeconomic studies find more support to the effects of productivity on trade rather than the opposite direction.

Uncertainty and other dynamic general equilibrium effects - The static analysis considered so far abstracted from the possibility of dynamic general equilibrium effects. In a world with uncertainty, it is possible that trade liberalisation affects the likelihood of falling or

indeed emerging from poverty. First, by increasing trade exposure and generating volatility, trade liberalisation changes the risk of being exposed to exogenous shocks that may have an impact on poverty (Krebs, Krishna and Maloney, 2005). Moreover, by restricting the possibility of using trade policies to compensate adverse exogenous shocks, trade liberalisation may limit the capacity of governments to react to unexpected shocks. Second, as previously noted, trade liberalisation may be coupled or even induce skill-biased technical change, which in turn may have adverse distributional effects. Finally, short-run adjustment costs may be magnified in presence of labour markets rigidities and can cause negative impacts on poverty (Banerjee and Newman, 2004). All these issues that seem to bear a relation with the distributional impact of trade liberalisation in Latin America are explored with greater detail below.

Winners and losers from regional integration – Linking trade integration to growth, inequality and poverty is an elusive endeavour; understanding the distributive impact of preferential opening is even harder. Yet, in Latin America, regional integration has shaped the way through which the economies opened up to international trade. Venables (2003) provides a framework to explain how the real income effects of regional integration are distributed amongst member countries. He argues that countries with "extreme" comparative advantages do worse than those with comparative advantages intermediate between the partner and the rest of the world. His analysis warns of the dangers of south-south integration, showing that it may draw manufacturing production into richer countries at the expense of the poor members of the region. It also suggests that low-income countries with prevailing incidence of poverty may be better served by north-south integration with high-income countries. In Latin America, the asymmetric distribution of the benefits of regional integration is emerging as one of the most hotly debated issues. Hence, there is growing consensus on the need to compensate asymmetries by complementing integration at the regional level with local development and productive integration policies at the national level (Giordano, Lanzafame and Meyer Stamer, 2005).

The debate surrounding the measurement of the key variables at play in the trade-poverty nexus and the variety of channels through which multilateral and regional trade liberalization is causally connected with poverty reduction, suggests that the assessment of the distributive impact of trade integration is mainly an empirical question, which is explored in the next section.

4. Evidence on Trade, Inequality and Poverty in Latin America

Finding criteria to organise the empirical literature on the trade and poverty nexus is not an easy task: as contributions vary in several dimensions, there is neither an obvious nor an ideal taxonomy. With some degree of arbitrariness, the literature has been organised in four main categories according to the methodology used to explore each dimension of the trade and poverty nexus.

Trade and growth

Some of the early contributions to the trade and growth cross-country literature find a positive correlation. Dollar (1992) classifies Latin America as only moderately open with respect to Asia

and concludes that shifting to a level of openness and exchange rate stability comparable to the latter would allow the region to increase *per capita* growth by 1.5 percentage points. Sachs and Warner (1995) include thirteen Latin American countries in their panel and show that in the period 1970-1989 open economies performed better than closed ones. However, in Latin America, which started the liberalisation movement later, results are mixed and rather inconclusive: Argentina, Costa Rica, Ecuador, El Salvador, Guatemala and Uruguay are found to grow more after the liberalisation episode, while the opposite holds in Brazil, Colombia, Mexico, Nicaragua and Paraguay. Building on Leamer (1988), Edwards (1998) attempted to refine the openness measure using nine alternative indicators and included ten Latin American countries in the panel. He finds that trade openness favours growth, that poor countries catch-up (trade openness allow them to grow faster) and that physical and human capital accumulation has an important positive role, while political instability is detrimental.

These studies were subsequently criticised for the measurement of openness and difficulties in justifying the causality direction. It is not clear if trade opening causes economic growth or if the opposite holds: countries open up to international trade once they reach a relatively high level of economic growth. Rodriguez and Rodrik (2001) were at the forefront of the critique. They objected to the choice of the openness indicators, maintaining that they are weak measures of the incidence of trade barriers, and they challenged the econometric strategies used, arguing that they produced biased interpretations. Moreover, they pointed out that the trade liberalisation episodes were significantly correlated with other macro- and micro-economic reforms, like the deregulation of foreign direct investment and labour markets, all very relevant features of Latin American structural reforms.

Dollar and Kraay (2002) tried to correct such methodological issues. They find "no evidence whatsoever of a significant negative relationship between any measure of openness and average income of the poor". They maintain that the scope of their database covering 76 countries and their empirical techniques correct the shortcomings of the studies by Spilimbergo *et al.* (1999), Barro (2000) and Lundberg and Squire (2000) who found a positive correlation between trade openness and inequality. As it will be stressed later, in line with Leamer *et al.* (1999) they find nevertheless that cropland *per capita* is associated with higher inequality. In line with Lindert and Williamson (2001), Dollar (2004) therefore attempts to close the debate on trade and growth noting that: "even though no one study can establish that openness to trade has unambiguously helped [the poor], the preponderance of evidence supports this conclusion. […] As far as we can tell, there are no anti-global victories to report for the postwar Third World".

However, as newer data become available the terms of the debate may change again. This is particularly important in the case of Latin America, which on average opened up to trade in the nineties, a period not covered by the empirical studies reported so far. Although it does not explicitly address the distributive question, the contribution by Estevadeordal and Taylor (2007) stresses the importance of correctly identifying the period of the analysis, what they call the post-GATT "great liberalization" period. Noting that the empirical basis for judging recent trade reforms is remarkably weak, they use a model-based econometric technique, which highlights

the role of tariffs on capital goods, compiles a new set of disaggregated tariff measures and employs a treatment-and-control empirical analysis of pre- versus post-1990 performance of liberalising and non-liberalising countries. They find evidence that liberalizing tariffs on imported capital goods did lead to faster growth, and by a margin consistent with theory.

Despite its liveliness and uncertain final outcome, the relevance of the trade and growth debate is of limited relevance for Latin America. It certainly provides support to the notion that trade protectionism is not a recipe for poverty reduction, but it offers little guidance on how to make trade integration work for the poor. Therefore the use of case studies, which rely on highly disaggregated data and take into account country-specific factors, can provide clearer answers on the likely impacts of trade liberalisation on growth, inequality and poverty.

Trade and wage inequality

Shifting the focus from trade and growth to trade and wage inequality, Milanovic and Squire (2005) shed new light on the debate. They use data covering the last two decades and show that increasing trade integration leads to rising inequality in poor countries and falling inequality in rich countries. They stress the lack of labour mobility and the power of unions to explain why increasing openness to trade is associated with rising wage inequality between industries in poor countries. Easterly (2005) argues that these findings are coherent with his "productivity" view, whereby exogenous differences in productivity lead capital to flow from poor to rich countries and exacerbate inequality in poor countries. Considering that in Latin America wage inequality accounts for a large share of income inequality, there is an abundant literature that explored how labour markets adjust to trade liberalisation using country case studies.

This debate is grounded on earlier contributions that focused on the experience of advanced economies, stating that unskilled workers in industrial economies would be affected by competition from low-wage countries, causing wages to fall relative to those of skilled workers (see for example Leamer, 1993 and 1994; and Wood, 1994). But it appears that, following trade liberalisation, wage inequality increased in developing countries and emerging evidence is suggesting that low-wage countries experience a similar rise in wage inequality, which happens to be inconsistent with the predictions of the neoclassical Hecksher-Ohlin-Samuelson framework (see Robbins, 1996; Londoño and Szekély, 2000 and Wood, 1997).

In the case of developing countries, Rama (2003) shows that although wages grow faster in developing economies that do integrate with rest of the world, openness to trade nevertheless has a negative short-run transitory effect. Moreover, the effects of integration are not symmetric and wage inequality in developing countries is explained by a skill-biased wage premium. But foreign direct investment seems to be a more powerful driver of skill-biased wage inequality than trade integration. Indeed, Behrman, Birdsal and Szekély (2003) analysed a panel of 18 Latin American countries in the period 1977-1998 and found that trade openness had no significant effect on wage differentials, which are explained by other factors such as domestic financial reforms, capital account liberalisation, tax reforms and technological progress.

Several theoretical studies attempted to explore how trade integration may contribute to skill-biased technological change and wage inequality. Acemoglu (2003) shows that trade opening may induce an increase in skill-biased technological change, creating a powerful force towards higher skill *premia* in both, skill-abundant and skill-scarce countries. Thoenig and Verdier (2003) show that skill-biased innovation may be a defensive strategy to adapt to globalisation. Feenstra and Hanson (2003) show that trade of intermediate goods has the same impact on labour demand as does skill-biased technical change. Following Acemoglu's framework, Berman *et al*. (1998) and Berman and Machin (2000), on a sample of developed and developing countries, found that there has been a pervasive skill-biased technological change around the world, including in middle-income countries. Latin American countries are not the exception, rather the contrary. Sánchez-Páramo and Schady (2003) describe the evolution of relative wages in Argentina, Brazil, Chile, Colombia and Mexico and find strong and consistent evidence of skill-biased technological change (except in the case of Brazil). At the same time, in their study, trade appears to be an important transmission mechanism as the increases in the demand for skilled workers took place at a time when countries considerably increased the penetration of imports.

The latest trade theory incorporating heterogeneous firms and labour market frictions has spurred a number of studies on the effects of trade on income and inequality. Among others, Davis and Harrigan (2011) combine firm heterogeneity and efficiency wages at the firm level to show that international trade tends to eliminate the "good jobs", which are with firms that have low probabilities to catch low-productivity workers and thus have to pay higher wages. As a result, trade openness lowers wages and wage inequality. Egger and Kreickemeier (2009) introduce workers' fair wage preferences into a general equilibrium framework with heterogeneous firms and justify the simultaneous occurrence of increasing profits and increasing unemployment in the process of globalisation. Helpman and others (2010) develop a new framework that incorporates firm and worker heterogeneity, search and matching frictions in the labour market, and screening of workers by firms. Their model finds that trade liberalisation raises wage inequality and unemployment in both developed and developing countries. In general equilibrium, risk adversion intensifies these effects because risk-adverse workers require a premium for the risk of wage inequality and unemployment origin in heterogeneous firms. Amiti and Davis (2012) build a general equilibrium model featuring firm heterogeneity, trade in final and intermediate products, and firm-specific wages. They conclude that trade liberalisation enhances wages for workers in firms that are exposed to globalisation and reduces wages in those that are either marginalised from the global economy or oriented toward the domestic market.

Recent studies have also revisited and extended the classic comparative-advantage framework by taking into account a continuum of skill levels. Ohnsorge and Trefler (2007) model two-dimensional worker skill heterogeneity (for example, quantitative and communication skills) in a continuum of industries, which require different skill bundles. In their model, even though workers are perfectly mobile, wages will differ across and within industries because of worker heterogeneity. Blanchard and Willmann (2010) lay out a model in which heterogeneous

workers self-select into a continuum of occupational tasks depending on the wage structure and individual specific costs of education. They demonstrate that trade liberalisation can lead to crowding out of the middle occupations towards the skill acquisition extremes in one country and expansion of middle-income industries in another. Costinot and Vogel (2010) arrive at similar conclusion using a model with a continuum of goods, each of which is produced with labour alone and differ in their skill intensities.

Since the mix of countries in aggregate studies may be a crucial factor leading to different results, it is worth surveying some recent case studies dealing with these issues. They focus mainly on Mexico, Colombia, Argentina and Brazil, with scattered contributions on a handful of other countries. They present a fairly heterogeneous body of contrasting evidence.

Mexico - Hanson and Harrison (1999b) examine the implications of the 1985 trade reform on relative wages and employment, showing that wages of the more educated and more experienced workers rose. They find that the trade reform did play a role but other factors such as foreign direct investment, export orientation and technological change were also important (Feenstra and Hanson, 1997). This confirms the earlier findings of Harrison and Hanson (1995) who developed a model of trade and foreign direct investment to study the effect of the latter on the relative demand for skilled labour. Using state-level data for the period 1975 to 1988, they find a positive correlation between FDI and the relative demand for skilled labour that explains a large portion of the increase in the skilled labour share in total wages, consistently with the hypothesis that outsourcing by multinationals has been a significant factor in the increase of the relative demand for skilled labour. Cragg and Epelbaum (1996) and Revenga (1997) provide further evidence along these lines.

Robertson (2000) recaps the evidence on the Mexican case arguing that trade liberalisation and labour deregulation led to an erosion of rents in protected industries which were less skilled-intensive, while foreign investments increased the demand for highly skilled labour. But Acosta and Rojas (2002) argued that technological change effects dominate trade-induced effects. Finally, Hanson (2005) goes one step further as he controls for regional disparities differentiating states with high and low exposure to globalisation. His results are in line with previous studies, but he shows that income inequality is explained by the fact that relative labour incomes in states exposed to globalisation grew 10% faster than those in low-exposed states, where poverty rose relatively to high-exposure states by 7%.

Frías *et al.* (2011) explore the relationship between exports and wage premia, defined as wages above what workers would receive elsewhere in the labor market. They construct a new combination of employer-employee and plant-level data and decompose plant-level average wages into a component reflecting skill composition and one reflecting wage premia. An exogenous shock, the peso devaluation of late 1994, leads to different changes in export level of firms within the same industry. Their estimations show that about two thirds of the higher wages in larger, more productive plants are explained by higher levels of wage premia, and that nearly all of the differential within-industry wage change caused by the export shock is explained by changes in wage premia. The authors conclude that wage premia, rather than sorting on

individual ability, are the reason that explains the well-documented correlation between exporting and wages in Mexico. Frías *et al.* (2012) focus on the effect of exporting on the shape of within-plant wage distributions. They find that exporting raises within-plant wage dispersion, but not uniformly between all the quantiles, with little effect at the low end of the wage spectrum. Verhoogen (2008) proposes a new mechanism linking trade and wage inequality: export-led quality upgrading, whereby more productive plants produce higher-quality goods than less productive ones using a higher-quality workforce, which requires higher wages. During trade liberalisation, only the most productive plants can enter the export market, upgrade quality and raise wages relative to less productive ones. Therefore, he explains why within-industry wage inequality rises in Mexico in a period of trade expansion.

Most of the literature has focused on wage earners and largely ignored the self-employed workers. To fill this gap, Popli (2010) analyses income inequality and poverty among the Mexican self-employed workers over the period of 1984 to 2002. He finds that in the first decade following trade liberalisation, inequality and poverty among the self-employed workers have increased. As the economy stabilised and economic growth resumed, inequality started to diminish but poverty kept increasing. He decomposes the inequality and poverty indices into within and between group components and finds that rising returns to skilled labour, regional differences regarding the impact of liberalisation and sectoral shifts in employment are important factors that explain the development of both inequality and poverty.

Colombia – Attanasio, Goldberg and Pavcnik (2004) carry out an empirical investigation using detailed micro level data from 1984 to 1998, concluding that trade reforms affected wage inequality through their impact on skilled-biased technical change, industry wage premiums and informality. The increase in the skill premiums was primarily driven by skilled-biased technological change (as in Kugler, 2002). However, they argue that wage inequality may have been in part motivated by tariff reductions and increased foreign competition, as the sectors with the largest reductions in tariffs were those with the sharpest contraction of sector-specific wage *premia,* in non skilled labour-intensive sectors and in those sectors that had lower average wages previous trade reforms. The overall effects of the trade reforms on wage inequality are in any case small (see also Bussolo and Lay, 2003). Goldberg and Pavcnik (2003) provide additional empirical evidence on the widely unknown relation between trade opening and informality, showing that labour market institutions play a crucial role. In fact they document that firms responded to the trade chock by increasing informal employment, but only in the period before the labour market reforms, when they had to face rigidities and imperfections.

Eslava and others (2011) investigate the impacts of Colombia's trade reform between 1988 and 1998 on its labour reallocation using the National Household Surveys data. They find that workers employed in less protected sectors earn lower wages and are less likely to be employed in the formal sector after controlling for individual characteristics, year and sector effects. These negative effects of trade liberalization are wider for less-educated workers. The findings also apply to displaced workers caused by trade reforms within the first two years after the shock, but their situations recover after three years of displacement, which is faster than what

is observed in the U.S. and other developed countries. Trade reforms hurt those currently employed but facilitate reallocation for those who experience unemployment. Overall, trade liberalisation reduces household income only for female-headed households in the first two quintiles of the income distribution.

Argentina – Bebczuk and Gasparini (2001) provide an overview of inequality trends in the period of trade adjustment and document a dramatic increase in the relative wage of skilled workers that is indirectly attributed, among other things, to trade opening. Galiani and Sanguinetti (2003) endeavour to track the causality link between the two phenomena using aggregate industry level and micro household surveys data. They find a positive correlation between college wage *premia* and import penetration. As in other countries, however the direct trade-related effect explains only a small part of wage inequality. Galiani and Porto (2006) attempted to pursue a stronger identification strategy, one that is similar to Attanasio *et al.* (2004) but compares two episodes of trade reform. They evaluate the shift from high protection to liberalisation in the 1970s, compared with slowdown of reforms in the 1980s and multilateral and preferential opening in MERCOSUR in the 1990s. They find that the large tariff cuts (70%) of the 1970s explain up to 25% of the observed surge in wage inequality, while the moderate tariff cuts (12%) of the 1990s explain only 10% of the wage premium. They conclude that tariff reforms contributed partially to the observed increase in wage inequality, but other concurrent factors linked to the globalisation process played a significant role, a conclusion stressed by Acosta and Rojas (2002).

Assuming a theoretical structure allowing for labour skill upgrading instead of quality upgrading, Bustos (2011a) studies the impacts of Brazil's tariffs cuts on the labour demand of Argentinean firms during the MERCOSUR creation period (1992 to 1996). Firms starting to export after trade liberalisation experienced faster increases in technology investment and skill upgrading than those that focused on the domestic market. Specifically, new and continuing exporters as well as foreign owned firms spent 53% to 69% more on technology than non-exporting domestic firms. Trade liberalisation had heterogeneous effects on firm skill intensity. Firms above the median size upgraded skills and firms below the median size downgraded skills in response to tariff reductions in Brazil. Along the same line, Bustos (2011b) focuses on technology upgrading caused by trade liberalisation. He finds that firms in industries facing higher reductions in Brazil's tariffs increase investment in technology and upgrade technology faster. The bigger the size of the firm, the higher this effect of tariffs is.

Brambilla and others (2010) investigate the linkages between exports, destination markets and utilisation of skilled labour by firms. Their theoretical model suggests that firms exporting to high-income countries will hire more skilled workers and pay higher wages than firms that export to low or middle-income countries, and domestic firms. They test this hypothesis using a panel data of Argentinean manufacturing firms ranging from 1998 to 2000. They find that the exogenous Brazilian currency devaluation of 1999 led to changes in the export levels and destinations, which helps to explain the causal effect of exporting to high-income countries on skill utilisation.

Chile - In the case of Chile Beyer, Rojas and Vergara (1999) and Pavcnik (2000) found evidence of skill-biased wage *premia*, but while the former attributes it mainly to trade liberalisation, the latter stresses the role of investments, foreign technical assistance and patented technologies.

Brazil - The results for Brazil, which accounts for a great proportion of the poor in the region, depart from those obtained in other countries and provides fruitful ground for evaluating the conditions under which trade reforms do not have an adverse effect on industry wage differentials. Evidence produced by Arbache and Corseuil (2004) and Arbache, Dickerson and Green (2004) found results in line with other Latin American case studies. But Pavcnik *et al.* (2004) show that while industry wage *premia* are in fact an important component of worker earnings, their structure is relatively stable over time, and they find no statistical association with changes in trade policy. They conclude that trade liberalisation in Brazil did not significantly contribute to increased wage inequality between skilled and unskilled workers. Likewise, Goldberg and Pavcnik (2003) found no significant effects of trade opening on informality. Gonzaga *et al*. (2006) go even further: using a wide set of instruments to test the trade transmission mechanism they conclude that trade liberalisation reduced wage disparities in Brazil.

Ferreira *et al.* (2007) combine the methodology used by Pavcnik *et al.* (2004) and Gonzaga *et al.* (2006) to study net trade-induced changes in industry-specific wage and skill *premia*. Their main finding for the period 1988-1995 is that trade liberalisation in Brazil did in fact contribute to the observed reduction in wage inequality in the entire Brazilian economy, not just in manufacturing. Unlike in other countries of the region, pre-liberalisation tariffs adjusted by import penetration were highest for skill-intensive goods and fell more than those protecting other goods. This led to a decline in their relative prices and, consistently with the Stolper-Samuelson theorem, this decline led to a reduction of skilled wages and to a movement of workers away from previously protected industries. Menezes-Filho and Muendler (2011) compare resource allocation, especially labour, before and after the trade liberalisation of the 1990s by tracking individual workers across jobs using economy-wide linked employer-employee data. They find that tariff reductions lead to worker displacements, particularly from more protected industries. But neither exporting firms nor industries with comparative advantage absorbed trade-displaced workers for several years. In fact, exporters hired fewer workers than the average employer after the trade reforms.

Trade and poverty in partial equilibrium

The most widely used methodology to assess the direct impact of trade liberalisation on poverty relies on partial equilibrium estimates coupled with cost-of-living simulations (see Porto 2003). The methodology tracks two transmission channels: on one hand trade reforms cause the relative prices of traded goods to change, on the other these price variations affect households as consumers and income earners. This approach has the merit of being based on an intensive use of household data information and the shortcoming of abstracting from general equilibrium effects such as terms of trade effects, consumption effects (households pay different prices for traded

and non-traded goods) and labour income effects (factor demand and wages adjust in response to the trade shock). Price shocks that originate the effects on the poverty head count ratio may be observed *ex-post* in time series or predicted *ex-ante* with partial or general equilibrium model simulations.

Argentina - Porto (2003) examines the implications of national and foreign trade reforms on poverty in Argentina. The former includes the removal of import tariffs while the latter refer to the elimination of agricultural subsidies, tariffs and non-tariff barriers in developed countries. His results indicate that from an initial head count ratio of 25.7% in 1999, a combination of national and foreign trade reforms would cause a decline in poverty ranging from 1.6 to 4.6 percentage points, depending on assumptions relating to the deepness of trade liberalisation. Effects induced by foreign reforms are found to be much larger than national reforms. In later work, Porto (2006) applies the same methodology to assess the effects of preferential opening in MERCOSUR. He finds that regional integration had pro-poor distributive effects because tariff reduction was greater in relatively skilled intensive sectors. The average compensating variation for the poor amounts to up to 6% of initial expenditure, whereas for the middle-income households the gain amounts to around 3%.

Mexico - Nicita (2004) applies the same technique to study *ex-post* the effects of trade liberalisation in Mexico between 1989 and 2000, taking into account regional differences. He finds that trade liberalisation, which lowered the relative prices of non-animal agricultural products, reduced the cost of consumption but put pressure on households' agricultural income, thereby widening the income gap between urban and rural areas. While all income groups have benefited, richer households have benefited more in both absolute and relative terms: real income increased by 6% in richer households and by 2% in the poorer. Similarly differences are found in the geographic distribution, with the states closest to the northern border gaining three times more relative to the least developed southern states. From a poverty perspective, trade liberalisation had the direct effect of reducing the head count ratio by about three percentage points.

Colombia - Relying on a standard partial equilibrium methodology, Goldberg and Pavcnik (2005) limit the analysis to urban poverty and do not find any correlation between trade and poverty. Poverty in urban areas is highly correlated with unemployment, employment in the informal sector and non-compliance with minimum wages. In the period under scrutiny (1986-1994) most of the reduction on urban poverty is accounted for by within-group changes in poverty, rather than movements of individuals out of groups with high poverty rates, such as unemployed, informal workers or minimum wage earners. It is therefore not surprising that they fail to find any evidence of a link between trade and urban poverty. They note however that in Colombia agriculture trade liberalisation has been limited and that it may bring about a significant effect on poverty in the short and medium run, a finding confirmed by Giordano, Mendez-Parra and Watanuki (2007 b).

Brazil - Krivonos and Olarreaga (2005) assess the impact that a potential liberalisation of sugar regimes in OECD countries could have on household labour income and poverty in Brazil.

They estimate the extent to which world prices are transmitted to 11 Brazilian states in order to capture the fact that some local markets may be relatively isolated from changes in world prices. They then proceed to estimate the impact that changes in domestic sugar prices have on regional wages and employment, depending on worker characteristics. They measure the impact on household income of a 10% increase in world sugar prices. Their results suggest that workers in the sugar sector and in sugar producing regions experience wage increases and expand employment opportunities. More interestingly, households at the top of the income distribution experience larger income gains due to higher wages, whereas households at the bottom of the distribution experience larger income gains due to movements out of unemployment.

Menéndez and others (2009) study the impact of trade liberalisation and international trade on poverty and income inequality across Brazilian states from 1987 to 2005 using panel regression techniques. Trade liberalisation is measured by the weighted average of national industry-level tariffs, where the weights are the initial shares of employment by industries within each state. International trade is measured by import penetration (imports as a percentage of output plus net imports), export exposure (exports as a percentage of output) and trade openness (the ratio of imports plus exports on GDP). For each state, they apply the Gini and the Theil indices to measure inequality and headcount index and the poverty gap for poverty. They find that poverty and inequality are higher if the state is exposed to a lower tariff level. This means that, at the state level, trade liberalisation might contribute to poverty increases. For urban areas, the negative effect of trade liberalisation is even higher and statistically more significant. However, in the rural world, trade liberalisation seems to have reduced inequality and did not have any significant effect on poverty. Import penetration has effects similar to trade liberalisation, while on the contrary, rising export exposure appears to have significantly reduced household welfare.

Borraz and others (2012) assess the linkages between trade liberalisation, poverty and inequality in Brazil for the 1991-2006 period through the price and income transmission channels proposed by Porto (2006) and complemented by Nicita (2009). They find that: i) the consumption effect of tariff reduction through the prices of the tradable goods is positive for all individuals and is higher for poor individuals than for richer ones; ii) the consumption effect through non-tradable goods prices is negative but small (*i.e.* the typical household is worse-off compared to the pre-liberalisation scenario), but the aggregate consumption effect is positive and pro-poor; iii) the impact on labour income is negative but close to zero, which is consistent with evidence that labour force mobility across industries after trade liberalisation in Brazil is limited (Goldberg and Pavcnik, 2003); iv) the headcount poverty ratio decreased during the trade liberalisation episode; and v) contrary to previous studies (Gonzaga and others, 2006; Ferreira and others, 2010), they find that tariff reduction cannot be associated with increased inequality and had no statistical impact on Gini coefficients.

Peru - Field and Field (2010) analyse household responses to changes in relative prices of traditional versus export-oriented products with a panel of rural households between 1994 and 2004. They find that changes in relative prices lead to the production of new agricultural

products, and the magnitude of the response was mitigated by households' lack of land ownership and access to regional and local markets. Consumption of the households that adopted export-oriented crops increases in proportion to the increase in the fraction or amount of land devoted to exportable products. These households were less likely to be below the poverty line at the end of the period.

Chile - Finot and others (2011) study the effects of trade opening on household welfare for Chile between 1999 and 2006 following the methodology laid out in Porto (2006). They focus on the short-term effect by only analysing the price channel (the direct effect on the tradable good price and indirect effect on the non-tradable good price) and ignoring the dynamic effects of labour market changes. Like other studies on short-term pass-through, they relax the perfect competitive market assumption of Porto (2006) and estimate the coefficient of the international price pass-through to the domestic market. They find that tariff reduction between 1999 and 2006 was favorable in terms of income for all households and yielded a short-term benefit equivalent to 0.15% of total household income. However, the lower-income households have experienced a greater variance in the observed impacts on the prices of their baskets than higher-income households. They nevertheless conclude that trade liberalisation had a clear pro-poor property.

Uruguay and Paraguay - Using the same methodology as Borraz *et al*. (2012), Borraz *et al.* (2011) study the cases of Uruguay and Paraguay in the context of MERCOSUR. In the case of Uruguay, they find that tariff reduction decreased the prices of tradable goods and benefited the lower-income segment of the population more than the higher-income one. The impact on the non-tradable goods prices is pro-rich. Trade liberalisation had a positive impact and a pro-poor effect on labour income. Considering all three effects together, the average income increased across the entire income distribution during the trade liberalisation period, but there is no evidence of absolute pro-poor or pro-rich pattern: the poverty level decreased, but the income inequality did not change significantly. In the case of Paraguay, trade liberalisation only mildly benefited the lower-income segment of the population. The impact through the prices of non-tradable goods is only mildly pro-rich. Tariff reduction negatively affected the labour income in the whole population. The loss is bigger for those with higher wage. Overall, the average income of the whole population decreased during the liberalisation process. Trade integration did not clearly reduce the poverty headcount ratio, but it led to smaller income inequality.

Partial equilibrium associated with cost-of-living national case studies are illustrative of the simplest methodology available to track the trade and poverty nexus in household surveys. The growing evidence accumulated on Latin America is suggestive of the wide range of poverty effects generated by trade integration. These studies have the advantage of being easier to understand than more complex models and allow the consideration of detailed market structure and behavioural heterogeneity. However, they fall short of accounting for the general equilibrium effects that reverberate across sectors and national markets.

Trade and poverty in general equilibrium

Computable general equilibrium simulations allow the consideration of complex relations among sectors and agents in the economy. CGE models are typically based on neoclassical theories of firm and household behaviour and operate on a time frame long enough to achieve market equilibrium. While most are perfect competition and comparative static in nature, imperfect competition and dynamic versions are increasingly used to address specific issues (see Reimer, 2002 and Permartini and Teh, 2005).

A shortcoming of many CGE studies is that standard models typically lack sufficient disaggregation to fully trace the impact of policy simulations on poverty. In order to address this shortcoming, the most readily available technique is the association of a CGE simulation with a subsequent tracking of distributional effects in household surveys (Decaluwé *et al*., 1999). Almost all CGE applications performed to date in multi-region global models that include Latin American countries or in single-country models focusing on specific Latin American countries follow this so called "micro-macro" approach.

The most comprehensive assessment of the distributive impact of trade integration with CGE models in Latin America is provided by Vos, Ganuza, Moreley and Robinson (2006). Building on a previous collection of studies coordinated by Vos, Taylor and Paes de Barros (2004), which dealt with the broader impact of economic liberalisation, this collection of 16 comparable country case studies assesses the poverty effects of a wide array of scenarios such as unilateral tariff reductions, export subsidies, exchange rate devaluations and export promotion. The studies also consider a hypothetical "full" multilateral WTO liberalisation scenario, whereby tariffs and domestic support subsidies are completely eliminated, and a preferential Free Trade Areas of the Americas (FTAA) integration scenario where tariffs are eliminated on a preferential basis among the countries of the Western Hemisphere. The results show that in almost all cases unilateral liberalisation increases output and either wages or employment, depending on the assumptions made on the labour market closure. Labour inequality rises in almost all cases, particularly between skilled and unskilled workers, but does not lead to inequality in *per capita* income because of offsetting positive employment effects. As these counterfactual results contrast with the historical evidence surveyed in previous sections, they suggest that other disturbances had a significant role in the post liberalisation adjustment.

Unilateral trade reform scenarios lead to small positive poverty reduction effects in all countries but Ecuador. The WTO and FTAA scenarios are pro-poor in the majority of the experiments but cause a modest increase of poverty in Costa Rica (only WTO), Ecuador, Paraguay and Venezuela, mainly due to the regressive outcome of agriculture liberalisation that is not compensated by expansion in other sectors. In these experiments, labour markets parameters are crucial to explain the inequality and poverty effects of trade liberalisation. In particular, average wage increase changes in the remuneration structure and quantity adjustment in the form of reduced unemployment explain, in this order, most of the pro-poor trade effects.

The production of CGE based micro-macro poverty assessments is expanding in Latin America, as shown by IDB, ECLAC and CEPII (2007). This is fortunate because the high aggregation of the models used in multi-country projects prevents a detailed analysis of the countries of the region, as they are generally limited to the larger countries such as Brazil, Mexico and Argentina (see for example Hertel and Winters, 2005 and Polaski, 2006). Likewise, highly aggregate studies are often based on oversimplified simulation scenarios that prevent an accurate exploration of trade policy chocks and their distributive impacts.

This is particularly important in agriculture trade liberalisation simulations, which are key for poverty reduction in the region because the sector is plagued by residual pockets of protectionism at the multilateral level (Falconi, Giordano and Sumpsi, 2005, Schejtman and Berdegué, 2006). In an attempt to provide a more accurate assessment of the likely poverty impacts of the Doha Development Agenda for a wide set of Latin American countries, Giordano (2010) reviews the available literature and compile macro-micro CGE evaluations based on detailed "realistic" scenarios (based on proposals of the EU, US, G-20 and others) coupled with country and sector case studies analysing the poverty impacts of trade protectionism. The case studies attempt to assess the extent to which international prices are transmitted to regional households. They show that agriculture protectionism is highly detrimental for the poor in the region and that the Doha Development Agenda is an opportunity for poverty reduction in Latin America. This is confirmed by Lara and Soloaga (2007) and Gomez and Soloaga (2007) who, in the case of Bolivia and Nicaragua respectively, find that an ambitious Doha scenario may contribute to poverty reduction, while a limited one may have a regressive outcome. Moreover they show that domestic investments in complementary agriculture extension may have a greater impact than trade liberalisation.

A precise measurement of trade liberalisation is also crucial to assess the poverty impact of preferential integration. In the case of Costa Rica in the Central American-United States Free Trade Agreement (CAFTA), Sánchez (2007) uses a dynamic CGE model coupled with micro-simulations and models the impact of tariff phase-out schedules and tariff-rate-quotas. He shows that trade liberalisation may boost growth by two percentage points annually, which in turn may generate a small decline in the poverty head count. Using a disaggregated rural economy-wide modelling approach, Taylor and others (2010) examine how agricultural tariff removal as called for in CAFTA affects the rural welfare in El Salvador, Guatemala, Honduras, and Nicaragua. The disaggregated modelling approach takes into account two critical characteristics of Central America countries, the heterogeneity of rural households and the diversification of these households' activities and income sources. The simulation results show that agricultural tariff reduction leads to lower nominal incomes for nearly all rural household groups. However, consumption costs decline substantially too. The net effect on rural households' welfare of agricultural trade liberalisation in Central America is found to be positive in most cases.

Giordano, Mendez Parra and Watanuki (2007 b) evaluate a wide set of Andean trade and integration options and the impact of the Andean-US bilateral agreements. The results indicate

that the impact of the trade agreements with the US, the EU and MERCOSUR is unambiguously expansionary, although the gains are modest. The impact of a bilateral agreement with the US is pro-poor for signing countries (Peru and Colombia) as it reduces poverty and narrows inequality, while the opposite holds for Bolivia if it does not join the agreement, and even more so if it loses current preferential access to the US market. Labour income gains via job creation are the primary drivers of inequality and poverty reduction, particularly in rural areas. Wong and Kulmer (2011) examine the impact on poverty and income distribution of a free trade agreement between Ecuador and the EU. The scenario in which the EU expands the generalized system of preferences and expands market-access for bananas generates the greatest export growth. However, the three provinces specialized in the exports of banana expand their welfare, at the expenses of other agricultural sectors. This sector-unbalanced growth would lead to increased poverty and unequal income distribution. Tellería and others (2011) analyse the possible effects on Bolivia of joining the agreement negotiated between the Andean countries and the EU. They find that being part of the agreement allows Bolivia to benefit from the wide-ranging preferences offered by the EU. However the gains are largely limited to higher-income population and may not alleviate inequality.

Finally, in the case of Brazil, Ferreira Filho and Horridge (2005) highlight the importance of moving away from the representative household hypothesis considering higher within-country heterogeneity. The model distinguishes 10 different labour types and has 270 different household expenditure patterns. Income can originate from 41 different production activities located in 27 different regions in the country. The CGE model communicates to a micro-simulation model that has 112 055 households and 263 938 individuals. Poverty and income distribution indices are computed over the entire sample of households and individuals before and after the policy shocks. The results show that trade policy shocks do not generate dramatic changes in the structure of income distribution and poverty. The simulated effects on poverty and income distribution are in fact positive but rather small. The benefits are nevertheless concentrated in the poorest households.

Cicowiez and others (2010) access the effect of both world and domestic trade reform in Argentina on poverty and income inequality by combining results from a global economy-wide model, a national CGE model, and micro-simulations. The results show that global trade liberalisation (including subsidies and import taxes, but not export taxes) of all goods leads to a decrease in both poverty and income disparities in Argentina. However, liberalisation only in the agriculture sector does not diminish them. The elimination of export taxes, either on all goods or only in agriculture, causes an increase in the poverty headcount and inequality. The increase is even higher if Argentina eliminates export taxes unilaterally.

This succinct review of the newest contributions to the micro-macro poverty literature does not aim at surveying all available studies, a task that largely exceed the scope of this paper. It rather intends to highlight the need of more research specifically focused on Latin America and the advisability of moving away from misleading simplifications of the trade policy shocks,

particularly those that simulate unrestricted liberalization across the board or do not accurately take into account the existence of a complex web of trade preferences.

5. Trade Integration and Pro-Poor Complementary Policies

Despite the complexity of finding a clear connection between trade liberalisation and poverty reduction in both theoretical and empirical studies, there is a nearly general consensus among academics that protectionism is not a suitable policy tool for eradicating inequality and poverty. It is also widely acknowledged that trade liberalisation is a means to achieve growth with poverty reduction and not an end in itself. Trade integration alone is in fact not sufficient to generate sustained growth, even less to promote development with equity and poverty reduction. Indeed, the literature reviewed so far very often emphasises the fact that the distributive outcome of trade integration is inextricably intertwined with a wide array of structural and policy determinants.

Empirical evidence on the interaction between trade integration and complementary policies is very recent and limited. In a panel of more than 100 countries, Bolaky and Freund (2004) find that trade opening promotes economic growth only in countries that are not excessively regulated. Indeed, trade openness is associated with lower levels of living standards in excessively regulated economies. They argue that in highly regulated countries, trade fails to generate growth because resources are prevented from flowing to the most productive sectors and firms, and trade is likely to occur in goods that do not display comparative advantages.

Chang, Kaltani and Loyaza (2005) extend the scope of the analysis and provide empirical evidence of why trade-induced growth performance depends on macroeconomic, structural and institutional characteristics that make a country able to adjust to a more open trading environment. They interact trade openness with proxies of educational investment, financial depth, inflation stabilisation, public infrastructure, governance, labour market flexibility and flexibility of entry and exit of firms from the market. They find that trade liberalisation promotes growth, except in those countries in which complementary areas are distorted. Using econometric analysis, López (2011) examines the complementarity between trade policy and public social spending in the reduction of poverty and income inequality in eight Latin America countries. He finds that the benefits of trade liberalisation, especially for low income and middle income households, are related to the amount of social capital provided by the State. However, non-social capital spending mainly benefits high income population and has no complementarity with trade policy.

Against this background, multilateral institutions are increasingly putting emphasis on the need to flank trade liberalisation with complementary domestic policies, encompassing macro- and micro-economic interventions, institutional reforms and social policies. For example, the OECD Trade and Structural Adjustment report (2005) recommends adopting macroeconomic policies that promote stability and growth, labour market policies that facilitate workers mobility across occupations, companies, industries and regions, an efficient institutional and regulatory framework, and trade and investment policies that support structural adjustment and are

implemented gradually in order to enable affected parties to adapt and avoid policy reversal. Referring more specifically to Latin America, in its contribution to the WTO Aid for Trade Task Force, the Inter-American Development Bank (2006) set the contours of a pro-poor trade agenda for the regions. In this light the most pressing challenges that the region faces are to: i) increase welfare through trade performance; ii) equitably distribute the gains from trade; iii) adapt to the complexity of modern trade agreements; iv) promote ownership of trade reforms; iv) further expand trade-related institutional capacity; v) secure adequate funding for trade-related assistance; and vi) implement complementary domestic policies to secure an efficient and socially equitable transition to freer trade.

Since the launch of Aid for Trade initiative a number of contributions have outlined the importance and potential role of Aid for Trade in supporting economic development of poor countries.

Higgins and Prowse (2010) conclude that the focus of Aid for Trade programming should be threefold. First, it should support trade and integration polices that enable governments to expand revenues, which in turn support a countries' poverty reduction efforts. Second, it should support trade expansion that creates and increases incomes for poor people. Third, it should mitigate and compensate for the adverse impacts of trade changes, particularly when they affect poor people.

OECD (2009 and 2011) focus on the policy implications of the Aid for Trade agenda, identifying the main objectives of any initiative, i) increasing trade, ii) diversifying exports, iii) maximizing linkages with the domestic economy, and iv) increasing adjustment capacity. In the process of achieving these goals, special attention needs to be directed to the benefit of the poor from Aid for Trade policies. Various diagnostic tools, such as stakeholder consultation, benchmarking, the Diagnostic Trade Integration Studies (DTIS) method and value chain analysis, can be used to identify the constraints that prevent developing countries from expanding trade.

6. Conclusion

Summarising the findings of more than one hundred essays on the trade and poverty nexus is a daunting task. This survey focused on the most recent contributions available in the mainstream trade economics literature, attempted to assess the relevance of the literature for Latin America and concentrated on specific quantitative empirical work on the region. It addressed the issue of how changes in relative prices due to unilateral, multilateral and preferential trade liberalisation affect growth, wages and income inequality and poverty. It did not address certain aspects such as the links of trade with gender, small and medium enterprises, local development or the political economy, which bear an important relationship with the trade and poverty nexus. The reason is that the underlying rationale of this research was to restrict the analysis to theoretical and quantitative empirical work, leaving the investigation of more complex qualitative issues for future undertakings.

Despite the move towards more open trade regimes, Latin American economies are still relatively closed to international trade. Under the pressure of globalisation, it is likely that in the coming years the region will need to open further and adjust to compete in an increasingly challenging global environment. Latin America being one of the most unequal regions of the world, the assessment of the trade and poverty nexus is crucial to devise policies aiming at better distributing the gains from trade. Latin America-specific research on this topic will provide policymakers and stakeholders with evidence necessary to underpin a debate which seems to be nurtured more by anxiety than rigorous knowledge.

In this light, it is useful to refer to a few conclusions with the aim of building up a solid base for policy debates and future research.

There is a gap in the availability of methodologies to explore the link between macro policy reforms like trade liberalisation and micro-economic determinants of welfare and poverty. It is therefore crucial to invest in the generation of data and research techniques, to adapt the research agenda to the specificity of Latin America and to consider qualitative issues that are difficult to measure. Meanwhile, normative statements referring to the trade policy nexus should cautiously consider the limitations of current positive knowledge.

Trade openness, inequality and poverty are wide multidimensional concepts. Measuring and attributing causal relations among these variables without carefully qualifying the specific dimensions explored or the particular transmission mechanisms at play may be misleading. It is important to disentangle the specific dimension of the trade and poverty nexus from the wider debate on globalisation and financial integration, the competing concepts of relative and absolute inequality and the objective and subjective dimension of poverty and deprivation.

Despite the impossibility to rigorously and unambiguously assert that trade openness is conducive to growth and poverty reduction, the preponderance of evidence supports this conclusion. However, the majority of empirical macro studies also show that the impact of trade on growth and poverty is also generally small and that the causes of indigence are to be found elsewhere. But it is in fact extremely arduous to find evidence that supports the notion that trade protection is good for the poor. The question is therefore how to make trade and growth more pro-poor and not how to devise improbable alternatives to trade integration aiming at improving the livelihood of the poor.

Specific evidence on Latin America reveals that deductive generalisations of the neoclassical trade theory and global cross-country empirical studies may be of little help in understanding the trade and poverty nexus in the region. Several factors may explain why the integration of Latin America into the global economy may not necessarily bring about rising wages of unskilled workers and poverty reduction. The most compelling arguments are related to the existence of rigidities in the labour markets, the historical pattern of protection that created rents in unskilled intensive sectors, the emergence of low wage countries such as China and India that shifts the comparative advantage of Latin American economies, and institutional factors that protract the effects of an initial unequal distribution of factor endowments against the poor.

Trade liberalisation may in fact be associated with rising inequality. But country case studies present contrasting indications. Although there is some evidence of rising inequality in the aftermath of trade opening, such as in the case of Mexico, Colombia, Argentina and Chile, it seems that the specific effects of trade liberalization are small or indirect. Skill-biased technical change, often directly related with the increase of foreign direct investment or with capital account liberalisation, seems to have a stronger explanatory power than trade liberalisation. There is also little evidence that trade opening has generated more informality. On the other hand, the case of Brazil, where trade liberalisation seems to have contributed to the reduction of wage inequality, is illustrative of the conditions under which trade reforms may have progressive distributive effects.

The empirical analysis addressing the direct effect of trade integration on poverty reveals a similar landscape. Trade integration seems to be good for the poor but the effects are small. Generalisations should be taken with a great deal of caution because this is a domain where data may present considerable shortcomings. In any event it seems that foreign trade reforms are more important for poverty reduction than unilateral ones or than the national component of reciprocal trade reforms. The countries of the region may therefore expect further contributions of trade integration to poverty reduction, particularly from the liberalisation of the agriculture sector where the greatest pockets of residual protectionism are still concentrated. However, predicting *ex-ante* the pro-poor effects of trade reforms is an extremely sensitive task highly dependent on the quality of the data and the correct specification of the simulation instruments. It is hard to overstate the importance of strengthening the capacity of policymaking in this area.

Finally, considering that the trade and poverty nexus depends on a number of interconnected factors a consensus is emerging on the need to flank trade integration initiatives with a wide array of complementary policies. There is in fact increasing evidence that the outcome of trade opening may be regressive in the presence of distortions in complementary areas such macroeconomic policies, infrastructure, regulations, financial depth, labour markets, governance and human capital.

It is therefore of the utmost importance to mainstream trade into the development agenda of Latin American countries and to align consensus, policy priorities and financial resources with the objective of making trade work for the poor.

References

Acemoglu, D. (2003), "Patterns Of Skill Premia", *Review of Economic Studies,* vol.70, pp. 199-230.

Ackerman, F. (2005), "The Shrinking Gains from Trade: A Critical Assessment of Doha Round Projections",*Global Development and Environment Institute Working Paper,* 05-01.

Aisbett, E., A. Harrison and A. Zwane (2005), "Globalization and Poverty: What is the Evidence", University of Florida, Gainesville, Florida.

Amiti M. and D. Davis (2012), "Trade, Firms, and Wages: Theory and Evidence", *Review of Economic Studies,* vol. 79, num. 1 January, pp. 1-36.

Attanasio O., P. Goldberg and N. Pavcnik (2004), "Trade Reforms and Wage Inequality in Colombia", *Journal of Development Economics,* vol.74, 2004, pp. 331-366.

Arbache, J. and C.H. Corseuil (2004), "Trade Liberalization, Wage and Employment Structures", *Revista Brasileira de Economia,* vol. 58, 2004.

Arbache, J., F. Green and A. Dickerson (2004), "Trade Liberalization and Wages in Developing Countries", *Economic Journal,* vol. 114, pp. F73-F96.

Bhagwati, J. and T.N Srinivasan (2002), "Trade and Poverty in the Poor Countries", *AEA Papers and Proceedings,* vol. 92, num. 2, pp. 180-183.

Banerjee, A. and A. Newman (2004), "Inequality, Growth, and Trade Policy", MIT mimeo. Cambridge, M.A.

Bardhan, P. (2006), "Globalization, Inequality and Poverty", California University, Berkeley, paper presented at Workshop on Trade and Poverty in Latin American and the Caribbean, Inter-American Development Bank, Washington, D.C., June.

Barreix, A., L. Villela and J. Roca (2004), *Fiscal Impact of Trade Liberalization in the Americas,* Periodic Note, Inter-American Development Bank, Washington, D.C., January.

Barreix, A., L. Villela and J. Roca (2006), "Política Fiscal y Equidad, Estimación de la Progresividad y Capacidad Redistributiva de los Impuestos y el Gasto Público Social en los Países de la Comunidad Andina", en *La Equidad Fiscal en los Países Andinos,* DFID-BID-CAN.

Barro, R. (2000), "Inequality and Growth in a Panel of Countries", *Journal of Economic Growth,* vol. 5, pp. 5-32.

Bebczuk, R. and L. Gasparini (2001), "Globalization and Inequality: The Case of Argentina", *Economics Department Working Paper,* 32. Universidad Nacional de La Plata, Argentina.

Berman, E., J. Bound and S. Machin (1998), "Implications of Skill-Biased Technological Change: International Evidence", *Quarterly Journal of Economics*, vol. 113, num. 4, pp. 1245-1280.

Berman, E. and S. Machin (2000), "Skill-Biased Technology Transfer Around the World», *Oxford Review of Economic Policy*, vol. 16, num. 3.

Behrman, J., N. Birdsall and M. Szekely (2003), "Economic Policy and Wage Differentials in Latin America", *Center for Global Development Working Paper* 29.

Berg, A. and A. Krueger (2003), "Trade, Growth and Poverty: A Selective Survey", *IMF Working Paper* 03/30. Washington, D.C.

Beyer, H., P. Rojas and R. Vergara (1999), "Trade Liberalization and Wage Inequality", *Journal of Development Economics*, vol.59, pp. 103-123.

Blanchard E. and G. Willmann (2010), "Trade, Education, and the Shrinking Middle Class", *Working Paper*. University of Virginia.

Bolaky, B. and C. Freund (2004), "Trade, Regulations and Growth", *World Bank Policy Research Working Paper,* 3255. Washington, D.C.

Borraz, F., D. Ferrés and M. Rossi (2011), "Distributive Effects of Regional Trade Agreements on the "Small Trading Partners": MERCOSUR and the Case of Uruguay and Paraguay", Proceedings of the German Development Economics Conference, Berlin 2011 14, Verein für Socialpolitik, Research Committee Development Economics.

Borraz, F., D. Ferrés and M. Rossi (2012), "Assessment of the Distributive Impact of National Trade Reforms in Brazil", *Journal of Economic Inequality, forthcoming*.

Bouët, A. (2006), "What Can The Poor Expect From Trade Liberalization?: Opening the "Black Box" of Trade Modeling", International Food Policy Research Institute, Washington, D.C.

Bourguignon, F. and L. Pereira Da Silva (2003), "Evaluating the Poverty and Distributional Impact of Economic Policies: A Compendium of Existing Techniques», in F. Bourguignon and L. Pereira Da Silva (eds.), *The Impact Of Economic Policies On Poverty And Income Distribution: Evaluation Techniques And Tools,* World Bank And Oxford University Press.

Bouzas, R. and R. Ffrench-Davis (2003), "Globalization and Equity: A Latin American Perspective", paper presented at the fourth Annual Conference on Global Development, Cairo.

Bouzas, R. and S. Keifman (2003), "Making Trade Liberalization Work", in P.P. Kuczyinski and J. Williamson (eds.), *After the Washington Consensus: Restarting Growth and Reform in Latin America*, Washington, D.C., Institute for International Economics (IIE).

Bouzas, R. (ed.) (2007), *Después de Doha: la agenda emergente del sistema de comercio internacional*, Marcial Pons – Ediciones Jurídicas y Sociales, Madrid.

Brambilla, I., D. Lederman and G. Porto (2010), "Exports, Export Destinations, and Skills", *NBER Working Paper*, 15995.

Bussolo, M. and J. Lay (2003), "Globalization and Poverty Changes in Colombia", *OECD Working Paper,* 226.

Bustos, P. (2001a), "The Impact of Trade Liberalization on Skill Upgrading: Evidence from Argentina", *Economics Working Papers,* 1189, Department of Economics and Business, Universitat Pompeu Fabra.

Bustos, P. (2011b), "Trade Liberalization, Exports, and Technology Upgrading: Evidence on the Impact of MERCOSUR on Argentinian Firms", *American Economic Review*, vol. 101, num. 1 February, pp. 304-340.

Chang, R., L. Kaltani and N. Loayza (2005), "Openness Can be Good for Growth: the Role of Policy Complementarities", *World Bank Policy Research Working Paper,* 3763. Washington, D.C.

Cicowiez, M., C. Díaz-Vonilla and E. Díaz-Bonilla (2010), "Impacts of Trade Liberalization on Poverty and Inequality in Argentina: Policy Insights from a Non-parametric CGE Microsimulation Analysis", *International Journal of Microsimulation*, vol. 3, num. 1, pp. 118-122.

Cline, W. (2004), *Trade Policy and Global Poverty,* Washington DC: Institute for International Economics.

Cornia, G.A. (2003), "The Impact of Liberalization and Globalization on Income Inequality in Developing and Transitional Economies", *CESIFO Working Paper* 843.

Costinot, A. and J. Vogel (2010), "Matching and Inequality in the World Economy", *Journal of Political Economy,* vol. 118, num. 4, pp. 747-786.

Cragg, M.I. and M. Epelbaum (1996), "Why Has Wage Dispersion Grown In Mexico? Is it the Incidence of Reforms or the Growing Demand for Skills?" *Journal Of Development Economics*, vol. 51, pp. 99-116.

Davis, D. and J. Harrigan (2011), "Good Jobs, Bad Jobs, and Trade Liberalization", *Journal of International Economics*, vol. 84, num. 1, pp. 26-36.

Decaluwé, B., A. Patry, L. Savard, and E. Thorbecke (1999), "Poverty Analysis Within A General Equilibrium Framework", *Créfa Working Paper* 9909, June.

De Janvry, A., E. Sadoulet and G. Deanda (1995), "NAFTA and Mexico Maize producers", *World Development*, vol. 23, num. 8, pp. 1349-1362.

Davis, D. (1996), "Trade Liberalization and Income Distribution", *NBER Working Paper*, 5693.

Deaton, A. (2003), "Measuring Poverty in a Growing World (or Measuring Growth in a Poor World)", *NBER Working Paper*, 9822.

Devlin, R. and A. Estevadeordal (2001), "What's New in the New Regionalism in the Americas", in V. Bulmer-Thomas (ed.), *Regional Integration in Latin America and the Caribbean*, London: Institute of Latin American Studies.

Dollar, D. (1992), "Outward-oriented Developing Countries Really Do Grow More Rapidly: Evidence from 95 LDCs, 1976–85", *Economic Development and Cultural Change*, vol. 40, num. 3, April, pp. 523–44.

Dollar, D. and A. Kraay, "GROWTH is Good for the Poor", *World Bank Policy Research Working Paper*, 2587.2002.

Dollar, D. (2004), "Globalization, Poverty, and Inequality Since 1980", *World Bank Policy Research Working Paper*, 3333.

Easterly, W. (2001), *The Elusive Quest for Growth:* Economists' *Adventures and Misadventures in the Tropics*, MIT Press.

Easterly, W. (2005), "Globalization, Poverty, and All That: Factor Endowment versus Productivity Views", in A. HARRISON (ed.), *Globalization and Poverty*, NBER, Cambridge, Mass.

Edwards, S. (1998), "Openness, Productivity and Growth: What Do We Really Know?", *Economic Journal*, vol.108, March, pp. 383-398.

Egger, H. and U. Kreickemeier (2009),, "Firm Heterogeneity and the Labor Market Effects of Trade Liberalization", *International Economic Revie*, vol. 50, num. 1, pp. 187-216.

Emini, C., J. Cockburn and B. Decaluwé (2005), "The Poverty Impacts of the Doha Round in Cameroon: The Role of Tax Policy", in T. Hertel and L. A. Winters (eds.), *Poverty and the WTO: Impacts of the Doha Development Agenda*, World Bank, Washington D.C.

Engerman, S.L. and K. L. Sokoloff (2002), "Factor Endowments, Inequality, and Paths of Development Among New World Economies" *Economía*, vol. 3, pp. 41-102.

Eslava, M., J. Haltiwanger, A. Kugler and M. Kugler (2011), "Trade Liberalization and Worker Displacement: Evidence from Trade Reforms in Colombia", Presented in 6th IZA/World Bank Conference: Employment and Development.

Estevadeordal, A. and A. Taylor (2007), "Is the Washington Consensus Dead? Growth, Openness, and the Great Liberalization, 1970s–2000s", forthcoming, Inter-American Development Bank.

Ferreira Filho, J. and M. Horridge (2005), "The Doha Round, Poverty and Regional Inequality in Brazil" *World Bank Policy Research Working Paper*, 3701.

Ferreira, F., P. Leite and M. Wai-poi (2010), "Trade Liberalization, Employment Flows and Wage Inequality in Brazil", In M. Nissanke and E. Thorbecke (eds), *The Poor under Globalization in Asia, Latin America and Africa*, Oxford: OUP.

Falconi, C., P. Giordano and J.M. Sumpsi (2005), *Desarrollo Rural y Comercio Agropecuario en Latin American and Caribbean*, Rural Development Unit, Sustainable Development Department, Inter-American Development Bank, Washington, D.C.

Feenstra, R. and G. Hanson (1997), "Foreign Direct Investment and Relative Wages: Evidence from Mexico's maquiladoras", *Journal of International Economics*, vol. 42, pp. 71-393.

Feenstra, R. and G. Hanson (2003), "Global Production Sharing and Rising Inequality: A Survey of Trade and Wages", in E.K. Choi and J. Harrigan (eds.), *Handbook of International Trade*, Blackwell: Malden, MA, pp. 146-185.

Ferreira, F., P. Leite and M. Wai-Poi (2007), "Trade Liberalization, Employment Flows, and Wage Inequality in Brazil", *World Bank Policy Research Working Paper*, 4108. January.

Field, A. and E. Field (2010), "Globalization, Crop Choice and Property Rights in Rural Peru, 1994-2004", In M. Nissanke and E. Thorbecke (eds), *The Poor under Globalization in Asia, Latin America and Africa*, Oxford: OUP.

Finot, A., M. Lafleur and J. Lima (2011), "Analysis of the Effects of Trade Opening on Household Welfare: an Application to Chile, 1999-2006", *CEPAL Working Paper*, 405. 2011.

Frías, J., D. Kaplan and E. Verhoogen (2011), "Exports and Wage Premia: Evidence from Mexican Employer-Employee Data", Unpublished Paper, Columbia University.

Frías, J., D. Kaplan, and E. Verhoogen (2012),"Exports and Within-Plant Wage Distributions: Evidence from Mexico", *American Economic Review Papers & Proceedings*. May.

Gasparini, L., G. Cruces and L. Tornarolli (2011), "Recent Trends in Income Inequality in Latin America", *Economía*, vol. 11, num. 2, pp. 147-190.

Galiani S. and G. Porto (2006), "Trends in Tariff Reforms, Trends in Wages, and Trends in Wage Inequality", *World Bank Policy Research Working Paper*, 3905.

Galiani, S. and P. Sanguinetti (2003), "The Impact of Trade Liberalization on Wage Inequality: Evidence from Argentina", mimeo, Universidad Torcuato Di Tella.

Giordano, P. (2007), "Trade And Poverty In Latin America And The Caribbean: What Do We (Don't) Know And How To Go About It", OBREAL/EULARO background papers, Barcelona, January.

Giordano, P. (ed.) (2009), *Trade and Poverty in Latin America*, Inter-American Development Bank, Washington, D.C.

Giordano, P. (ed.) (2010), *Proteccionismo Agrícola y Pobreza en América Latina*, Inter-American Development Bank, Washington, D.C.

Giordano, P. and R. Devlin (2011), "Regional Integration", in J. A. Ocampo and J. Ros (eds.) *The Oxford Handbook of Latin American Economics*, Oxford University Press: Oxford.

Giordano, P., F. Lanzafame and J. Meyer-Stamer (2005), *Asymmetries in Regional Integration and Local Development*, Inter-American Development Bank, Washington, D.C.

Giordano, P., M. Méndez-Parra, and M. Watanuki (2007a), "Agriculture in the Doha Development Agenda: An Opportunity for Latin America? ", Paper presented at Regional Workshop on Computable General Equilibrium Models: Contributions for Latin American and the Caribbean Economic Policy, organized by ECLAC/IDB/CEPII, Santiago, Chile, April 12-13.

Giordano, P., M. Méndez-Parra and M. Watanuki (2007b), "Andean Countries at a Crossroads: Evaluating Pro-Poor Trade Integration Options", Paper presented at Regional Workshop on Computable General Equilibrium Models: Contributions for Latin American and the Caribbean Economic Policy, organized by ECLAC/IDB/CEPII, Santiago, Chile, April 12-13.

Goldberg, P. and N. Pavcnik (2005), "The Effects of the Colombian Trade Liberalization on Urban Poverty", in A. Harrison (ed.), *Globalization and Poverty*, NBER, Cambridge, Mass.

Goldberg, P. and N. Pavcnik (2004), "Trade Inequality and Poverty: What do we know? Evidence from recent trade liberalization episodes in developing countries", *NBER Working Paper* 1059.

Goldberg, P. and N. Pavcnik (2003), "The Response of the Informal Sector to Trade Liberalization", *Journal of Development Economics*, vol. 72, pp. 463-496.

Gomez, A. and I. Soloaga (2007), "Country Studies: Nicaragua", in B. Hoekman and M. Olarreaga (eds.), *Global Trade Liberalization and Poor Countries: Poverty Impacts and Policy Implications,* Institut d'Etudes Politiques, Paris, and Yale University Press.

Gonzaga, G., N. Menezes Filho, and M. Terra (2006), "Trade Liberalization and the Evolution of Skill Earnings Differentials in Brazil", *Journal of International Economics,* vol. 68, num. 2, pp. 345-367.

Gourdon, J., N. Maystre and J. De Melo (2004), "Inequality, and Poverty: Endowments Matter", *World Bank Policy Research Working Paper* 3981. Washington, D.C.

Grossman, G. and E. Helpman (1991), *Innovation and Growth in the World Economy*, M.I.T. Press.

Hanson, G. (2005), "Globalization, Labor Income and Poverty in Mexico", in A. Harrison (ed.), *Globalization and Poverty*, NBER, Cambridge, Mass.

Hanson, G. and A. Harrison (1995), "Trade, Technology, and Wage Inequality", *NBER Working Papers*, 5110.

Hanson, G. and A. Harrison (1999), "Trade and Wage Inequality in Mexico", *Industrial and Labor Relations Review*, vol. 52, num. 2, pp. 271-288.

Harrison, A. and G. Hanson (1999), "Who Gains from Trade Reform? Some Remaining Puzzles", *Journal of Development Economics*, vol. 59, pp. 125-154.

Harrison, A. (2005), "Globalization and Poverty", *NBER Working Paper* 12347.

Harrison, A., J. Mclaren and M. Mcmillan (2011), "Recent Perspectives on Trade and Inequality", *Policy Research Working Paper*, 5754. World Bank.

Hausmann, R. and B. Klinger (2006), "Structural Transformation and Patterns of Comparative Advantage in the Product Space", Center for International Development, Kennedy School of Government. Harvard University.

Helpman, E., O. Itskhoki and S. Redding (2010), "Inequality and Unemployment in a Global Economy", *Econometrica*, vol. 78, num. 4, pp. 1239-1283.

Hertel, T. and J. Reimer (2004), "Predicting the Poverty Impacts of Trade Reform", *World Bank Policy Research Working Paper,* 3444. Washington, D.C.

Hertel, T. and A. Winters (eds.) (2005), *Poverty and the WTO: Impacts of the Doha Development Agenda*, The World Bank, Washington, D.C.

Higgins, K. and S. Prowse (2010), "Trade, Growth and Poverty: Making Aid for Trade Work for Inclusive Growth and Poverty Reduction", *ODI Working Paper*, 313. Overseas Development Institute.

Inter-American Development Bank (IDB) (2002), *Beyond Borders: The New Regionalism in Latin America*, in Economic and social Progress in Latin America, Washington, D.C.

IDB (2006), *Aid for Trade: The Inter-American Development Bank's Experience in Latin America and the Caribbean*, Integration and Regional Programs Department, IDB, Washington, D.C.

IDB (2007), *Mapping the Majority*, Latin America Socioeconomic Atlas, BID, Washington, D.C.

IDB (2007), Economic Commission for Latin America and the Caribbean (ECLAC) and Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), *Regional Workshop on Computable General Equilibrium Models: Contributions for Latin America and the Caribbean Economic Policy*, Santiago, Chile, April 12-13.

Kee, H.L., A. Nicita and M. Olarreaga (2006), "Estimating Trade Restrictiveness Indices", *World Bank Policy Research Working Paper*, 3840.

Krebs, T., P. Krishna and W. Maloney (2005), "Trade Policy, Income Risk and Welfare", *NBER working paper*, 11255.

Krivonos, E. and M. Olarreaga (2005), "Sugar Prices and Poverty in Brazil", *World Bank Policy Research Working Paper*, 3874. Washington, D.C.

Krugman, P. and A. Venables (1993), "Integration, Specialization and Adjustment", *National Bureau of Economic Research Working Paper*, 4559.

Kugler, A. (2002), "Market Opening, Technology Adoption and Brain Drain: Evidence from Colombia", Manuscript.

Lara, G. and I. Soloaga (2007), "Country Studies: Bolivia", in B. Hoekman and M. Olarreaga (eds.), *Global Trade Liberalization and Poor Countries: Poverty Impacts and Policy Implications*, Institut d'Etudes Politiques, Paris, and Yale University Press.

Leamer, E. (1988), "Measures of Openness", en R. BALDWIN (ed.), *Trade policy issues and empirical analysis*, University of Chicago Press, Chicago.

Leamer, E. (1993), "Wage Effects of a U.S.-Mexico Free Trade Agreement", en P. M. Garber (ed.), *The Mexico-U.S. Free Trade Agreement*. Cambridge, Mass. MIT Press.

Leamer, E. (1994), "Trade, *Wages* and the Revolving Door Ideas", *NBER Working Paper*, 4716.

Leamer, E., H. Maul, S. Rodriguez and P. K. Schott (1999), "Does Natural Resource Abundance Increase Latin American Income Inequality?", *Journal of Development Economics*, vol. 59, pp. 3-42.

Lindert, P.H. and J.G. Williamson (2001), "Does Globalization Make the World More Unequal?", *NBER Working Paper*, 8228.

Londoño, J. and M. Székely (2000), "Persistent Poverty and Excess Inequality: Latin America, 1970-1995", *Journal of Applied Economics*, vol. 3, num. 1, pp. 93-134.

López, R. (2011), "Poverty and Income Distribution in Latin America: on the Complementarities between Trade Policy and Social Public Spending", in J. Lima, M. Lafleur and A. Pellandra (eds), *Trade, Poverty and Complementary Policies in Latin America*, ECLAC, 2011.

Lucas, R.E. (1988), "On the Mechanics of Development", *Journal of Monetary Economics*, July.

Lundberg, M. and L. Squire (2000), "The Simultaneous Evolution of Growth and Inequality", manuscript, The World Bank.

Melitz, J. (2003), "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity", *Econometrica*, vol. 71, num. 6, pp. 1695-1725.

Menéndez, M., A. Sztulman and M. Castilho (2009), "Trade Liberalization, Inequality and Poverty in Brazilian States", *PSE Working Papers*, 2009-33. PSE (Ecole normale supérieure).

Menezes-Filho, N. and M. Muendler (2011), "Labor Reallocation in Response to Trade Reform", *NBER Working Paper*, 17372.

Milanovic, B. and L. Squire (2005), "Does Tariff Liberalization Increase Wage Inequality? Some Empirical Evidence", in A. Harrison (ed.), *Globalization and Poverty*, NBER, Cambridge, Mass.

Morley, S. (2000), "The Effect of Growth and Economic Reform on Income Distribution in Latin America", *ECLAC Review*, num. 71, Santiago, Chile.

Morley, S. (2001), "The Income Distribution Problem in Latin America and the Caribbean", *ECLAC Review*, num. 65, Santiago, Chile.

Nicita, A. (2004), "Who Benefited from Trade Liberalization in Mexico? Measuring the Effects on household welfare", *World Bank Policy Research Working Paper*, 3265. Washington, D.C.

Nicita, A. (2009), "The Price Effect of Tariff Liberalization: Measuring the Impact on Household Welfare", *Journal of Development Economics*, vol. 89, num. 1, pp. 19–27.

Nissanke, M. and E. Thorbecke (2010), "Globalization, Poverty, and Inequality in Latin America: Findings from Case Studies", *World Development*, vol. 38, num. 6, pp.797-802.

OECD (2005), "*Trade and Structural Adjustment: Embracing Globalization*", OECD, October.

OECD (2009), "Trading Out of Poverty: How Aid For Trade Can Help", *OECD Journal on Development*, Vol. 10, num. 1.

OECD (2011), "Trade for Growth and Poverty Reduction: How Aid for Trade Can Help", The Development Dimension, OECD Publishing.

OECD (2012), *Policy Priorities for International Trade and Jobs*, D. Lippoldt, (ed), e-publication, available at: www.oecd.org/trade/icite.

Ohnsorge, F. and D. Trefler (2007), "Sorting It Out: International Trade with Heterogeneous Workers", *Journal of Political Economy*, vol. 115, num. 5, pp. 868-892.

O'Rourke, K. (2001), "Globalization and Inequality: Historical Trends", *NBER Working Paper*, 8339.

Paunovic, I. (2005), "El tratado de libre comercio Centroamérica-Estados Unidos: implicaciones fiscales para los países centroamericanos", *Serie Estudios y Perspectivas* 34, Unidad de Desarrollo Económico, CEPAL, México, D.F.

Pavcnik, N. (2000), "What Explains Skill Upgrading in Less Developed Countries", *NBER Working Paper*, 7846.

Pavcnik, N., A. Blom, P. Goldberg and N. Schady (2004), "Trade Policy and Industry Wage Structure: Evidence from Brazil", *World Bank Economic Review*, vol. 17, num. 2, pp. 156-197.

Perlman, J. (2010), "Globalization and the Urban Poor", In M. Nissanke and E. Thorbecke (ed), *The Poor under Globalization in Asia, Latin America and Africa*, Oxford: OUP.

Piermartini, R. and R. The (2005), "Demystifying Modelling Methods For Trade Policy", *WTO Discussion Papers*, 10.

Perry, G. and M. Olarreaga (2006), "Trade Liberalization, Inequality and Poverty Reduction in Latin America", Paper presented at ABCDE, San Petersburg, January.

Polaski, S. (2006), *Winners and Losers: Impact of the Doha Round on developing countries*, Carnegie Endowment for International Peace, Washington, D.C.

Popli, G. (2010), "Trade Liberalization and the Self-Employed in Mexico", *World Development*, vol. 38, num. 6, pp.803-813.

Porto, G. (2003), "Trade Reforms, Market Access and Poverty in Argentina", *Policy Research Working Papers*, 3135.

Porto, G. (2006), "Using Survey Data to Assess the Distributional Effects of Trade Policy", *Journal of International Economics*, vol. 70, num. 1, pp. 140-160.

Rama, M. (2003), "Globalization and Workers in Developing Countries", *World Bank Policy Research Working Paper,* 2958. Washington, D.C.

Ravallion, M. (2003), "The Debate On Globalization, Poverty And Inequality: Why Measurement Matters", *World Bank Policy Research Working Paper,* 3038. Washington, D.C.

Ravallion, M. (2004a), "Competing Concepts of Inequality in the Globalization Debate", *World Bank Policy Research Working Paper,* 3243. Washington, D.C.

Ravallion, M. (2004b), "Looking Beyond Averages in the Trade and Poverty Debate", *World Bank Policy Research Working Paper,* 3461.

Reimer, J. (2002), "Estimating The Poverty Impacts Of Trade Liberalization", *World Bank Policy Research Working Paper,* 2790. Washington, D.C.

Revenga, A. (1997), "Employment and Wage Effects of Trade Liberalization: The case of Mexican Manufacturing", *Journal of Labor Economics*, vol. 15, num. 3, 1997, pp. S20-S43.

Robertson, R. (2000), "Trade Liberalization and Wage Inequality: Lessons from the Mexican Experience", *World Economy*, vol. 23, num. 6, pp. 827-849.

Robbins, D. (1996), "Evidence on Trade and Wages in the Developing World", *OECD Working Paper*, 119.

Rodríguez, F. and D. Rodrik (2001), "Trade Policy and Economic Growth: A Skeptics Guide to the Cross-National Evidence", *NBER Macroeconomics Annual*.

Sachs, J. D. and A. Warner (1995), "Economic Reform and the Process of Global Integration", *Brookings Papers on Economic Activity*, num. 1, pp. 1–118.

Sala-i-Martin, X. (2006), "The World Distribution of Income: Falling Poverty and Convergence Period", *Quarterly Journal of Economics*, Vol. 121, num. 2 May, pp. 351-397.

Sala-i-Martin, X. (2007), "Economic Integration, Growth, And Poverty: Prospects For The Colombia-Us Free Trade Agreement", forthcoming, Inter-American Development Bank, Washington, D.C.

Sánchez, M. (2007), "*Liberalización comercial en el marco del DR-CAFTA: efectos en el crecimiento, la pobreza y la desigualdad en Costa Rica*", Estudios y Perspectivas, N. 80, Sede Subregional de la CEPAL en México, CEPAL.

Sánchez-Páramo, C. and N. Schady (2003), "Off and Running? Technology, Trade, and the Rising Demand for Skilled Workers in Latin America", *World Bank Policy Research Working Paper,* 3015. Washington, D.C.

Schejtman, A. and J. Berdegué (2006), "The Social Impact of Regional Integration in Rural Latin America", paper prepared for the Integration Regional Programs Department, Inter-American Development Bank, Washington, D.C.

Singh, T. (2010), "Does International Trade Cause Economic Growth? A Survey", *The World Economy,* vol. 33, num. 11, pp. 1517-1564.

Spilimbergo, A., J. L. Londoño and M. Szekely (1999), "Income Distribution, Factor Endowments, and Trade Openness", *Journal of Development Economics,* vol. 59, pp. 77-101.

Taylor, E., A. Yúnez-naude and N. Jesurun-clements (2010), "Does Agricultural Trade Liberalization Reduce Rural Welfare in Less Developed Countries? The Case of CAFTA", *Applied Economic Perspectives and Policy,* vol. 32 num. 1, pp. 95-116.

Tellería, R., C. Ludeña and S. Fernández, (2011), "Policy Alternatives and Strategies for the Plurinational State of Bolivia Following the End of Trade Preferences: Evaluating an Association Agreement with the European Union", in J. Lima, M. Lafleur and A. Pellandra (eds), *Trade, Poverty and Complementary Policies in Latin America*, ECLAC.

Thoenig, M. and T. Verdier (2003), "A Theory of Defensive Skill-biased Innovation and Globalization", *American Economic Review,* vol. 93, num. 3, pp. 709-728.

Venables, A. (2003), "Winners and Losers from Regional Integration Agreements", *Economic Journal*, vol. 113, num. 490, October, pp. 747-761.

Ventura-Dias, V. (2005), "Os Aspectos Distributivos das Negociações Comerciais: O Estado do Debate no Brasil", *Serie LATN Working Papers*, 33, Latin American Trade Network.

Verhoogen, E. (2008), "Trade, Quality Upgrading, and Wage Inequality in the Mexican Manufacturing Sector", *The Quarterly Journal of Economics,* vol. 123, num. 2, pp. 489-530.

Vos, R., L. Taylor and R. Paes de Barros (2004), *Economic Liberalization, Distribution and Poverty. Latin America in the 1990s*, Published for the United Nations Development Programme (UNDP) Edward Elgar Editions.

Vos, R., E. Ganuza, S. Moreley and S. Robinson (2006), *Who Gains from Free Trade? Export-led Growth, Inequality and Poverty in Latin America*, Routledge.

Wacziarg, R. (2001), "Measuring the Dynamic Gains from Trade?" *The World Bank Economic Review*, vol. 15, pp. 393-429.

Wacziarg, R. and K. Welch (2003), "Trade Liberalization and Growth: New Evidence?" *NBER Working Paper,* 10152.

Wade, R. (2004), "Is Globalization Reducing Poverty and Inequality?", *World Development*, vol. 32, num. 4, pp. 567-589.

Winters, A. (2000), "Trade, Trade Policy and Poverty: What are the Links?", *World Economy*, vol. 25, num. 9, pp. 1339-67.

Winters, A., N. McCulloch and A. McKay (2004), "Trade Liberalization and Poverty: the Evidence So Far", *Journal of Economic Literature*, vol. 42, num. 1, March pp. 72-115.

Wong, S. and V. Kulmer (2011), "Poverty Impacts of Trade Integration with the European Union: Lessons for Ecuador", in J. Lima, M. LaFleur and A. Pellandra (eds), *Trade, Poverty and Complementary Policies in Latin America*, ECLAC.

Wood, A. (1994), *North-South Trade, Employment and Inequality: Changing Fortunes in a Skill-driven World*, Oxford University Press.

Wood, A. (1997), "Openness and Wage Inequality in Developing Countries: the Latin American Challenge to East Asian Conventional Wisdom", *World Bank Economic Review*, vol. 11, January, pp. 33-57.