Can we say that Trade Policy Effectively Fights Poverty in Latin America?

Renato G. Flôres Jr.
Graduate School of Economics - EPGE / FGV
Rio de Janeiro
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Renato G. Flôres Jr.*

Graduate School of Economics - EPGE / FGV, Rio de Janeiro

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1. Introduction.

In spite of the myriad of studies on poverty and poverty alleviation initiatives available nowadays, and quite a sizeable number where (usually open) trade is the driving initiative, there still is some confusion regarding objectives and final targets. Most of it can be credited to lack of attention (or distinction) between absolute poverty and relative poverty. Trade reforms may, for instance, have an impact on absolute poverty, but by favouring other classes as well, relative poverty may remain unaltered or even worsen. Though the latter are no new statements, failure to consider both dimensions still happens many times and limits the scope of the findings.

Another point is the proper identification of the income distribution mechanisms. This requires a deeper understanding of the channels through which the results of trade policies are transmitted to the domestic economy. Even in less complex economies like many in the Latin American (LA) regions there is a considerable lack of such analyses. The consequence is that many modelling efforts – like the CGE approach –, though touching the real issues, do it in a superficial and distorted way.

The above and many other issues have been the object of excellent reviews on the trade-poverty equation. To only cite Winters at al. (2004) is not to do justice to many other pieces, so numerous indeed that someone said that a ‘review of reviews’ is already in need. I shall then not contribute to increase the existing stock, but address a list of topics I consider either relevant or confusing or needing more work and attention. Though a personal set of judgements, I hope they’ll be helpful in shedding a critical light on the existing material and opening a few new (and needed) lines of research.

I start with questions akin to the LA realities, the geographical focus of this talk. I cannot avoid though, still trying to keep a LA view, to next address a selection of methodological issues considered important. I then move to a broader
perspective, putting forward some further ideas and suggestions for the research agenda. Finally I conclude by briefly wrapping up my previous analyses.

2. The Latin American context.

A diversity of experiences

Studies linking trade and poverty in Latin America, beyond suffering from problems inherent to such analyses in general, have also often disregarded key problems specific to the region. I say this with a proviso, as LA is a too vast and confusing denomination that should, at least, be separated into three domains: South America, Central America & the Caribbean and Mexico. Geographical, political and historical arguments seem to authorize this split, the first two areas still deserving further disaggregation. But most studies for the region have concentrated on a few countries, notably Mexico, Chile and Colombia, with Brazil and Argentina deserving some though less attention. The interest on the first three seems to derive from their ties with the US, while the size and role that Argentina and Brazil play in the Southern Cone seem to respond for their attraction.

Though the above situation has been changing, as studies like Vos et al. (2006) show, and thanks to recent interest by ECLAC triggered by the new bilaterals with the US, there still is a lack of comprehensiveness, weakening the potential of generalisations and broader conclusions.

The different realities shall certainly provide different findings that may help in understanding the particular features of global problems. These refer to a nearly generalised situation of rising or hardly declining inequalities, where powerful exclusion mechanisms (migrants, ethnic groups and cultural differences) are still present, at the side of somewhat recent and very distressing phenomena: in many urban areas and poor land tracts of the continent, the emergence of complex networks of marginal, lawless & criminal activities with widespread implications in the labour market and the organisation of economic activities; while in the rural
areas as a whole, an ever more dependency on concentrating agribusiness practices, with debatable environmental and socio-economic consequences. It is in this setting, where democracy is struggling to consolidate itself as a viable political channel for the manifold queries of a huge marginal population, that we must face the challenge to investigate the manifold trade and poverty links.

**A portfolio of trade options**

Further complications do exist related to the concepts of trade opening or trade policy themselves. In some Central American countries, a few South American ones and parts of Brazil, all places where poor but reasonably structured local communities can be found, there is a vision that trade must be conducted from a local perspective, progressively developing – mostly in an associative mood, with limited external intervention – indigenous skills, in a way to enable building production units that would secure a better income and, perhaps, later engage in international exchanges. Not necessarily in opposition, but with the potential of causing rather different impacts, are two other views. One, more classical, favouring trade openness in a more unrestricted way, through free-trade agreements or regional blocs’ formation. Another one, not far from this one but more modern, tries to use the agreements as a way to insert the country’s trade flows into the growing phenomenon of international value chains, aiming at a more sustainable position in the world export-import flows. All these policies must be nuanced by the fact that LA is roughly a set of low to intermediate technology economies, nearly all dependent – though in different degrees - on commodities and raw materials.

In spite of the (already mentioned) fact that the views are not necessarily exclusive, adoption of one of them, particularly the last two, may have drastic consequences on the others. One example is the recent doubly unfortunate outcome of the *maíz* issue in NAFTA. With US corn producers nowadays, thanks to the government subsidies for the (very inefficient) production of ethanol, preferring to supply the local market instead of exporting to Mexican processors, the latter
experienced a crisis as local production had previously strongly diminished due, exactly, to these very (cheaper) imports from the US.

If we turn to evaluations, a community-based, local to global strategy presents a low impact – unless conducted in a wide scale uncommon in this kind of efforts – that may not show up at a national and even regional level study, especially within a limited time frame. But such efforts may have great value in reducing poverty, and more attention should be given on how to better integrate them in the trade/poverty assessments. Moreover, ‘classical’ trade policies, as a free-trade agreement, can either enhance or destroy such initiatives, being seldom neutral to them. In countries like Guatemala or Bolivia, to name a few pungent examples, the corresponding ‘classical evaluations’ should take this into account at the risk of producing a false picture, for the better or the worse. This raises an interesting methodological problem of creating a set of harmonised local and national impact measures, something of special relevance in LA given the sharp social divides.

The modern view of the international production chains can have even harsher consequences, as it may turn out optimal to extinguish selected activities/sectors. How to evaluate, or rather compare, these different decisions?

**Geography and the regional dimension**

Latin America is the home of huge territories, but for the argument in this item one doesn’t even need to think of giants like Brazil, Argentina or Mexico, with areas of, respectively, 8.514, 2.780 and 1.973 thousands of km². The evil combination of a diversified and often inhospitable geography with a decadent or non-existent infrastructure makes distance a major player even in a small country like Ecuador, where three clearly distinct zones – the coast, the Andean range and the Amazon region – segment the territory. In moderately-sized Peru (1.285 thousands of km²), the same three broad zones subdivide into 84 different climates!

Recent research that has been conducted at the University of Antwerp on the Andean Community – where road transportation is a major problem - shows how crucial the mix trade/accessibility has been for spreading the trade impacts, Acosta
Rojas et al. (2006), Benedictis Villacreses et al. (2006). In Ecuador, in particular, ‘far-off’ provinces have been completely eschewed from the effects of nearly all trade initiatives in the past years.

The Amazon region turns boundaries into a vapid concept, creating a continuum east of the Andes that goes from Peru to Venezuela, passing through Bolivia and Colombia, and linking all to the Brazilian side of the forest. A Brazilian soya producer in Mato Grosso, for instance, may find it easier to cross Bolivia and use a Peruvian port close to Lima than send his cargo to the port of Santos, in São Paulo. Indeed, cultures, languages, trade and migration flows, agricultural activities, all kinds of exchanges to sum up mingle in this vast area, being hard to identify where one country ends and the other begins – and, even harder, to separate the different economic systems. The same happens in parts of the Paraguayan-Brazilian border, or the Argentinean-Uruguayan one, to name a few among other examples.

All this bears out two important consequences. The first is, again, that these facts can be completely overlooked in a global-level evaluation. Moreover, as remote areas usually belong to low income segments, or, to put it in a more general way, as inequality is correlated with space, the corresponding remoteness effect can pass totally unnoticed even if results are by income classes. The second is that the regional dimension, with special attention to the boundary areas, becomes near mandatory in these studies.

The question of the rural area

Though not familiar with all household surveys existing in LA, this author is quite knowledgeable about the Brazilian one and is well aware of a few others. It is well-known that, in these surveys, reliability decreases considerably in the rural areas, be it due to under-coverage, or to inaccuracies in total income evaluation and reporting, among other problems. In many countries, like in Argentina, the rural area is even totally left out; not to mention the fact that, nearly in all of them, the very definition of rural depends on the vagaries of the tax policy of different mayors. In Brazil, where the household survey has a long tradition, sizeable parts of the Amazon
region are outside it; what to say about similar areas in Peru, Venezuela and Colombia?

In spite of this, a vast majority of trade-poverty studies has the rural zone as a main focus and no – not even a line – sensitivity analysis on the effects of the survey data can be found in 99 per cent of them. No errors-in-variables assumptions are incorporated in the econometric models or simulations based on the survey variables; non-sampling errors, something so hard and delicate to compute are forgotten, and consequently never demanded. How can we trust policy guidelines that arise from these blind attempts?

Volatility

I draw this fancy word from finance to encompass the enormous political, social and macroeconomic instability that pervades LA countries. Take the past twenty years in Argentina, Bolivia, Brazil, Colombia, Ecuador or Peru and anyone will be amazed with the serious macroeconomic disequilibria in the domestic and external accounts, the huge institutional changes that profoundly impact the channels linking trade and poverty reduction, the confounding effects of (more recent) direct-assistance programmes for the poor.

In unstable economies like those in LA, macroeconomic conditions have a huge impact on trade and poverty-reducing policies and their possible effects. Indeed, they can be THE underlining factor, responsible for the main changes. In Brazil, for instance, significant reductions in poverty were achieved through inflation control and direct assistance programmes, in a nearly independent way of the adopted trade policies. This limits considerably the availability of ‘pure trade policy’ experiments as, ideally, the macroeconomic background must be stable (during the experiment).

Summing up, this continuous state of flux raises questions that one may argue to lie “in the garbage box in the backyard of the modeller’s kitchen”\(^1\), but that are

\(^1\) As an old CGE master, Jean Waelbroeck, liked to refer to basic, key modelling questions people usually try to avoid.
crucial starting and end points: how to choose a base year for our analyses (especially in a CGE context)? how to correctly frame our very results?

3. A few points on methodology.

The counterfactual – an annoying zombie

Most poverty evaluations share a deficiency that is also common to the majority of trade evaluations: the absence of a counterfactual. The impact of Mercosul’s first years on Argentina, for instance, is blurred by the generalised opening of the country’s economy, requiring attention and finesse (and quite a lot of indirect measurements) to disentangle the various effects. Add to a situation like this one the impact of the ‘other than trade’ dynamics on poverty, and spice it with the different possible outcomes related to inequality: this will suffice to put strong doubts on many studies. Moreover, as known, the dynamics between inequality, from one side, and the growth + poverty nexus on the other hasn’t been fully understood yet, adding further problems to the trade/poverty context.

It may seem not fair to raise, in this paper, a point that has been surfacing for the last fifty years in the trade evaluations debate and that hasn’t been fully solved yet. However, I have two arguments in favour of calling here this annoying zombie.

The first is that it is my view that earlier analysts, like those of the “Benelux school of trade studies”, paid much more attention to such comparisons. P. J. Verdoorn, for instance, though applying techniques that may look childish to a young today’s PhD, always dedicated enormous care in the creation of the anti-monde, the counterfactual that would give sense to his evaluations. This proper attitude seems unfortunately not to have been followed in myriads of computationally-intensive, automatically-generated and totally “un-controlled” trade/poverty evaluations we see today. A strong pledge for the re-insertion of the anti-monde is then made.

2 Though only in appearance; in reality, they were very shrewd and creative.
Secondly, there are, in my view, two important methodologies that may considerably aid – I’m not saying solve – in generating counterfactuals. The first is the set of econometric models like the differences-in-differences estimator, or the contrasted treatment effects, that are based on matching and, many times, propensity scores techniques, Heckman et al. (1997). It is true that, in principle, they are more suitable for small-area studies, given the peculiar problems raised by the matching procedure. Community-based studies in Guatemala, Nicaragua and Brazil, for instance, where an ‘equivalent, not-treated community’ can be identified, have started to pay attention to this alternative. But exactly a major and interesting challenge is to enlarge the geographical focus of such evaluations, through a careful and creative use of matching and the corresponding estimator. Household and industrial surveys data seem a rich locus where much in these lines can be done.

The other is the interesting generalisation of Oaxaca (1973)’s idea of computing counterfactual first-order moments put forward by Lemieux (2002), inspired on earlier work by himself and other colleagues on the labour market. Stating very briefly, he considerably broadens the possibility of constructing counterfactuals, by generating the very associated distributions. As stated by the author himself, the technique allows a wide range of applications, and I see it as particularly suited for our cases. Ferreira et al. (2007) shows an interesting application of it, and, in countries like Brazil and Venezuela, it may help in disentangling the trade policy effects from those due to direct-assistance programmes nowadays in progress.

The counterfactual has of course less importance – and many times none – if the goal of the study is to predict the impact on poverty/inequality of a proposed trade policy. But even so, care must be invested in building up at least an alternative scenario for the remaining structure of the economy.

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3 At the root of all these econometric uses lies the seminal paper by Rubin (1974); the propensity score received formal treatment in Rosenbaum and Rubin (1983).
4 For an interesting attempt see Ottaviano and de Souza (2007).
5 But see also the earlier Bourguignon et al (2002).
A multi-ethnic marriage: CGE and micro-simulations

I presume all development economists would be in favour of multi-ethnic marriages, but they also know that a key element of their success is a wise approach – and due respect - to the inevitable cultural differences. The combined use of CGE results with more detailed (micro-simulations) models which, by way of further assumptions, end up providing finer information on the poverty/inequality effects, too often violates this main principle.

I won’t raise here a deep methodological inquiry on the matching of these techniques but I can’t resist calling attention that many times they overextend the limits of CGE findings. “Nobody knows when and how a CGE result will fully take place”: they can be understood as a (new) long-run equilibrium – a usual practice, but they can also come true very fast; or they may signal a direction of movement, that the economy will follow though at different sectoral speeds, and in such way that, in the process of this very movement, new shocks or conditions will lead it to a totally different outcome. As all this is possible, static CGE doesn’t giving us a clue on what will take place, feeding its results to another model though not forbidden must be done with care.

But other issues plague this marriage. Different years for the CGE (calibrating) benchmark and the data for the poverty exercise may introduce further serious distortions. Moreover, the usual transmission link between the two models is Deaton (1997)’s over-used (not to say abused) first-order, linear decomposition of the welfare variation ($\Delta W$) into the price variations:

$$\Delta W = \sum_i (q_i - c_i) \Delta p_i,$$

where $i$ runs overs all goods, and $q_i$, $c_i$, and $p_i$ stand, respectively, for the quantities produced (sold) and consumed, and the respective price, all relative to a given consumer, or group of consumers of interest.
Bluntly plug in the $\Delta p_i$’s the variations form the CGE exercise, produced under a (single) representative-consumer framework, is a procedure which overlooks key transmission mechanisms related to different classes of consumers and precisely quite often at the heart of the poverty generating processes.

I’m afraid the above points are twice more important in LA where, as mentioned in the previous section, the policy making environment can be extremely volatile. In many situations it would have been better not to couple the two methodologies, rather than producing a second wave of effects especially difficult to grasp, and guidelines more suitable for a Lewis Carroll book.

**Cross-sections and their lack of content**

Part of the evidences we have comes from cross-section studies – of sectors, regions, social classes, etc – either involving different LA countries or even a broader set of world nations. Such studies take, many times, an inadequate account of the heterogeneity of experiences/groups. By this I’m not saying that people forget, in their panels, to introduce a random or fixed effect for the units’ heterogeneity, but rather something deeper in the sense that, in perhaps nearly half of the studies, the *very heterogeneity of experiences or reactions* would not authorise putting those units together in the panel. Behind a random effects model, for instance, lies a minimal homogeneity in the (stochastic) mechanism generating the effects, which goes beyond a different variances hypothesis, for instance. Moreover, cross-sections are often used for forecasting or other ‘time extrapolation’ purposes; conclusions being then entirely senseless.

**Synthetic measures and what they tell**

The desire of creating synthetic measures summarising the effect of the trade reform on different aspects of the income distribution is absolutely valid, and may considerably help both in the analysis of the reform itself as in communicating results and conclusions. However, to tell significant stories, synthetic indicators must have due coverage and, ideally, move according to rules clearly linked to the
phenomena and/or transmissions at stake. Once again, the LA context enhances deficiencies akin to the majority of indicators. I illustrate with two widely used ones.

The first is the skill premium, defined as the ratio (by sector, or the whole manufacturing industry) between the (average) wages of skilled and unskilled workers. An increase in this ratio – supposing all other factors controlled – is usually considered as a positive poverty reducing sign of the trade policy. But in countries where many industries aren’t internationally competitive, the ratio can increase simply because many “lower-paid unskilled workers have disappeared from the denominator”, either due to sheer redundancies or to the very disappearance of their firms, both caused by the more competitive environment. The indicator must thus be complemented, in this case, with something that tells what happened to this group. Did they remain unemployed? Was there a proper adjustment programme that took care of them? This is a serious point if one computes this measure in Argentina, Bolivia and Mexico, to cite a few, and I would venture even in Chile and Brazil.

Moreover, this ratio is often used as providing evidence for the economy as a whole, though calculated for the manufacturing – and sometimes also the agricultural – sector. They forget that services play a major role in all LA economies, usually in a way different from the one through which they interact in the developed economies, and their joint dynamics with the changes in manufactures and agriculture is a key element to allow a final judgement on a likely positive move of the skill premium. Notwithstanding, though sizeable and important, they are under-measured, when not unknown, in all LA economies. The puzzle then becomes hard to be solved.

It is also services that can disrupt, in many ways, the meaning of another aggregate measure: that computed by (1). The first is when the sector’s disaggregation pools together many different service sectors, making debatable an assessment of the price variation, usually then set to zero. This produces a mutilated welfare variation figure, of little value. Even when the household survey used for defining the summands in the right hand side of (1) provided a better identification
of relevant services, again information on the corresponding price variations is usually lacking. In the event that the latter come from a CGE exercise this is nearly for sure, as most of these models work with poor and artificial descriptions of the service sectors, usually also too aggregate. Setting all variations to zero only brings one back to the previous case.


The trade x FDI dynamics in poorer contexts
All LA economies are in dire need of foreign investment (FDI), and their search for foreign money is closely linked to their trade policy. Though FDI has its own rules, motivations and requirements, it is perhaps not false to say that, at least half of the times, it is the predominant motive for the trade reform. Moreover, in a true globalisation feature, LA countries themselves are engaged in an increasingly dense pattern of cross-investments, with significant feedbacks in their trade flows. Bolivia’s recent occupation of a Brazilian refinery – which mainly supplied gas to Brazil - is a dramatic example, eventually well solved, of this new reality.

Bringing FDI to the discourse, brings also new features of analysis. Two important ones are spill-over and agglomeration effects. As to the former, there is a reasonable consensus nowadays that they have a strong regional dimensional, Flôres et al. (2007), Crespo and Fontoura (2006). Agglomeration effects, due to spatial competition forces, also induce changes in the regional pattern. The result of both, for the good or evil, is evident in areas of Brazil, Argentina, Bolivia and Mexico. Moreover, the not very clear correlation of FDI with the institutional setting, and the clearer but elusive ones with market size and natural endowments, are maybe further arguments in favour of starting to take it into account jointly with trade, when assessing the poverty alleviation links.

6 Keeping of course in mind all the provisos against this set forth under the heading ‘A multi-ethnic marriage’.
**A sequence of evaluations rather than one-shot studies**

All processes of interest in this essay take place along the time dimension, usually in an un-coordinated way. Rather than to one-shot studies, attention should be switched to a sequence of evaluations that would draw an evolutionary picture of the phenomena at stake. This poses however two additional problems. One is confounding; the desired effect mixing up with other measures or shocks that occur during the observational period, something already emphasized as very common in the LA context. The other is an additional stress on data requirements: changes in the methodology of the survey of reference or lack in its continuity (due to budgetary constraints, or administrative changes – again two frequent events) can jeopardise the whole study. From the methodological side, dynamic CGEs, for instance, need a careful inspection of the related closures and may be too aggregate for the purposes in mind. Notwithstanding, these points shouldn’t be an excuse for not pursuing more sequential and longitudinal evaluations.

**From a local to a multi-country perspective**

When the regional, multi-country viewpoint is at stake, consideration of between and within country inequality (rather than poverty) matters. A free trade area, or a trade agreement between a regional bloc and an outside partner, may have all possible effects on each member, but these outcomes bear no definite relationship with the relative impact within the group. If poverty is reduced in each member, but the disparity (or asymmetry, to use the modern *cliché*) in the group rises, though a positive result if looked at a country-basis, the trade agreement can heighten political or integration tensions in the bloc.

Co-ordination of the agreement impacts – and of how they “split themselves” within the bloc – and an effort to maximise the infrastructure spill-overs that it may trigger are important dimensions for (global) poverty reduction that have been neglected in the implementations as well as the evaluations. The Mercosul and the Andean Community unfortunately provide examples of such mismanagements.
The regional bloc perspective goes down to the country and the local development ones, composing a mosaic of effects. The integration and governmental authorities, and the various community groups need information to guide their concrete actions. Local communities’ economic and social recovery projects or actions must be sustainable; direct assistance programmes – valid in poorer or more unequal countries (regions) - must evolve into capacity building ones: how do they link with trade policies? can they have a greater impact – and stronger links with the bloc’s trade policy – if conceived in a multi-country (i.e. bloc) basis? or are these initiatives too heterogeneous to justify a combined approach?

There is certainly a need of further research to harmonise indicators and evaluation methodologies with these different spatial levels.

**Energy and environmental issues**

Energy and the environment see no legal boundaries and should, in principle, be unifying factors in a continent like South America, which is extremely well-endowed with both. Though a consciousness is growing that the several South (and Central) American nations should create a single front to integrate their resources for the benefit of all and the design of a (reasonably) common trade policy on energy goods, there is still a long road to be travelled. Meanwhile, local and regional mismanagements affect both less resources-rich countries like Chile as a favoured one like Argentina. This situation represents an extra and considerable stress on the poor: rising energy prices and systematic black-outs seem to affect more – either directly or via their negative impacts on infrastructure and transportation – the poorer segments of the population. Moreover, most countries are starting to change their energy matrices under a perspective of self-sufficiency and (future) cost minimisation, without a clear pro-poor stance.

But serious physical constraints are also posed by the ever concentrating agribusiness practices. Mini environmental disasters, which may eventually be boosted by the present climate changes, have already taken place. Desertification and other nasty environmental effects of such intensive, income concentrating
practices, are unfortunately to be expected. Argentina and Brazil rank together as the fourth and fifth top net exporters of virtual water (through the agro sector), having exported around 45 billion cubic metres during 1997-2001. Though both – specially Brazil – are very well endowed with water, local environmental damage and seriously increasing salinity levels of naturally salty vast tracts of earth are already noticeable. Again, the largest part of the burden is due to fall on the rural poor.

Though in northern countries, particularly Canada, there is a tradition of coupling the environmental, and sometimes the energy issues, with CGE – and other formal methods as well – evaluations of trade and social policies, this practice is very incipient in LA. The importance of both subjects, which interact with the trade policy usually in the unfavourable direction, as regards poverty alleviation, calls for an urgent start of this kind of studies.

5. Conclusion

Reality still demands considerable efforts. Maybe this is the main conclusion one may draw from the previous lines. Moreover, I think we all, modellers, evaluators and/or econometricians need a considerable degree of humility: the IMME (information-measurement-model-evaluation) paradigm is not enough, and our policy guidelines are sometimes too general. In the LA context, the IMME chain must be extended and deepened, accounting more for the heterogeneity of cases, including, whenever possible, the physical constraints and incorporating new ways of integrating the local and the global. Other aspects not treated in this paper, like the role of specific juridical measures and the rule of law, should also, ideally, be an integral part of the impact evaluations.

How and in which ways all this can be combined into more encompassing evaluations? Which, among the several needed methodological improvements, will prove more helpful to policy making?

The portfolio of challenges ahead is as huge as fascinating.
References


