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Trade and Poverty in Latin American Countries: Conceptual and Methodological Challenges

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TRADE AND POVERTY IN LATIN AMERICAN COUNTRIES: CONCEPTUAL AND METHODOLOGICAL CHALLENGES[♣]

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TRADE AND POVERTY IN LATIN AMERICAN COUNTRIES: CONCEPTUAL AND METHODOLOGICAL CHALLENGES[♠]

Abstract

This paper addresses topics - either relevant or confusing or needing more attention - related to measuring the trade and poverty nexus. It sheds a critical light on the existing material and suggests needed research lines. It starts with questions akin to the LAC realities; then, keeping this view, general methodological issues are also examined. In a broader perspective, further ideas for the research agenda are formulated. The main conclusion is that relevant findings still demand considerable efforts. Moreover, the Information-measurement-model-evaluation paradigm is not enough, policy guidelines being usually *too* general. In LAC, it must be extended and deepened, accounting more for the heterogeneity of cases, including, whenever possible, the physical constraints and incorporating new ways of integrating both the local and global perspectives. Other aspects, like the role of specific juridical measures, should play a role. How all this can be combined into more encompassing evaluations remains open.

Keywords: CGE modelling, household surveys, Latin America, micro-simulations, physical constraints, poverty impacts.

JEL codes: D31, D58, F14, I32, O54.

[♠] I am indebted to John Cockburn and Paolo Giordano for the joint PEP-IDB invitation. I am also grateful to them and the participants at the Policy Forum, as well as to an anonymous referee, for comments and various stimulating reactions. German Calfat patiently read previous versions I was not happy with and made precious comments and suggestions. I am solely responsible for the lines to follow, which in no way represent the viewpoints of my institution or those of any sponsoring organization.

1 Introduction

In spite of the myriad of studies on poverty and poverty alleviation initiatives available nowadays, and quite a sizeable number involving (usually open) trade as the driving force, 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 of contention 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 of those 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 so 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 that someone said that a 'review of reviews' is already needed[1]. I shall thus not contribute to increase the existing stock, but instead address a list of topics I consider either relevant or confusing, or requiring more work and attention. Though presented as 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 sometimes urgent) lines of research.

I start with questions akin to 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 ideas

[1] Giordano and Florez (2007) is also a recent and extensive survey on the subject.

and suggestions to further the research agenda. Finally I conclude by briefly wrapping up my previous analyses.

2 The Latin American context

2.1 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 Latin America 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 work on the region has 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 account 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 bilateral treaties 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 hopes of a huge yet marginalized population, that we must face the challenge to investigate the diverse trade and poverty links.

2.2 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, 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, favours trade openness in a more unrestricted way, through free-trade agreements or the formation of regional blocs. Another view, not far from the first one though 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 Latin America (LA)[2] 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 fact that both 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.

[2] From now on, LA stands both for *Latin America* and *Latin American,* with no harm to the clarity of the text, I hope. LAC, as explained earlier, stands for *Latin American countries.*

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 its 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 ?

2.3 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 km^2. The evil combination of a diversified and often inhospitable geography with a decadent or non-existent infra-structure makes distance a key determinant of development, 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 km^2), 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, for example, 'far-off' provinces have been completely isolated 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 uniting all these territories 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 and all kinds of exchanges mingle in this vast area. It is hard, if not impossible, 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 that of Argentina and Uruguay, 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.

2.4 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 the reliability of these surveys 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 ?

2.5 Volatility

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

In unstable economies like those in LAC, macroeconomic conditions have an enormous 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 considerably limits the availability of 'pure trade policy' experiments as, ideally, the macroeconomic background must be stable during the experiment.

Summing up, this state of flux raises questions that one may argue to lie "in the garbage box in the backyard of the modeller's kitchen"[3], but that are 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

[3] As an old CGE master, Jean Waelbroeck, liked to refer to basic, key modelling questions people usually try to avoid.

3.1 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, as well as 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 season it with the different possible outcomes related to inequality: this will suffice to put strong doubts on many studies. Moreover, the known fact that the dynamics between inequality on one hand, and the growth-poverty nexus on the other has not been fully understood yet, lends further complications to the trade/poverty context.

It may seem unfair to raise, in this paper, a point that has been surfacing for the last fifty years in the trade evaluations debate without any definite solution. However, I have two arguments in favour of calling back 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 nowadays young PhD[4], 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.

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, quite often, propensity scores

[4] Though only in appearance; in reality, his methods were very shrewd and creative. An illuminating summary of them is Verdoorn and Van Bochove (1972); a substantial example – of historical and conceptual interest – is Verdoorn and Schwartz (1972).

techniques, Heckman et al. (1997)[5]. 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 progress along these lines can be done[6].

The other is the interesting generalisation of Oaxaca's (1973) 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. Briefly stated, he considerably broadens the possibility of constructing counterfactuals, by generating the very associated distributions. As argued 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[7], and, in countries like Argentina, 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.

3.2 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 to 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

[5] 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).
[6] For an interesting attempt see Ottaviano and de Souza (2007).
[7] But see also the earlier Bourguignon et al (2002).

up providing finer information on the poverty/inequality effects, too often violates this main principle.

I will not raise here a deep methodological inquiry on the matching of these techniques but I cannot resist calling attention that many times they overextend the limits of CGE findings. Nobody knows when and how the CGE results 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 falls short of giving us a clue on what will take place, and 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 (ΔW) into the price variations:

$$\Delta W = \Sigma_i (q_i - c_i) \Delta p_i \quad , \qquad (1)$$

where i runs over 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 the variations from the CGE exercise into the Δp_i's, produced under a (single) representative-consumer framework, is a procedure which overlooks key transmission mechanisms related to different classes of consumers; mechanisms which, quite often, precisely lie at the heart of the poverty generating processes.

I'm afraid the above points are twice more important in LAC 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.

3.3 Cross-sections and their lack of content

Part of the evidences we have on the trade-poverty relationship 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 usually take an inadequate account of the heterogeneity of experiences/groups. By this I am not saying that people forget, in their panels, to introduce a random or fixed effect for the units' heterogeneity. Rather, I am implying 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 thus being entirely senseless[8].

3.4 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[9]. An increase in this ratio – supposing all other factors controlled – is usually considered as a

[8] Rodríguez (2007) develops arguments which, though not identical to the ones in this text, calls attention to other relevant questions, in the context of the so-called "growth regressions".
[9] The literature on this is vast; Acemoglu (2003) being but one example.

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. In this case, the indicator must be complemented 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, just to cite a few countries, 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. Such computation forgets 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; 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, services 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 adopted disaggregation pools together many different (service) sectors, making an assessment of the price variation - usually then set to zero - debatable. 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) provides a better identification of relevant services, information on the corresponding price variations is usually lacking. In the event that the latter come from a CGE exercise[10] this is nearly for sure, as most of these models work with poor, artificial and usually too aggregate descriptions of the service sectors. Setting all variations to zero only brings one back to the previous case.

4 Global issues

[10] Keeping of course in mind all the provisos against this set forth under the heading 'A multi-ethnic marriage'.

4.1 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, LAC 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, also adds 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 dimension, as shown by Flôres et al. (2007) and Crespo and Fontoura (2006). Agglomeration effects, due to spatial competition forces, also induce changes in the regional pattern. The result of both, for better or worse, 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 FDI into account jointly with trade, when assessing the poverty alleviation links.

4.2 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 uncoordinated way. Rather than focus on one-shot studies, attention should be directed 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, which are two frequent events, for instance) 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 should not be an excuse for not pursuing more sequential and longitudinal evaluations.

4.3 From a local to a multi-country perspective

When the regional, multi-country viewpoint is at stake, considering within- *and* between-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 to 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 levels, 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 these initiatives 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 they 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.

4.4 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 resource types. Though 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 ill-managed experiences affect both less resources-rich countries like Chile as a favoured one like Argentina. This situation represents an added, considerable burden on the poor: rising energy prices and systematic black-outs seem to affect – either directly or via their negative impacts on infrastructure and transportation – the poorer segments of the population more. Unfortunately, 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 natural resources constraints are also posed by the ever concentrating agribusiness practices. Small-scale environmental disasters, which may eventually be aggravated by the present climate changes, have already taken place. Desertification and other unwelcome environmental effects are to be expected from such intensive, income concentrating practices. Argentina and Brazil rank together as the fourth and fifth top net exporters of virtual water (through their respective agro sector practices), having exported around 45 billion cubic metres during 1997-2001. Though both – especially Brazil – are very well endowed with water, local environmental damage and seriously increasing salinity levels of naturally salty vast tracts of earth are already becoming noticeable. Again, the largest load 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, if we do want to contribute to its improvement. Maybe this is the main conclusion one may draw from the previous lines. Moreover, I think us 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.

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