

## 2011 Agency Report

### Inter-American Development Bank (IDB) Integration and Trade Sector (INT)

The Inter-American Development Bank (IDB) is committed to support regional integration in Latin America and the Caribbean as one of the four pillars of its institutional strategy. It offers financing and specialized technical support to member countries in the region to help them pursue proactive regional and global economic integration agendas.

Support for regional and global integration lies at the heart of the development mandate of the Bank. The IDB General Capital Increase process, the recently approved Bank's Integration Strategy and the endorsement of key operational principles contained in that strategy in the Forth Meeting of Finance Ministers of the Americas and the Caribbean call for mainstreaming trade and integration objectives into Bank's operations. The Integration and Trade Sector (IDB-INT) has a crucial role in contributing to meet the objectives in the *software* agenda (trade missing links, convergence and harmonization of the regional trade architecture, as well as export and investment promotion) and the *hardware* agenda (trade related regional physical infrastructure).

In order to respond to this mandate, INT must be equipped with technical expertise to deliver policy advice and transfer knowledge to key regional policymakers and stakeholders in the region. IDB-INT has a remarkable record in the development of quantitative analytical techniques to produce policy-oriented knowledge on the economic and social impacts of trade and regional integration initiatives, to promote policy dialogue and outreach initiatives throughout the region, and to provide technical assistance and lending instruments to country members.

**In 2010**, IDB-INT worked in four fronts: (i) the CGE model and databases; (ii) the publications; (iii) the capacity building program; and (iv) the CGE regional network. In the first front, the upgrade to a CGE dynamic recursive model and the update of the regional trade and tariff data –benchmarked 2008- were completed. Results from the first application of the dynamic recursive version of the model (“The Impact of International Migration and Remittances in Latin America”) were presented at the 13<sup>th</sup> GTAP Annual Conference in Bangkok. As of the end of 2010, IDB-INT operates three distinct models, the static version, the one that incorporates scale economies and imperfect competition, and the dynamic recursive.

In terms of publications, the second front, IDB-INT released eleven analytical products in 2010 (two policy briefs, three technical papers, and five dialogue-oriented PPTs) based on six empirical projects: the effects of the Free Trade Agreements (FTAs) with the USA, EU, and China on the Peruvian labor market; the impacts of transport cost reductions on regional trade; the impacts of international migration and remittances in Latin America; the assessment of the economic consequences of international migration in Colombia; the evaluation of North-South FTAs in Colombia; and the implications of rising international food prices on poverty rates in Central America. In addition, in the Third Regional Conference on General Equilibrium Models in Buenos Aires the IDB-INT and the Economic Commission for Latin America and the Caribbean (ECLAC) released the book “Modeling Public Policies in Latin America and the Caribbean”, containing selected papers submitted and presented in the previous two regional conferences held in Santiago, Chile (2007) and San Jose, Costa Rica (2008).

The IDB-INT regional capacity building program on modeling techniques represents the third line of work. In year 2010, the Bank provided technical assistance to six different governmental agencies in Peru to build institutional capacity to perform quantitative evaluations of the economic and poverty effects of trade reforms. The three-year program included an in-person training course for more than twenty officials, the design of a CGE model for the Peruvian economy, the transfer of regional data on trade and tariffs, and the provision of a user-friendly, web-based interface to facilitate simulation exercises.

Finally, in the fourth front, IDB-INT strengthened its interaction and linkages with the growing community of experts in CGE modeling techniques. In a joint effort with ECLAC, the Bank implemented the Third Regional Conference on General Equilibrium Models in Buenos Aires, Argentina. The event congregated around 30 regional experts who presented 27 papers in areas of research such as trade and poverty, climate change, international migration, fiscal policy, and the global financial crisis. The conference also served as a venue for the launching of the first version of IDB CGE Web Center, a web-based interactive tool containing useful data and information on CGE analysis for modelers and policymakers.

**In 2011**, the IDB-INT will continue working in the fourth areas of intervention, namely the upgrade of the CGE mode and databases, the release of new empirical publications, the capacity building program on modeling techniques, and the development of the regional research network. In addition, the IDB CGE Program will increasingly focus on reassigning its resources towards the generation of empirical knowledge in beyond-trade, emerging dimensions of regional integration such as foreign direct investment, investment in physical infrastructure, transport costs, international migration, and climate change.

### **(1) Upgrade of the CGE model and update of the database**

IDN-INT will continue to upgrade the recursive dynamic model and the SAM database. The standard version of the global, dynamic recursive model with the focus on Latin America has already been completed. Last year, the model was upgraded in several aspects. First, production is now modeled in a three-stage nested structure, in order to accommodate overtime substitutability between the aggregate intermediate inputs and the composite primary factor. Labor market is decomposed into three skill categories: low, mid, and high. This disaggregation is key for the analysis of the Latin American labor markets, since most countries have a significant share of medium skilled labor.

Second, household consumption demand is specified by a combination of a CES and the Linear Expenditure System (CES-LES) function. LES preference parameters are estimated on the basis of the Frisch parameters, which are country-specific in the model. Third, due to the nature of the dynamic model, sector investment is modeled by the investment demand function of the second-order quadratic form in order to optimally allocate investment across sectors and link it to the new capital stock. Fourth, the model calibrates over year 2020, with data coming from recent projections by the World Bank and the IMF. With endogenous capital accumulation and other exogenous variables and parameters, the aggregate total factor productivity (TFP) is modeled to achieve the target real GDP growth trajectory in each period (baseline solution).

On the other hand, the database is also being updated and improved. First, the SAM database has been updated to 2008 (trade, macro-variables, national accounts, among others). Second, based on household survey and national data for some countries, labor market has been decomposed into three categories, as previously described. Projections of the size of the labor force –in the three categories- cover the period 2008-2020, based on recent data from ILO. Finally, the estimation of capital stock using “perpetual inventory method” has been updated for each Latin American country, based on information from the OECD, the ECLAC, and the PENN world tables.

### **(2) Publications**

Ten analytical products are expected to be release this year, among them five policy briefs, four technical papers, and one policy discussion PPT, all of them linked to six areas of research: international migration, economic effects of regional FTAs, transport costs, investment in physical infrastructure, climate change, and international food prices. The publications are listed at the end of the document.

### **(3) Capacity building program**

This year, the Bank will implement its CGE capacity building program on two Latin American countries, Peru and Nicaragua. In the first case, the 2011 activity represents the second phase of the three-year program directed at six different governmental agencies, the Ministry of Economy and Finance (MEF), the Ministry of Foreign Trade and Tourism (Mincetur), the Ministry of Production (Produce), the Ministry of Agriculture (Minag), the Ministry of labor (Mintra), the National Institute of Statistics (INEI), and the Central Bank (BCR). In Nicaragua, the three-year program is expected to congregate around twenty officials from four different public agencies, lead by the Ministry of Promotion, Industry, and Trade.

### **(4) The research network**

The Fourth Regional Conference on General Equilibrium Models will be held in Santiago, Chile, in the first quarter of year 2012. However, organizational and logistic efforts will start at the beginning of the second semester. Areas of research to be considered with significant interest include: trade and investment in infrastructure, transport costs, non-tariff barriers, and climate change.

### **Publications 2011**

*Policy Brief: Measuring the Impact of Transport Costs in Latin America*

*Policy Brief: The Effects of the FTAs with the US, UE, Japan, and Korea on the Colombian Economy*

*Policy Brief: Mexico-Brazil FTA: A CGE Economic Assessment*

*Policy Brief: Investing in Integration: The Returns from Software-Hardware Complementarities: (Document already released at the Fourth Meeting of Ministers of Finance of the Americas and the Caribbean for the 2011 IDB Annual Meeting in Calgary, Canada)*

*Policy Brief: Rising International Food Prices: Economic Implications in Latin America*

*Technical Paper: Mexico-Brazil FTA: A CGE Economic Assessment*

*Technical Paper: The Export Returns of Infrastructure Investment in Latin America*

*Technical Paper: Measuring the Impact of Transport Costs in Latin America*

*Technical Paper: The Impact of International Migration and Remittances in Latin America (version 2.0)*

*Policy Discussion PPT: Rising International Food Prices: Economic Implications in Latin America*