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Ricardo Ernesto Buitrago R.  
*Universidad de La Salle, Bogotá, rbuitrago@lasalle.edu.co*

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# Free Trade Agreements and their impact on Latin American migrations: An approach

Ricardo E. Buitrago R.\*

## ABSTRACT

This paper aims to review the causes of international migration and the potential impact of FTAs (Free Trade Agreements) on Latin American Migrations. The first part describes the economic and non-economic causes for migration. The second one shows the potential impact of FTAs in the economy (job creation/destruction by sectors) in CAFTA countries and Colombia. The last part shows that there is little correlation between the commercial openness (FTAs) and the reduction of poverty. Poverty seems to be increasing in the studied countries –even more in those with the most open commercial regimens, than in those with the most closed ones. Data proves that openness doesn't reduce the poverty automatically; on the contrary, in some (regional or subregional) cases it increases and causes a major determinant of international migration in Latin American countries.

**Key words:** Economic Growth, Free Trade Agreements, Trade Openness, Migration, Poverty.

## TRATADOS DE LIBRE COMERCIO Y SU IMPACTO EN MIGRACIONES LATINOAMERICANAS: UN ENFOQUE

### RESUMEN

Este artículo pretende hacer una revisión de las causas de la migración internacional y el potencial impacto de los Tratados de Libre Comercio (TLC) en las migraciones Latinoamericanas. La primera parte del artículo describe las causas económicas y no económicas de las migraciones. La segunda parte muestra el impacto potencial de los TLC en la economía (creación/destrucción de empleos por sectores) de los países del CAFTA y en Colombia; y en la tercera se evidencia la poca correlación que existe entre la apertura comercial y la reducción de la pobreza. La pobreza parece estar incrementándose en los países analizados, aún más en aquellos con regímenes más abiertos. Los datos demuestran que la apertura no reduce la pobreza automáticamente, por el contrario, en algunos casos (regionales o subregionales) ésta se incrementa causando así un determinante importante frente al proceso migratorio en América Latina.

**Palabras clave:** crecimiento económico, Tratados de Libre Comercio, apertura comercial, migración, pobreza.

\* Assistant Professor of International Business and Economic Integration at Universidad de La Salle – Bogotá, Colombia. MSc. in International Relations. This paper was presented at "Conference on Regional Trade Agreements, Migration and Remittances with special focus on CAFTA and Latin America" at Sam Houston State University, Huntsville, Texas, USA, April 12-13, 2008. e-mail: rbuitrago@lasalle.edu.co

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## INTRODUCTION

International migration is currently arousing a wide range of concerns in the countries of the Americas, yet responses until recently have tended to be unilateral and administrative, and disconnected from social and economic development goals in the widest sense. There is a need for better understanding of migration, in order to channel it effectively in today's changing world; and this requires a comprehensive approach involving all stakeholders, in order to absorb the acute tensions that are being generated as we move into the twenty-first century.

Dealing with the repercussions of international migration is indissolubly linked to the struggle for social equity, so including this in actions to reduce poverty and inequality in employment and social security, and in the domain of social assistance, involves the entire population of the region, regardless of origin or nationality. Some Latin American countries expect, through free trade agreements, to reach that social equity.

International flows of workers, cultural interaction, acceptance of people displaced from their own countries – these are facts of life in each of the nations of the region, extending throughout the American continent. Although lack of data makes it impossible to calculate the exact number of people participating in the various migratory flows, their size is the most visible expression of international migration in the continent.

This document reviews some data and facts on selected countries in Latin America (DR-CAFTA and Colombia), correlate them and aims to explain the causes for international migration and the potential impacts of free trade agreements on that migration. The final purpose is to give an approach of one of the major problems that affects some countries in the region.

## CAUSES OF INTERNATIONAL MIGRATION

International migration is usually a major -and highly considered- individual or family decision. In Latin America, crossing national borders to settle or work in another country is not a decision made lightly. There are two broad categories of migrants: those who migrate to another country primarily for economic reasons, and those who move primarily for non-economic reasons. The economic reasons might include labor recruitment (guest workers), unemployment, underemployment and low wages. The non-economic reason might include family unification, war, persecution, displacement, refuge and asylum.

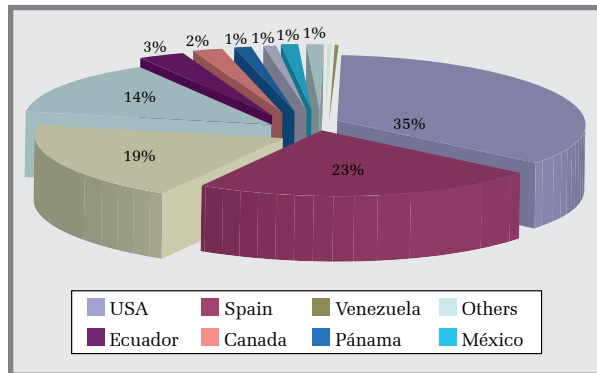
### ¿WHAT EXPLAINS MIGRATION IN COLOMBIA?

The Colombian census in 2005 answered the question of the number of Colombians living abroad at the time: ca. 3,3 million; 8% of population. An important finding of the census is geographical distribution of Colombian migration (see Chart 1). The three main destinations are the United States (35,4%), Spain (23,3%) and Venezuela (18,5%); followed by Ecuador, Canada, Panama and Mexico. It is possible that in some European countries as the UK, Italy and the Netherlands reside a bigger number of Colombians than in Bolivia, Peru or Argentina. This is owed, partly, to the economic crisis of the eighties that stormed the countries across the region and made them less attractive for intra-regional migration.

On the other hand, the demand of cheap manpower has increased in the industrialized countries, what attracts more emigrants from developing countries. Also, technological progress<sup>1</sup> in transportation have reduced displacement costs and time traveling, facilitating migration.

1 A change in a production function that alters the relationship between inputs and outputs. It is normally understood to be an improvement in technology, and it is of interest in international economics for its implications for trade and economic welfare.

**CHART 1. MAIN DESTINATIONS OF COLOMBIAN MIGRANTS**



Source: author based on DANE, 2005.

### FACTORS THAT INFLUENCE MIGRATION IN COLOMBIA

Traditional analysis of the determinants of migration distinguishes between push factors and pull factors, since the possible migrants consider both the conditions of their country of origin and those of the receiving country. Todaro's model (1969) highlights the differential of wages and the employment conditions in both countries. However, in the case of the determinants of emigration in Colombia only push factors are taken into account, e.g. the country's internal conditions. Ergo the assumption that the situation in the receiving countries is identical for migrants.

As shown in Khoudour-Casteras (2005), the first analysis (for all the analysis the dependent variable is migration) only includes the GDP per capita as a driver for migration. The coefficient is negative but not significant, indicating that the migration rate doesn't depend on the low income level. In fact, certain level of income is needed to travel to another country. It means that however they want it, the poorest cannot leave the country. On the contrary, when income starts going up, regions with high poverty level register an increment in the emigration levels, since their habitants have enough revenues for migration. Then, when the income level is high

enough, people don't need to migrate and migration rate begins to lower.

The second analysis includes some structural variables, as rural population, education level, social expenditure, the Gini coefficient and poverty level. Rural population's coefficient is negative and significant at the 1% level. This result coincides with those of other studies (Hatton and Williamson, 1998). In fact, the migratory process is first a movement to cities before being to foreign countries.

This behavior is related directly with education level. The more educated the population is, the more it tends to migrate to other countries, as confirmed by the schooling coefficient: positive and significant at the 10% level. Indeed, in society exists a process of positive selection (Borjas, 1987), that means, people with higher education level has higher migration possibilities. The most qualified are prepared to face the challenges of the migration, as leaving their environment and living in a country with a different culture and language. On the other hand, in a context of increasingly restrictive migratory policies, it is easier for a qualified worker than for a not qualified person to obtain a visa for work or study in an industrialized country.

Social expenditure coefficient is negative and significant at the 5% level. This is due to the fact that social expenditure is a kind of indirect wage that complements the remuneration of the worker. When population receives benefits from a social protection system, the pressure for migration is smaller (Bogotá, Atlántico). In fact, many emigrants justify its decision not only on the higher wages in other countries, but also on the education opportunities for them or their children. Accordingly, Colombian departments that invest more in education and health present smaller levels of migration (Khoudour-Casteras, 2005).

On the other hand, the results of the Gini coefficient can be surprising at first sight; the coefficient is ne-

gative and significant at the 10% level. It would be expected that more inequality would produced bigger relative “frustration” and a bigger migration rate. Indeed, in a society with limited social mobility, people that are in the base look for better opportunities in other countries to climb socially (Stark, Taylor and Yitzhaki, 1988). However, the negative relationship between inequality and emigration is explained because poorest people don’t have enough resources to go to foreign countries; and the richest don’t have to migrate to improve their situation. Certainly, the Colombian departments with the highest concentration of revenues (Antioquia, Boyacá, Huila) register the lowest emigration rates (Ibid).

This result is coherent with those found in Clark, Hatton and Williamson (2003). The negative relationship between Gini coefficient and the migration rate seems to contradict the previous result: bigger social expenditure, smaller migration. Actually, the correlation coefficient between social expenditure per capita and Gini coefficient it is not high (0,10). This means that social investment is not guided to the poorest. Therefore, the expenses in superior education benefit above all those who have possibility to go to the university, it means, people that belong at least to middle class.

The fourth analysis includes economic growth and unemployment. These two variables have prospective signs and they don’t affect negatively other variables. While the economic growth coefficient negative, unemployment is positive. Both are significant at the 5% level. This means that, when the economic situation deteriorates (recession and further unemployment), there are supplementary incentives to migrate. On the contrary, an improvement of the economic activity reduces the manpower migration. The high emigration levels of coffee growing departments (Caldas, Quindío, Risaralda) is explained

partly by the coffee crisis in the middle of nineties. On the other hand, the departments with the lowest unemployment rates have lower migration rates than the national average (Sucre, Caquetá).

The fifth and final analysis includes two explanatory variables related with violence: the rate of homicides and the number of attacks. The homicides coefficient is positive and significant at the 5% level, while the attacks coefficient is negative and significant at the 1% level. Although both variables are related with violence, they refer to two different realities, which explains why their impact on the migration is opposed. The deterioration of the conditions of life and the increment of protection costs explain the relationship among homicides and migration: migration is a form of being protected against the violence. Attacks, on the other hand, are an indicator of the armed conflict. Although the conflict is translated to population movements, these are usually collective and constitute a forced displacement to other areas of the Colombian territory. This explains the inverse relationship among attacks and emigration. It is not that people are not affected by the conflict but rather that they migrate to other departments, in particular to those that register smaller indexes of violence and present a more attractive economic situation.

## **FACTORS INFLUENCING MIGRATION FROM DR-CAFTA<sup>2</sup> COUNTRIES**

It is important to relate the escalation of migrations in the region with the economic, social and political events that have taken place in the last decades both at national and international level. In the first plane, it is obvious the relationship of cause and effect in the successive failures of the impelled development models in the region. Basically, Central America has the same drivers of Colombia for international migration, the analysis of each country is shown in Table 1.

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2 DR – CAFTA: Dominican Republic and Central America Free Trade Agreement.

**TABLE 1. EXPLAINING DEVIATIONS FROM THE AVERAGE CENTRAL AMERICA – CARIBBEAN IMMIGRATION RATE TO THE UNITED STATES, 1971-1998 (CONTRIBUTION TO THE DEVIATION IN THE LOG IMMIGRATION RATE × 100)**

	Barbados	Dom. Rep.	Jamaica	Trinidad	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua	Panamá
Log immig rate	280.7	179.3	253.5	201.8	-16.9	114.4	8.4	34.1	37.6	64.3
GDP per capita	-42	22	16.4	-80.6	2.3	25.4	20.4	34.4	27.3	6.1
Schooling	30	-11.6	-8.9	15.2	0.9	-15.4	-25.4	-16.7	-17.4	14.9
Inequality	5	6.4	-6.1	-3.8	4.3	5.3	2.4	-10.6	4.4	3.2
Age 15-29	2.5	4.2	-0.9	4	5.6	-0.4	-4	-1.6	-1.1	1.6
Immig stock	27	11.1	29.2	14.5	-4.9	11.6	-2.9	-2.8	3.3	6.7
Distance	20.7	46.7	53.1	17.8	35.7	46	48.1	47.1	41.9	31.8
Landlocked	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
English	164.5	-36.5	164.5	164.5	-36.5	-36.5	-36.5	-36.5	-36.5	-36.5
Civil war	-1.1	-1.1	-1.1	-1.1	-1.1	4.4	2.4	-1.1	3.2	-1.1

Source: author, based on Clark, Hatton and Williamson (2003).

On the other hand, non-economic factors that increase migrations converge at least in three facts: The loss of the population's trust in the States and the policymakers, as well as in their interest to revert that situation.

Important force of migrants change expressed in the search of new solution options.

Existence of a labor market outside of the country that demands the manpower of the region.

### INTERNATIONAL TRADE, FDI AND MIGRATION

Economic theory suggests that, if countries specialize in producing those goods in which the country has a comparative or competitive advantage, the residents of all countries that trade or exchange goods will be better off. Trade affects the location and cost of producing goods. Trade policies affect the competitiveness of a country's products, and employment in the export and import sectors of both sending and receiving countries. This means that if Colombia can produce agricultural commodities cheaper than United States, and United States can produce cars cheaper than Colombia then Colombia should pro-

duce corn, and send it to U.S. in exchange for cars. This way, the Americans have lower food costs, and the Colombians have cheaper cars. With trade accelerating economic and job growth in both countries, there is less Colombian emigration.

In theory, economically motivated migration should decrease in a free trade world because of factor price convergence, the tendency of wages to converge as workers move from poorer to richer countries (when people mobility is not restricted). In terms of economic theory, this means that trade and migration are substitutes – countries that have relatively cheaper labour can export labour-intensive goods or workers. Over time, differences in the prices of goods and the wages of workers should converge with freer trade, reducing emigration pressures.

The US Commission for the Study of International Migration and Cooperative Economic Development searched for the best mutually beneficial way to reduce unwanted migration, and concluded that “expanded trade between the sending countries and the United States is the single most important remedy” (1990: xv).

Many countries have embraced freer trade as a route to faster economic growth. In 2007, estimated trade in goods and services was worth \$16 trillion, almost 31% of the world's GDP (Dadush and Nielson, 2007). As trade continues to expand, economic growth should speed up, and in the long run trade in goods should replace the migration of people. However, when countries with weak economies and structural competitiveness problems suddenly embrace freer trade, there can be severe adjustments. Agriculture in Latin America and the Caribbean employs 30% of the labor force and generates 7% of GDP growth, and opening a developing country agriculture to freer trade may displace farmers; and the displaced farmers, often unskilled men, may not be able to find factory jobs and some may migrate abroad for jobs. The US Commission warned that "the economic development process itself tends in the short to medium term to stimulate migration", the so-called migration hump (1990: xvi).

The migration hump can be smaller and shorter lived if immigrating and emigrating countries cooperate to accelerate the pace of job creation in emigration countries. For example, instead of emigrating, displaced farmers may not emigrate if foreign investment creates jobs for them near their homes. There are many types of investments, but foreign direct investment (FDI) oriented to factories and other job-creating workplaces is most likely to spur economic and productivity growth and reduce emigration. FDI flows to countries where entrepreneurs think they are most likely to make profits, not necessarily to emigration areas most in need of jobs.

The same FDI that increases jobs and trade, and reduces migration in the long term, may increase migration in the short term. Three examples are illustrative. First, foreigners investing in developing countries usually send managers and their professionals to help operate the factory, which means that FDI is often marked by more migration of professional expatriates. Second, some countries receiving

FDI may serve as production platforms, attracting FDI because they are stable economically and politically, and then permitting the entry of foreign workers to staff the factories. Third, FDI may increase internal migration and emigration. Much of the FDI in developing countries goes into free-trade zones, which often have foreign owned assembly (maquila) plants that import components and turn them into consumer goods to be exported. As farmers and other workers are displaced in the interior of the country, they may migrate to seek jobs in border-area Free Trade Zones. Those not hired may emigrate, as they come into contact with the international migration infrastructure in more dynamic economic areas.

But in Latin America, FDI promotes income inequality. Income inequality is persistently and relatively high in almost all Latin American countries. Labour income inequality plays an important role in total income inequality. Income inequality can be determined by at least three factors: the distribution of factors of production, the demand for those factors, and the supply.

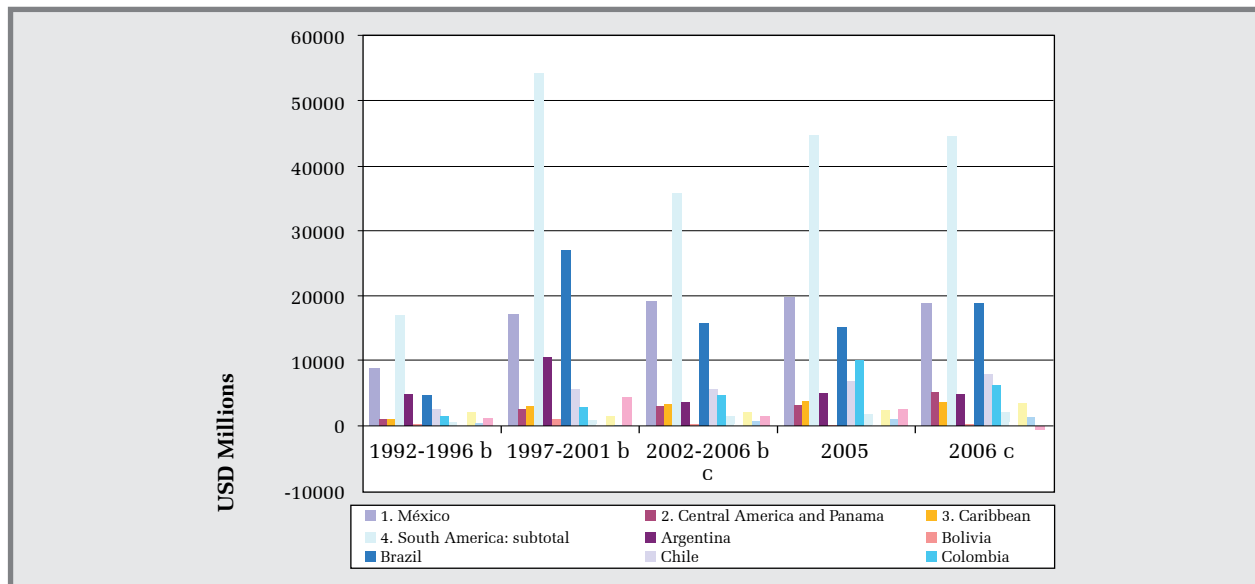
While FDI may have been good for development (e.g. there are positive correlations between FDI and GDP, productivity, and wages) this masks the fact that different countries with different policies and economic factors tend to derive different benefits and costs of FDI. In addition, not all types of workers necessarily gain from FDI to the same extent. The reasons for this include: FDI induces skill-specific technological change; it can be associated with skill-specific wage bargaining; it may locate in skill-intensive sectors; and it provides more training to skilled than unskilled workers. A review of micro and macro evidence shows that, at a minimum, FDI is likely to perpetuate inequalities. This is in contrast to what traditional trade and FDI theories would predict.

There is no doubt that the economies of Latin America and the Caribbean have benefited from FDI (see

Chart 2), but they have not done so in the same proportion as other regions in which optimizing the impacts of FDI is a conscious policy concern. Passive policies in this matter in the region have either not

produced the benefits expected from inward FDI or have not done so to the desired degree (Mortimore, 2006).

**CHART 2. LATIN AMERICA AND THE CARIBBEAN: NET FDI INFLOWS, 1992-2006<sup>a</sup> (MILLIONS OF DOLLARS)**



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures and estimates.

- a. Excludes investment received by the main financial centres. Net FDI inflows are defined as FDI inflows to the reporting economy minus capital outflows generated by foreign companies. These FDI figures differ from those published by ECLAC in the Economic Survey of Latin America and the Caribbean and the Preliminary Overview of the Economies of Latin America and the Caribbean because, in those studies, FDI is defined as net inflows to the reporting economy minus net outflows generated by residents.
- b. Annual averages.
- c. Data were not available, as of 24 April 2007, for FDI inflows to several Caribbean countries for 2006. The estimates presented here for 2006 are based on annual averages for 2001-2005.

An example demonstrates this situation. It is well known that efficiency-seeking FDI can potentially produce concrete benefits with regard to technology transfer, production linkages, human resource training and enterprise development (UNCTAD, 2002), although it is recognized that those benefits are far from automatic. In Latin America and the Caribbean, passive policies based on horizontal incentives (especially tax exemptions in export processing zones) have not effectively integrated investment activities into the local industry in any of the areas examined (Mortimore, 2004, 2006). The result is enclave-like operations that produce impressive export earnings but do not contribute in any fundamental way to the continual technological and industrial upgrading of the host economy (UNCTAD, 2002; Mortimore, Vergara and Katz, 2001; ECLAC, 2005, 2006a).



## FREE TRADE AGREEMENTS (FTAs) AND THEIR IMPACT ON THE ECONOMY

From a theoretical perspective, the welfare gains from trade liberalization and FTAs are not obvious. In the standard approach of the old trade theory, the adapted Viner-Meade version of the Heckscher-Ohlin-Samuelson (HOS) framework applied to trade liberalization, three effects are seen to determine the aggregate welfare outcomes of FTAs: (i) “trade creation” as a result of changes in commodity trade in the countries within the agreement; (ii) “trade diversion” caused by changes in trade between the FTA countries and the rest of the world; and (iii) “terms-of-trade” effects triggered by changes in international prices facing the countries (Vos, 2007).

Trade creation and terms-of-trade gains are in general welfare-enhancing for countries within a customs union, whereas trade diversion and terms-of-trade losses are potentially damaging to countries outside the union. This turns the question whether an FTA is welfare-increasing into an empirical one. From their comprehensive review of theory and empirical literature on regional trade agreements, Burfisher et al., (2001) draw two, what they consider to be robust conclusions regarding the lessons learned from the empirical work in the Viner-Meade framework. First, such agreements are generally good for the member countries and not seriously detrimental to non-members, but global (multilateral) liberalization would always be better. Second, the potential benefits of trade liberalization in general and regional FTAs in particular, tend to be rather small as shares of national product. The latter is due in part because the HOS framework does not take into account dynamic factors beyond the efficiency gains from reallocating resources according to comparative advantage.

Even these findings need to be treated with some caution however, and the economic structures of the

countries that engage in regional integration arrangements considered. Venables (2003), for instance, argues that countries with what he calls “extreme” comparative advantage (that is, specialization in few commodities only) have much less to gain from integration than countries that can specialize in a broader range of commodities. Under such conditions, forms of south-south integration may not be beneficial for poorer countries as it may draw, for instance, much of manufacturing production to the already more developed and diversified economy that is part of the agreement. For such agreements to work out more equitably among its members, trade integration measures would have to be complemented with industry and other production sector development policies to strengthen economic integration at the national level.

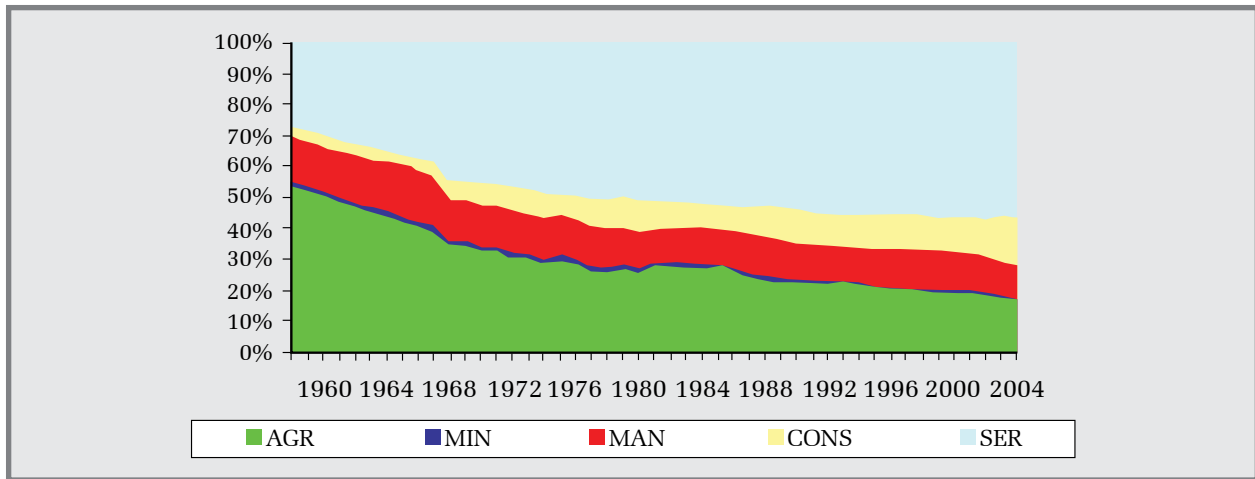
FTAs are often seen as vehicles to introduce additional reforms that make the investment environment more appealing to attract FDI from developed countries through which there may potentially be a transfer of global technology and increased productivity. Waldkirch (2006) shows that foreign investment is also subject to sovereign risk and FTAs may serve as a commitment mechanism in order to achieve higher sustainable levels of FDI. Raff (2004) even argues that FTAs affect the location of FDI since governments may adjust taxes and external tariffs to compete for FDI – whether this raises or lowers welfare is shown to depend on the relative size of the efficiency gain from integration and the revenue loss associated with tax competition. These findings reiterate the point that the welfare gains from trade and attraction of FDI through FTAs are context-specific, as well as that the gains are likely stronger for economies that already have more integrated domestic economies to begin with.

Some facts from NAFTA show FDI in Mexico have resulted in the destruction of jobs in agricultural activities and small and medium sized companies, the exclusion of the traditional economic sectors

(see Chart 3), leaving the country without sectors which arise economic relief and give dynamism to the national economies and generate the employments required by the population (permanent and

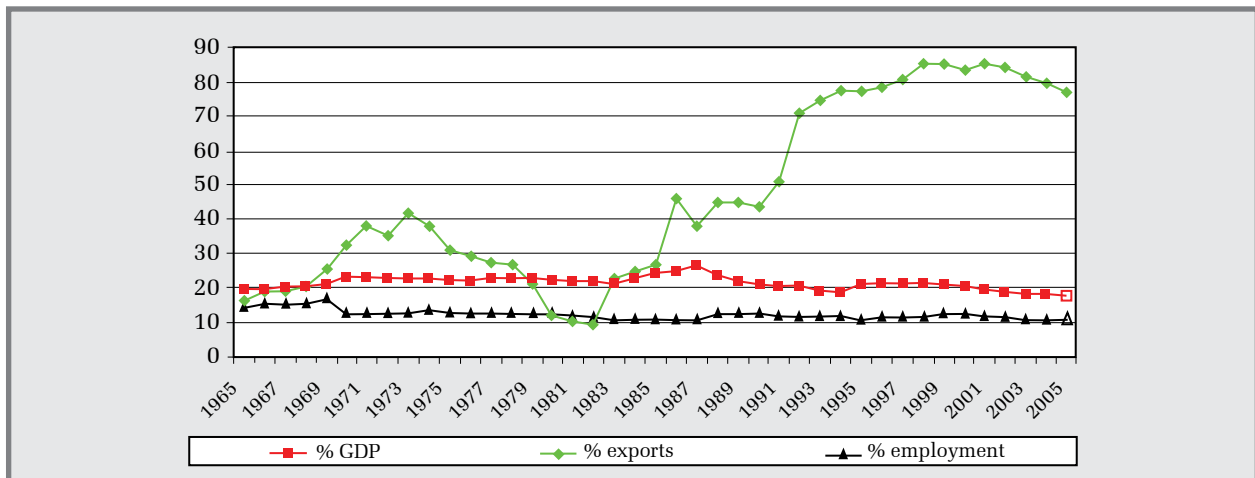
well remunerated). International migration, through the remittances to Mexican households, has become fundamental for the maintenance of internal market, of the fragile macroeconomic balances and of the relative social stability (See Chart 4).

**CHART 3. EMPLOYMENT IN MEXICO 1960 - 2004**



Source: Puyana, 2007.

**CHART 4. MEXICO – CONTRIBUTION OF EXPORTS IN JOB CREATION 1965 - 2005**



Source: Puyana, 2007.

On the other hand, the work of Sandra Polaski (2003) evidenced that the job creation and income now are lower than in 1993 when NAFTA took effect, as she explains “Real wages for many Mexicans today are lower than when NAFTA took effect. The stunning setback in wages is mainly attributable to the Mexi-

can peso crisis of 1994-1995. However, during the NAFTA period, productivity growth has not translated into wage growth, as it did in earlier periods in Mexico. Mexican wages are also diverging from, rather than converging with, U.S. wages. Income inequality has been on the rise in Mexico since NAFTA

took effect, reversing a brief declining trend in the early 1990s. Compared to the period before NAFTA, the top 10 percent of households have increased their share of national income, while the other 90

percent have lost income share or seen no change. Regional inequality within Mexico has also increased, reversing a long-term trend toward convergence in regional incomes” (See Table 2).

**TABLE 2. REAL INCOME BY HOUSEHOLD MEXICO 1993 – 2005**

Quarterly monetary real income by household				Quarterly monetary real income by household			
NATIONAL				RURAL AREAS			
	1993	2005	Chnage 2005/1993		1993	2005	Change 2005/1993
	Mx Pesos of 1993		(-)		Mx Pesos of 1993		(-)
Total	8,097.58	5,986.02	26.08%	Total	7565.8	5563.0	26.47%
I	1,255.94	657.00	47.69%	I	1,213.48	634.10	47.75%
II	2,213.60	1,512.80	31.66%	II	2,177.46	1,506.50	30.81%
III	2,995.97	2,173.70	27.45%	III	2,991.76	2,164.50	27.65%
IV	3,801.61	2,806.50	26.18%	IV	3,769.10	2,811.40	25.41%
V	4,646.58	3,502.80	24.62%	V	4,658.95	3,489.70	25.10%
VI	5,760.45	4,310.00	25.18%	VI	5,789.15	4,278.10	26.10%
VII	7,222.46	5,396.10	25.29%	VII	7,173.11	5,400.10	24.72%
VIII	9,210.22	7,003.10	23.96%	VIII	9,282.83	6,946.90	25.16%
IX	12,969.44	9,656.60	25.54%	IX	12,284.46	9,574.80	22.06%
X	30,899.48	22,841.60	26.08%	X	26,317.74	18,823.50	28.48%

Source: Puyana, 2007.

## THE IMPACT OF DR-CAFTA

The evidence indicates that 90% of Nicaraguan households, 84% of Guatemalan households, and 68% of Salvadorian households are net consumers of the basket of sensitive agricultural commodities and, thus, on net, can be expected to benefit from the sum of the price changes expected to occur when sensitive agricultural commodities are liberalized. Conversely, about 9% of Nicaraguan households, 16% of Guatemalan households, and 5% of Salvadorian households are net producers of the basket of sensitive commodities and would, thus, be expected to experience (static) welfare losses arising from the price changes induced by DR-CAFTA.

Some proportion of households, perhaps as high as 19% in the case of El Salvador, would neither benefit nor lose as a result of DR-CAFTA-related price changes, due either to the fact that they neither consume or produce the sensitive commodities, or that they consume and produce them in roughly equal amounts.

Country case studies (World Bank, 2005) indicate a common pattern of likely “winners” and “losers” across the welfare distribution; specifically, a higher percentage of the net consumers are expected to benefit and net producers are expected to loose. More specifically, 90 percent of Nicaraguan households, 84 percent of Guatemalan households, and 68 percent of

Salvadoran households, respectively, were found to be net consumers of the basket of sensitive agricultural commodities who can be expected to benefit from DR-CAFTA-related price changes. Only about 9 percent of Nicaraguan households, 16 percent of Guatemalan

households, and 5 percent of Salvadoran households were found to be net producers of the basket of sensitive commodities and, thus, would be expected to experience welfare losses (See Table 3).

**TABLE 3. NET CONSUMERS AND NET PRODUCERS OF THE BASKET OF SENSITIVE AGRICULTURAL COMMODITIES SELECTED COUNTRIES CAFTA.**

Country	Nicaragua		Guatemala		El Salvador	
	Net consumers	Net producers	Net consumers	Net producers	Net consumers	Net producers
	Benefitts	Looses	Benefitts	Looses	Benefitts	Looses
All country	90.2	8.8	83.8	15.7	68.2	4.1
Rural	78.8	19.4	75.1	24.5	72.1	4.1
Urban	97.6	1.8	93.6	5.8	65.2	4.1

Source: World Bank, 2005.

While the vast majority of people in these three countries stand to gain from liberalization of the sensitive agricultural commodities, the evidence suggests that the number of people who could be adversely affected by DR-CAFTA-related price changes is not trivial - at least in the absence of measures to mitigate those impacts. The proportion of net producers estimated for each country implies, for example, that roughly 260,000 (out of 6.5 million) Salvadorans, 484,000 (out of 5.5 million) Nicaraguans, and 1.9 million (out of 12.3 million) Guatemalans would be negatively affected by price effects of DR-CAFTA (World Bank, 2005).

The analysis also suggests that specific subgroups face higher than average risks of experiencing negative impacts of price changes in the absence of complementary policy measures. In Nicaragua, for example, nearly 20 percent of the rural households are expected to be negatively affected by DR-CAFTA related price changes, while nearly a quarter of rural households are expected to experience adverse impacts in Guatemala. In El Salvador, the evidence suggests that those losses among net producing

households in the poorest quintile could be as much as 3.4 percent of per capita income. As with patterns of net consumers and net producers, the actual size of gains and losses that households experience will be determined in important ways by local patterns of production and consumption (World Bank, 2005).

### IMPACT OF US-COLOMBIA FTA

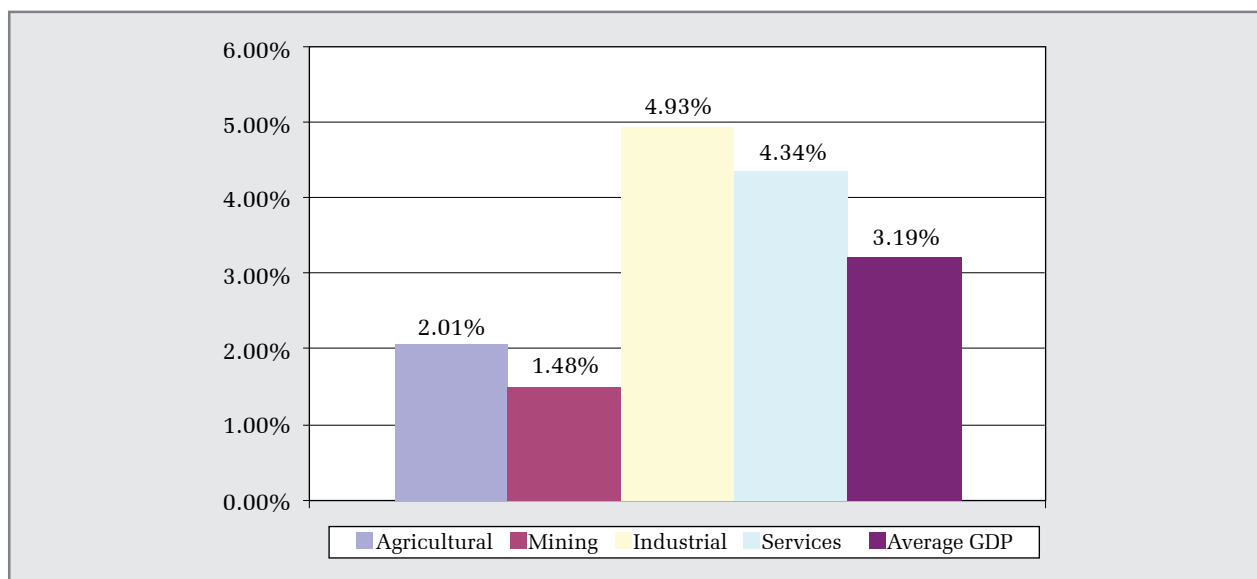
Many authors use empirical and applied methods of economic analysis to examine the potential quantitative impact of a US-Colombia FTA on bilateral trade, economic welfare, and other major variables for each of the two countries. Empirical analysis involves application of the so-called gravity model (Cárdenas – Garcia, 2004), which investigates the determinants of aggregate trade between countries over time, while applied methods involve a point-in-time, Applied General Equilibrium (AGE) (Botero – Lopez, 2004) and static application of AGE model of world trade and economic activity known as the Global Trade Analysis Project (GTAP) model (Derosa – Gilbert, 2006).

At the outset, it should be understood that the economic prospects of the United States and Colombia under a bilateral FTA are not easily assessed with precision because of the numerous factors underlying the two nations economic and political relations vis-à-vis not only one another but also other prominent trading partners. Given the AGE model's extensive coverage of economic variables, the applied analysis presented here does, however, succeed in providing a fairly in-depth view of the potential impact of the proposed FTA.

The AGE model analysis suggests that the potential benefits to Colombia of the proposed FTA hinge importantly on how widely the United States pursues similar FTAs with other countries. The United States gains from establishing numerous FTAs, gradually covering a substantial proportion of its trade with the world. At the same time, however, the potential gains to Colombia and other US FTA partners decline.

Results of the AGE Model (Botero – Lopez, 2005) shows that in each sub-sector GDP growths, the higher results are for industrial sector, the lower for mining (See Chart 5).

**CHART 5. IMPACTS OF FTA IN SUB-SECTOR GDP**

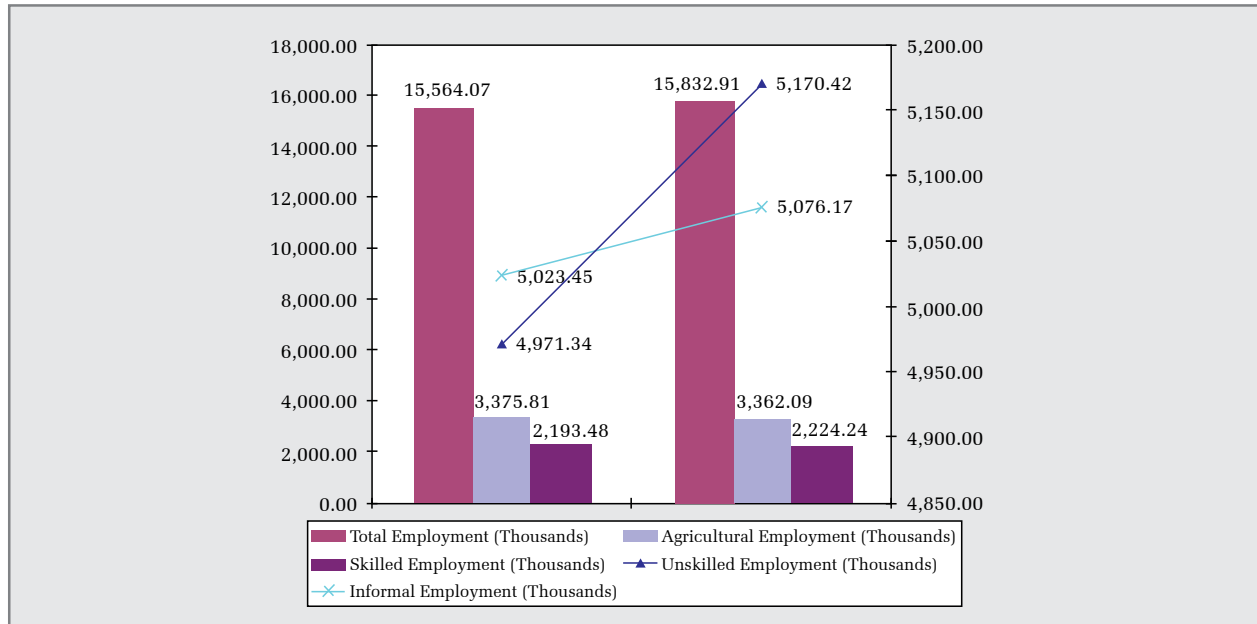


Source: Author based on Botero – López, 2005.

Chart 6 presents the effects of FTA simulated by the GTAP model on employment in absolute values. Examining the changes in employment values, the largest changes tend to be observed in unskilled

employment and, only very small changes in other values, it is important to underline that informal employment also increases.

**CHART 6. STATIC COMPARATIVE: IMPACT ON EMPLOYMENT**



Source: Author based on Botero – Lopez, 2005.

Chart 7 presents the estimated sectoral impacts of a US-Colombia FTA in terms of the percentage change in the value of exports (evaluated at world prices) relative to the baseline. Both the percentage change in total export value and the percentage change in the value of exports to the FTA partner are presented in the scenarios (short and long term). For Colombia, the overall effects are more significant, as expected,

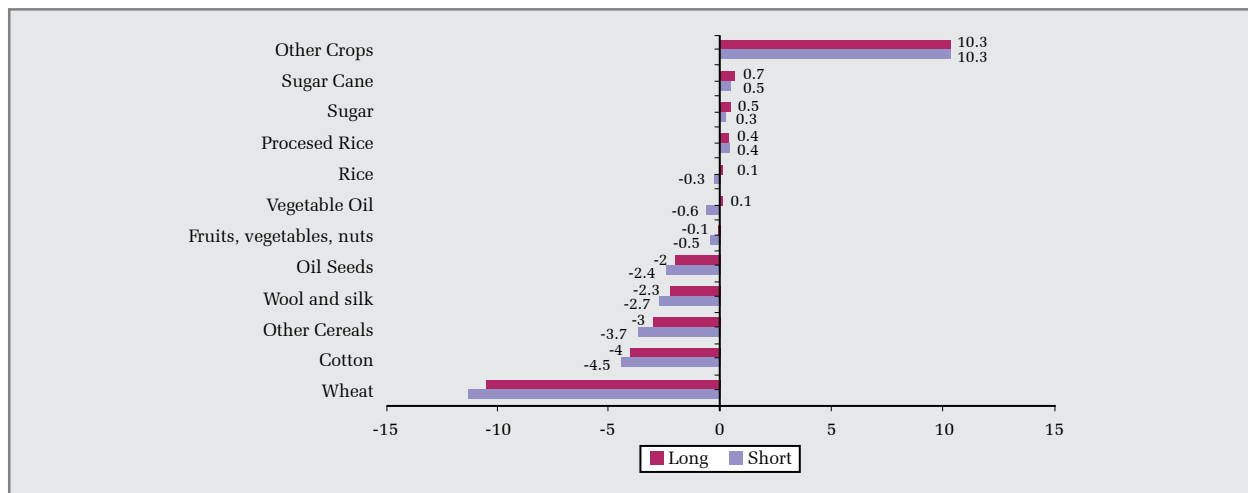
given the small size of the Colombian economy and the importance of the US market. The largest export increases are in textiles and wearing apparel, other crops, food products and services. Export declines are seen in grains, other agriculture, and other manufacture and heavy industry. Chart 8 shows the sub-sector impacts for agriculture, gives indications of which sub-sectors are likely to gain or lose from preferential market access.

**CHART 7. IMPACTS OF FTA IN DIFFERENT SECTORS**



Source: Author based on Echavarría, 2006.

**CHART 8. AGRICULTURAL SUB-SECTORS IMPACT**



Source: Author based on Echavarría, 2006.

**TABLE 4. ESTIMATED DIRECT IMPACTS OF FTA BY PRODUCT**

	Producer Price	Producer's Gross Income	Profits (% of PGI)	Crops Area	Employment	Wages
Rice	-17,9%	-31,6%	-18,0%	-16,9%	-16,9%	-16,9%
Corn	-32,1%	-42,8%	-29,6%	-17,8%	-17,8%	-17,8%
Sorgo	-18,7%	-34,2%	-16,9%	-17,8%	-17,8%	-17,8%
Wheat	-25,8%	-62,6%	-19,0%	-77,6%	-77,6%	-77,6%
Soja	-15,5%	-39,9%	-13,2%	-30,6%	-30,6%	-30,6%
Cotton	-5,1%	-9,8%	-5,0%	-8,1%	-8,1%	-8,1%
Beans	-25,0%	-43,2%	-22,0%	-13,8%	-13,8%	-13,8%
Veg. Oil	-18,5%	-36,3%	-16,5%	-37,0%	-37,0%	-37,0%
Chicken Meat	-49,1%	-100,0%	-31,1%	n.a.	-100,0%	-100,0%

Source: Garay, 2004.

As shown in table 4, producer's gross income (that is supposed similar to the value of the production) of the nine considered products, would decrease in 57% (in constant pesos of the year 2002). This is an indicator of the fall in the general economic activity in such products. The loss of surpluses of the producers would be equal to 22% of the initial gross entrance or 39% of the loss of gross revenues. Since they are only considering reduction effects, to this loss it is necessary to add the labor revenues that

unemployed workers would stop perceiving, until they be absorbed by the export activities.

Crops area, without poultry keeping, would decrease in 20%. Supposing fixed coefficients of employment for hectare and constant wages, the employment and the labor revenues would descend in 35%. Most of the losses of revenues and employments would happen in the poultry sector and in the productions of rice, corn and raw palm oil.

## LATIN AMERICAN FTAs AND MIGRATION

Finally, as exposed below, the negative economic impact of revised FTAs (NAFTA, DR-CAFTA and US-Colombia) is addressed to the most sensitive agricultural sectors and will impact on the wages of many workers. Low incomes create an incentive for people to emigrate, but paradoxically, there are many cases where both incomes and international migration are increasing in poor regions of revised countries. Migration may increase in the short run if trade reforms spur imports that compete with labor-intensive production. In the long run, if export activities expand and remittances create income and investment multipliers, migration pressures may subside.

Usually it is not the poorest households that send migrants abroad. The poorest households have an incentive to send migrants abroad and reap the reward of remittance income that is higher than what family members could earn at home. However, international migration is costly and risky, and the poorest households often cannot afford the costs and risks. At the other extreme, relatively well-off households in poor regions have the liquidity to pay the international migration bill and are often more willing to assume risks (or else have ways to insure themselves against risks). However, while they are more likely to have the means to migrate abroad, they are less likely to have the will. As a result, in poor areas of Latin America Countries, international migrants tend to come from the upper-middle part of the income distribution, not from the poorest households. This raises some questions about the effectiveness of remittances at reducing poverty.

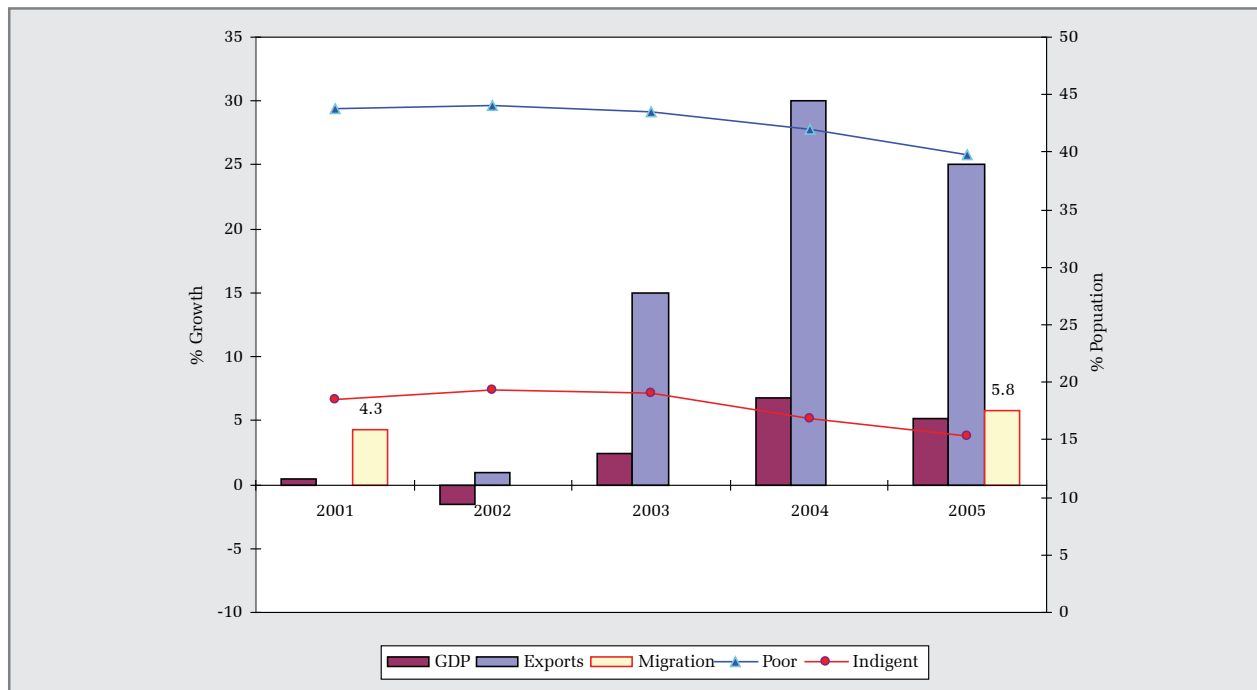
Do trade barrier reduction stimulate a bigger economic progress? available studies don't reveal any systematic relationship among tariffs, non tariff barriers and subsequent economic growth (See Chart 9). The only clear model is that countries lower their restrictions to trade when they are rich and stable. This discovery explains why rich countries today, with few exceptions, have achieved its modern economic growth behind protection barriers, but now they deploy (selective) barriers to trade drops.

The evidence in the benefits of liberalizing the investment flows is even weaker. In theory, the relationship seems obvious: If the capital is free to enter (and to leave) markets, based on the potential return of the investment, the result will be an effective assignment of global resources. But in reality, financial markets are inherently unstable, subject to bubbles (rational or not) and panic crises. There is enough evidence that financial liberalization is followed by financial crisis, such is the case of Mexico, Thailand, or Turkey; whereas evidence of growth due to the liberalization of the investment flows is quite scarce.

Liberalization could reduce the differences of wages in the way that productive sectors are guided to comparative advantage of the country and would have a positive effect in the reduction of poverty. On the other hand, negative effects could enlarge the breach in wages. Liberalization brings cheaper capital goods, causing managers to replace manpower for machinery, generating negative impact on wages and stimulating unemployment. But, being the skilled manpower a complement to the physical capital, the demand for this type of workers will generate a bigger breach among skilled and unskilled workers.



**CHART 9. EVOLUTION GDP, EXPORTS, POVERTY AND MIGRATION LATIN AMERICA AVERAGES**



**Source:** Author based on series from CepalStat, CEPAL 2007 and Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, Trends in Total Migrant Stock: The 2005 Revision.

## CONCLUSIONS

This brief approach of trends and impacts of FTAs and international migration leads to the following conclusions:

- Underdevelopment drives migration, but migration also affects Underdevelopment.
- Income gaps between rich and poor countries create the incentives for international migration but they are a necessary—not a sufficient—condition. Most people do not migrate, even when incomes are far higher abroad than at home.
- Income growth in migrant-sending areas is often associated with more international migration, not less. In all countries that experience rapid income growth, the share of people in farm jobs and in rural areas goes down.
- Data demonstrate that opening an economy to free trade doesn't reduce poverty automatically; on the contrary, in some cases (regional or subre-

gional) it increases it and causes a major determinant of international migration from Latin American countries.

These findings point to a rich set of potential policy implications. Increased mobility is a concomitant part of economic success: as per capita incomes grow, people leave the agricultural sector (they also move out of rural areas). This does not mean that governments should be passive or not try to promote development in migrant-sending areas, for at least two reasons.

First, when low incomes are compounded by poor access to markets for inputs, outputs, credit, and insurance, there may be too much migration. Second, many of the world's migrants come from rural areas, and it is now well known that in countries where agriculture is not growing, the rest of the economy usually does badly, too. However, occupational migration away from farm jobs and geographic migra-

tion from rural areas, if anything, are likely to be higher when incomes are growing.

The challenge for policymakers is to make migration a development tool and part of a dynamic process of income growth instead of a response to limited opportunities in migrant-sending areas. The ability of

countries to create an environment that is conducive to broad-based economic growth can generally shape the economic landscape in migrant-sending areas, the contributions of migration to development, and the nonmigration options available to those who stay behind.

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