Policy Brief

ECOMOMIC INTEGRATION, GROWTH, AND POVERTY: PROSPECTS FOR THE COLOMBIA-US FREE TRADE AGREEMENT

Xavier Sala-i-Martin (*)
Columbia University
November 19, 2006

^(*) This policy brief was prepared by Professor Sala-i-Martin for the Integration and Regional Programs Department of the Interamerican Development Bank.

1. INTRODUCTION:

During the last three decades the world has seen poverty rates fall by about two thirds, growth boost and global individual inequality drop, perhaps for the first time in history (Sala-i-Martin (2006)). At the same time, there has been an increase of more than 60% in international trade. Regional trade agreements (RTAs) have played a major role in this: today, 40% of trade occurs within RTAs. In the early 80's, only 5 RTA had been reported to the WTO. Today, there over 200 agreements and another 60 are being negotiated.

This paper argues poverty reduction, economic growth and economic integration are, indeed, related phenomena. We review the theoretical mechanisms through which trade boosts growth, reduces poverty, and increases the incomes of the disadvantaged and the empirical evidence that supports these claims.

2. OPENNESS, GROWTH, AND POVERTY: THEORY AND EVIDENCE

2.1 Growth reduces poverty

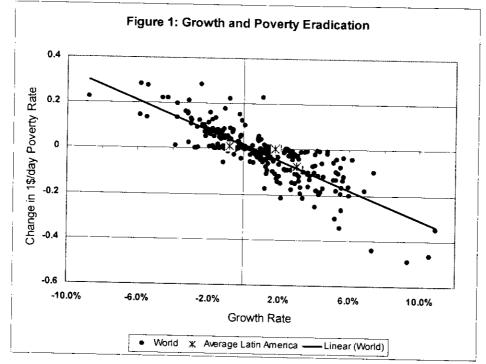
It is widely agreed that the best (perhaps the only) way for a country to reduce poverty rates is to grow. If positive growth rates did not systematically increase the incomes of the poor, then we would find a systematic association between growth and increased income inequality. The empirical literature, however, has failed to find such an association. Hence, growth is good for the poor on average.

This claim has been documented, among others, by Deininger and Squire (1996) who show that in 88% of the growth episodes around the world, the income of the poor increased. Using household data from pairs of surveys in 42 countries, Ravallion and Chen (1997) find that aggregate income growth reduced poverty. Dollar and Kraay (2001a) use a large panel of 137 developing countries to show that the income of the poorest quintile tends to growth one for one with per capita income.¹

To document the empirical correlation between growth and poverty eradication, Figure 1 plots the decadal change in \$1/day poverty rates as measured by Sala-i-Martin (2006) and the corresponding annual growth rate during the same decade. That is, for each country we estimate the change in one-dollar-a-day poverty rates between 1970 and 1980, between 1980 and 1990 and between 1990 and 2000 and we compute the annual growth rate during the same decade. Figure 1 presents the scatterplot of these two variables. We see that countries that have reduced poverty fastest are the countries that have grown the most. In fact, according to the data used to construct this figure, an increase in growth of 1 percentage point leads to a

The case of China has been put forth as an example of growth being associated with enormous increases in inequality. The Gini coefficient in China has indeed increased from 0,32 to 0,38 between 1980 and 2000. However, this increase has not been large enough to offset the beneficial effects of aggregate growth (Quah (2002)). In fact, poverty rates in China have declined from 27% in 1980 to 3% today. Thanks to growth rates of 10% per year, over 250 million people have escaped poverty in China (Sala-i-Martin (2006).) Hence, although China is an example of growth being associated with inequality, it is not an example of how growth does not reduce poverty.

reduction in poverty rates of about 3 percentage points. Overall, aggregate growth explains up to 63% of the variability in poverty rates.



Latin America is not an exception to the rule that the larger the growth rate the faster poverty rates fall. In a marked lighter (green) square we display the three observations for the average growth in Latin America and the average poverty reduction in the region during the same decade. We see that they line up quite well along the regression line: in the 1970s the per capita growth rate was 3.7% and poverty fell by 7.3 percentage points. In the 1980s the average growth rate was negative (-.08%) and the poverty rates increased by 0.012 percentage points. In the 1990s the growth rate was positive 1.7% and poverty rates remained unchanged.

The findings that growth tends to reduce poverty apply both when the source of growth is economic trade and integration and when the source of growth is some alternative factor. As Berg and Krueger (2003) puts it: "Growth associated with trade openness is as pro-poor as growth in general". Berg and Krueger also adds that "since within-country inequality does not systematically increase with trade, we can say that openness also reduces poverty".

2.2 Openness is Good Growth

Traditional trade theory (Hecksher-Ohlin and Stolper-Samuelson) suggests that in less developed economies (that tend to have relatively more abundant labour), trade with developed countries will rise the price of the labour intensive good and allow specialization in the labour intensive sectors, which in turn will increase the retribution and generate employment in the labour intensive sector. However, these models do not account for economies of scale, differences in technology and capital mobility, and assume that institutions and

policies remain unchanged as economies integrate. Modern economic analysis includes these dynamic factors and concludes that economic integration will tend to have an impact on the rate of economic growth. The channels through which integration can affect growth are numerous:

- (1) Increased specialization according to comparative advantage. This is the channel emphasized by Adam Smith and the classics of the XVIII and XIX century.
- (2) Greater exploitation of increasing returns. Firms can increase their productivity when their markets are larger because they can better exploit economies of scale. Related to this we have the existence of agglomeration effects from location choice. Krugman and Venables (1990) study the effects of integration on the location choice, by analyzing how integration gives industries strong incentives to move to central regions. RTAs may increase the incentives for industry to locate in member countries rather than going to non-member countries. This also tends to have beneficial effects on related industries through supply chains (Schiff and Winters, 2003).
- (3) Importing of ideas, knowledge and technological capacities including benefits from the acceleration of learning and larger variety of technological inputs. All this tends to increase factor productivity and, as a result economic growth. Using comparative data for 93 countries Edwards (1998) shows that openness brings faster productivity growth. This result is robust to changes in openness indicator, estimation technique, time period and functional forms. Coe, Helpman and Hoffmaister (1997) find that "total productivity in a panel of 71 developing countries is significantly related to the stock of research and development carried out by trading partners"
- (4) Positive effects of increased competition on productivity. This is what Harvey Leibenstein (1966) called "x-efficiency": the increased efficiency that arises when firms face competition. That is, larger competition from foreign firms pressures local producers to increase their efficiency and upgrade their productivity of their resource use instead of "goofing off".
- (5) Larger availability of financial capital through foreign direct investment.
- (6) The element to which economists pay the least attention but perhaps the element of openness that has the greatest economic impact is the positive effect that openness has on institutions, policies and the political process itself. For example, economic integration leads to coordination of banking regulations, transportation and energy networks. By seeing how their neighbors operate, locals can improve their social attitudes towards the economy and towards work in ways that enhance their overall economic performance.

In sum, there are many theoretical arguments that suggest that openness tends to generate economic growth. True, theory does not predict a simple relationship between exposure to trade and economic growth, but there is a strong presumption in favor of the proposition that international trade and open trade policies are major contributing factors for growth. This presumption partly comes from theory but it becomes a lot stronger when we evaluate the empirical evidence.

Before we turn to the empirical evidence, however, let us briefly mention the debate on how to go about opening up the economy: unilateralism, multilateralism, and RTAs.

2.3 Unilateralism, MFN and RTAs

The leading theoretical free-trader if modern times, Jagdish Bhagwati, argues that the best way to open up the economy is through multilateral non-discriminatory trade liberalization under the most-favoured nation (MFN) clause. Regional trade agreements are not nearly as beneficial and, in fact, Bhagwati says that it can even be detrimental.² The main reason is what Jacob Viner (1950) called "trade diversion"³: when a country applies the same tariff to all nations, it will always import from the most efficient producer who supplies the goods at a lowest price. With the establishment of a bilateral free trade agreement that eliminates tariffs between partners but increases them for third parties, that may not be the case: if the agreement is signed with a nation that is not the most efficient, we may end up increasing tariffs to the efficient supplier and end up buying from the new partner. Consequently, we may end up acquiring products from a higher-cost producer. That "trade diversion" would be bad for the economy.

Although this is a theoretical possibility the question is whether in practice trade diversion occurs and, if it does, whether it more than offsets the beneficial consequences of integration described in previous section. Empirical analysis conducted by the World Bank (2005) suggests that RTAs have, indeed diverted trade, but that they seem to have created more trade than they have diverted. The trade diversion argument seems to be especially strong for RTAs among rich countries (like the European Union) or among poor countries (Mercosur). RTAs that involve rich and poor (or north and south) nations tend be trade-creating (see Venables 2001).

Former US Treasury Secretary, Lawrence Summers (2001) is convinced that trade diversion, although theoretically possible, is not a serious issue in practice: "economists should maintain a strong, but rebuttable, presumption in favor of all lateral reductions in trade barriers, whether they be multi, uni, bi, tri, plurilateral. Global liberalization may be best, but regional liberalization is very likely to be good". Given the existing structure of trade, Summers says, "plausible regional arrangements are likely to have trade creating effects that exceed their trade diverting effects and that there is a very good chance that even trade diverting regional arrangements will increase welfare".

² The World Bank (2005) estimates that a global trade reform with which all distortions where eliminated (full liberalization of agriculture included) could increase world income by \$263 billion in 2015 (\$109 billion would go to poor countries). Instead, if developing countries all had bilateral agreements with European Union, the United States, Canada and Japan, global income would rise by only \$112 billion, and the rich would reap as much as \$133 billion.
³ On top of trade diversion, Bhagwati puts forth additional arguments against RTAs that have to do with the political economy of multilateral agreements: the

RTAs that have to do with the political economy of multilateral agreements: the "stumbling blocks" argument suggests that countries that already belong to a RTA have fewer incentives to go all the way to the multilateral agreements; He also argues that a vast constellation of RTAs resembles a "spaghetti bowl" of rules and regulations that complicate trade and international relations unnecessarily.

Venables (2003) agrees with this position. He says that, while there is little evidence that RTA's between two developed countries stimulate growth, there is ample evidence that RTAs between a developed and a developing country is good for the latter, especially because it stimulates growth. The poor partner tends to benefit from the knowledge spillovers and and policy credibility of the rich: Increased interregional trade improves access to technology and RTAs usually induce institutional reforms (sound macroeconomic policies, well defined property rights, efficient banking sector, and so on) and make them more credible to investor's eyes. An additional channel is that the poorer partners will benefit from attracting more industry as firms from member and non-member countries would prefer to establish in the poor country and sell into the Northern market. Venables concludes that "although, as a general rule, the conclusions depend on the exact partners and the depth of integration, regionalism can be a valuable part of a development strategy as agreements that remove not only tariffs but other barriers to economic interaction".

We mentioned earlier that the main reason why openness is good for the economy has little to do with the traditional static gains from trade. The main channel through which openness increases welfare is the increased aggregate growth rate. Again, Lawrence Summers (1991) puts it forcefully: "to the chagrin of economists, the real gains from trade policies of any kind cannot, with the possible exception of agriculture, lie in the triangles and welfare measures we are so good at calculating. Instead, they can be found in the salutary effects of competition and openness on domestic policy more generally,... including the political and symbolic benefits that it can bring in promoting domestic reform, solidifying ties between neighbors, and more fully harmonizing other aspects of national policies".

2.4 Empirical Evidence (1) Cross-country regressions

Two methodologies are often used by economists to test the hypothesis that openness has a positive impact on economic growth: cross-country regressions and case studies.

The cross-country regression methodology follows the work of Barro (1991) and it essentially consists on estimating the partial correlation between the openness of an economy and its aggregate growth rate over a period of time.⁴

A central question is how to measure openness. One line of research measures it by actual volume (usually, the sum of imports plus exports as a fraction of GDP). Levine and Renelt (1992) find that openness is one of the robust determinants of economic growth. This empirical work has been criticized for failing to account for the endogeneity of trade flows and for the fact that exports are part of gross domestic product. The endogeneity of the trade measure produces a simultaneity bias in the estimated impact, while exports being part of GDP produces an inherently positive correlation between them. Frankel and Romer (1999) proposed a methodology for overcoming these

⁴ The variables that need to be added to each regression is subject to controversy. Most researchers follow the specifications of Barro and Sala-i-Martin (1992) and Mankiw, Romer and Weil (1992). Recent research on the robustness of estimates follows Sala-i-Martin (1997) and Sala-i-Martin, Doppelhofer and Miller (2004) and check the robustness of additional regressors using Bayesian methods.

shortcomings. They estimated a gravity equation of bilateral trade flows, in which various geographic characteristics and bilateral distances affect trade. They then used the trade flows predicted by the geographic characteristics and the distances between countries as instruments for trade, in order to estimate the effect of imports plus exports as a fraction of GDP on income per capita. Frankel and Romer found a strong effect of openness on income per capita. Moreover, the resulting impact of the estimates. According to Frankel and Romer, a 1% higher trade share raises income per capita by 2%.

Using Frankel and Romer's instrumental variables methodology, Alesina, Spolaore and Wacziarg (2005) also found a positive effect of openness on the growth. Moreover, they found that the same degree of openness has a larger effect in smaller economies. That is, being open is less important if your domestic market is already large.

Irwin and Treviö (2000) and Rodrick (2000) challenge the robustness of all these studies: they claim that when more variables are included, the effects of openness on income become insignificant in some samples.

The main problem with this line of research is that it is difficult to separate the effects of institutions from openness. Dollar and Kraay (2001b) overcomes this measurement problems by looking at how differences in openness over time determine changes in growth rates thereby eliminating institutional and geographic effects on growth (which are assumed to be more or less constant over time). The results suggest that a 20% increase in trade share increases growth by between 0.5 and 1 percentage point a year. Dollar and Kraay (2001a) break the world into three samples: Those countries whose trade as a share of GDP rose the most (they called this the sample of "globalizers", those that trade shares rose the list (the "non-globalizers") and those in the middle. They drop the countries in the middle and compare the average performance of the two groups in the 90s relative to the 80s: the growth rate of the globalizers was 5.3 while the growth rate of the non-globalisers was only 0.8%.

Trade volumes depend on technologies, endowments, preferences and a whole array of other factors. As a result, some countries would have low trade volumes even if their governments allow for free trade. Hence, studies that capture openness by trade volumes do not provide satisfactory evidence of the effects of trade policies on growth. Thus, a second line of research prefers to analyze the relation between growth and openness policies rather than openness outcomes.

Sachs and Warner (1995) construct a binary index which assigns the value 1 when an economy is deemed open and 0 when it is deemed to be closed. Economies were labeled as closed if tariffs lied above 40%, if non-tariff barriers covered more than 40% of its imports, if they had a socialist economic system, if their exports were controlled by a state monopoly or their black market premium exceeded 20%. They showed that this qualitative measure of open policy was positively correlated with growth. Sala-i-Martin (1997) and Sala-i-Martin, Doppelhofer and Miller (2004) show that the Sachs-Warner index is one of the variables used in the literature that are robustly correlated with growth.⁵

⁵ Hall and Jones (1999) shows that the Sachs-Warner index is correlated with the level (not the growth rate) of productivity of nations. However, they also

These findings have been subject to criticism, most influentially by Rodriguez and Rodrik (1999), who show that the Sachs-Warner index is dominated by the criteria applied to state economy, socialist regime and the black market premium. Hence, this index does not properly isolate the effects of openness on growth. Wacziarg (2001) confirms this hypothesis and studies the effects of the various components if the Sachs-Warner index. He finds that a one standard deviation increase in the restrictiveness of trade policies reduces the growth rate by 0.26% annually, which is an important and significant impact.

Finally, some studies analyze the effect of openness not on the per capita growth rate of the economy but on employment or the wages of the poor. Along these lines, Krueger (1981) showed that "employment tends to grow faster in outward oriented economies" and that "the removal of both facto market distortions and trade distortions benefits, in the long run, the employment creation process in most of developing countries. Krueger (1983) finds that the trade has positive effects on wages and employment in developing countries. The natural presumption of this line of work would be that open policies should help reduce poverty in poor countries with comparative advantage in labourintensive goods. This is because poor are unskilled workers are endowed with labour but no capital.

Using the Dollar and Kraay (2001b) sample of countries, Sala-i-Martin (2002) shows that the \$1/day poverty rates for the group of "globalizers" fell from 19.3% in 1980 to 3.6% in 1999 while the poverty rates for the "nonglobalizers" rose from 10% to 17.8%. In terms of poverty headcounts, while the total number of poor people declined by 500 million in the countries that globalized, the total number of poor citizens rose by 80 million in the countries that remained closed.

In sum, most of the evidence on the relation between openness and growth points in the direction that more open economies tend to enjoy faster growth rates of standard of living and faster rates of poverty eradication. An unbiased reading of the evidence suggests that, although the robustness of some of this evidence has been challenged, the overall balance is that openness leads to growth. More importantly, nobody has presented evidence that protectionism is good for growth. As Helpman (2004), puts it: "My view is that despite the many difficulties that exist in the literature, it is fair to conclude that the evidence favors a negative effect of protection on rates of growth in the post-World War II period. Importantly, there is no real evidence of a positive link for this era."

2.5 Empirical Evidence (2): Case Studies

The second empirical methodology used by economists to uncover the effects of openness on welfare is case studies. Case studies allow researchers to identify more specific policies and institutional reforms for every country, but have the disadvantage that we cannot control for factors that are common

show that institutions are very correlated with openness and so cannot disentangle which one of the two affects more the output per worker ⁶ Recall that the "globalizers" are the third of countries that opened the most over the last two decades according to Dollar and Kraay (2001b).

That is, the countries that opened up the least since 1980.

across countries. We now discuss some case studies that support the view that openness tends to favor improved economic outcomes.

2.5.1 Asia

China is perhaps the best example of the positive connection between openness and economic growth. China undertook a unilateral trade liberalization during the reform period, prior to its accession to the World Trade Organization in December 2001. During this period, the average statutory tariff, which stood at the relatively high level of 56 percent in 1982, was reduced to 15 percent by 2001. China's share of global trade stands now at 4.3%, more than three times its share in 1982. China's fastest growing exports have been labor-intensive manufacturers—textiles, apparel, footwear, and toys (Lardy (2003).) This sizeable increase in the degree of openness has introduced substantial new competition into its domestic market and made Chinese firms more efficient and competitive. The average growth rate during the post-reform period (1978-2005) has been close to 10%, compared with 3% for the period 1950-77.

The reforms have brought benefits to all provinces in China. However, the coastal provinces have experienced larger economic growth than the inner regions. The reason is that inner provinces have been less open to trade (Chen and Feng (2000).) This uneven different performance has led to the well documented increase in income inequalities within China (Dollar and Kray (2001b).) However, this has not prevented a substantial decline in poverty: Sala-i-Martin (2006) estimates that Chinese 1\$/day poverty rates stood at 31% in 1975 and they stand now at less than 3% (a decline by a factor of 10!). The total number of poor has been cut by more than 250 million citizens. A reduction like no other in the history of the world.

The success of China in eradicating poverty through growth and trade is the most spectacular in the world but it is not, by any means, an exception. Other Asian economies have shared this economic success: from the early dragons (Taiwan, Sinapore, Hong Kong, and South Korea) to the East Asian tigers (Malaysia, Thailand, and India) to the latest success story of Vietnam, Asian economies have experienced substantial increases in average growth rates and substantial reductions in poverty rates and head counts. Sala-i-Martin (2006) estimates that poverty rates in East Asia declined from 32.7% in 1970 to 2.4% in 2000 (which amounts to 300 million less poor people) while the poverty rates in South Asia went from 30.3% in 1970 to 2.5% in 2000 (an additional 200 million citizens abandoned the state of poverty).

In most of these countries, outward oriented industrialization was the central policy (although not the only one: heavy investments in education and institutional reforms were also prominent policies that explain Asian success).

2.5.2 Mexico

An example of economic integration that is closer to Colombia is the case of Mexico. Mexico undertook a process of liberalization during the 1980s, a process that culminated with the signing of the North American Free Trade Agreement (NAFTA) with the United States and Canada in August 1992. NAFTA was implemented in 1994, which unlucky coincided with the devaluation of the peso and the subsequent financial crises of 2004 which led to a decline of Mexican GDP by 6% in 2005. After this unfortunate start, things improved substantially: between 1995 and 2000, the annual growth rate of the Mexican economy averaged 5.4%. The growth rate decelerated to 0.6% between 2001 and 2003, but picked up to 3.9% from 2004 to 2006. Exports as a fraction of GDP grew from 19% before NAFTA to 30.4% today. Investment averaged

18.3% of GDP between 1989 and 1994 and 20.1% in the post NAFTA period. Nicita (2004) estimates that NAFTA may have lifted up to 3 million Mexicans out of poverty.

The main impact of NAFTA on the Mexican economy is probably on employment: more than 6 million jobs were created in Mexico between 1994 and 2005. The unemployment rate remains very low at about 3% which means that Mexico has been able to absorb a substantial increase in labour supply during the post NAFTA period. More importantly, the relative importance of agriculture has declined while the weight of industry and services experienced a substantial increase.

Interestingly, the process of commercial liberalization did not bring specialization in labour intensive products (as predicted by traditional trade theory). Instead, readjustment in production structure that increased demand for skilled labour. The explanation is the role of FDI, which has brought new capital as well as better technologies that are complement with skilled labour. (Venables (2001) shows that "FDI flows into Mexico more than doubled in the years following the launch of NAFTA". This increase was explained by the investment of firms of non-NAFTA countries taking advantage of preferential access to the larger United States' market. For example, Japan redirected part of its FDI from the US and Canada toward Mexico, and many projects (for example, in the automobile industry) are intended for the NAFTA continental market.

The deceleration of the first three years of the new millennium may reflect the loss of competitiveness that results from increasing wages: because the unemployment rate in Mexico is so low, an increase in demand results in wage increases and increasing costs.⁸ In this sense, the competition of China and other low wage Asian economies has had a worldwide impact and Mexico is no exception. Of course the slowing down of the 2000-02 period may also reflect a temporary downturn. The higher growth rates experienced by Mexico during the period 2003-2006 support this more optimistic view.

The regional impact of NAFTA has been uneven. Most of the gains in employment and income have occurred in the northern regions close to the US border (see Esquivel et al (2002).) The poorer regions of the south did not necessarily benefit. The reason, however, is that these regions are not economically integrated to take full advantage of the opportunities NAFTA brings: infrastructures and communications are poor, education levels and skills are low, and institutional and public sector problems abound. To benefit from economic integration with the United States, these regions should open up to the rest of Mexico.

2.6. Summary of Empirical Evidence

The best and shortest summary of the vast empirical literature on the relation between openness, growth and poverty is given by Berg and Krueger (2003): "when we add the cross-sectional analyses to the substantial quantity of

⁸ It is important to remember this point when one thinks of the likely impact of a RTA for Colombia since the unemployment rate in Colombia is substantially higher. Hence, the effects of an agreement for Colombia are likely to have much larger effects on employment than in Mexico.

case studies, industry and firm-level research documentation, the evidence is convincing: openness contributes to productivity and ultimately income growth".

3. COLOMBIA: THE LIKELY EFFECTS

Colombia and the United States are currently considering a free trade agreement (FTA). Although originally the agreement included two other Andean countries (Peru and Ecuador, and this is why the treaty is known as US-Andean FTA) Peru and Colombia are negotiating with the US separately. The negotiation between Ecuador and the United States has been postponed.

Many studies have been conducted to estimate the likely effects of this FTA on the levels of income, employment, salaries and poverty in Colombia. These estimates are done using computer simulations of general equilibrium models. Of course, the impact of economic integration depends on a variety of elements, including the degree in which US non-tariff barriers are reduced, especially in the agricultural sector (see Martin and Ramirez 2004). This section discusses some of the results of this research. The main summary is the likely effects of a FTA are a substantial positive impact on the Colombian economy.

Fedesarrollo (2004) estimates that a FTA would increase bilateral trade by an additional 40.5 percent. They also estimate that when the current Andean Trade Promotion and Drug Eradication Act (ATPDEA) expires in 2007 if no bilateral agreements are put in place trade between Colombia and the US would fell by 56.6%.

Besides inducing more trade, the economic benefits of a FTA would be numerous. Botero (2004) estimates that a total of 270,000 jobs would be created, that the demand of skilled labour would increase by 1.4% and that of unskilled labour would grow by 5.5%. Skilled wages would grow at 4.5% while the effect on unskilled wages ranges from zero to 1.58%, depending on the study. The explanation behind the small change in unskilled wages is that unemployment rates are high. Hence, increases in the demand for unskilled labour would be met by job creation rather than by increases in the salaries of the employed.⁹

Since the poor in Colombia tend to be unemployed, the creation of jobs alone will have a substantial impact on the reduction of poverty. This conclusion is consistent with the findings of Bussolo and Lay (2003) who combined a computational GE macro model with a microeconomic model of income distribution to study the role of openness on poverty in Colombia. This combination of micro and macro data allows them to identify the income distribution effects of macro policies and the movements in and out of poverty for a variety of groups both in urban and rural areas. The paper shows that the tariff reduction experienced by Colombia at the beginning of the nineties induced a substantial reduction in poverty rates.

Aggregate GDP is predicted to increase by more than 5%. Moreover, the growth is likely to occur in the industrial (expected to grow 6.8%) and services sectors (5.3%). Both imports and exports are expected to increase by 10%. And most importantly, investment is predicted to increase by more than 30%.

 $^{^{9}\,}$ This is different from what happened in Mexico as a result of NAFTA because unemployment rates in Mexico were substantially lower.

We have argued repeatedly throughout this essay that the main benefits of openness are likely to be dynamic. That is, are likely to come from both the transmission of knowledge due to transnational capital flows and the improvement of the institutional environment. These most important elements are not captured by the computer models used to estimate the likely impact on the Colombian economy. Lawrence Summers believes that the institutional channel is probably to be the most important channel through which openness affects the wellbeing of citizens. This is true in general, but is especially true for Colombia. As US ambassador to Colombia put it in a speech (Portman (2006)): "An agreement with Colombia will be useful to combat narco-trafficking, build democratic institutions, and promote economic development. In addition to eliminating tariffs, Colombia will remove barriers to trade in services, provide a secure, predictable legal framework for U.S. investors operating in Colombia, provide for effective enforcement of labour and environmental laws, protect intellectual property, and provide an effective system to settle disputes."

4. CONCLUSIONS:

This paper summarizes the theoretical arguments and empirical evidence on the relation between openness, poverty and economic development. When cross-country empirical evidence and case studies are put together, the evidence is convincing that economic integration improves standards of living, increases economic growth and contributes to the reduction of poverty. This is true in general and in the case of regional trade agreements. The main channels through which openness is likely to reduce poverty are dynamic channels that are not capture by traditional trade theory. Among these dynamic non-traditional factors the transmission and coordination of policies and institutions that lead to greater economic efficiency, larger productivity and higher growth rates. All these factors contribute to the eradication of poverty.

We also argue that these factors are likely to be important in the case of Colombia, if it finally signs a FTA with the United States.

Let us finish this brief with three policy warnings. First, although economic integration will bring greater wellbeing for the average Colombian, it will not bring greater good to all Colombians. As it is the case for virtually ALL policy decisions, institutional reforms or even technological innovations, there will be some people that will lose. There will be citizens, companies, sectors or regions that will lose from the free trade agreements. Overall, the gains of the winners will be larger than the losses of the losers, and eventually in the longer run everyone may end up benefiting. It would be important that safety nets are implemented so that help is given to the losers so that they can adapt to the new environment. Second, economic integration will be more general from a regional point of view if all the regions in Colombia are themselves integrated. The case of Mexico shows that regions that remain isolated do not reap the benefits of openness. In this sense, efforts should be made to keep all regions connected and prepared to compete. Finally, the gains to Colombia (and especially the gains to the poor citizens of Colombia) from greater integration with the United States will come from foreign investment and from the adaptation of its institutions and policies. Colombian authorities should be ready to accept and nurture foreign investment and should stand ready to reform its institutions for the greater good of its citizens.

References:

Alesina, Alberto, Enrico Spolaore and Romain Wacziarg (2005), "Trade, Growth and the Size of Countries", in in Philippe Aghion and Steven Durlauf (eds.) Handbook of Economic Growth, Vol. 1, Part 2, Chapter 23, pp. 1499-1542, Amsterdam: North Holland.

Chen, Baizhu and Yi Feng (2000), "Determinants of economic growth in China: Private enterprise, education, and openness" *China Economic Review* 11, pp. 1-15.

Barro, Robert J, (1991), "Economic Growth in a Cross Section of Countries," *The Quarterly Journal of Economics*, MIT Press, vol. 106(2), pages 407-43, May.

Barro, R. and X. Sala-i-Martin, (1992), "Convergence", *Journal of Political Economy*, April 1992.

Berg, Andrew and Krueger, Anne O. (2003), "Trade, Growth, and Poverty: A Selective Survey," IMF Working Paper No. 03/30

Botero García, Jesús (2004), "Impacto del ALCA y el TLC Sobre el Empleo en Colombia", Corporación para el Desarrollo de la Investigación y la Docencia Económica

Bussolo, Maurizio and Jann Lay (2003), "Globalization and poverty changes in Colombia», Mimeo available at $\underline{www.pep-net.orq}$.

Coe, David T., Elhanan Helpman, and Alexander W. Hoffmaister (1997), "North-South R&D Spillovers," *Economic Journal*, Vol. 107 (January), pp. 134-49.

Choksi, Armeane M., Papageorgiou, Demetris, and Michael Michaely (1991), "Liberalizing Foreign Trade Vol. 7 Lessons of Experience in the Developing World," Cambridge, Massachussets and Oxford: Blackwell.

Deininger, Klaus and Lyn Squire, (1996), "A New Data Set Measuring Income Inequality", World Bank Economic Review, Vol 10, N. 3, pp 569-591.

Dollar, David and Aart Kraay (2001a) "Growth is good for the poor", World Bank Policy Research Working Paper No. 2587, Washington D.C.: The World Bank.

Dollar, David, and Aart Kraay (2001b) "Trade, growth and poverty", Washington D.C.: The World Bank (unpublished)

Edwards, Sebastian (1998), "Openness, Productivity and Growth: What Do We Really Know?," *The Economic Journal*, Vol. 108, Issue 447, Page 383, March

Esquivel, Gerardo, Daniel Lederman, Miguel Messmacher, Renata Villoro (2002) "Why NAFTA Did Not Reach the South" The World Bank, mimeo.

Fedesarrollo (2004), "Implicaciones económicas y sociales del TLC Colombia – EEUU: Análisis por escenarios."

Frankel, Jeffrey A., and David Romer (1999), "Does Trade Cause Growth?," *American Economic Review*, Vol. 89, pp. 379-99, June.

Hall, Robert E., and Charles I. Jones (1999), "Why Do Some Countries Produce So Much More Output Per Worker Than Others?," Quarterly Journal of Economics, Vol. 114, pp. 83-116, February.

Helpman, Elhanan, (2004), *The Mystery of Economic Growth*, Harvard University Press.

Irwin, Douglas, and Mark Treviö (2000), "Does Trade Raise Income? Evidence from the Twentieth Century," NBER Working Paper 7747 (Cambridge: Massachusetts: National Bureau of Economic Research).

Krueger, Anne O. (1981), "Trade and employment in developing countries," University of Chicago Press Chicago

Krueger, Anne O (1983), "Trade and Employment in Developing Countries," Vol. 3: Synthesis and Conclusions. 230 p. 1983 Series: (NBER-M) National Bureau of Economic Research Monograph

Krugman, Paul and Anthony J. Venables (1990), "Integration and the Competitiveness of Peripheral Industry" CEPR Discussion Papers No. 363, January.

Lardy, Nicholas R. (2003), "Trade Liberalization and Its Role in Chinese Economic Growth" Institute for International Economics Washington, D.C. (mimeo)

Leibenstein, Harvey, (1966), "Allocative Efficiency vs 'X-Efficiency'", American Economic Review, Vol. 56, No. 3 (Jun.), pp. 392-415

Levine, R. and D. Renelt, "A Sensitivity Analysis of Cross Country Growth Regressions", *American Economic Review*, 82: (4) 942-963, September 1992.

Mankiw, N. Gregory, David Romer, and David N. Weil (1992), "A Contribution to the Empirics of Economic Growth", *Quarterly Journal of Economics*, Vol. 107, No. 2 (May, 1992), pp. 407-437

Martín, Clara Patricia and Juan Mauricio Ramírez (2004), "El Impacto Económico de un Acuerdo Parcial de Libre Comercio entre Colombia y Estados Unidos" (mimeo)

Ministerio de Hacienda y Crédito de Colombia (2006) "Colombia en la Senda del Crecimiento Sostenible del 5%" (mimeo)

Nicita, Alessandro (2004), "Who Benefited from Trade Liveralization in Mexico? Measuring the Effects on Household Welfare," World Bank Policy Research Working Paper No. 3265, Washington D.C.: The World Bank.

Portman, Rob, (2006), Speech at the presentation of the conclusions of the negociations between United States and Colombia in Bogota, Feb 14, 2006.

Quah, Dany T. (2002), "One Third of the World's Growth and Inequality," CEPR Discussion Paper No. 3316 (London: Centre for Economic Policy Research).

Ravallion, Martin and Shaohua Chen (1997) "What Can New Survey Data Tell Us about Recent Changes in Distribution and Poverty?," The World Bank Economic Review, 11(2): 357-82.

Rodrick, Dani (2000), "Comments on Dollar and Kraay" (unpublished).

Rodriguez, Francisco, and Dani Rodrik (1999), "Trade Policy and Economic Growth, A Skeptic's Guide to the Cross-National Evidence," NBER Working Paper 7081 (Cambridge: Nacional Bureau of Economic Research).

Sachs, Jeffrey D. and Andrew M. Warner, (1995) "Economic reform and the process of global integration". Brookings Papers on Economic Activity, 1-118.

Sala-i-Martin, Xavier (1997), " I Just Ran Two Million Regressions," American Economic Review, Vol. 87, pp. 178-83, May

Sala-i-Martin, X. (2002a) "The World Distribution of Income (estimated from Individual Country Distributions)", NBER WP April 2002.

Sala-i-Martin, X. (2006)"The World Distribution of Income: Falling Poverty and Convergence, Period', *Quarterly Journal of Economics*, April.

Sala-i-Martin, X., Doppelhoffer, G., and R. Miller, (2004), "Determinants of Long-Term Growth: A Bayesian Averaging of Classical Estimates (BACE) Approach", *American Economic Review*, September

Summers, Lawrence H., (1991), "Regionalism and the World Trading System", Federal Reserve Bank of Kansas City, Proceedings.

Schiff, Maurice y L. Alan Winters (2003), "Regional Integration and Development," The World Bank, Washington DC.

The World Bank (2005), "Global Economic Prospects. Trade Regionalism and development," Available at $\underline{www.worlbank.org}$

Venables, Anthony (2001), "Regionalism and Economic Development." Available at: http://www.lacea.org/meeting 2001/venables.pdf

Venables, Anthony (2003), "Winners and Losers from Regional Integration Agreements" *The Economic Journal*, 113, pp.747–761, October.

Viner, Jabob (1950), The Customs Union Issue. New York: Carnegie Endowment for International Peace ${\bf P}$

Wacziarg, Romain, (2001), "Measuring the Dynamic Gains from Trade," *The World Bank Economic Review*, Vol. 15, 393-429.

			•
			•