

Geographical and Behavioral Economics of Political Risk  
For Foreign Direct Investment Location

By

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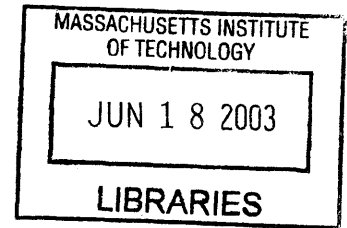
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## **ABSTRACT**

This thesis analyzes the perception gap between political risk assessments observed at the national level, and the different realities of sub-national city regions whose risk regime is not reflected by the national indicators, and its implication on foreign direct investment (FDI) location decisions.

The purpose of this research is to understand how and why the national political risk assessments of countries with internal armed conflicts override the ability of regional investment promotion agencies to attract FDI into financially sound projects of high developmental value.

This thesis complements the standard political risk underlying theories with geographical and behavioral economic theories, in order to propose a sub-national political-risk-assessment approach that could show the safer regions within riskier countries. It is based on the analysis of the Colombian Metallurgical Coke and Power Plant Project COLMECO, designed to be located in the Barranquilla Metropolitan Area, within the Atlantico Department, a region that has traditionally experienced no open internal armed conflict confrontation. The conclusions of this research prove and justify the sub-national risk assessment approach proposed.

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## INTRODUCTION

Development depends not so much on finding optimal combinations for given resources and factors of production as on calling forth and enlisting for development purposes resources and abilities that are hidden, scattered or badly utilized (Albert Hirschman, 1958: 221)

Analysts have found an important gap in perceptions observed between the business climate risks faced by foreign investors at a given nation, as indicated by its *political-risk index*, and the different reality of specific “sub-national” city-regions within that nation, which do not match the risk regime alleged by the “national” index. In this study, I aim to contribute to understand and manage why and how the international perception of their country, based on the standardized national scale of observation, *override* the ability to attract foreign direct investment (FDI) into their financially sound and highly “developmental” projects on safer city-regions.

These geographical and perception differences of investment risks are critical in the case of countries with internal armed conflicts (IAC) like Colombia, since foreign investment analysis processes will never differentiate between safer and riskier regions with political risk indexes measured at the national gross level. Without disregarding the negative realities of Colombia’s complex armed confrontation, which evidently show consistent pattern of cruelty on specific vulnerable regions, I argue that there is the opposite complementing reality of safe regions like the Atlantico Department, which for geopolitical stable barriers shows a parallel resistance to the internal armed conflict sprawl. However, this safe reality is “hidden” under the more popular riskier one.

Therefore, even recognizing the obvious priority of structural and deterrence policy solutions to the Colombian IAC, it is undeniably important and fair to frame specific industrialization policies focused on those “conflict-resistant” city-regions that can serve as a leverage for the country’s “conflict-carrying capacity”<sup>1</sup>, with selective FDI.

Country-risk index is a single indicator that “compresses” the intricate financial, economic and political stability factors of a nation through different models. These models vary according to the specific needs of their users, representing the probability that these factors will induce economic losses to investment projects in that country. Howell (a, 2001:4) describes how these indexes were developed in the early 60’s using the concept of Political Risk, defined as

the possibility that political decisions or political or social events in a country will affect the business climate in such a way that investors will lose money or not make as much money as they expected when the investment was made.

I argue that whereas financial and economic risk factors are more homogenous and common to an entire nation than political risk, due to its dependence on national macroeconomic structural factors, by its definition, political risk varies significantly within sub-national regions, especially in countries with IAC. Therefore, a new *sub-national scale of observation* for political risk is needed, since its wide and generalized use as a single national mean indicator (without a complementary sub-national analysis or at least a geographical standard deviation) is a scale and statistical inconsistency that neglects its purpose; especially in the case of the most popular country-risk models

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<sup>1</sup> Although its original concept is defined as “the ability to regulate intense internal conflict without resort to major violence” (Jenkins & Kposowa, 2001, <http://www.pcr.uu.se/jenkinspaper.doc> accessed 05.01.03), its rationale is valid for the case of sub-national regions political risk, like proposed in this paper.



used for FDI analysis, where the political factor has a higher weight on the compound final country risk index than the financial and economic factors<sup>2</sup>.

This scale and statistical information inconsistency affects the ability to attract FDI to relatively safer regions located within relatively riskier countries by either two ways:

a) In the case of an international expansion project originated within a Multinational MNC corporate global strategic planning core, its potential host countries “short list” is first “screened” at a “desk” analysis using country-risk as a main selection criteria; only then, specific plant sites are evaluated with operational criteria, like in the Intel case presented later. In this case safer regions within riskier countries will not be evaluated.

b) In the case of FDI project originated at the periphery of the MNC -either proposed by a subsidiary, an IPA or a host government-- its iterative evaluation process will finally reach the same strategic core of the MNC, where it will be again “screened” by experts that know much of the MNC but less from the proposed project site business climate. Their judgment will rely on country-risk indicators, and on *their personal perceptions*; both subject to media influence<sup>3</sup>. This is the COLMECO case, shown in chapter 4.

In countries of wide regional divergences like emerging markets, transition economies and above all countries with IAC (whose manifestations are almost always unevenly distributed due to geopolitical barriers) the implicit generalizing assumption of its

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<sup>2</sup> The “International Country-risk Guide” ICRG weights its compound index giving 50% to political risk, and 25% to each of the financial and economic risk factor. The Business Environment Risk Intelligence BERI’s “Profit Opportunity Recommendation” POI Index gives equal weight to a) its Operations Risk Index ORI, b) Political Risk Index PRI and c) Remittance & Repatriation Factor R. But a closer analysis of the two first factors ORI and PRI, shows that *both* measure and reflect political related variables.

<sup>3</sup> The importance of the image of the country was emphasized by investment bankers surveyed in Colombia, who explained that a FDI investment decision can be taken after 7 iterations by MNC strategic officers that “know very well the company but too few about Colombia” (Steiner and Salazar, 2001:39).

territory as “dimensionless points” is an information failure that induces inefficient investment decision against both potential investors and host regions. It also neglects the widely tacit use of economic geography by main IAC theories, like Collier’s (2000) explanation of looting and depredation as a main economic cause of civil conflicts. Political risk assessment models have traditionally focused their attention so much on the “worst case” and extreme realities of IAC, in their logical purpose to relate them to the probability of economic losses, that its generalization “hides” the complement probability of economic gains if FDI locate on safer or “immune” regions, that for geopolitical stable factors are outside or only marginally related to the conflict system.

Besides this “focus” effect, I also argue that the media influences political risks on a “revolving door” way. First media sources are recognized as secondary information by political risk analysts<sup>4</sup>. Second, most of the risk qualitative analysis is based on regular surveys to experts located throughout the world, whose opinions will be influenced by the news provided to them by their local media. In the case of countries with internal armed conflicts, the “spin” bias or the propensity of media to compete for their audiences by creating “memorable stories”, will lead to a focus on the “worst case” realities than the “normal” business success stories that these countries might have<sup>5</sup>.

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<sup>4</sup> For example, BERI quotes “hundreds of publications from around the world in several languages through the internet” as the information used by their professional analysts. [www.beri.com/overview.htm](http://www.beri.com/overview.htm)

<sup>5</sup> For a complete explanation see Mullinathan and Shleifer “Media Bias” (NBER 9295, October 2002). Anecdotic evidence is the spontaneous explanation of a MIT Sloan student, a former FT Editor for Spain, to my question of the media propensity to focus on the extreme reality of Colombia’s conflict, disregarding success stories: “There is no news when a dog bites a man. *“Good” news is when a man bites the dog*”.

I foresee that my proposed new sub-national scale of observation of political risk for FDI will be commercially developed in the near future, but within the insurance industry, as a “merged” revenue source for these activities. Thus, a practical conclusion of this research is to explore how to induce the acceleration of such a development showing to both industries its worldwide commercial applicability, not only for the case of Colombia. It is the logic consequence that conceals the cross-effect of the generalized increase on insurance risks as a systemic response to the higher uncertainty brought by 9/11, and the ever increasing need of MNC to expand business globally, including into markets located on countries or world regions regarded as highly unstable. This will induce investors to demand more accurate “sub-national” political risk assessment to engage and locate their FDI projects on safer sites, where they could be charged lower rates.

After all, it happened already within the US, when Air Worldwide Corporation developed its “Terrorism Loss Estimation Model” as a solution to the difficult pricing decisions of terrorism risks insurance premiums for buildings, an even more critical unit of analysis than city-regions<sup>6</sup>. The inability of insurers to estimate the probabilities and financial consequences accurately of future terrorist attacks after 9/11 resulted in the unsustainable lack of coverage or the increase “by orders of magnitude” of insurance premiums, doubling or tripling in some cases in New York<sup>7</sup>. To solve this, in November 26th 2002 President Bush signed the “Terrorism Insurance Act”, making it mandatory to all commercial property and casualty insurers to cover losses due to terrorism activities,

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<sup>6</sup> AIR Worldwide announced in September 2002 its “Terrorism Loss Estimation Model”, estimated the location, frequency and severity of attack risks for of over 300.000 landmarks in the US [http://www.air-boston.com/\\_public/html/terrorism.asp](http://www.air-boston.com/_public/html/terrorism.asp)

<sup>7</sup> Quoted by Daven Lowhurst on “The New Federal Insurance Program for Terrorist Acts: How it works and Open Questions” Construction Weblinks, web based issue of February 17<sup>th</sup> 2003.

therefore formalizing the need for accurate assessments from the real-state properties scale of observation. I think that President Bush's speech the day of the Act signature presents an interesting parallel of the necessity of this new scale of assessment:

Insurance companies stopped covering builders and real estate owners against the terrorist attacks [and] more than US 15 billion in real estate transactions have been canceled or put on hold because owners and investors could not obtain the insurance protection they needed. Commercial construction is at a six-year low, and thousands of hard-hat workers have been kept of the job. Commercial mortgage-backed securities have seen their bonds ratings lowered, hurting many Americans invested in the bond market... By helping to ensure that terrorism insurance is affordable and available, the Terrorism Insurance Act will permit many construction projects to move forward and help this economy grown. (White House Press Release of the event, [www.whitehouse.gov](http://www.whitehouse.gov)).

This is the case for promoting a sub-national political risk assessment: allowing financially sound FDI projects to locate on those regions where they would be safer, therefore "pulling" the growth of their host economies. Therefore, sub-national political risk analysis is fundamental to make this happen in those riskier countries.

My question of how to account for the sub-national variations of country-risk indicators arises from the strong difficulties faced on achieving the involvement of foreign investors on the pre-operational stage of an attractive US 400 million metallurgical coke and power plant project in Barranquilla Colombia, an industrial port city with a relatively safe "business climate" that the national high country-risk indicators does not represents.

I present in the second chapter the theories of Foreign Direct Investment, its implication in Colombia, its relation to Regional Economic Development and the justification for promotion FDI from the sub-national perspective, as ProBarranquilla does; the theories

of civil conflicts, with emphasis on its geographical and economic causes, emphasizing the theories that support or challenge my hypothesis.

In the third chapter, I present the theories of political risk models, its process to FDI decision, and some evidences about the role that media plays on perceptions.

In the fourth chapter, I present the case of the Colombian Metallurgical Coke and Power Plant COLMECO, and finally, in the fifth chapter, I present the conclusions and policy recommendations for this research.

The validation presented in the fourth chapter uses the “feasibility review study” done by a MNC for the Colombian Metallurgical Coke and Power Plant COLMECO project located in Barranquilla. This study, which showed that the location in Barranquilla could lead to a lower project financial risk, will be used as a guide to systematize its rationale for a sub-national political risk approach. I will prove that the actual national scale risk approach induce investment biases explained with behavioral and geographic economies theories, and that these deviations from a profit maximizing investment decision could be lowered with sub-national risk analysis.

As a final methodological note, I have deliberately chosen recurrent direct quotes from main authors of the different theories analyzed, as a method to find justifications for my approach on these well accepted theories on each of their fields of knowledge.

## CHAPTER 1

### **Motivation, Background and Goals for studying geographic and behavioral Economies of Political risk for Foreign Direct Investment Location**

Globalization may well have eliminated space, but it has by no means undermined the significance of location, of place. (Martin, "The new Economic Geography of Money" on Sheppard, 2002: 2)

In today's increasingly global economy, FDI is a source of capital, management, and technology for the developing world and economies in transitions (Moran, 1998, xi).

This motivates Regional Investment Promotion Agencies IPA to promote FDI on their areas of influence, as a leverage complement for their regional economic and social development programs. After all, being globalization a reality, inward FDI has shown to be a positive regional developmental leverage, with a benchmark in Western China.

This is the motivation of ProBarranquilla the IPA for the Barranquilla Metropolitan Area BMA and the Atlantico Department located in the Colombian Caribbean, in the center of the Free Trade Area of the Americas FTAA. ProBarranquilla, a private not-for profit foundation founded 1988 by regional and national industry leaders, is responsible for implementing the fifth objective of the Department's Strategic Export Regional Plan: *"fostering an attractive business climate for the productive foreign and national investment.* FDI is considered very important under the plan's 2010 vision as *"The Best Export Platform of Colombia"* (PEER, Carce Caribe, 2002:1).

However, a regional IPA's ability to attract FDI to its sub-national area of concern is in reality inversely correlated with the international perception of the risks associated to the nation within this region is located. This is so, regardless of the specific regional "risk regime", and even if an objective observation finds it to be lower than the national one.

The exacerbated international perception of Colombia's political risk, associated to its internal armed conflict, was found to be a "stigma" and sensitive barrier to the promotion of BMA's two main FDI projects between 1998 and 2002: the Colombian Metallurgical Coke and Power Plant COLMECO and the Caribbean Technological Free Zone (CTFZ). These initiatives estimated initially in US 400 million were promoted by ProBarranquilla, based on the conclusions of the "Atlantico 21<sup>st</sup> Century"; a Social and Economic Master Plan, delivered in 1997 by the Stanford Research Institute Consulting (SRI) to a public private partnership launched by ProBarranquilla in 1994<sup>8</sup>.

ProBarranquilla started to promote COLMECO and the CTFZ projects in late 1998, after contextualizing the projects profiles received from SRI. The validation of the plan methodology of the projects itself as a very attractive investment opportunity, and of the Barranquilla location as a "project's strength, was the engagement of a former US "Fortune 50" multinational corporation (MNC) that invested a total of US 1.9 millions in the pre-feasibility study and actions needed to develop the COLEMCO project. However, this involvement was possible only after a strong promotional effort focused on documenting, explaining and showing "on site" to the potential investors, the specific "risk regime" or business "micro-climate" that the BMA offered to the projects, which was different from the perception due to Colombia's internal armed conflict.

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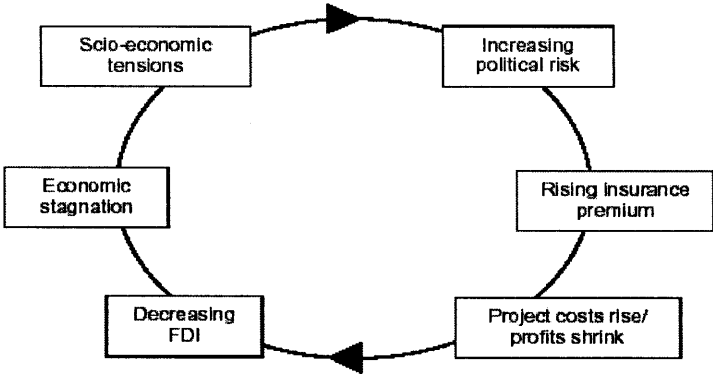
<sup>8</sup> "Atlantico 21st Century" is a regional reaction to what was considered an improvised "apertura" or Colombia's economy opening process. President Cesar Gaviria opted for an acceleration of Colombia's market opening process in 1991, without a sufficient preparation of the national industry to face the new foreign competition. As a response, ProBarranquilla launched in late 1993 a public private partnership for a sustainable "competitive insertion of the BMA and Atlantico Department in the global economy". It started with competitiveness SWOT analysis of the region, to then select three new regional "tractor" industry clusters of exportable goods and services with the highest market potential and linkages. The development of these clusters was intended to strengthen the general competitive foundations of the regional economy, as well as to leverage its incremental migration towards higher technological aggregated value activities. For each cluster an "anchor" investment project was provided.

ProBarranquilla invested significant resources on formulating “Atlantico 21<sup>st</sup> Century” as a regional competitive globalization plan. The result was that its project profiles were considered to be very attractive business opportunities by the potential investors that agreed to review them, after a strong promotional effort. But how could these or any other projects take place if they were located in a nation “banned” as “too risky” by their potential foreign investors, who didn’t though about “safe cities” within their prejudices?<sup>9</sup>

The relationship between risk, investment and political stability can be defined with the dynamic model of figure 1, taken from the conclusions of the World Economic Forum 2001 workshop on security and political risk, which took place one month after 9/11. The increasing socio economic tensions in a country are expected to increase the political risk, or the *probability of loses* on FDI projects, which then increase the insurance premiums, reducing the projects attractiveness, decreasing FDI, causing economic stagnation, which finally increases the original socio economic tensions.

Figure 1. Dynamic model of risk, investment and political stability

**Risk, Investment and Political Stability: A Downward Spiral?**



Source: World Economic Forum, October 2001

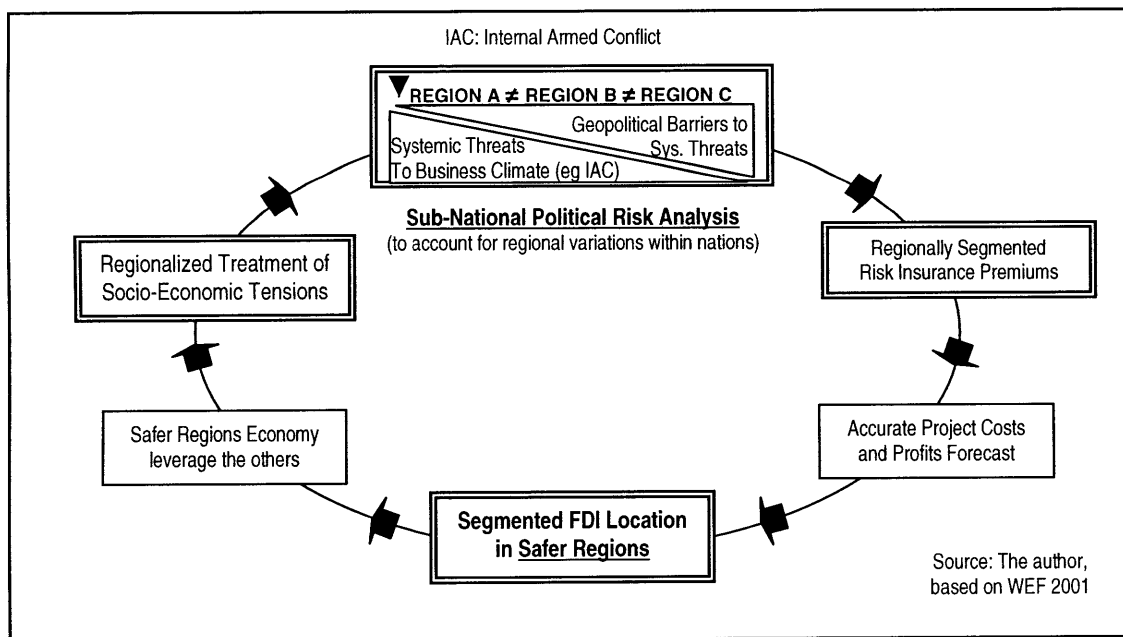
<sup>9</sup>An anecdote illustrates how these prejudices act on potential investors decisions: During the “Latin America Internet & Technology in the 21<sup>st</sup> Century” 2000 Conference in Miami, I presented the business concept and rationale of the Caribbean Technological Free Zone (submarine cable bandwidth, low cost human resources, market growth expectations etc.) to an initially enthusiastic Susan Segal, Latin America General Partner of Chase Capital Partners, a main investment fund in the region. Mrs. Segal’s escalating interest during the dialog abruptly plummeted into an evident disappointment, when she found out that the project was planned to be located in Colombia. Her closing remark before leaving the group was “I’m sorry, I’m wasting my time. I never invest where I can not travel”.



As an *aggregate* model is a logical decision. But as per the introductory quote, it should consider political risk variations, according to the *specific site location* within a country. Based on my experience as the Director of ProBarranquilla and manager of the Atlantico 21<sup>st</sup> Century projects since 1997, I argued that these specific FDI initiatives as well as any general FDI promotion effort for the BMA and Atlantico Department will always face the same overruling “risk stigma”, regardless of their intrinsic risks. This would be so, unless we could capture and codify Barranquilla’s “safer” sub-national risk regime, to study its effect over FDI projects with the same methodologies used in standard country-risk assessment models, but from a sub-national scale of observation.

My main hypothesis is that, by its own definition, *country-risk*, more precisely its political component, varies within countries. Therefore, a new sub-national scale of observation is needed as the one presented in figure 2.

Figure 2. Proposed Dynamic Model of Sub-National Segmented Risk, Investment and Political Stability



The use of political risk as a national *central tendency value* without complementing it with its standard deviation induces a scale of observation and statistical inconsistency, which feeds perception biases on FDI location analysis. In any and all sciences it is intuitively accepted as a statistical lightness the presentation of a central tendency value of an observed sample without its standard deviation complement. Therefore, it is stunningly amazing to see the wide acceptance and use of political risk, by nature and purpose skewed towards the country's business climate's "worst case scenario", without considering or presenting its sub-national variations with a standard deviation indicator, and the lack of attention or research on this subject. It is a similar rationale to Paul Krugman's critique on international trade economists that considered nations as "dimensionless points" on their trade models, when proposing economic geography, meaning "the location of production in space" or the branch of economics that worries about where things happens in relation to one another (Krugman, 1991:2). On an increasingly integrated global economy, a sub-regional political risk analysis will serve both FDI and policy makers to match their interests where it could be more feasible.

Especially in countries with IAC like Colombia, whose sub-national manifestation have been consistently different among regions, although disregarded by an indiscriminate and generalized high political risk international cliché. This image is reinforced by the media, which perennially extracts and spreads its worst manifestations. The negative realities create more memorable stories than the business opportunities or positive complement aspects, as described by the media spin bias theory of Mullainathan and Sleifer (2002). This press mediation acts as a perception self-reinforcing mechanism,

since the main political risk-rating agencies, headquartered in NY or London, rely on secondary information, including of course the press for their country-risk ratings.

To test my hypothesis, I will analyze the consistency of a new geographical scale of observation, applying the “micro-climate” approach from agriculture investments to create a new “sub-national risk-assessment” model. After all, it is at the sub-national or city level where FDI is located. This scale should stand up against theories like:

1. Country and political risk assessments, where the unit of analysis is the country
2. International project finance, which studies the financial structure of a given investment project,
3. Internal armed conflicts and its geographical sprawl explanations
4. Economic geography, which studies the spatial location of economic activities
5. Behavioral economics, where the rationality of investment decisions is studied related to the perceptions of the economic agents

The research question is: **How could political risk assessment models reflect sub-national differences, especially those of relatively safer business climates within countries with a relatively high political risk, for FDI location analysis?**

To explore possible solutions to this problem I will further question:

- What is the theoretical and practical relationship between country-risk observed at the national scale and regional FDI location, from an investor’s perspective?
- How could regional economic developers use this relationship to indicate safer regions within riskier countries, for selective FDI attraction to these “pockets”?

- What are the policy implications of these findings for regional economic developers, national governments, multilateral institutions and political risk assessment companies?

The goals of this study are:

- To understand the way political risk indicators are constructed and used by investors on their FDI location decisions.
- To explore the viability of a sub-national complementary analysis or a political risk sub-national standard deviation indicator to the actual country models.
- To understand the effect of media on political risks as an input for international-branding and regional-investment promotion strategies in Colombia.
- To use the same media mechanism for a sub-national image branding strategy for the Barranquilla Metropolitan Area and the Atlantico Department.
- To propose policies that will enhance the security and attractiveness of “conflict-resistant enclaves” in countries with internal armed conflicts, where new industrial FDI projects could find the needed security to be feasible, therefore breaking the vicious cycle of conflict - political risk - lack of investments – underdevelopment - conflict.

Other countries with internal armed conflicts can also use this research to find specific locations where attractive industrial investment projects would be safer developed. After all, as proposed by Martin’s initial quote, “Globalization may well have eliminated space, but it has by no means undermined the significance of *location*, of *place*”.

## CHAPTER 2

### 2.1 Definitions of Foreign Direct Investments

One of the elements of globalization –the pervasive economic integration of the world’s nations- is the increasing cross-border flow of international capital.

These international capital flows can be classified into four principal categories:

- **Commercial loans:** The loans usually by banks to foreign business or government
- **Official flows:** The developmental assistance given by developed countries to developing ones.
- **Foreign Portfolio Investments:** Investment instruments that are more easily traded, less permanent and do not represent controlling stake in an enterprise, like stocks or bonds of a foreign enterprise.
- **Foreign Direct Investment:** International –or cross border investments-- in which the investor obtains a *lasting control* in an enterprise in another country through its equity. This is the kind of capital flow on which this study is focused.

It must be made clear here that international debts or loans are also regarded as foreign *indirect investment* (Amsden, 2003:12). After all, in the case of international project finance where the debt capital for a project is provided in different stages, its disbursements are usually tied up to performance standards, therefore subject to an indirect control by the lenders. However, this control ceases once the debt is paid back.

There are many overlapping perspectives of FDI; from its economic definition (size, geographical spread and extend of foreign involvement), to its organizational (size, spread and managerial decentralization) and final motivational (corporate philosophy and internationalization goals). I will present the ones pertinent to political risk.

The International Monetary Fund IMF differentiates FDI from other external private capital flows in that “it is motivated largely by the investors **long-term** prospect for making profits in production activities that they **directly control**”; whereas “Foreign Bank Lending and Portfolio Investments, in contrast, are not investments in activities controlled by banks or portfolio investors, which are often motivated by **short-term profit** considerations that can be influenced by a variety of factors (interest rates, for example) and are prone to herd behavior” (IMF, Finance and Development, 1999, v.36, p.3). A practical example of the difference is how in 1997 the five Asian countries most affected by the regional financial crisis had positive FDI flows with only a slight decline, whereas bank lending and portfolio equity investment declined sharply and even turned negative.

The OECD presents a similar differentiation between portfolio and FDI from the perspective of their investor’s motivation and expectation:

For the foreign direct investor, the purpose is *control and operation* of an enterprise. Just as it will be slower and more costly for such an investor to commit to the host economy, it will be slower and more costly to divest. In the medium to long term, he expects a profitable operation. The portfolio investor, on the other hand, is interested in putting his funds where they get the *maximum return for a given level of risk*. Portfolio investment will be faster to move in search of higher returns and/or lower risk, and have a shorter time horizon. *Therefore, it will tend to be more volatile.* (OECD Forum conclusions “Attracting FDI for development”, Shanghai, 2002: 4, emphasis added, from now on abbreviated as ea).

The definition of “control” varies across countries, consequently the definition of a FDI affiliate. The IMF, OECD and the US Department of Commerce generalized the rule to consider a foreign business enterprise as one where the foreign investors control at least 10% of the voting securities of the company<sup>10</sup>.

But the more clear differentiation comes from the time frame of the investment. The United Nations 1999 World Investment Report (UNCTAD, 1999) defines FDI as an investment involving a *long-term relationship* and reflecting a lasting interest and control of a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise, affiliate enterprise or foreign affiliate). (Mossa, 2002:1).

Evidently the long term control interest is associated with the higher “irreversibility” or “illiquidity” of investing on tangible assets (plants, building, equipments, etc) on a host country, proposed by OECD. It is possible to liquidate stocks or bonds on the capital markets assuming losses. But it takes more time and “due diligence” to sell an operating plant in another country, or to evaluate a new of such investments.

From an IPA perspective, FDI is preferred over portfolio investment for three reasons, which also explains the focus of this thesis on this form of international capital flows:

- a) The longer-term commitment of FDI over portfolio investment is more important for the economic development purposes of a region.

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<sup>10</sup> In China, however, which is the world's main inward FDI host country, a Foreign Investment Enterprise is legally defined as one with more than 25% of foreign equity (Huang, 2003, 2).

- b) Portfolio management is intermediated by financial institutions that enter into contractual agreements with fund-seeking companies to raise funds in capital markets. Whereas FDI promotion is a “marketing” and support function by non-for profit institutions to attract long-lasting investors.
- c) Once a potential FDI investor decides to locate a project in a region –the purpose of an IPA- it might then choose to raise funds on capital markets –the purpose of a portfolio intermediary. However, for developmental purposes, “nothing happens” until the IPA goal is achieved, especially in emerging countries, where the capital markets are “underdeveloped”.

I now briefly describe the different types and motivations of FDI which will be used later.

According to Mossa (2002:1), from the *investor's perspective*, FDI can be classified as:

1. **Horizontal:** where the investor produces the same or a similar product in different countries, in order to exploit specific internal monopolistic rents factors on each of those markets. It is basically *oriented to exploit different local markets* without losing its monopolistic rents factors by local joint venture partners, who later could emulate them.
2. **Vertical:** where investors either acquire “downstream” or “upstream” *business*, in order to internalize or have more control over their markets or their *natural resources*.
3. **Conglomerate:** combinations of both vertical and horizontal FDI.

From the perspective of the *host country* Mossa (2002) further classifies FDI as

- a) **Import-substituting:** where the host country promotes the local production of previously imported goods. It is determined by the size of the market transportation



costs and trade barriers, and especially by the desire to develop industrialization based on an existing local final demand.

b) **Export-increasing**: where the investment will lead to increases in exports of goods and services with actual or potential (new projects) production on the host country.

c) **Government initiated**: where the government has secondary goals like the elimination of balance of payments.

It is important to complement Mossa's classification including now the **industrial diversification oriented FDI**. It is the one aimed by the regional IPA as leverage to induce the progressive transformation of their regional economic base towards higher technological aggregated value activities and the further inducement of new related activities, starting with those sectors that could better support this process, as it was done with the "Atlantico 21<sup>st</sup> Century. We will present later the seminal proposal of Albert Hirschman's "unbalanced growth theory", precisely developed when he was in Colombia in the middle 50's, for the establishment of **new** industrial sectors in developing countries. A more recent pragmatic approach is the "after-care" investment generation, which focuses on retaining and expanding companies within **existing** "clusters" by (a) supporting the re-investment of existing companies (b) increasing the value of the investment to the host country, (c) "embedding" the investors in the local area and (d) using the existing companies as a new investment lead generators<sup>11</sup>. Lipsey (2002) separates the international finance or macro economic view, from a second individual organization, micro or managerial view. He refers to the macro view as the one observed at the balance of payment statistics, whereas

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<sup>11</sup> For further details see <http://www.edanz.org.nz/PDFs/PWC/5%20After%20Care.pdf> accessed 05.01.03

The *micro view* tries to explain the *motivations* for investment in controlled foreign operations, *from the viewpoint of the investor*. It also examines the *consequences* to the investor, and to *home countries*, of the operations of the multinationals or of the affiliates created by these investments, rather than the size of the flows or the value of the investment stocks or investment position. These consequences arise from their *trade, employment, production*, and their flows and stocks in the balance of payments, although some proxies for the flow of intellectual capital are part of the current account. These motivations and consequences are intrinsically related to the investing firm's *control* of the affiliates and the ability of the multinationals to *coordinate* the activities of parents and affiliates (Lipsey, 2002, p.1 ea).

Lipsey's differentiation between the macro and micro or managerial point of view has very important connotations for my later analysis of the relationship between political risk and FDI. Whereas the macro perspective might lead to ambiguous results when analyzing this relationship, as argued by Léonard, the perceptions of political risk are a key factor from the managerial perspective, especially when evaluating investments on countries with internal armed conflicts. The fear of losing control or the ability to coordinate its affiliates is a strong deterrence factor that finally adds at the micro level.

While this may be surprising to many, there is still some debate in the economic literature over the impact of political risk on international investments. On one side, studies looking at manager's perceptions systematically identify political risk as a major factor influencing such investments. However, on the other side, studies looking at aggregate market behavior, international capital flows and FDIs are more ambiguous. Some show a limited role for political risk while others see no correlation at all... political risk matters by showing that it causes changes not within investment flows to specific countries, the object of econometric analysis, but rather the exclusion of a group of countries from the international investments (Léonard, 2001:495 ea).

This quote is the first evidence of the perception effects of political risk on FDI decisions, explained later in the behavioral economics section. To illustrate this issue I review the role of MNC on FDI site selection processes.

## 2.2. FDI and Multinational Corporations

FDI is a pervasive and very old phenomenon since the year 2500 B.C. when Sumerian merchants stationed men abroad to receive, store, and to sell their traded goods (Wilkins, in Lipsey, 2001:17). The modern version of these Sumerians today is the multinational corporation (MNC). There are many definitions of these economic agents. After warning that the United Nations listed twenty-one different definitions for MNC, Moran (2002:7) presents its UNCTAD definition as incorporated or unincorporated enterprises, comprising parent enterprises and their foreign affiliates.

According to the percentage of foreign control in their affiliates, Moran defines:

- A **branch** when the foreign entity owns 100% of the shareholder's rights
- A **subsidiary** when it owns more than 50%, and
- An **associate** when it owns between 10% and 50%.

From an evolutionary perspective, the stages of a MNC are characterized by:

- **International corporations**, those with cross-border activity of importing and exporting goods or services from its host country to abroad and vice-versa
- **Multinational corporations** those that expand its production of goods and services facilities and factories from its original host country to other nations, where they established affiliate companies.
- **Transnational corporations** those whose facilities and factories abroad are so large and developed that it is difficult to identify the "home" country

Based on its dominant strategy, organizational structures and management process dictated by its markets, Barlett and Ghosal (2002: 17) presents a distinction between:

- **Multinational**, those that build strong local presence through sensitivity and responsiveness to national market differences, when product tastes and preferences varies among its host countries, like Procter & Gamble.
- **Global**, those that build cost advantages through centralized global-scale production of standardized goods, like Matsushita/Sony.
- **International**, those that exploit parent company knowledge and capabilities through worldwide diffusion and host adaptation, like Ericsson.
- **Transnational**, those that *simultaneously* develop the global competitiveness, multinational flexibility and worldwide learning capability strategies.

Another definition comes from the options used by a firm to internationalize its business:

- **Export** of goods produced in the source country: it precedes FDI
- **Licensing** a foreign company to use a process, trademark, product technology or know-how in exchange for a fee or royalty
- **Foreign distribution** of products through an affiliate entity
- **Foreign production**, which is the production of goods and services in a country that is controlled and managed by firms headquarters in other countries

The two last options involve FDI, which then can take one of these forms:

- **Greenfield or new investments**: When the firm establishes a new facility.
- **Cross-border Mergers and Acquisitions (M&A)**: When one existing firm is absorbed or purchased by another.

- **Joint ventures:** When two or more firms sum their complementary abilities to undertake a project.

For logical reasons, Greenfield Investments are the highest goal of IPA's and the focus of this research, since it represents the presence of new wealth generation in terms of employment (and through it a larger final demand), a larger demand of intermediate products, an increase in the local tax base, and the presence of externalities like new knowledge spillovers and competence that could increase local productivity.

Today, according to UNCTAD estimates (Unctad, 2002, p.xv), there are about 65,000 Multinationals or Transnational Corporations (MNC), the modern version of late Sumerian merchants, with 850,000 foreign affiliates across the globe.

In 2001 foreign affiliates accounted for about 54 million employees, compared to 24 million in 1990; their sales of almost US 19 trillions were more than twice as high as world exports in 2001, compared to 1990 where both were roughly equal; and the stock of outward foreign direct investment increased from US \$ 1.7 trillion to US \$ 6.6 trillion over the same period, as seen in Annex A1, taken from the UNCTAD 2002 World Investment Report. Foreign affiliates now account for one-tenth of world GDP and one-third of world exports. Moreover, if the value of worldwide TNC activities associated with non-equity relationships is considered (international subcontracting, licensing, contract manufacturers), MNC would account for even larger global shares.

To put these theory definitions of FDI in perspective, most of FDI in Colombia is carried out in the form of branches and subsidiaries, as it will be shown later. Under Barlett and Ghosal definition, most of it is classified as multinational. However, in the case of the crop control agro chemistry “cluster” Barranquilla has managed to become a center of global production, concentrating most of the plant capacity of Dupont, Rohm and Haas, Griffin and Bayer among others, who attend the Western Hemisphere markets from this port city, and some like Griffin, including markets of Asia Pacific, middle east and Europe.

### **2.3. Trends on MNC FDI Activity Globally and in the Context of Colombia**

In the world, FDI flows peaked between 1996 and 2000, to fall drastically at the beginning of the century. FDI inflows and outflows fell more than 50% between 2000 and 2001 (Annex A1) and are expected to fall further due to the uncertainties generated by 9/11, by the war against Iraq, and by the deceleration of the US economy. *Therefore, the competition for FDI will become harder for developing countries.* Getting to the specific case of Latin America, AT Kearney FDI Confidence Index, a survey to the largest 1000 firms of the world reports that “global executive intentions of investing in the region decreased by 40% compared with 2001, making it *the least attractive region* after Africa and the Middle East” (AT Kearney, 2002, 14). Latin America and the Caribbean already accounted for only 11.6% of total FDI inflows in 2001, totaling US 85 billion, 11% and 23% lower than 2000 and 1999. (UNCTAD 2002, 62).

Table 1. Distribution of world FDI inflows, 1986-2001 (Percent)

Region	1986-1990	1991-1992	1993-1998	1999-2000 <sup>a</sup>	2001
Developed countries	82.4	66.5	61.2	80.0	68.4
Western Europe	38.4	46.0	33.7	51.9	45.7
European Union	36.2	45.3	32.1	50.2	43.9
Japan	0.2	1.2	0.3	0.8	0.8
United States	34.6	12.7	21.7	22.6	16.9
Developing countries	17.5	31.2	35.3	17.9	27.9
Africa	1.8	2.2	1.8	0.8	2.3
Latin America and the Caribbean	5.0	11.7	12.3	7.9	11.6
Asia and the Pacific	10.6	17.4	21.2	9.2	13.9
Central and Eastern Europe	0.1	2.2	3.5	2.0	3.7
<i>Memorandum</i>					
Least developed countries	0.4	1.1	0.6	0.4	0.5

Source: UNCTAD, FDI/TNC database.

<sup>a</sup> Years characterized by exceptionally high cross-border M&A activity.

Note: The shaded years are FDI trough periods, while non-shaded years are FDI growth periods.

It can be seen in table 1 how despite the liberalization in developing economies including Latin America, most of the FDI is concentrated in developed countries.

This drop in FDI in Latin America is very important for the region, due to FDI's strong effect on gross fixed capital formation GFCF<sup>12</sup> which was 20% for the region 2000. In the case of Colombia, FDI accounted for 18.1% of its GFCF (UNCTAD 2002, 275). It is even more important for Colombia, given its low savings rate of 14%/GDP in 2000, shown in Annex A2.

Given this low savings rate "vís a vís" the large need of public capital for defense purposes as well as for education and health infrastructure to diminish the social inequalities of Colombia, and especially, the neo-liberal policies that lead to the dismantlement of the Colombia's Industrial Fostering Institute IFI in 2000 –Colombia's Government industrial investments arm-- FDI is a very strategic source of capital for industrialization purposes.

<sup>12</sup> Gross fixed capital formation is the outlays of producers on durable real assets, such as buildings, motor vehicles, plant and machinery, roads, and improvements to land, excluding the value of the land.

An analysis of FDI in Colombia in table 2 shows that between 1993 and 1998, where FDI peaked for the region according to Annex A2, it was basically concentrated in non-tradable and non-manufacturing sectors like banking and public services. In fact, manufacturing FDI presented a significant decrease between 1999 and 2002. The challenge then is *how to attract new investors to the manufacturing sector*.

Table 2. FDI by sector in Colombia, 1994-2002 ( US Dollars)

YEARS	TOTAL	Oil Sector	Other Sectors Sub Total	Agriculture, Forestry, Fishing	Mining	Manufacturing	Electricity, Gas & Water	Construction	Trade, Restaurants & Hotels	Transport, Warehouse & Communications	Finance & Banking	Common Services
1994	1,446	135	1,312	21	47	536	5	25	113	249	300	15
1995	968	151	817	-2	-65	521	12	43	7	42	242	16
1996	3,112	778	2,333	37	51	731	517	20	79	125	755	19
1997	5,552	382	5,180	12	302	514	2,962	124	116	43	1,072	37
1999p	1,452	-557	2,019	30	464	505	-306	-1	334	189	674	123
2000p	2,237	-542	2,779	0	507	514	13	-21	10	876	792	88
2001p	2,521	505	2,016	12	524	236	-71	84	225	416	560	30
2002p	2,034	199	1,834	-1	552	239	160	88	108	352	288	20

Source: Banco de La Republica Official Statistics, <http://www.banrep.gov.co/> accessed 03.15.03

To understand how, let us look the patterns of FDI in Colombia: A study conducted in 1999 by the Minister of Foreign Commerce and Fedesarrollo among 100 MNC representing 36% of the total production by MNC in the country showed that 69% of them had a foreign capital investment between 76% and 100%, while another 12% of these companies had between 51% and 75%. (Steiner and Salazar, 2001: 18). Of the MNC's, 42% started as a subsidiary, 33% as a joint-venture with local partners, and 25% by the acquisition of a local company. 41% of the companies initiated operations in Colombia during the 1990's while the remaining 59% did it before the last decade. In this last group, 41% increased its operations since their incorporation.



Regarding the destination of production, 61.4% indicated that their sales were aimed to the Colombian market; 21.7% exported goods produced in Colombia to foreign markets, 12.5% were in the “maquila” business, and 4,1% exported goods produced by other local companies. The companies with export activities dedicated 32.1% of their sales to the international markets. From these exports, 47.4% were to other subsidiaries of the parent companies (intra-industry trade), especially to those situated in Venezuela, Peru and Ecuador, followed by USA, Chile, Mexico and Costa Rica. It is important to note that sales to foreign markets were in 70% to 80% of the cases new projects that did not sacrificed production to the Colombian market (Steiner and Salazar, 2001: 19).

The ratio between export/total sales for the agrochemical sector was 32.5% for agrochemicals, textiles and shoes 30.2% and chemicals and industrial basic products of 24.8% (Steiner and Salazar, 2001: 20).

The main conclusions of these figures are that (a) MNC in Colombia were significantly controlled by foreign capital; (b) *their main objective was to access and supply the Colombian market* (only 40% were oriented to export markets); (c) 47.4% of those engaged in exports were supplying to parent subsidiaries *in other countries of the Latin American region*, and d) the agrochemical sector, which is heavily concentrated in Barranquilla, can be subject to “aftercare” FDI promotion by attracting common raw materials suppliers. This means that *focusing FDI attraction to industries interested to position themselves to access both the national, Andean and Latin American markets is a main course of action*. This is explained by Colombia’s strategic geopolitical location and commercial treaties. The logical implication is that the eventual achievement of the

Free Trade Area of the Americas might be another opportunity to attract FDI to the nation. As an indicator, the establishment of the FTAA was regarded as “critical” to increase the region’s FDI attractiveness in the AT Kearney 2002 survey; especially for 63% of the US investors and 67% of the Japanese investors (AT Kearney, 2002: 6). Therefore, given its economy size and location, FTAA might motivate new FDI projects in Colombia, if a secure business environment can be guaranteed, at least on those specific locations where the security has been traditionally higher, like Barranquilla.

Besides the former market-access reasons, a former 1994 survey done by Fedesarrollo to 56 MNC to find the motivations for their establishment in Colombia, showed that 33.1% were due to global [expansion] strategies of their parent companies, 31.5% due to Colombia’s stable macro economic policy, and 13.2% and 11.7% respectively due to the regulatory and commercial framework available (Steiner and Salazar, 2001: 20). However, a later 1999 study done by Coinvertir, the National Promotion Agency of Colombia, among 102 multinational corporations, showed that security issues, together with recession, were considered the main concern for their parent companies to evaluate new investments (Coinvertir, 2000: 8). The recession annotation is related to the fact that in 1999 Colombia had its first negative GDP in 30 years, while the security was undoubtedly related to the effects over business climate from the internal armed conflict. In this study, security problems were reported to have an impact on costs in the form of higher insurance premiums and the need to hire security guards (Coinvertir, 2000: 8). This is the main concern to attract new investments. And since there are strong differences on the manifestations of Colombia’s IAC among different regions, it is

important to explore an FDI policy approach based on promoting it on those safer regions, while the structural reasons of this problem are solved. Therefore, FDI based-industrialization policies can not be seen only from the national perspective. Sub-national or city-regions industrialization an FDI policies are needed.

#### **2.4. The case for regional FDI promotion and Development**

FDI or even foreign aid is not an end, but a tool to create endogenous capacity. The justification of FDI *as a mean* is well explained on Moran's benign model of FDI and development, as a tool to "break out" the vicious cycle of underdevelopment:

Here, the potential host is mired in a poverty-laden equilibrium: low levels of productivity lead to low wages, which lead to low levels of savings, which lead to low levels of investments, which perpetuate low levels of productivity. *FDI can break this cycle by complementing local savings and by supplying more effective management, marketing, and technology to improve productivity.* The gain in national income depends on the size of the capital inflow *and the elasticity of the demand for capital.* Furthermore, technological and managerial inputs, and transfers and spillover to local firms may cause the national production function to shift forward (Moran, 1998: 19, ea)

But Moran also warns about the "malign" model of FDI and development, the source of many critics against globalization. It is basically explained by the cases of excesses or abuses of multinational corporations that take advantage from their bargain power resulting in socially rejected behavior. FDI can be a passive source of rejection when countries give so many incentives when competing against others to attract their capital that their benefits do not compensate for their costs, or only to a small portion of the population, or they simply alter the societal status quo on a way seen as a threat. It can be as the result of focusing "too much" on the theory benefits of globalization, loosing perspective of its risks. As argued by Rodrik in 1997

Economists' standard approach to globalization is to emphasize the benefits of the free flow of goods, capital, and ideas and to overlook the social tensions that may result. Reduced barriers to trade and investment accentuate the asymmetry between groups that can cross international borders (either directly or indirectly, say through outsourcing) and those who cannot. [So that] "Workers" can be more easily substituted for each other across national borders. The broader challenge for the 21<sup>st</sup> century is to engineer a new balance between market and society, one that will continue to unleash the creative energies of private entrepreneurship without eroding the social basis of cooperation " (Dani Rodrik, 1997, "Has globalization gone too far?": 3,85)<sup>13</sup>.

A practical guide to orientate an IPA's FDI promotion for developmental purpose comes from Albert Hirschman's "unbalanced growth theory" recommendations for developing countries, formulated when he was living in Colombia in the early 50's. Based on the reality of very scarce resources that developing countries face, Hirschman considered that the "big push" or balanced growth theory was not an option. Therefore, all investments –including FDI-- should be focused on those sectors with the capacity of inducing further investments, based on their backward and forward linkages. This was not only for the national government and private investment, but also for foreign investment and foreign aid:

Foreign capital and aid could also be studied from the point of view of the two "pressure inducing" and "pressure relieving" functions. But we shall attempt a more unitary definition of their task by stating that it is the role of the foreign capital to enable and to embolden a country to set out on the path of unbalanced growth (Albert Hirschman, "The Strategy of Economic Development", 1958, 205)

With its "unbalanced growth" industrialization, Hirschman makes a case for starting investment on economic activities that would replace imports consumed by final demand, or as close as possible to it. The argument was that the good knowledge of the final demand was important for the successful later induced investments. Therefore, the promoted new sectors could be initiated with light value added simple operations like

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<sup>13</sup> Like in any social science, there are strong debates around the effects of FDI. For a recent detailed analysis see Lipsey's "Home and Host Country Effects of FDI", NBER Working Paper No. 9293.

mixing, assembling or packing imported intermediary goods, as it was much more important to develop a “learning curve” on the sector departing from the “last” industries closer to final demand.

However, there is another important lesson from Hirschman’s recommendation regarding *location*, which has been systematically disregarded by the National policy makers: he explicitly recommended that these industrialization efforts should be located “*at a point as close as possible to the most convenient port of arrival of the imported materials, in order to be more attractive for foreign corporations specialized in this kind of operations*”. (Hirschman, 1958:112 ea). Besides the logical *logistic* motivation of the port location, there is a stronger and very actual implication for starting industrialization through these enclave import industries with the support of foreign investors to overcome the risk aversion of *local investors in new industries*:

Local capitalists often prefer the safe investment in trade, real state, or satellite industries, *and shy away from breaking new ground*, for they know only too well about all the interlocking vicious circles and are usually unable to realize that their own action will induce actions by other which will mean a change *in seemingly fixed environment*. The foreign capitalist does not ordinarily perceive this kind of sequence either; but he is endowed, on the one hand with greater ability to see and exploit certain profitable opportunities. (Hirschman, 1958: 206 ea).

Three conclusions arise from these quote: (a) the port cities can be a strong leverage for industrialization purposes, (b) the “*seemingly fixed environment*” can be changed with planned and focused actions, like prioritizing industrial investments on the coastal region, where they could be more viable; (c) Hirschman’s implicit conclusion of the local investment inducement power of FDI demonstrated to be valid today 50 years after said, in the relatively complex projects of “Atlantico 21<sup>st</sup> Century”. Its initiatives counted

with the support of successful local businessmen interested on carrying out the projects. But *all* of these local counterparts considered that a foreign partner, especially one with experience on the metallurgical coke markets and production technology, was vital to reduce the “learning curve” risks of the project.

The implications of this risk-adverse behavior for new sectors are very important for industrialization. Amsden (2001:2) defined Economic Development as the process of moving from a set of assets based on primary production to a set of assets based on knowledge. She later defines knowledge-based assets as a “set of skills that allows its owner to produce and distribute a product at above prevailing market prices”. The Atlantico 21<sup>st</sup> Century project –which will be explained later-- was indeed focused on developing new sectors of higher technological aggregated value, using FDI as a mean not only for new capital investments on exportable productive activities, but also for the transfer of the new technologies that could lead to an economic diversification towards higher aggregated value activities. The COLMECO project was aimed to transform an abundant commodity of relatively low price like the metallurgical coals into metallurgical coke with a significant increase on aggregated value. But even if the Colombian companies –like the local counterparts supporting the project-- had previously demonstrated their project execution capabilities and innovation capabilities on their core sectors, and indeed believed in the project, they were reluctant to assume the risks of entering into these new industries alone<sup>14</sup>.

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<sup>14</sup> This attitude was explained by the CEO of a diversified group by stating that he made money on the business he knew, not to loose it by entering alone on business he did not knew anything about.

This new-sectors investments risk aversion is of course more critical on less developed countries than in developed ones, since in the second ones, the structure of the markets have well developed institutions and capitals specialized on advancing interesting project prospects up to feasibility studies, on a process known as “due diligence”. Its concept is defined by Rosenbloom (2002:3) as the investigation by an investor or its advisers of the accurate and complete character of the target company’s business, either for acquisition, joint-venture or strategic alliance partnerships, public offering, or a minority interest private placement purposes. Therefore, the main “capital exporting” countries have also larger “economies of scale” on due diligences skills, even despite of market failures like the investors herd behavior with portfolio investments in Argentina and Russia, after attenuate the risks signaled by these markets far before their melt-downs -- the opposite case of Colombia’s investment risk amplification behavior related to the scale and perception gap presented on my initial hypothesis.

Nevertheless, the investment risk aversion for new sectors is also strong in developed countries, as per Rosenbloom’s quoted warning for M&A operational due diligences, where the operations process, work flow and quality control are essential (2002:52):

*In our business, we find that if we venture too far from our core competencies, the risk isn’t worth it. Many of the companies we buy are run by entrepreneurs who generally know a lot more about why they’re selling than we know about why they’re selling. We like to stick to our core businesses, so if we run into problems, we have the resources and know-how to resolve them.*

Before 1999 the Colombian Government could enter into “Special Purpose Companies” via the Colombian Industrial Fostering Institute IFI, who during the 50’s and 60’s founded the nation’s main industrial complexes. It was considered an important support

to absorb the higher risks of new industrial initiatives, and thus, an “incubator” for new sectors or the expansion of existing strategic ones. But the Government of President Pastrana forbids its direct equity participation in new industrial projects in late 2000, and the Government of President Uribe merged it with the Export Promotion Bank in 2002. Without disregarding the different isolated efforts of the Colombian Government on several economic sectors, the “disappearance” of IFI and even worst, the absorption of the Ministry of Industrial and Economic Development by the Ministry of Foreign Commerce, are for me the symptom of the disappearance of a National Industrial Development Policy. The Minister of Foreign Commerce has done an outstanding effort to increase the export offer of Colombia, with a coherent strategy since 1998. But it is managed by technocrats better trained on international commercial treaty negotiators and short-term export promotion, rather than on long-term industrial development.

Therefore, a sub-national FDI promotion capability is fundamental for developing endogenous due diligences skills that can be replicated through the local MBA programs, as well as placed for the support of new specific projects. Although the local partners of “Atlantico 21<sup>st</sup> Century” had large experience and previous project capabilities on the projects elements of coal mining, transport and international sales, they were reluctant to assume the project alone. Thus, finding experienced foreign investor for these regional projects was regarded essential to make the project happen.

Luckily, Colombia counts with Coinvertir, a National private FDI promotion institution with high performance standards and credibility, as well as since 2001 a regionalized



information approach to FDI promotion. However, besides the previous reasons, a sub-national FDI promotion was also vital, for fast-responses and regional “one stop shop” tailored coordination. Especially in the case of the Colombian Caribbean coast, a region that decreased its participation in industrial GDP, due to effects of the import substitution industrialization policies that favored the location of industry close to the larger population concentrated in the interior cities.

This is why Atlantico Department and Barranquilla, its capital, issued a regional industrialization policy, leveraged on FDI to strategic projects to reverse its stagnation, caused by the cross effect of national economic policies and *the lack of local ones*, in contrast to other nations:

In conclusion, the regional differences concerning FDI [in China] are a result of ***the advantages of the coastal cities and the government policies of the past...*** *If one looks at the development tendencies of other greater regions, one can see that there is a natural link between economic development and the coastal regions, where inland regions often lag behind.* This is the case with other larger countries such as the United States, where there is a distinction between the East Coast and the West Coast, which are the two dominating and powerful cultures in the United States. (Klingspor, Chen and Zupan, “The regional distribution of foreign direct investment in the People’s Republic of China 1999: 21 ea)

Since Colombia is the exact opposite example of this coastal development tendency, therefore sub-national industrialization policies are fundamental. To understand why, let us now present the Atlantico 21<sup>st</sup> Century approach:

## 2.5. "Atlantico 21st Century" Social and Economic Development Master Plan: The rationale for sub-national segmented FDI promotion in Colombia

### 2.5.1. Location, Description and Industrial History of the Atlantico Department



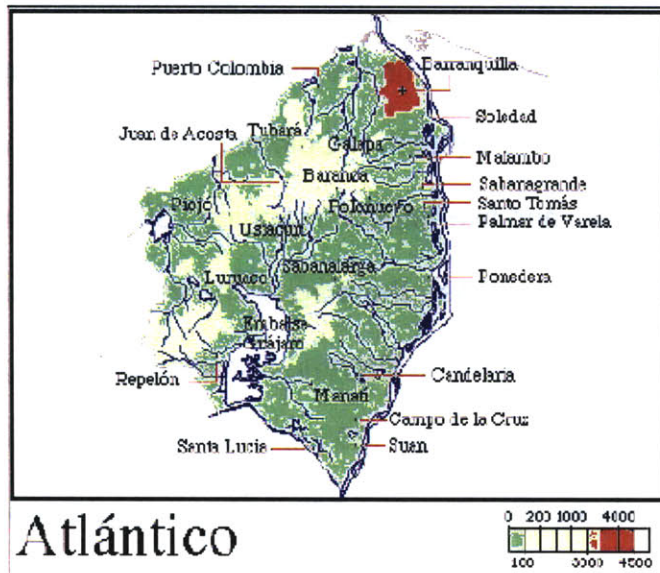
Figure 3. Map of Colombia. Source: Perry-Castañeda Library map Collection (2001)

Atlantico department and its capital Barranquilla are considered the economic center of the Colombian Caribbean; a flat coastal region that includes the departments of Guajira, Magdalena, Cesar, Bolivar, Cordoba and Sucre, within the dashed line of the map.

Atlantico is a flat "island" of 3'338 sq. kilometers (0,3% of Colombia's extension) with 45% of low hills of 100 m average height, and two "peaks" reaching 250 m. Facing the Caribbean sea at its north-west (70 km of beaches), the Magdalena river to its east (Colombia's main water artery from its river mouth at Barranquilla upstream along 90 km of river front) and the Dique Canal to its southwest (25 km of artificial channel, feeding also its lake and irrigation system), Atlantico has 70% of its political boundaries surrounded by water. As a "self contained unit" it has a well-developed internal road network connecting its 23 municipal heads, and five external road connections.

It has a highly urbanized population of 2'127.567 inhabitant equivalent to 5% of Colombia's 43.8 million total (2000 figures, Dane). Only 7% is rural population; Barranquilla's Metropolitan Area (BMA) concentrates 80% of its inhabitant on its neighboring Barranquilla (1'252.195, 59%), Soledad (304.567, 14%) Malambo, (91.793, 4%), Puerto Colombia (37.324, 2%) and Galapa (20.222, 1%) (National Statistics Department Database DANE).

Figure 4. Map of the Atlántico Department (Source: CARCE, 2002)



In 2000 Atlántico represented 4,41% of the national GDP, ranked 5<sup>th</sup> in the contributions by department to the national GDP, as seen in table 6 (DANE, 2002):

Table 3: National GDP participation by Department (Source: Competitiveness Observatory, DANE, 2002)

GDP Rank	1	2	3	4	5
Department	Cundinamarca & Bogota District	Antioquia	Valle	Santander	Atlántico
GDP Share	4.97% & 22.62% e/o Total: 27.54%	14.81%	12.28%	5.75%	4.97%

Atlántico economic activity in 2000 was industry (22%), personal services (21%), trade and hotels (18%), financial services (16%) and transport and telecommunications (10%). Its main export activities were chemicals (26%), food products (15%), textile and non-metallic minerals (8% each), basic industries (7%) leather industries (4%) and electric machinery (2%). By products, its main exports were agrochemicals (17%), tuna products (8%), Steel products and cement (7% each), and pharmaceuticals and garments (5% each) (Atlántico Foreign Commerce Profile CARCE, 2001).

To understand the implications of these present industries, and specially to plan for an effective development in the future, it is important to learn from the past. Therefore, a brief explanation of the economic history of the Atlantico and Barranquilla is presented, to justify the rationale for sub-nationally segmented FDI promotion:

The history of the Atlantico and Barranquilla development is rooted on its logistic gateway function in the second half of the XIX century, when it became the first main port of the country, while the Magdalena River was Colombia’s main transportation way connecting the economic activity of the interior and the international markets.

The first historical record of what today is Barranquilla dates of a travel report from 1533 that describes it as a “canoe parking place” where merchant Indians used to exchange goods with Hispanic conquerors (Villalon, 2000: 4). This river mouth logistic gateway function was the reason of its development as a the main port for Colombia’s coffee, quinine and tobacco exports produced in the “hinterland”, which were the main currency source for the highly indebted new nation in the last half of the XIX century.

From the developmental history point of view it is interesting to note how the need to diversify other currency sources, the gold merchants leded the tax liberalization of tobacco cultivation in 1850 and later founded its massive plantation in the flat lands between the mountain chains of the interior. This diversification was followed by a similar cycle with coffee and quinine, which rocketed the amount of cargo that subsequently made the river transportation sustainable, as it can be seen in table 4:

Table 4. Tobacco exports volume 1835-1875 (based on Tirado, 187, tobacco packages)

Year	1835	1845	1855	1865	1875	1881
Tobacco exports	2,900	4,500	2,688,000	3,913,000	7,825,000	3,176,000

Being located at the Magdalena River mouth, the river port of Barranquilla was the transshipment warehouse of this cargo, from which was later transported by a narrow channel to the maritime bay of Sabanilla (Nichols, 1973:20), 10 km to the north west of the city. It was then exported to Germany, England and France. Although Colombian tobacco was later displaced in these market by the cheaper production of Java and Brazil (Tirado, 1998: 189), its trade was enough to justify the investment initially of a railroad between Barranquilla and Sabanilla in 1870, and a later a new 4000 feet maritime dock in the deeper bay of Puerto Colombia in 1893 (Meisel, 1994: 239), both works built under concessions given to foreign investors, which consolidated the city as Colombia's main port, handling more than 60% of its foreign trade (Villalon, 2000 :224)<sup>15</sup>

Between 1871 and 1905, Barranquilla's population grew at 3.7% pa in contrast to the 1,2% of the Nation (Villalon, 2000 :223), with the massive immigration of both nationals that relocated from the interior, as well as foreign immigrants that established themselves representing foreign trading companies in the city<sup>16</sup>. The role of the immigrants was especially important for the further development of the city, since their knowledge of foreign markets and technologies made them the enablers of many new industries located in Barranquilla: Textiles Obregon, first textile mills funded by a Spanish entrepreneur in 1909 –also founder of Latin America's first public electricity; Central Colombia, first sugar cane mill; SCADTA, Latin America's first airline company, funded by a German-Colombian joint venture in the early 1920's,. As a result, in 1926,

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<sup>15</sup> See A.Taylor's "Foreign Capital in Latin America in the 19<sup>th</sup> and 20<sup>th</sup> Centuries, NBER 9580, 03.2003

<sup>16</sup> There is no exact information about the quantity and origin of immigrants received at the city boom. However, Posada indicates on Meisel (2000:236) that in 1938 more than 33% of Colombia's 7200 immigrants were located in the Atlantic coast, whereas in 1950, more than 22% of the residents of Barranquilla were born in the Andean region of Colombia.

the Atlántico Department had the largest GNP of Colombia (Bonet and Meisel, 1999, 14), and its industrial leaders were in charge of the public policy planning for the city until 1942, which was until then known as the “Golden gate of Colombia”.

However, the redefinition of Colombia’s transport network in the 1920’s and 1930’s that followed the inauguration of the Panama Channel in 1914, changed the history of the city, when the vast majority of the government infrastructure investment was done in the Andean region, *excluding the Caribbean coast*. As an indicator, from all the public investments done by the National government 1918 and 1929 in highways, roads, railways and air cables, only 3.8% was invested in the Caribbean coast. As a result, in 1948 this region had only 8.3% of road and 6.7% of port national kilometers (Meisel a, 1999:31). Its regional economic “*underdevelopmental*” effect is evident seven decades later on Meisel’s study of regional economic convergence in Colombia 1926-1995:

In the 1920’s Colombia received for the first time in its economic history a considerable inflow of foreign resources: first 25 million dollars as a payment by the US for its intervention in Panama in 1903 and later 160 million dollars in foreign loans. The largest part of [these] resources [were] invested in infrastructure, specially in railroad construction. Beginning in the 1930’s, with the diffusion of motor vehicles, most of the Investment in infrastructure went to the construction of a road system that linked together the main regions of the country. Thus by 1959-1962, 73.1% of all the national cargo was transported by roads and railroads. As a result of the improvements in the internal communications there was process of increasing integration of the regional markets which was reflected in the convergence of the prices of a wide array of commodities. The exception to the increasing integration of the economic regions of Colombia in this period was the Caribbean Coast (comprised at the time by the departments of Bolívar, Atlántico and Magdalena), which in a sense became isolated from the rest of the country. When the transportation system had been based on the Magdalena River the Caribbean Coast was privileged in terms of communications. However, when railroads and roads were built and river transport lost importance the Coast found itself isolated since the majority of the roads and railroads built in the 1920’s and 1930’s were concentrated in the interior of the country. The Caribbean Coast was also affected negatively by the construction of the Panama Canal, since after its inauguration in 1914 the possibility of exporting coffee through the Pacific Ocean was created. As a result, by the early 1930’s the port of Buenaventura, located in the Pacific, displaced Barranquilla, located in the Caribbean Coast, as the main Colombian exporting port. Paradoxically, the decline of Barranquilla contributed to the process of departmental convergence since in 1926 the department where it is located, Atlántico, had the highest GNP per-capita in Colombia (Meisel b, 1999:14).

The conclusion of this long but very illustrative quote is that In 1934 Buenaventura finally surpassed Barranquilla as Colombia's main maritime port.

The deindustrialization of Barranquilla increased during the period of industrialization by import substitution, and latter the expansion of the Government size concentrated in Bogota that followed the 1991 constitution. New industrial investments were located, or existing ones were relocated nearer the higher population markets concentration of Bogota and Medellin. This self-reinforcing agglomeration effect increased even after the opening of the Colombian economy in 1991, as shown in table No. 5: Between 1984 and 1994 Barranquilla participation on the national industrial production decreased 35% in terms of employment, 37% of production, and 41% of aggregated value. It can also be seen on the patterns of urban corridors presented in blue on figure 5:

Table 5. Metropolitan Share of Industrial GDP (Source: Garay, 1998: 494)

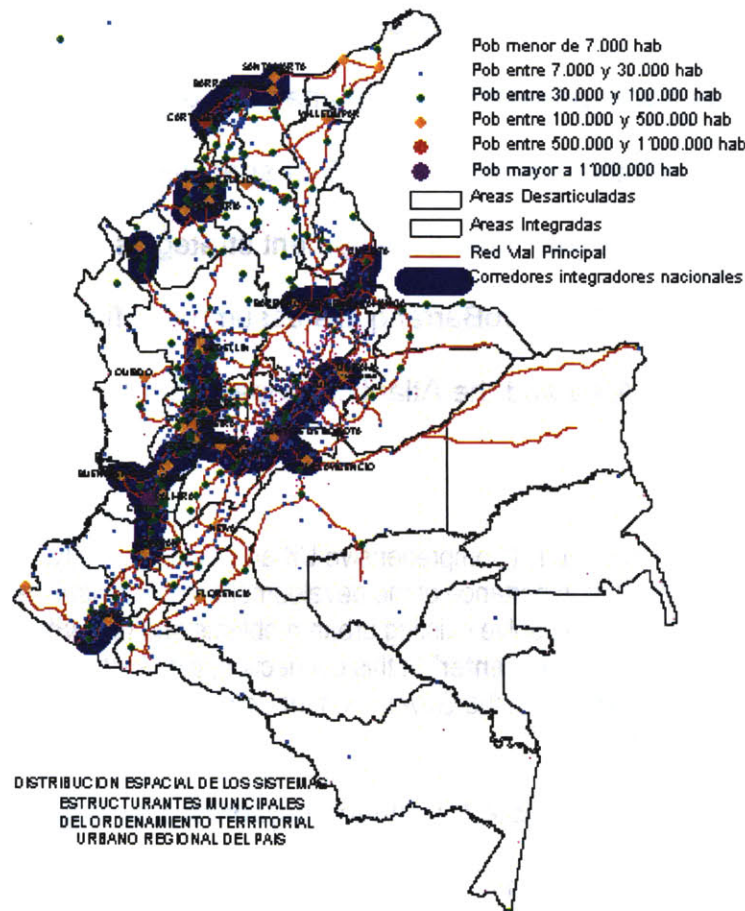
Percent (%)	Employment				Production				Aggregated Value			
	74	84	94	VAR	74	84	94	VAR	74	84	94	VAR
<b>CITY</b>												
Bogotá	29,1	31,7	36,6	20%	25,9	27,3	34,1	24%	24,7	28,6	34,3	28%
Cali	12,4	11,6	13,1	5%	13,9	12,8	13,5	-3%	14,2	14,2	14,3	1%
Medellín	23,4	22,1	21,9	-7%	21,3	18,6	18,1	-18%	21,6	21,2	19,1	-13%
Tot. Triangle	64,9	65,4	71,6	9%	61,1	58,7	65,7	7%	60,5	64,0	67,7	11%
Manizales	1,8	1,8	2,3	22%	1,6	1,6	1,9	16%	1,7	1,8	2,1	19%
Barranquilla	7,9	6,8	4,4	-80%	8,4	7,5	4,7	-79%	8,2	6,9	4,1	-100%
Bucaramanga	2,5	2,6	2,6	4%	1,8	1,9	2	10%	2	1,8	1,9	-5%
Pereira	2,9	2,7	2,7	-7%	2	1,8	2	0%	2,1	1,9	1,9	-11%
Cartagena	1,9	1,9	1,2	-58%	4,3	4,7	2,6	-65%	4,7	2,5	1,9	-147%
Rest of COL	18,1	18,8	15,2	-19%	20,8	23,9	21,1	1%	20,8	21	20,3	-2%
<b>Total</b>	100	100	100	0%	100	100	100	0%	100	100	100	0%

Reassuming the present, in 2000 Bogota and Cundinamarca, Antioquia and Valle accounted for both 55% of Colombia's GDP, as shown by table 5, as well as for 55% of Colombia's non traditional export production for the same year (Foreign Commerce



Minister statistics, 2002). This economic activity concentration in the Andean mountains can be also seen on the map of urban integrated corridors shown in figure 5.

Figure 5: Urban Integration Corridors of Colombia 2000 (Source: DNP, 2002)



However, with the pressures for a global integration increasing Colombia's exports and the establishment of new FDI inflows, the analysis of the Nation's International Physical Distribution IPD shows the renewed importance of the Magdalena River, the Caribbean Coast port cities, as well as a sub-nationally segmented FDI promotion:

An aggregated analysis of Colombia's export shows that 43% are directed to the US; 10% to Venezuela; 4% to Germany and 3,2% to Ecuador (EIU, 2001). But a further analysis of Colombia's 2001 export routes to the US, by far our most important trade

partner, reveals how 2/3 of these products entered into the US shows through their ports located over its Gulf of Mexico coast and East Coast : Houston, 22%; New Orleans, 9%; Miami, 19% , NY 5%; Philadelphia 5%, Providence, 7% (Ibarra, 2002). This means that the Caribbean port cities are a logic place for and export-oriented industrialization policy, as it was proposed by Hirshman five decades ago, and as it has happen for the advantage of other countries like US or specially China. However, such policies must be complemented, with local development strategies on these cities, as well as local institutions. This is how ProBarranquilla assumed its function as the IPA of the Barranquilla Metropolitan Area and the Atlantico Department.

### 2.5.2. ProBarranquilla

“As a conclusion of the Master plan study (Comprehensive Urban Transport Study in Barranquilla Metropolitan region, JICA, 1985) the importance of the development of the central district has been identified and priority has been given to solve existing urban problems and **to revitalize the district as a future region-wide activity center**” In this connection, the Government of Japan, through JICA initiated this study jointly with the Government of Colombia in August, 1986” K. Yanagiya, JICA President, 1988.

ProBarranquilla is a non-for profit private foundation conformed by regional and national industry leaders with interests in the city. It was incorporated as a land trust and special purpose company to implement the “Japanese Mission”, an urban development plan designed by the Japan International Cooperation Agency JICA in 1988.

The so called “Japanese Mission” was designed for the redevelopment of the Barranquilla Central District, but within the wider context of revitalizing the city as a “*future region-wide activity center*” (JICA, 1988, 1). It started as a specific urban redevelopment plan, but the Japanese team explained its rationale and potential as a future Nippon industrial “beachhead”, from where its goods could easier enter the Latin

American markets, then closed under the economic model of industrialization by import substitution<sup>17</sup>. In 1990 ProBarranquilla incorporated the Urban Development Enterprise, a public-private company responsible of developing the Japanese Mission. Edubar executed this task until 1998. Again, the selection of Barranquilla by JICA as an eventual industrial platform for the Latin American region was based on its “raison d’être” and history: its competitive logistic function as a gateway industrial city.

However, after accomplishing its mission as a special purpose project company with the incorporation of Edubar in 1990, ProBarranquilla reoriented its mission as a “think tank” and “action tank” to execute other developmental projects proposed by the local private sector. In 1991 it led the privatization processes of the Barranquilla airport –the first of such experience in Colombia – and the traditional City Carnival. It later created the industrial leadership “focal groups”, which organized civic entrepreneurship by their common interests to analyze the problems of the city and proposing solutions, including providing them with leadership seminars, some of them presented by Sloan professors.

In late 1992, some business leaders expressed their worries to what they considered was going to be the consequences of the “apertura económica” or market opening policy, that exposed the local industries to the cross effect of international competition and a revaluated peso without sufficient preparation. This competence was perceived to be very negative on three ways: a) due to the export competitiveness effects of a revaluated peso, artificially strengthened by the massive currency inflows that took

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<sup>17</sup> Source: Rodrigo Plata, the entrepreneur which in 1998 led the incorporation of ProBarranquilla, placing their

advantage of the initial unregulated parallel capital market opening; b) the unfair internal competition of dumping imports –specially of final products of higher rotation- financed by money laundering, and c) the unexpected change from the initial gradual economic opening scheme to a shock one, without giving industry enough time to prepare.

Therefore, in march 1993, ProBarranquilla reformulated its mission again as an autonomous planning and consulting entity for the private and public sector, complementing their institutional needs with specialized knowledge for a joint long-term global social and economic development (board meeting act, march 4<sup>th</sup> 1993). Its first task was to develop a public private partnership oriented to the competitive insertion of the city and department in the global economy, named “Atlantico 21<sup>st</sup> Century”.

### **2.5.3. “The Atlantico 21st Century” Project: A regional globalization plan**

“Atlantico 21<sup>st</sup> Century” was structured as a sub-national response to what was considered an inconvenient national economic opening process. Specially because its effects was first felt by the industries located at the port cities, where this competition didn’t faced the inland transportation costs protection of the interior industries.

Given the fact of global integration, the challenge was to find regional tailored projects with the highest potential for higher technological aggregated value exports, FDI, technology transfer, economic diversification and specially to enhance the general or common competitive foundation of the local economy. After concealing the goals, methods and parameters of the initiative, a MOU was signed in March 1994 between

the president of the board of ProBarranquilla, the Barranquilla major, and the Atlantico governor (who in 1998 became Colombia's vice president).

The process was oriented to be divided in three phases: a) a SWOT analysis of the region global competitiveness including general improvement recommendations, b) a review of the industrial clusters –either present or latent- and its developmental potential and c) a final report with recommendations to the development of the three most convenient clusters, including its anchor projects, a list of potential international investors and a know-how transfer process on FDI promotion best practices.

The selection of the industry clusters was focused on those producing tradable (export) goods or services that matched the following criteria:

- Involving the highest technological aggregated value to local factors of production or raw materials, as a mean to achieve an economic diversification towards more technological intensive activities
- With the highest international demand growth prospects
- With the highest potential to attract FDI and the transfer of new technologies not widely available in the region before

Since the goal was to “globalize” the region, which demanded an international wide experience, a restriction was placed on the terms of reference so that only international consultant with highest “deal closing” experience classified. The contract was awarded in middle 1995 to the Stanford Research Institute SRI, on a private bid where ADL and

Monitor also proposed. ProBarranquilla was appointed as the executive secretary and liaison of the local public private partnership “Central Committee”.

The process was phased as follows:

- A SWOT analysis of the competitiveness of Atlantico’s economic foundation and recommendations for its improvement
- An iterative “screening” phase of all present and latent clusters and projects according to the criteria explained before
- A final report with the three clusters selected, including its “anchor” investment project profiles, a list of potential foreign investors, a promotional brochure and a workshop in Washington DC of best practices and structures for FDI promotion

The final report was released on August 1997, selecting the following clusters:

- **The Coal-Coke-Chemicals and Steel “cluster”**: anchored with a metallurgical coke plant project, which was developed as the COLMECO project in 2000.
- **The Telecommunications cluster**: with seven different initiatives, led by a teleport, this became the Caribbean Technological Park & Free Zone in 2000.
- **The agricultural cluster**: with seven different projects profile, out of which a Cassava agro-industrialization process was initiated in 1998.

After closing the project, internalizing the final report, and complementing the anchor project profiles with additional contextual information, ProBarranquilla started its promotion in late 1998. It was in that moment that the implications of Colombia’s political risk became evident. SRI had based its FDI promotion methodology on the

assumption that good investment profiles in Barranquilla, promoted with its protocol by to the selected target audience, would iteratively narrow the process until achieving a “champion” or leading investor for each initiative that would upgrade the project profile into a feasibility review, and hopefully, a final investment. However, the process resulted to be far more complex, due to a perception restriction that was not so evident in 1995 when the project was signed: the overriding effect of Colombia’s political risk. A counterfactual is helpful to understand why: Intel’s investment selection of Costa Rica.

## **2.6. Intel investment in Costa Rica: A case study of the FDI site selection process**

One extraordinary example of a single MNC FDI project impact on its host country is the Intel semi conductor factory in Costa Rica, with an initial amount equivalent to 2,1% of the country’s GDP, that accounted for 5 points of the 8% GDP growth rate in 1999 (Inter-American Development Bank, 2001, p.258). Especially when considering that Costa Rica was not in the “sort list” of possible countries initially evaluated by Intel (Nelson, 1999:3), it did not had the “agglomeration externalities that location theory promotes, and the highly specialized semiconductor production was not oriented to serve Costa Rica’s small internal market of 3.7 million inhabitants and US 9,5 billions of GDP in 1997 (EIU county database accessed 12.08.02). Intel’s director of finance even described the prospect of selecting the country similar to “a whale on a swimming pool” by (Spar b, 1998). This is regarded as a case where preparation seized an opportunity. IT was one of the sectors where CINDE focused its mission. And as soon as CINDE got the news of Intel’s plans to establish a semiconductor facility in Latin America,

developed a strategy for overcoming the initial constraints, with the personal commitment and participation of the then president of Costa Rica, Jose Maria Figueres. There are many important lessons from this successful case for IPA's throughout the world, being the first one the proactivity of the Costa Rica Government under President Figueres not only to include its country on Intel's short list, but to meet Intel's demands overcoming structural restrictions: the result of preparation and opportunity.

However, I would like to focus on rather more subtle points related to the effect of the FDI site location analysis process and national political risk analysis for safer cities. As explained by Spar, the project started from the Intel side, when this MNC formed a team of functional experts commissioned to search for a new semiconductor assembly and research site plant in early 1996. They had a "well-determined" contour and plans for a 400.000 square feet and 2000 workers plant, and began as "customary", with a long list of potential host countries, in which Costa Rica was not included (Spar b, 1998:8).

The team began with basic desk research, looking for obvious reasons to exclude countries from the long list of potential candidates. The process at this stage was not intended to be particularly scientific or formal. Rather, it consisted on a broad attempt to identify the most relevant characteristics of each country, to confirm these with other investors and outside experts and to build a general consensus within the Intel group about which countries were most worth pursuing.

The country-level criteria used on this task were:

- *Stable economic and **political** conditions*
- Human resources
- Reasonable cost structure a "pro-business" environment
- Logistics and manufacturing lead time
- Fast track permitting process



On the basis of these rough criteria, team members slowly winnowed down their list. *At this stage, they were less interested in picking winners than **eliminating** losers-discarding countries that, for one reason or another, presented problems that could conceivably become deal breakers* (Spar b, 1998: 9, ea).

The perception of country stability was the fundamental site selection strategy on Intel's investment in Costa Rica, as expressed by the vice-president of Intel International:

the prospects for economic and political stability featured prominently in Costa Rica's success, as well as its long heritage of democracy, a broad market-based economy, and its membership in the WTO and the Caribbean Basin initiative of the United States (Gourlay, 2001, quoted on Henisz, forthcoming: 23)

This initial key issue on country screenings for FDI is also explicit on Nelson description of Venezuela rejection, due to concern of its financial stability:

The group gathered data on such issues as *political and economic stability*, labor unions and labor regulations (a particular concern of Intel's), infrastructure, and the availability of an educated workforce (after all, the plant would need trained technicians and engineers). After this desk research, [the team] had been able to eliminate some countries altogether. *Venezuela, for example, seemed to be too unstable financially; the desk research phase quickly ruled it out as a serious candidate* (Nelson, 1999:3 ea).

It is logical to expect the same "out-rules" due to political risks. However, in the later case, there is an extremely profound but subtle implication of the highly contextual relationship between political factors and economic returns, as known by experienced IPA's: As stated on more recent case study by Larrain, Lopez-Calva, and Rodriguez-Clare (2000, 3) there were other criteria for Intel: When Intel made its comparison between Mexico and Costa Rica as investment options:

Executives of the company seem to have *valued* the fact that *Intel's bargaining power would be greater in a smaller country, as opposed to a larger one like Mexico*. They also felt that Mexico, with both Federal and state governments, represented a double risk of policy changes.

This is no surprise for site selection analysts like Schniederjans, who explains how:

Business operations internationalization is a very important strategic decision (as opposed to tactical or operational) made by the organizations executive officers and approved by members of the board of directors. To begin with such a decision process, relevant information on which the decision can be based must be collected. The type of information necessarily to make the international decision is first based on a very comprehensive analysis of the *current international business environment and the capabilities of the organization* seeking to become an international operation (Schniederjans, 1996:6).

To understand how, let us expand Schniederjans model of FDI location analysis:

## 2.7. Site Selection approach to FDI

Schniederjans theory and process of International Facility Location Analysis (IFLA)

consists of three “ordered” steps: international, regional and site as follows:

Table 6: IFLA Steps and Model Variables (adapted from Schniederjans, 1999).

Steps	Selection Decision	Domain of Decision
<b>1. <u>INTERNATIONAL</u></b>	<b><u>Specific country and/or Facility to acquire</u></b>	<b><u>International (within a set of countries located in one or more continents)</u></b>
<b>1.1. Economic criteria:</b> Objective and subjective evaluations of a country’s transportation, communications, banking and monetary system; availability of raw materials and supportive industries <b>1.2. Social and Cultural criteria:</b> Objective and subjective evaluations of the country’s opinions on the acquiring organization’s products and services, distribution of wealth and social classes in the country, attitudes on promotion and selling efforts, and the language and unique social customs of the country <b>1.3. Political and Legal criteria:</b> Objective and subjective evaluations about the potential government attitudes and policies on cooperation with the acquiring organization, <u>stability of the country’s government</u> , its willingness to encourage the type of business the acquiring organization plans to locate in the country, and the legal restrictions or laws that may affect the operation		
<b>2. <u>REGIONAL</u></b>	<b><u>Specific state or province and/or facility to acquire</u></b>	<b><u>Semi-domestic (within one or more countries)</u></b>
Nearness to local markets, local suppliers and raw materials; <u>cultural similarities</u> (e.g. sharing the same language), <u>legal similarities</u> (e.g. sharing the same set of laws or commerce regulations)		
<b>3. <u>SITE</u></b>	<b><u>Specific piece of land and/ or facility to acquire</u></b>	<b><u>Domestic (within a single region or a single country)</u></b>
<b>3.1. Necessary requirements:</b> Adequate availability of water & electrical power; access by roads or waterways & <u>operations-sanctioned zoning laws</u> <b>3.2. Other requirements:</b> <u>Community attitudes about the new facility and its location</u> ; quality of community services, including local transportation, health and utility systems, <u>local work ethics</u> , <u>union strength in contractual relations</u> , quality of life; cost and availability of water, fuel, electric power, transportation facilities, labor, land for the site; construction of the facility, and local taxes		

Schniederjans algorithm considers the project's success factors (defined by its intrinsically attribute), the capabilities of the organization, and the international business environment, starting with a country selection as in the case of Intel.

Once again, the country stability is considered just in the first step (international) when potential host countries are chosen. However, let us read again the implication of the initially proposed match between the business environment of Mexico (including its national and federal "double risk") and the organizational capabilities of Intel (in terms of its bargain expectations) to state that political risk, as the probability that government actions (or lack of actions) will induce losses to investors is *highly circumstantial*.

This is why we find investment in very complex and risky environments, where an initial theory analysis would find no convenient environment for investments. This will be reviewed later on the Political Economy approach to political risk, a literature body that is rapidly increasing in popularity and use throughout the world, due to the strong academic analysts effort of providing a very practical risk assessment tool.

As a partial conclusion of this chapter, FDI can be an effective mean for the goal of regional industrialization and economic development, under the appropriated regional endogenous capacity building plans. FDI is mainly carried out by MNC, who decide their potential host countries using a common set of business industrialization procedures, starting with the "screening" of politically stable candidates. For this process, they use political risk assessments based at the national scale of observation.

### 3. COUNTRY-RISK: DEFINITIONS, ARGUMENTS AND MODELS

“Risk in our world is nothing more than *uncertainty* about the decisions that other human beings are going to make and how we can best respond to those decisions”. (Bernstein, 2002: 5)

The first “risk encountered on this research is its tautological relation to the human need of certainty, which being so general, is the source of so many different overlapping approaches and use of the concept of risk. I will present the definitions, history and different models of country and political risk, as well as an analysis of its implications in the case of internal armed conflicts, in order to support my hypothesis.

#### 3.1. Definitions and Origins of Country and Political Risk

Country-risk, defined as “a potentially adverse impact of a country’s environment on the *cash flow* generated by a FDI project” (Mossa, 2002: 131 ea), is a representation of the a) economic, b) financial and c) political attributes of a given country, using different models based on information aggregated at the *national level*.

It is a very important element in FDI process. Since, as shown on the Intel case, MNC use it as a “screening device” to avoid investing in countries with too much risk, or even to divest from those countries whose risk indicators deteriorate below an acceptable “threshold” value. It was born of the necessity to understand the relationship between the domestic politics, society and culture of a given country and the global economy, and to codify it into “one single indicator” all these relationships for prediction purposes.

The country-risk concept started initially as *political risk* in the early 60's during the cold war era -when the first FDI theories were also developed- as an attempt to forecast the risk that New Leftist governments under the cold war would expropriate the assets of foreign companies (Howell b, 2001, p.1). However, as argued by Spar, the Harvard professor whose Intel case we analyzed before, the concept of political risk is a broad attempt to blend theories from the fields of politics, economics, sociology and finance, for something that by nature is present in every aspect and environment of business:

Conceptually, the notion of political risk is nearly as old as the practice of international trade and investment. [It] is a broad and diffuse concept that sits at the intersection of politics, economics, sociology and finance, [and] refers, essentially, to the possibility that political decisions or events in a particular country will cause foreign investors there to either lose money or fail to capture their expected returns. Definitionally, political risk is held distinct from the more straightforward concept of economic risk. Whereas economic risk arises from the inability of a country or firm to meet its financial obligations, political risk arises from the vagaries of governmental actions; from policy changes, leadership changes, nationalization of private property, expropriation of foreign holdings, civil strife, currency inconvertibility, or even war. ***Whenever policy decisions or political events can affect the profitability of foreign investments, political risk exists. At some level, therefore, political risk always exists.*** (Spar, c, 1997:1 ea).

There is no mistake on broadening the definition of political risk to different geographical levels. After all, the Oxford English Dictionary (online version accessed 05.01.03) defines several levels and natures of political systems on its definition of politics, as

the science and art of government; the science dealing with the form, organization, and administration of a state or part of one, and with the regulation of its relations with other states (hence, ***imperial, national, domestic, municipal, communal, parochial, foreign politics***, etc)

Therefore, the etymological definition of political risk has implicitly the need to have different scales of political risk assessment, since policy decisions or political events can take place either at the different city, department, region, nation, or “pan-national” level.

Thus, considering political risk just and only at the national level is, by definition, wrong.

This is also implicit on Howell's definition of political risk (Howell, 2001 a: 4) as

the possibility that political decisions or political or social events in a country will affect the business climate in such a way that investors will lose money or not make as much money as they expected when the investment was made.

There are many cases where a given project has encountered losses by decisions

taken either at the national and/or local government. Therefore,

***This is my first argument: If political risk results from policy decisions or events, then by definition, there is the need of further indicators or measures above and below the national or country level.***

Or, as stated by Fujita and Thisse on their work on economic geography:

Because clusters appear at different geographical scales and involve various degrees of sectoral details, it would be futile to look for *the* model explaining different types of economic agglomerations (Papageorgiou 1983). *This should not come as a surprise; for geographers have long known that geography scale matters. What is true at a certain spatial scale is not necessarily true at another* (Fujita & Thisse, 2002: 2, e.a)

To understand the bias of just measuring it at the national level it is necessarily to understand the origins of political risk theory. Howell, one of the most quoted authors of political risk explains the "cold war" era origin of the concept (Howell b, 2001:2):

*Especially as private investment replaces foreign aid that was a byproduct of competition between superpowers, understanding the relationship between politics and economics has become an integral part of simple national and planetary survival. The classic definition of political risk relates to the role and actions of national governments. Political risks are associated with government actions, which deny or restrict the right of an investor/owner: (1) to use or benefit from his/her assets; (2) which reduce the value of a firm. The most well known of the political risk include: war, revolutions, government seizure of property (expropriation, nationalization, or confiscation), and actions to restrict the movement of profits or other revenues from within a country...Political risk are those associated with acts of government, whereas commercial risk includes insolvency of a buyer or other economic reasons for nonpayment*

Wells (on Moran, 1998:15 ea) is more drastic and even ironic about the path dependence of the concept in expropriation stating that:

Much of the existing literature on political risk in the developing countries *is outdated*. It has long focused on expropriation. In the decade of the 60's and 70's expropriation was indeed a striking and prominent risk and, to the pleasure of academics, *measurable*

***My second argument is that the underpinning factors that originated the theory of political risk have changed. Therefore, the concept should be updated to different geographical scales, if by doing so it accomplishes its purpose.***

Of course expropriation or government-driven factors will be always very important for FDI, despite of the fact that as Wells quotes on the page cited above, it has virtually disappeared from 83 cases alone in 1975 to only 11 cases between 1981 and 1992.

That is one of the reasons why only one out of the 13 different risk assessment models presented in “The Handbook of Country and Political Risk Analysis” -which together with its companion book “Political Risk Assessment: Concept, Method, and Management”, published by the PRS Group are the most comprehensive publications in the subject-- has explicitly the word expropriation. It presents the “changes and refinements” in the International Country-risk Guide ICRG model, “as the international business scene has evolved since 1980” (Howell a, 2001, p.20).

Reassuming Howell's analysis, the new definition of political risk should cover 9 different loss types: 1) Confiscation; 2) Contract Repudiation; 3) Currency inconvertibility; 4) Discriminatory taxation; 5) Embargo; 6) Expropriation of property; 7) Nationalization; 8) War risk; and 9) Wrongful calling of guarantees. While each of these is a genuine loss that is sourced in the government of a country, he argues that these

categories are limited to insurable losses, but do not cover others non-insurable government interventions such as imposing hiring quotas or corruption bribes demands. Another bias is that the classical definition of government losses should take into account that sometimes *they can be driven by actors external to the government, like guerrillas or ethnic/religious groups.*

This means that national governments are not always the authoritative source of loss problems. “Increasingly regional, provincial, state and local (including tribal) governments are involve in dealing with investors in ways that national governments don’t and can’t know about” To solve this problem, he proposes to distinguish between two scales of observation: the macro and the micro approaches, meaning risks common to all the industries present on a country, or to only a certain industry sector. He further differentiates the scale of observation in terms of national and local risks, meaning actions at the national government level or at the sub-national level (Howell b, 2001:2 to 10). However, out of the 13 different country and political risk models presented on his work, only two (HIS Energy Group & Control Risk Group) explicitly take into consideration a breakdown of the political risk into different regions.

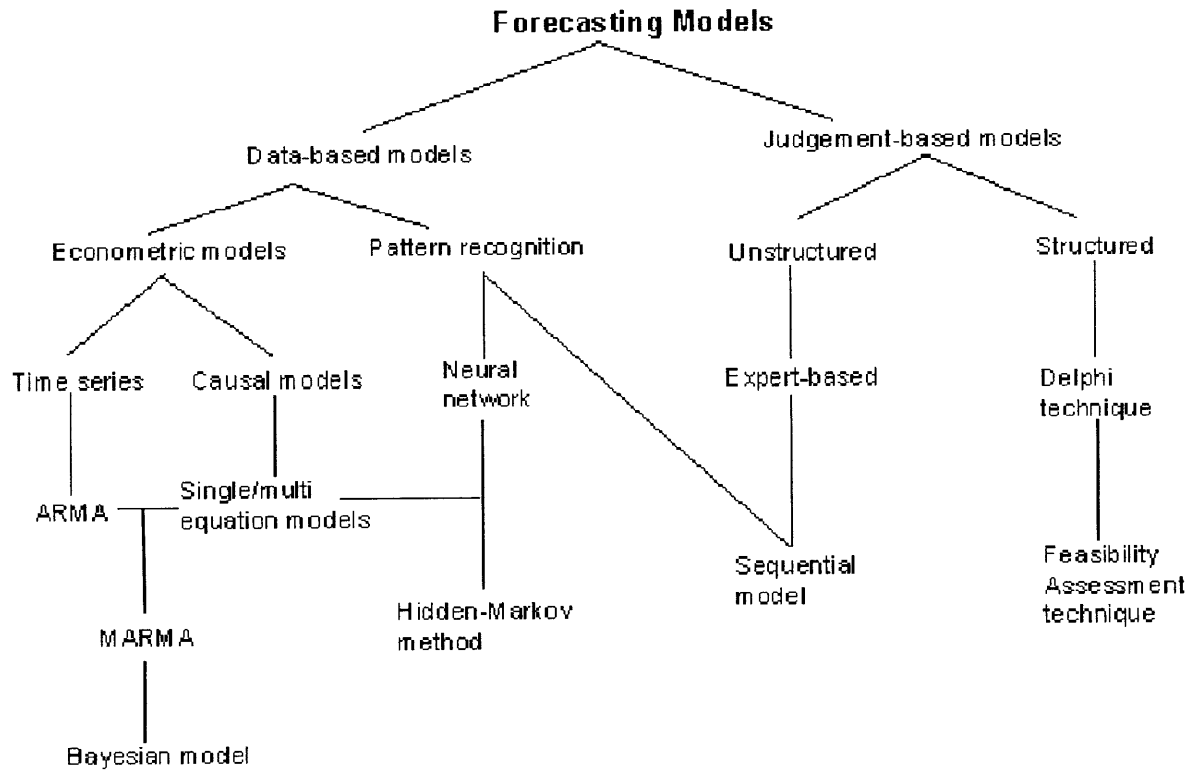
To understand why, I will analyze the different methods of country and political risk:



### 3.2. Underlying methods of political and country-risk:

Political risk analysis use quantitative (data based) and qualitative (judgment based) models or their combinations, to build their forecast indicators. The best representation of these differences is quoted on Carment (2001:3)<sup>18</sup>, as presented here:

Figure 6. Political Risk Forecasting Models (Source: Carment, 2001:3)



Most of the political risk assessment models use a combination of both judgment and data based models. The figure presented above has several important implications: a) to use data based models sufficient data must be available. In the case of financial and economic risks, there is usually sufficient macroeconomic data available from all countries, and sufficient clarity of the relationship between the behaviors of these

<sup>18</sup> Graph quoted from Dipak Gupta, "An Early Warning About Forecasts: Oracle to Academics" in Susanne Schmeidl and Howard Adelman, (eds.), *Synergy in Early Warning Conference Proceedings*, Toronto, Canada, March 15-18, 1997, 375-396.

variables to forecast the future. But even in this case where data is available, it might be so different or insufficient, that some models convenient for one country are not suitable for other countries. One very important area of example is the analysis of political risk for portfolio investments, which will be presented later.

b) In the case of “extreme events” like terrorism attacks, expropriations or “de-certifications”, their frequency is so low but their consequences so drastic, that a judgment-based approach is more suitable. However, for the case of terrorist attacks, the scale of observation can lead to very different results. c) In the case of judgment analysis, either structured or unstructured, the personal perceptions of the analysts have shown to have a strong effect on the risk assessment. According to the latter, Raddock (1986:150) warns of the debate between the “traditionalists” and “empiricists” judgment based approaches. The traditional approach entails the evaluations made by a single country expert, based on a competent historical analysis by a highly qualified country specialist. The second and empirical approach utilizes subjective evaluations, where country experts are called upon to evaluate or rate a country along a variety of substantive predetermined factors of instability and/or stability, applied to a number of countries at once to be able to compare their degree of risks.

Raddock clarifies restrictions of the traditional approach as a) a given analysis is entirely dependant on the ability of one expert. If this expert changes, the new individual’s framework might be different, and therefore the previous analysis will be difficult to compare. b) An expert is not able to in-depth evaluate more than one country, and at last but no least, c) Experts are not always capable of assessing foreign political situation in precise enough terms for decision makers. This issue is also stated by Spar

(a, 1997:5) when she says that the reason for the decline of the political risk analysis in the late 80's was the gap of information between the "ivory tower exercise" of academic rooted too abstract analysts and the managerial practice daily needs, despite of the efforts to structure the information flows between both parties.

On the other hand, the subjective approach is based on the opinions of panels of experts, provided with a set of questions to answer and scales on which to evaluate each country, using Delphic models, like in the BERI method:

Here, variables that generally reflect societal conflict and political instability are aggregated into an index of political risk and are rated and then re-rated by members of a committee of analysts. Indices are constructed to represent both short- and long-term risk. Unfortunately, political climate and political risk are not necessarily synonymous. *Although the index does provide a framework for cross-national comparisons of political climates, its general nature does not permit a closer scrutiny of a particular investment by a specific firm* (Raddock,1986:153 ea).

Raddock later adds the best analytical explanation of the problems related to

Colombia's internal armed conflict:

Subjective data respondents tend to focus on individual cases rather than on relevant cases. This might include an overemphasizing a recent event, or series of events, that occurred in a country, instead of basing the evaluation on events over the past few years. Certainly more recent events should be more heavily weighted than others, but in a conscious, systematic manner. *An extreme case (one particular incident of violence) might make more of an impression on the expert than other, more ordinary cases.* Also an individual might focus more on specific cases where he has more intimate knowledge. Raddock (1986:154)

***My third argument is that extreme incidents of violence such as the ones unfortunately present in Colombia's Internal Armed Conflict create a strong impression, thus "biasing" the result of political risk analysts.***

This will be analyzed with greater detail in the perception part of the thesis; however, I now introduce the most common models of country and political risk.

### 3.3. Commercial Models of Country and Political Risk Assessments

Howell (b, 2001:6) presents a very important distinction between the terms political risk assessment and political risk analysis, which is very important for the objective of this thesis. Political risk assessment is “a measure, in this case a probability measure that, that acts as a warning of level of threat”. In political risk analysis the object of attention is the origins or causes of the threat, whatever its level. Thus, political risk analysis, as an attempt to delineate its cause-effect relationships is an often neglected theory aspect. In Howel’s words, “theory is often absent or at least not explicit for models used in forecasting political risk. Variables seem sometimes to be chosen *because they are hot issues* or come readily to mind among the originators of a model” (Howell b, 2001:6 ea). This “hot issue” selection theory will be presented later when measuring the correlation between political risk indexes and the selection of specific “hot words” on headlines covering Colombia’s internal armed conflict.

Nevertheless, the political risk industry is characterized by a high level of competitive differentiation based on the seriousness, discipline and consistency of its methods. My point here is that in the case of very complex processes like Colombia’s internal armed conflict, I indeed think that they should be complemented with geographical and behavioral theories to have a more accurate contrast of its sub-national differences that for obvious reasons are not possible to measure from a national aggregated scale.

Building over Howell’s classification of different political risk assessment models, I present 15 different commercial approaches that show my arguments, which are by default used for countries as whole and foreign investors in general:

Table 7 Main Commercial Political Risk Assessment Models (Adapted from Howell b, 2001:7)

<b>15 Key Political Risk Assessments</b>		
		<b>Objective and Use</b>
The PRS Group, Inc		
International Country-risk Guide	ICRG	FDI Investment
Political Risk Services	PRS	FDI Investment
Business Environment Risk Intelligence (BERI) S.A.		
Political Risk Index	BPRI	FDI Investment
Operational Risk Index	BORI	FDI Investment
Economist Intelligence Unit	EIU	Default risk
Moody's Investor Services	MIS	Default risk
Control Risk Group	CRG	Physical Security
Economists's Method 1986	E-86	Default Risk
S.J. Rundt & Associates	SJR	Default risk
Standard & Poor's Ratings Group	S&P	Default risk
Intitutional Investor	II	Default Risk
Chase – 1988	C-88	Default Risk
I.H.S. Energy Group	HIS	Oil Sub-National FDI
Euromoney	Euro	Default Risk
Kroll	KROLL	Physical Security

Source: adapted from Howell b, 2001:7

The only model explicitly oriented to analyze government decisions is the Political Risk Services model. Euromoney exclusively measures the risk of non-payment of debt for loans, goods and services, and the Kroll model to asset physical security. However, Lindeberg and Mörndal (2002:68) report that large companies like ABB and Scania use credit worthiness, an easily accessible information, as a first attempt to identify political risk; since “at the end of the day, originate from this variable”. The other 12 models are “heavily slanted” towards the use of attributes in forecasting threats to investors, like: a) external factors, b) the nature of government an politics and c) societal characters.

Table 8: Main variables of the three general attribute of investors threats

General "Political Risk"	NATURE OF GOVERNMENT & POLITICS	SOCIETAL CHARACTER
<b>EXTERNAL FACTORS</b>	Nature of Politics	Ethnic Tensions
Influence of Major Powers	Stability	Socio-Economic Conditions
Negative Regional Influences	Authoritarianism	Domestic Violence Civil Conflict
International War	Legitimacy	Bureaucracy Quality
International Economic Alliances	Political Parties	Nationalism
	Political Opposition Forces	Attitudes Towards Foreigners
	Staleness	Environmental Activism
	Military Involved in Politics	Domestic Economic Problems
	Religion in Politics	International Economic Problems
	Corruption	Infrastructure
	Regulatory Investment Environment	Professional Services & Contractors
	Judicial/Legal System	Local Management Partners
	Government Behavior	Culture
	Political Intrusion on Wealth Cultivation	
	Political intrusion on Economic Management	

Source: Howell b, 2001:8.

As a practical example of how these attributes are combined to built the country compound risk index I present the International Country Risk Guide ICRG model of The Political Risk Group Inc. This model considers 22 variables in three subcategories, with a separate index for each one: political, financial and economic (Howell a, 2001:19).

Table 9. ICRG Variables by Categories. (Source, Howell a, 2001:19)

Political Risk	Pnts	Financial Risk	Pnts	Economic Risk	Pnts
Government Stability	12	Foreign Debt as % of GDP	10	GDP per head of Population	5
Socioeconomic Conditions	12	Foreign Debt Service as % of Exports	10	Real Annual GDP Growth	10
Investment Profile	12	Current Account as % of Exports	15	Annual Inflation Rate	10
Internal Conflict	12	Net Liquidity as Months of imports Cover	5	Budget Balance as % of GDP	10
External Conflict	12	Exchange Rate Stability	10	Current Account Balance as % of GDP	15
Corruption	6				
Military in Politics	6				
Religious Tensions	6				
Law and Order	6				
Ethnic Tensions	6				
Democratic Accountability	6				
Bureaucracy Quality	4				
Maximum Total Points	100	Maximum Total Points	50	Maximum Total Points	50

After calculating the maximum points for each variable for a given country, the ICRG's Composite Political, Financial and Economic Risk Rating CPFER is calculated by summing all points, and then dividing it by two. This gives the country's range of risk:

Table 10. ICRG Risk Range (Source: Howell a, 2001:20)

<b>CPFER Range of Risk</b>	<b>Total Points (PR+FR+ER)*0.5</b>
Very High Risk	00.0 to 49.9 percent
High Risk	50.0 to 59.0 percent
Moderate Risk	60.0 to 69.9 percent
Low Risk	70.0 to 79.9 percent
Very Low Risk	80.0 to 100 percent

The advantage of this model is that the different variables can be combined and "tailored" according to the specific needs of the users. However, it is important to note that political risk variables have twice the weight of the CPFER, as shown in table XXX.

From the definitions of the variables it can also be seen how the financial and economic risks are more homogeneous to the entire nation, due to its dependence on macro economic attributes, whereas the political risk variables can vary across sub-national city regions. ICRG states that "the aim of the political risk rating is to provide the political stability of the countries covered by ICRG on a comparable basis" (Howell a, 2001:23).

In the specific case of Internal Conflict (12 points), ICRG measures the degree of political violence and its impact on government and business or only business (e.g. kidnapping for ransom); if the acts of violence are sporadic or sustained, as well as carried out for a political objective (i.e. terrorist operations); whether the perpetrators are a few individuals or well organized movements; and *whether they are restricted to a particular locality or region or are carried out nationwide* (Howell a, 2001:25).

Thus, although on its considerations ICRG considers the spread of internal armed conflict acts; it does not indicate how it does vary among regions on its monthly ratings. However, this same methodology could be adapted to measure these sub-national variations, if the data could be provided at the sub-national level. We will present in the analysis of Colombia's internal armed conflict how the acts of political violence vary among regions. Therefore, following the same theory fundamentals of ICRG, the political risk index and through it, the CPFER should also vary among regions.

It is important to note that another model, the IHS Energy Group Political Risk Rating and Ranking Index, specialized for the strategic planning of major international oil and service supply companies -where geographical location of oil is a given and the investor can only choose to locate in any point restricted within the basin extension area-- states that "the experience of operators in places like Angola and elsewhere suggested that traditional political risk like widespread violence or political instability –even in the form of civil war- did not necessarily constitute a prohibitive risk to foreign oil company investment" (Hallmark & Whited, on Howell a, 2001: 367). Where civil or labor unrest, internal violence or ethno-linguistic factionalism political risk factors are confined to a certain locations, or the oil explorations can take place offshore, this model considers inappropriate to use variables assigned at the macro or country level. The interesting approach of this model is that it uses exactly the same national model, but indeed using it to measure the sub-national risk (Hallmark & Whited, on Howell a, 2001: 371).



For example, during the 90's, one of the most critical factors of the Russian Oil Joint-Ventures faced by western companies was not only the institutional responsibility changes from one ministry to another at the national levels, but increasingly the role of 32 Production Associations, established to manage oil operations at the provincial level on an independent fashion (HBS case No. 9-795-022, 1995).

On the same fashion, the Control Risk Group CRG provides separate macro and micro ratings together with customized and tailored assessments, analyzing the particular exposures of individual investing firms in specific circumstances. A specific question of their micro risk assessment involves the question of: What political conditions exist in the relevant geographical location? (Markwick, on Howell a, 2001: 375). The difference between these two approaches is that while the IHS Group model is specialized towards the oil industry, where the geographical location is *a given*, CRG methodology is for firms or individuals in essence a sub-national political risk assessment tool.

**My fourth argument is that there are indeed some personal city security models, as well as oil exploration sub-national models, but there is still no systematic sub-national political risk assessment model for FDI site-location analysis.**

#### **3.4. The Political Economy Approach of Political Risk**

An interesting proposition for political risk assessment is the political economy emphasis of the Medley Global Advisor Group, who promotes its niche intersection of political economy, market strategy and corporate risk management, with an interdisciplinary

approach to intelligence-gathering and analysis based on a solid understanding of the science of economics and the *art of politics* (, accessed 03.27.03, 02:45). What results especially interesting from this “art of politics” approach is the rather unaware conclusion of the mechanisms of bargain power balances as a common cause of political risks in very different environments:

From the reality of political risks *within* developed countries boundaries, such as the common “threats” of NGO’s and activists to the image or reputation of MNC’s –Nike-, the private or intellectual property rights suspensions associated with 9/11 in US and Canada, to a state’s ultimate preferences based on the results of the entrepreneurship of different groups competing for resources and their ability to influence policy. J. Marc Michel Léonard, Associate Director of the Medley Institute proposed on International Finance (4:3 2001:491-506) that there is a debate on the risk and investment literature. “Micro” studies focused on the effect of risk in managerial investment decision find a strong inverse relationship, whereas “macro” studies analyzing risk and aggregate FDI finds no significant correlation or even contradictory ones. Indeed, depending on the variables and methodology used, there are several studies with complementary or even divergent results, as will be presented later related to this research.

“Country-risk refers to the political, economic and financial aspects of doing business in a specific country. Traditionally, risk managers in non-financial firms focus on political risk and FDI, mostly in Central Asia, the Middle East and Africa. Those in financial firms look at the impact of all three variables on credit risk, especially sovereign and transfer risk in Asia’s and Latin America’s emerging markets. *Limiting country-risk to an emerging market’s phenomena is astoundingly myopic.* First, country-risk can spread from emerging markets to the G7 through its impact on the operations of G7 firms in the developing world and the spillover effects, or contagion, of political, economic and financial crises. Second, country-risk can be indigenous to the G7. From example, *during the last decade, a major instance of political risk has been changing public perceptions of corporate social responsibilities in advanced economies such as the USA.*

While the new expectations of corporate responsibility can be considered a mild or indirect component of country-risk, there is no doubt since September 11 2001 that political risk has been back with a vengeance. The terrorists attacks in New York City threatened to shut down trade between the USA, Canada and Mexico and threw commercial aviation into quasi-bankruptcy. Less than two months after the attacks, the Canadian Government suspended the patent rights to Bayer. As part of his fight against terrorism, President Bush is encouraging governments to seize assets believed to be linked to terrorist groups. While both measures may be justified under the present circumstances, *they are powerful examples of governments tampering with the property rights of corporations, a behavior normally associated with rogue countries, not Canada or the USA*". (Léonard, 2001: 492, ea).

Léonard praises later the International Political Economy framework proposed by Philip Harms, based on the ability of specific groups to influence state policies and explain political risk by focusing on generational cleavages. Using Harms "International Investment, Political Risk and Growth" approach to analyze the determinants and effects of international investments to developing countries; Léonard echoes the concept that

Political risk is the source of a strong bias among investors against lower-income countries that has so far limited their access to international capital, even in light of financial liberalization. Specifically, political risk is responsible for inconsistent investment patterns and risk appetites that fail to exploit growth opportunities in certain developing countries, pursuing instead inferior investments in a privileged group of developing countries or advanced economies [by causing] changes not within investment flows to specific countries, the objective of econometric analysis, but rather the exclusion of a group of countries from international investments (Léonard, 2001: 494).

Based on the same political economy approach he further presents a debate in the economic literature over the political risk on international investments:

On one side, studies looking at manager's perception systematically identify political risk as a major factor influencing such investments. However, on the other side, studies looking to aggregate market behaviour, international capital flows and FDI's are more ambiguous. Some show a limited role for political risk while others see no correlation at all. (Léonard, 2001:495)

Although it must be said that Léonard questions some of the assumptions of Harms, he further proposes new solutions to support the same conclusions.

Traditional political risk models focus on *overall stability levels, not the like hood of the specific policies that cause political risk*. Measures of stability would be good indicators of political risk if stability were a proxy for risk levels. However, it is not: there are many instances of stable countries taking hostile actions against international investments and of unstable countries where such investments are unaffected. Macro assessment are, to a large extend, poor indicators of political and country-risk and have to be translated into micro and firm-specific business contingencies. (o.c., 496, ea).

This political economy approach is taken further by Henisz and Zelner (2002), who focused on the measurement of bargain power as part of their strategic perspective proposal to political risk management, based on their interviews to electricity generation and cellular services operators from thirteen emerging countries.

Perhaps the most “acid” empirical validation of its circumstantial characteristic comes from the electric power generation industry, since it is one of the most sensitive to political risk –after oil, where geography is a given- due to its sunk costs and its alleged higher vulnerability to government coercion power, once the investment is done. Holburn (2001) examined the effect of political risk on the international expansion strategies, using data from privately financed power generation projects outside North America, from 191 firms in 64 countries during 10 years. He found the effect of political risk to be uneven across firms, and while higher levels of political risk typically discouraged entry, the impact was significantly lower for firms with greater levels of international experience. The previous accumulated firm experience on monopsony generations markets –where firms negotiate and contract directly with governments- had a significantly greater impact on their propensity to expand into more politically risky

environment that does experience in competitive generations markets, where firms interacts less frequency with governments.

His conclusion is that firms built on their expertise not only by re-investing in riskier their country markets, but also by systematically expanding into new countries where their mix of market and *non-market* skills gave them a competitive advantage. This behavior is explained on its quoted previous paper of Zelner and Heinsz (1999) according to which the initial level or stock of infrastructure development, determines the marginal return to capital investment, as proposed by macroeconomic growth literature.

It is above all interesting to note that Zelner and Heinsz, started a political economy new tendency of country-risk, precisely based on the empirical observations of non-market strategies, that focuses more on the institutional *constrains* of government or political actors to act opportunistically and change the business environment faced by investors, rather than their *motivations* to do so. Heinsz developed a political institutional constrain ( POLCON)and political rivalry (POLRIV) risk measures that basically captures the ease of changing the laws on a nation –for example a bicameral parliament implies additional steps and therefore constituencies participation to change rules than a single chamber one- and the homogeneity of a ruling power, in terms of political rivalry control power . Zelner and Heinsz paper “Political Institutions, Political Competition and Infrastructure Investment in the Electric Utility Industry. A Cross-National Study” (1999) analyses the POLCON and POLRIV of 77 countries. In this study, Colombia occupies POLCON place number 33 among the 77 countries, meaning that 58% of the sample presented less constrains to changes on the “rule of the games” than Colombia.

There is an inverse relationship between FDI and country-risk, which is highly circumstantial, based on both the bargain power of the investor. Therefore, as seen on Intel's concern with Mexico's different federal and national political risk, this issue must be reviewed on *both* a national and *sub-national* scale of observation, and ruling out location options based on the national indicators is inconvenient. There is a threshold of risk/return, which the national political risk assessment models do not capture.

### **3.5. Lessons from the effects of 9/11 in the Insurance Industry**

The tragedy of 9/11, based on a low-tech and high concept asymmetrical attack, was an extreme event with such a strong impact over the US economy and the world economic system, that it deserves a special analysis from the perspective of political risk.

An early approach comes from Sarewitz, Pielke and Keykhah (mimeo), based on the difference between vulnerability and risk. Vulnerability is "the inherent characteristics of a system that create the potential for harm but are independent of the probabilistic risk of the occurrence ("event risk) of any particular hazard or extreme event. They then differentiate the "risk" of an event, say a Category 5 hurricane, and the risk of a particular outcome ("outcome risk"), say \$ 10 billion in losses from a particular hurricane, which integrates both the characteristics of the system and the chance of the occurrence of an event that jointly result in losses. Then they present these assertions:

*1. Risk based approaches to covering the costs of extreme events do not depend for their success on reduction of vulnerability.* The World Trade Center WTC was vulnerable to the 9/11 attack, but the quantified risk of such kind of extreme events was not well known. It only came into attention because of the attack, prior to which risk

calculations were grossly in error. Thus, from the perspective of the WTC insurer, if he could have had quantified more accurately this event risk, he could have had raised the premiums, spread their own outcome risk and covered their losses, without requiring any reduction in vulnerability of the nation's air-travel infrastructure.

*2. Risk-based approaches to preparing for extreme events are focused on acquiring accurate probabilistic information about the events themselves.* The prediction of the probability of certain events *for decisions* –as opposed to prediction for science-- is “fraught with peril and can induce unhelpful pathologies to a decision process”. In other words, “understanding the uncertainty of the uncertainty estimates is impossible”, like the 95% probability assigned to an earthquake prediction along the Parkfield segment of the San Andreas fault for the period 1985-1993, which has still not occurred. Thus, distinguishing situations amenable to risk management from those that are not is a high priority for effective policy development to avoid results different than the intended ones.

*3. Understanding and reducing vulnerability does not demand accurate predictions of the incidence of extreme events.* Vulnerability is not divorced from probability, but the management of vulnerability does not depend on precise predictive quantification.

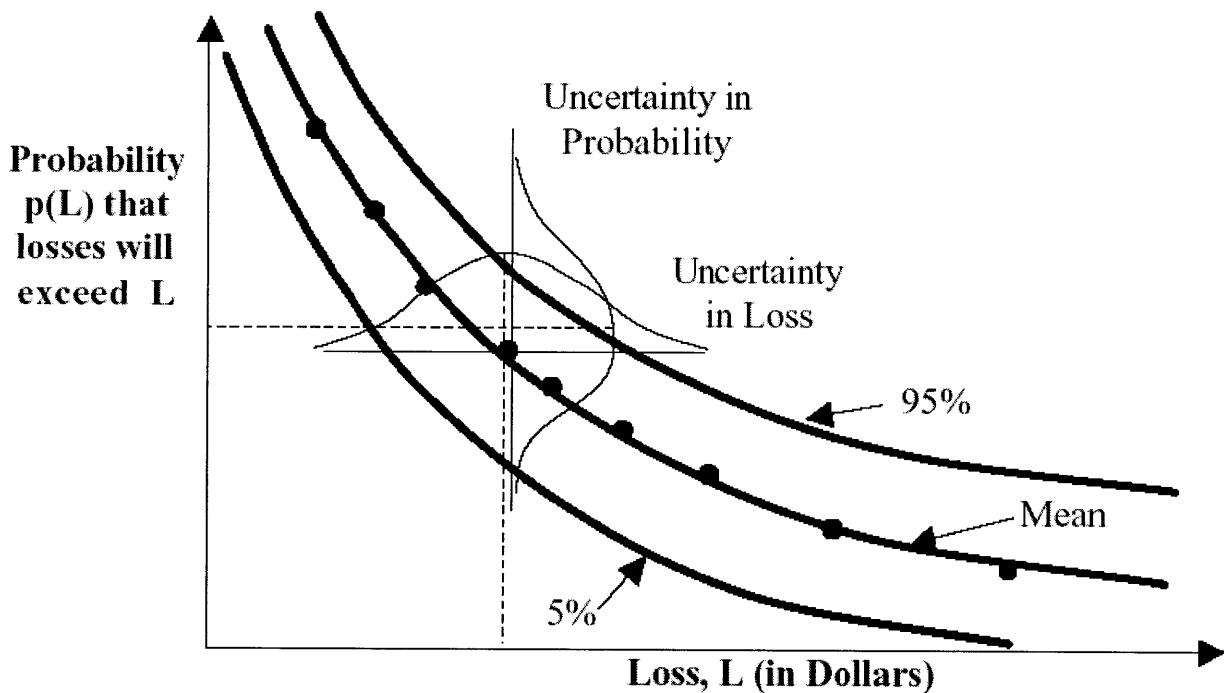
*4. Extreme events are created by context.* The character of an extreme event is determined not simply by some characteristics inherent in the physical phenomena, but by the interaction of those characteristics with other systems.

*5. It is politically difficult to justify vulnerability reduction on economic grounds.* While the costs of vulnerability management can be readily calculated and reduced vulnerability always means reduced outcome risk, the benefit derived from such approaches is counterfactual and can only be surmised.

6. *Vulnerability is a human rights issue.* Risk reduction is not. More important than the economic rationale is the human one, exemplified by the images of human suffering and social disruption that proliferate in the immediate aftermath of a catastrophe.

Sarewitz, Pielke and Keykhah provide an introduction to Kunreuther's (a and b, 2001) lessons from the insurance industry, with its Exceedance Probability curve (EP) for extreme events, which inherently incorporates uncertainty in the probability of an event occurring (reflected in the 5% and 95% confidence interval curves) and the magnitude of dollar losses (consequences of the event) as seen in figure 7.

Figure 7. Exceedance Probability Curves



Source: Kunreuther, 2001

Kunreuther warns that the accuracy of the EP curve is the key element of the risk evaluation, which in turn, depends on the ability of the scientific and engineering



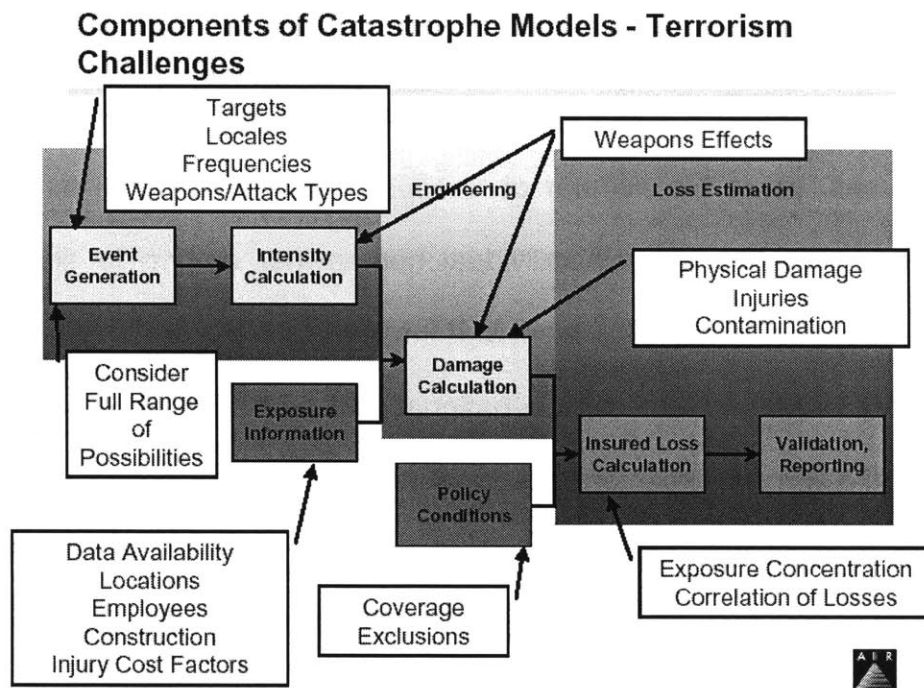
community as well as social scientists to estimate the impact of events of different probabilities and magnitudes using the different units of analysis. However, he presents a generic model example of the effect of 9/11 over insurance premiums: Before 9/11 a US 500 million terrorism reinsurance would cost to an insurance company US 13.5 million. After the tragic event, this same cost would increase up to 73.4 million. This figure is even higher than the “doubling” or “tripling” reported on NY insurance premiums reported on the construction magazine quoted on the second chapter.

An important lesson of Kunreuther’s model of risk management of extreme events is its analysis of the so called “Sprinkler Problem”: Insurers encourage its policyholders to invest in protective measures by providing premium reductions that reflect the lower risk. So that if a house has a sprinkler system, then one would expect the premium for fire coverage to be lower. However, if these protective measures are not shared by adjacent neighboring houses, when the number of “irresponsible parties” gets large, there will be no economic incentive for any individual homeowner or firm to adopt protective measures that could be beneficial to them and the society.

The application from the “sprinkler problem” for sub-national political risk analysis is that internal armed conflicts, like fire, is expected to sprawl from their focal points to its neighboring ones, *but as long as they are close enough, there is fuel for it through its propagation path, and no barriers for this propagation.* In other words, it is interesting to see its tacit assumption of unrestricted fire sprawl. However, as it will be explained later, IAC are subject to geopolitical barriers which determine their sprawl.

The final remark from the insurance industry for a more flexible scale of observation is the Air Terrorism Loss Estimation Model, developed by Air Worldwide of Boston, to help insurers to make the difficult pricing decisions regarding terrorism risk. It provides probabilistic loss calculations for property, worker's compensations, life, accident and health. This, based on a model that considers locational factors, terrorist groups, weapons and attack types (bombs, aviation crash and non conventional weapons), and target types from the hazard, engineering and loss estimation perspective, Air Worldwide Boston developed a "landmark database" of over 300.000 potential targets including commercial, industrial, educational, medical, religious and governmental facilities. A subset of "trophy" targets carry a higher probability of major attack.

Figure 8, AIR components of catastrophe Models-Terrorism Challenges, 2003.



Source: New Developments in Modeling of Catastrophic events, J. Seaquist, Air-Worldwide Inc. 2002

If it is possible to develop this specific kind of political risk analysis insurance premiums based on buildings as the unit of observation, there are no technical nor theoretical reasons for not developing a sub-national political risk scale of observation.

### **3.6. Lessons from 9/11 to the Political Risk Industry**

Between July-August 2001, the Multinational Investment Guaranties Agency MIGA, a subsidiary of the World Bank Group, conducted a FDI Survey among 191 services and manufacturing MNC reflecting their plans for future expansion in light of the uncertainty that characterized the global business environment at that time, when a global economic downturn was already apparent, although the extent and duration of the setback was not known. The response then were that 47% would postpone their expansions; 30% would downsize them; 20 found no effect; 18% would shift the geographic focus of the expansion; 6% would cancel the expansion, and 2% would accelerate them (MIGA, 2002, preface). On sector basis, more than twice as many manufacturing companies as service companies indicate that an economic downturn will have “no effect”. Services companies are more likely to shift the geographical focus of their operations. Otherwise, the differences are small (MIGA, 2002, figure 31).

After the September 11<sup>th</sup> however, MIGA contacted again all 191 respondents, to discuss the effects of terrorist attacks –and accompanying downturn in the global economy –on the investment plans they had articulated over the summer. Some 130 companies participated in the follow up, 101 of whom had originally indicated overseas expansion plans. The majority –64%- of these 101 respondents to the follow-up survey indicate that there has been “no effect” on their expansion plans. A significant portion – 29%- intends to postpone their expansions, but virtually no respondent indicate that they intended to cancel their projects. Only one in ten respondents plans to downsize their expansions. In their open-ended responses, the “no effect” respondent fall along

four major lines: No effect, although will closely monitor the economic climate and assess long-term impact, if any; Too soon to tell, but no immediate effect on expansion plans; No effect on major projects, however some/potential impact on individual expansion projects in some regions; Potential shift in long-term strategy, due to a broader shift in the marketplace and/or industry. (MIGA, 2002, preface). Taking into account that 84 companies were headquartered in North America, 56 in Western Europe, 40 in Asia Pacific Rim, 6 in Latin America and 3 in Africa (MIGA, 2002: 4), how can you explain this indifference after what is considered one of the world terrorist events of humankind? What does it tell us about the relationship of political risk and FDI decisions? According to MIGA, the companies with their attention focused on *long-term* opportunities, appear to be ready to use their contingency plans but are not abandoning their expansion goals. A closer look to the most important objectives when investing outside home countries: improved market access (55%), reducing operational costs (17%) other factors (8%), source raw materials (6%), consolidate operations (4%) develop new product lines (4%) improved productivity (2%) develop new technologies (1%) improved labor force access (1%) and reduce risk (1%); parallel an analysis of the expansion strategies among building or lease a facility (43%), Merger & Acquisitions (42%), and by expanding an existing companies (15%), could be used to infer that if the access to market is the more important factor, and its location is a given, therefore the investment should take place.

Regarding the greatest perceived in FDI abroad the respondents answered Physical Security of Staff (for 85% of the respondent), War and civil Disturbance (for 78% of the

respondent), *Currency Inconvertibility, Breach of Contract, Government Refusal or inability to enforce law and expropriation or nationalization*. It is important to point out that while the three last are more directly related to Government interventions –also considering expropriation as important despite of the reduction of its frequency as stated above- the two main concerns, physical security & war and civil disturbance are risks that could present location gradients at the sub national level, specially in larger countries, which is pretended to be considered on the next chapter..

However, before moving forward, let me highlight the difference between the pervasive explicit concern with government expropriation or nationalization risks on the MIGA survey –understood as a violation of property rights- its apparently lower importance on the 13 more common country and political risk analysis models, and the absence of land property rights in China, the largest FDI recipient of the world:

A recent NBER study tests the relationship between the rule of institutions (the role of property rights and the rule of law related to colonial mobility), geography (a determinant of climate, natural resources endowment, disease burden, transport costs and diffusion of knowledge and technology from more advanced areas) and international trade (as a driver of productivity change and integration) in Economic Development (Rodrick, Subramain & Trebbi, NBER Working Paper 9305, 2002). The conclusion of this research is that institutions, have by far a larger effect on explaining economic development. Once institutions are controlled for, integration present no direct effect on incomes, while geography has at best weak direct effects.

How can this be in light of the above presented evidence? The same authors propose three arguments that might help us latter: a) An instrumentation strategy should not be confused with building and testing theories. An instrument is something that simply has some desirable statistical properties. It need not be a large part of the causal history. b) The primacy of Institutional Quality does not imply policy ineffectiveness. Policies are regarded as a flow variable, in contrast to institutions, which is a stock variable. c) when 'investors' and 'other observers' are the indicators of institutional quality, while it is important to know that the legal system will protect their property rights, it remains unclear how the underlying evaluations and perceptions can be altered.

The last sentence should means that, even recognizing that property rights are important, a comparison between Russia's regime of private property rights with regards to China's socialist legal systems with absence of property rights, fails to explains the FDI's entrepreneurs different attitude and insecure/secure feelings in both environments.

Credibly signaling that property rights will be protected is apparently more important than enacting them into laws as a formal private property rights regime" (Rodrick, Subramain & Trebbi, 2002: 22).

Again, what does it means? Perhaps that Political Risk Models must be complemented with tacit perceptions: You might be safer than what your risk model can tell.

There are some final provoking consequences of 9/11 in political risk, but within developing countries: After 9/11 the United States of America expropriated many companies which were allegedly linked to Al-Qaeda, and Canada expropriated Bayer's

intellectual property rights over Cipro, a pharmaceutical drug considered very important for combating Antrax related diseases. In lieu of the extreme circumstances on which these decisions happened, no analyst would have ranked both nations as prone to expropriation, one of the most sensitive aspects of political risk. However, the fact is that these two countries expropriated, which means that political risk variables, even such as expropriation, are highly context dependant.

On the other hand, regarding political risk as the consequences of the US Government decision to invade Iraq on a pre-emptive way, generalized an anti-Americanism, quantified on a drop on the nation's favorability index (from 75% to 48% in UK, from 63% to 31% in France, from 61% to 68% in Russia and from 30% to 12% in Turkey) as per the Financial Times (March 27<sup>th</sup> 2003). This negative image lead to responses like the boycott of 27 US symbolic companies from American Express to Walt Disney promoted by [www.consumers-against-war.de](http://www.consumers-against-war.de) or US symbolic products like Coca Cola, McDonald's, Marlboro and KFC, therefore inducing those MNC not to make the amount of money they were planning to do. As an example of the symptoms of the anti-US consumer backlash, the Financial Times presents the appearance of a range of new soft drink brands catering to Muslims and others who no longer want to drink Coke or Pepsi, in February 2003: Mecca-Cola, Arab-Cola and Muslim-up appeared in France, and in UK Qibla-Cola was launched with plans to expand it overseas. One month later Mecca Cola was already being sold in 22 countries, mainly in Europe, and there were plans to launch a chain of fast-food restaurants in Europe and North Africa called Halal Fried Chicken, or HFC, to take the US-based KFC chain.

This is a clear example of political risk, but as a consequence of US Government decisions; not as a consequence of the business climate treats in other far countries. Let us analyze now another very treating business climate: internal armed conflicts.

### **3.7. Political Risk and Internal Armed Conflicts**

As explained before, one of the main concerns of FDI in Colombia is the political risk associated with it internal armed conflict. The Economist (03.07.2003) reports how “rebel attacks and kidnappings of foreign company employees remain major deterrents to foreign investment in Colombia. Other discouraging factors are the infrastructure – particularly its road network—and frequent changes to the tax code and other legislations”. Thus, it is obvious to review the theory of IAC to understand its implications for this research, taking care to limit this wide theory (military strategy, political sciences, history) for the purpose of this work. The different models of political risk for FDI differentiate between external armed conflicts and internal conflicts to forecast the possibilities of economic losses to business activities. Although 9/11 could be considered an external and asymmetrical conflict (a confrontation between organizations of different nationalities and different size) what is of interest here is the case of internal armed conflicts, since for obvious reasons it is the case of Colombia.

There are different definitions of IAC. We use the basic definition of the confrontation between organized groups that result on a considerable number of deaths, using the arbitrary measure of 1000 murders per year, standardized by the Poughshares Annual Conflicts Report Project (<http://www.ploughshares.ca>). United Nations includes on its



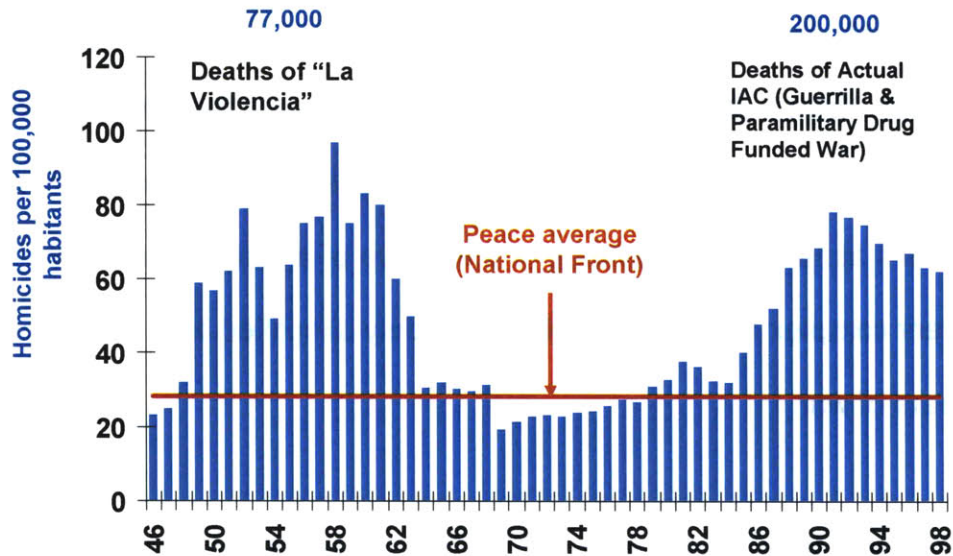
definition the significant detrimental of the authority, requiring the international intervention, and the International Peace Research Institute of Oslo (1999) considered the armed confrontations, long duration, forced migration, ethical dilemmas, high requirements of negotiation and political will and a peace process to classify an IAC (Echeverry, Salazar, Navas, 2001:2). Regarding the motivations, the Annual Conflict Report considers three motivations for IAC: a) the control of the state (as in Colombia); b) the formation of a state (as in Palestine); or the failure of a state (as in Yemen). Colombia is a very complex case of IAC, which is widely simplified as a country with more that 40 years of war.

There is indeed a path dependence on territorial disputes started in the first half of the 1800's when massive amounts of land were entitled to new owners as rewards for their support to the independence and later when unused land was expropriated -mainly to the church-- as an attempt to generate new Government revenues (Tirado, 1998:129, and Richani, 2002:15), generating on both occasions the displacement of the traditional farmers by the new landowners. However, there have been three different main republican violence periods. The first two, rooted on political confrontations for power between conservatives and liberals: the first episode starting in 1885 but with a zenith and end on the "thousand days war" (1889-1902), whose most important consequence was the loss of the Panama canal; the second one known as "the violence" period between 1946 and 1964, which peaked between 1948 and 1953 to end with the alternate power sharing agreement between both parties known as the "National Front", but leaving their rural political guerrillas spillover, and the drugs-guerrilla violence

starting in 1980, which persists today (Safford and Palacios, 2002, and Maullin, 1973).

Figure 9 presents the homicide rates of the two last periods.

Figure 9: Homicide rates of “La Violencia” and actual IAC (Echeverry, Salazar, Navas, 2001:12)

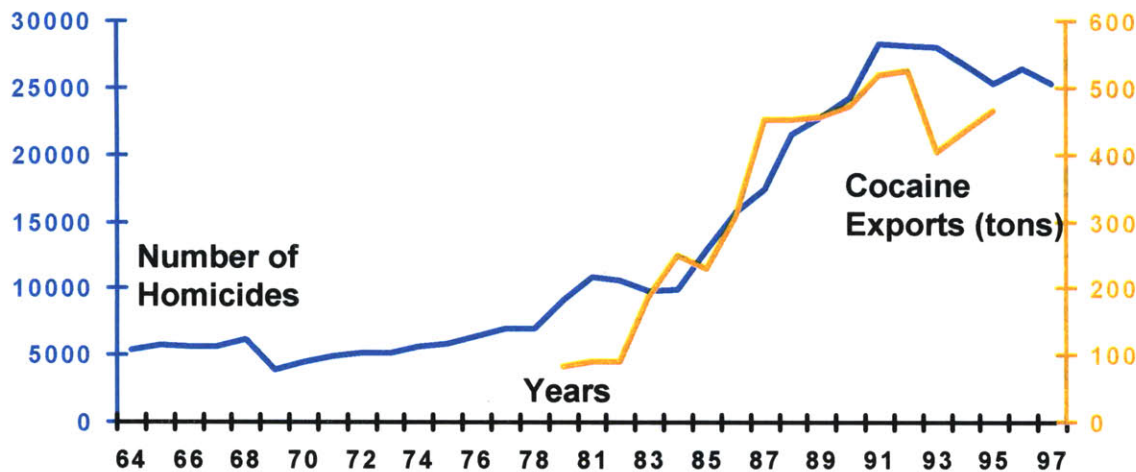


The “violence period” included brutal rural guerrilla tactics for political ends. After the National Front ceased the confrontation between the caudillos, these rural armed forces remained active in some pockets in the mountain areas of the Caldas, Cauca, Huila, Quindio, Tolima, Valle and Cundinamarca Departments, drifting into banditry, exercising squatter’s rights and the settling of vendettas and local empire buildings in the post-1958 period, under the tutelage and financial support of the Colombian Communist Party CCP (Maullin, 1973:14). In 1964 these groups formed the Southern Guerrilla Block, which became in 1996 the Armed Revolutionary Forces of Colombia FARC. These insurgents, together with the National Liberation Army ELN which was organized in 1963-1964 by students following the Cuban guerrilla tactics example in Sierra Maestra, claimed to be revolutionaries in pursuit of national goals, but remained on the same territories where they started as liberal and conservative political forces.

With the death of Jacobo Arenas in 1990, one of the FARC founding members and an ardent communist since the early 1950's who worked to hold the organization to political types of actions (ISacson, 2003:13), the FARC command was centralized in Manuel Marulanda, who leded the great expansion of the guerrilla, by changing the funding sources from assaults to the Rural Bank offices to the far more lucrative revenues of drug business. Initially they started to charge protection fees to the Medellin and Cali cartel cocaine crops that flourished in the 80's, but soon entered into the cocaine production, transformation and distribution cycle.

This tendency can be seen on the strong correlation between cocaine exports and number of homicides of Colombia shown in figure 10.

Figure 10. Correlation between homicides and cocaine exports (Echeverry, Salazar, Navas, 2001:12)

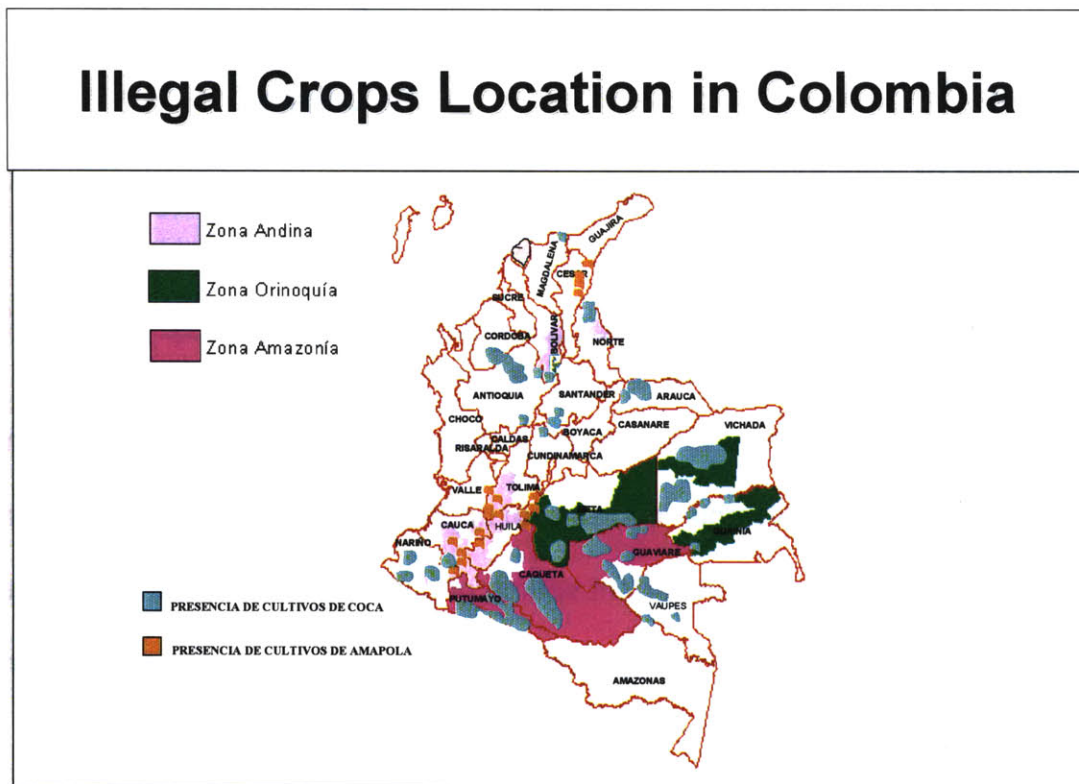


Thus, although the Guerrillas and Paramilitaries in Colombia are less than half of a one percent of the population of Colombia, it is easy to understand how these criminals are so arrogantly powerful, and a very important source of political risk. But since they are financially dependant on the illegal crop production, there are two practical implications for this research: a) the intensity of Colombia's IAC is heavily rooted on the

geographical location of illegal crops, and b) it is a dynamic process, since the illegal crop eradication should therefore lead to less powerful warlords.

Recalling the geographical characteristics of the Atlántico Department presented in chapter 3 (small flat extension with water barriers in 80% of its borders, shown in pink color in figure 11) it is easy to understand why this Department has no illegal crop presence, nor open IAC confrontations, since geography does not provide them the “sanctuaries” that they enjoy for their agglomerations around illegal crops which they indeed have in the Colombian mountains and in the remote spots away from urban centers shown in figure 11. Thus, by its geography, Atlántico has been a “conflict resistant region”.

Figure 11. Illegal Crop Location in Colombia (Cardenas, 2000: slide 31<sup>st</sup>)



This is confirmed by Cuellar (2000, II:656) who explains how the rent-seeking illegal armed groups have expanded mainly on the coffee and border colonization regions, well suited for illegal crop production, as well as on the mining regions.

This is not new. From the military perspective there is sufficient awareness of the importance of the terrain and its geographical accidents for combat strategies and tactics. More recently, a growing body of the IAC theory started to study the effect of geography over its sprawl patterns and conditions. As an example, Buhaug & Gleditsch (2003:2) elaborate over Collier's theory of "Economic Causes of Civil Conflicts and their Implications for Policy" (2000) to explain how the control of rural territories with natural resources subject to depredation is very important as a financial source for the conflict:

The territory may contain lootable resources that can finance arms and soldiers, and rough terrain that provides rebels with essential sanctuaries –factor that favor protracted guerrilla warfare. Further, the geographic distribution and ethnic composition of the population may affect the potential for rebel recruitment. Thus, to understand the underlying causes of territorial conflict we need to consider the nature of the territory. Some [studies] also controlled for the size of the conflict ridden country, anticipating that larger states have longer-lasting conflicts simply because the sheer dimensions of the country makes it difficult to exert military control in rural hinterlands.

Another interesting evidence comes from Fearson and Laitin (mimeo:25) that found mountainous terrain is significantly related to higher rates of civil war.

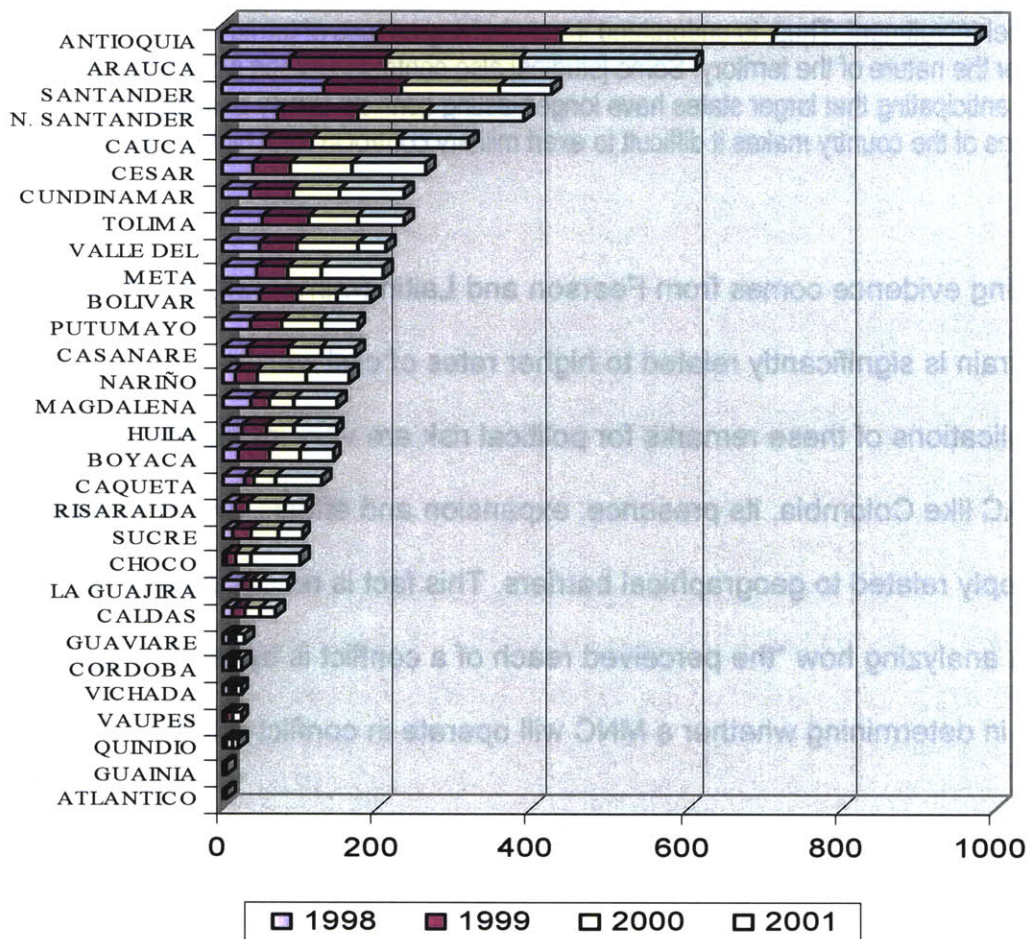
The general implications of these remarks for political risk are very important: in countries with IAC like Colombia, its presence, expansion and effects over business activities are deeply related to geographical barriers. This fact is recognized by Berman (a 2000:2) when analyzing how "the perceived reach of a conflict is by far the most important factor in determining whether a MNC will operate in conflict-affected country".

Analyzing the case of Algeria, he quotes how the South and Southwest located MNC's are separated from the north conflict affected zones by the Atlas Mountains and a "large forbidding and sparsely inhabited wilderness...[and thus, their] confidence comes from the dessert". He later explains the same rationale for Colombia when stating that:

Thus, it is less important to MNCs whether the geographic impact of the conflict is large (In Colombia, nearly 40% of the country is in rebel hands), but rather whether it is contained and stable...As it might be expected, corporations look not only the current geographic impact of the conflict, but also seek to project whether that impact will spread.

Thus, as shown in figure 12, the Atlantico Department has consistently had the lowest manifestation of Colombia's IAC and therefore: a) it should have a lower political risk than the other IAC prone regions, and b) a segmented Government industrialization policy should take advantage from this "relative immunity" to promote FDI.

Figure 12. Distribution of Colombia's IAC by Department (Courtesy of F. Santos, Vice-President of Colombia, 04.14.03)



Detailed information for twelve different classifications of violent acts by department in Colombia, between 1998 and 2002, is provided on annex A3. On all of them, the Atlantico Department shows the same “conflict immunity”.

The most recurrent violent acts in Colombia against private infrastructure are the bombing of pipelines and electricity towers on rural areas. Although these could be considered “micro-risks” or industry-specific risks, let us consider the potential effect of economic losses due to electricity blackouts or natural gas shortages for any industry located in Colombia. Then again, a specific city-region analysis would show how Barranquilla is a net exporter of electricity to the Colombian grid, with more than 1200 Mw of generation capacity installed on the city for peak consumption below 500 Mw in 2000. In the case of natural gas, the city counts with the redundant supply of two different pipelines that comes from the Guajira basins. In terms of water, the city also counts with an idle fresh water supply capacity of 30% for the same period of time. Thus, from a city-region perspective, Barranquilla should have a lower political risk.<sup>19</sup>

Berman, which is a consultant on business internationalization and operations in “politically sensitive environments, including armed conflicts” (<http://pelc.net>) explains on a document over MNC strategy in conflict zones (Berman b, 2000:2) how their response differs according to the kind of conflict: a) territorial disputes (in which effective control over the region is in hands of the opposition) are definitely avoided by MNC; b) incursional conflicts (where the Government remains in control but the opposition

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<sup>19</sup> For a detailed terrorism risk protocol for Cross-Border Due Diligence evaluations see the Appendix presented by Rosenbloom (2002: 323).

engages in frequent armed incursions and withdrawals like Colombia) is tolerated by MNC committed to the region by natural resources or infrastructure investments; and amazingly, in terrorist conflict (in which the government's control is firm, but the opposition can engage in isolated incidents of violence) he argues that

though few MNC managers would admit as much, terrorist conflict is a widely tolerated risk. This can be seen in Belfast and Tel Aviv, as well as in Colombo and Bogota (Berman b, 2000:3).

For all cases, when possible, MNC will seek to structure their projects with cash flows as front loaded as possible, with payments remaining off-shore, and with the participation of multilateral institutions –even in a peripheral manner-- is considered as very important to reduce the risks of a project. (Berman b, 2000:6).

As a preliminary conclusion of this chapter, political risk attributes vary across sub-national regions, especially in the case of countries with internal armed conflicts. Therefore, a sub-national political risk assessment or at least a standard deviation indicator is not only feasible but desirable.

It would also very interesting to analyze the self-reinforcing relationship between IAC and social Capital. There is a large body of literature that relates urban social capital with urban violence, but it was not possible to do a cross analysis for Colombia by department. This is a very interesting subject for further research, which can help to clarify the relationship between city regions and IAC in Colombia.

Let us now review the case study of the Colombian Metallurgical Coke and Power Plant COLMECO, from an International Project Finance perspective.



## **4. The Colombian Metallurgical Coke and Power Plant Project COLMECO**

### **4.1. Definition of the Project**

The project profiled by SRI consisted on the construction and operation of 1 million metric tons per year (mty) high quality metallurgical coke plant in Barranquilla for the US, Brazilian and Mexican blast furnace oven steel markets. Recent estimates indicate that in 2005 the US will import 5.5 mty of metallurgical coke for its blast furnace, of which at least 2/3 will come from China,<sup>20</sup> while Brazil should import a little over 2.0 mty. In the case of the US, many metallurgical coke plants have been forced to close since 1998, due to the environmental restrictions of the Clean Air Act, therefore increasing the US metallurgical coke imports. China is by far its major metallurgical coke supplier, representing more than 80% of total imports. Due to this strong monopolistic concentration, a new plant in Barranquilla was considered strategically important by the steel industry to balance its dependence on China as presented on box 1

The Coke Plant in Barranquilla would use Colombian coal blends, primarily from the coking coals from the Cundinamarca, Boyacá and Norte de Santander basins, and marginally from the thermal coals from the Cesar basin (shown in figure 5). According to MINERCOL, the Colombian State Coal Entity, the Cundinamarca, Boyacá and Norte de Santander metallurgical coal basins had 420 and 560 million tons of proven and indicated reserves respectively, of very good quality for metallurgical coke making<sup>21</sup>.

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<sup>20</sup> Source: "The global coke conundrum". Page 9 of presentation by P. Marcus on the 2002 "Coke at the crossroads 2002" Conference, ST. Louis, Missouri, Oct. 3, 2002. Courtesy of K.R.Polenske.

<sup>21</sup> Low ash (1.3-6.0%), moisture (1.3-7.0), sulfur (0.3-1.2%) and good range of volatiles (20-38%).

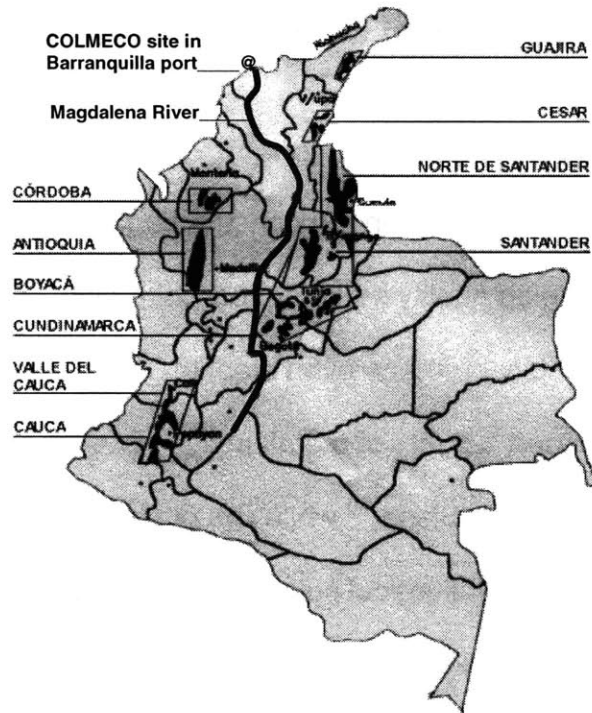


Figure 13. Colombia Coal Basins ([http://www.upme.gov.co/guia\\_ambiental/carbon/areas/zonas/indice.htm](http://www.upme.gov.co/guia_ambiental/carbon/areas/zonas/indice.htm), accessed 04.16.03)

**Figure 14. Selected Comments of the Steel Industry for the COLMECO project**

**1. Multinational Corporations:**

**1.1. US Steel Manufacturers:**

"As we discussed yesterday, Inland Steel does have an interest in potential exports of metallurgical coke from Colombia".  
Michael Tarkiff, Manager Raw Materials Strategy Inland Steel, letter to Eugene Thiers, SRI, 04/11/1996

**1.2. Brazilian Steel Manufacturers:**

"It is indeed an interesting project to solve the Brazilian Metallurgical Coke Deficit".  
Belgo Mineira Supply Manager concept to Alberto Blanco, Brazilian road show 25/03/01

**1.3. European Steel Manufacturers:**

"...for this case Colombia would be an interesting location, specially with regard to its enormous coking coal reserves and the strategic location of the major port Barranquilla".

Frank Reddeman, Thyssen-Krupp, letter to Alberto Blanco, 1998

"First of all, I want to express my congratulations for your excellent paper about the Barranquilla Coke Plant Project during the Coke Outlook 2000 Conference in Chicago. I was very pleased to hear that there will hopefully soon be another merchant coke producer and supplier to the future world coke trade beside the Chinese... We are convinced that your project in Barranquilla is a very interesting, to the future oriented coke oven"

Gert Veit, Koch, letter to Alberto Blanco 27/10/00

**1.4. Japanese Steel Manufacturers:**

"...therefore, if there is an economic feasibility to this project in reference, we would have interest on participating as investors, technology suppliers and final products off takers"

Tokuro Furukawa, Mitsubishi, letter to Alberto Blanco, 4/09/ 2000

**2. Multilateral Corporations:**

"Supporting the development of a financially sound and environmentally conscious private sector is one of the World Bank Group's key objectives. Colombia has a long tradition of dynamic private sector activities and, as I discussed with President Pastrana during his recent visit to Washington, I firmly believe that the International Finance Corporation could play an important role in renewing private investment in your country...We would be pleased to have the opportunity to assess the financing needs of the Barranquilla Metallurgical Coke Plant. ...I personally wish the company success in its endeavor"

James D. Wolfensohn, President to the World Bank Group, letter to Gustavo Bell, Vicepresident of Colombia, 08/12/99

SRIC's initial project profile was based on a conventional by products recovery coke plant of 1 mty, with an investment estimated in USD 350 million that were expected to be done with the participation of US steel producers. However, this industry had in 1998 a very low investment capacity, which made their participation in the Colombian project improbable. Therefore, ProBarranquilla widened its focus to other related potential investors, including coke traders and coke plant technological providers from US, Europe, Japan and Brazil.

Parallel to their approach, ProBarranquilla focused on achieving the early involvement of multinational corporations. This early multilateral involvement was deemed an important leverage for the participation of private investors, especially to overcome the bad environment that the country had between 1996 and 1998, due to is “decertification” by the US. The effects of the decertification process will be described later on the political risk sub chapter, but as an introduction, its practical implication were that OPIC ceased its political risk guarantees for US investment in Colombia, besides the very bad reputation given to the country as a very unstable investment option. With the backing of the Colombian Vice President, ProBarranquilla received a strong institutional support signal of the President of the World Bank in late 1999, which made the promotional effort in front of private investors viable.

This allowed focusing its promotion to three companies, one from Japan, another one from Germany and a final one from US, which were invited to a meeting in May 17<sup>th</sup> 2000 in the World Bank headquarters, in order to concrete who would be the strategic

partner for the initiative. As a result, in August 14<sup>th</sup> 2000, ProBarranquilla Executive Director signed a LOI with Enron Engineering and Consultant EE&C, a subsidiary of Enron, for the development of the “Feasibility Study Review” in exchange for EE&C’s “first refusal right” to be the Engineering, Procurement and Contracting EPC of the project, as well as for the right to be the 100% off-taker of the coke produced.

For this project, EE&C representative reported a pre-investment of US 1.9 million: US 400.000 in the “feasibility review study” and US \$ 1.5 million on securing EE&C’s rights over the Kembla-Sessa non-recovery technology for Colombia. EE&C also budget an EPC contract for US \$ 250.000, which was finally not executed.

The feasibility review done by EE&C in 2000 selected a non-recovery type plant with a gross estimated investment of USD 335 millions for a plant capacity of 1.25 million mty of metallurgical coke and 100 MW of electricity. The financial results of the study resulted to be very attractive, with a base internal return rate IRR of 27% for the metallurgical coke plant and 40% for the electricity plant, as it can be seen in table 8.

Table 11. Summary of Project Results

<b>Project Summary</b>					
	<b>Values (US\$)</b>				
<b>Selling Price per Ton-Met Coke.Avg</b>	<b>\$104.71</b>				
<b>Selling Price per kWhr. Avg</b>	<b>\$0.0297</b>				
<b>Project Cost</b>		<b>Project Debt Structure</b>			
<b>EPC</b>			<b>%</b>	<b>\$</b>	
<b>Coke Plant</b>	<b>\$194,477,118</b>	<b>Equity</b>	<b>30%</b>	<b>\$100,445,848</b>	
<b>Power Plant</b>	<b>\$71,929,893</b>	<b>Debt</b>	<b>70%</b>	<b>\$234,373,645</b>	
<b>Soft Costs</b>	<b>\$11,721,908</b>			<b>\$334,819,493</b>	
<b>IDC</b>	<b>\$56,690,574</b>				
<b>Total</b>	<b>\$334,819,493</b>				
<b>Development Budget (ex. Soft costs)</b>	<b>\$2,044,594</b>	<b>Generation Cost per kWhr</b>			
<b>Development Period-Months</b>	<b>\$12.00</b>				
<b>Met Coke Cost per Ton</b>		<b>kWhr Cost</b>			
<b>O&amp;M</b>	<b>\$6.10</b>	<b>O&amp;M</b>	<b>\$0.0043</b>		
<b>Financial</b>	<b>\$24.65</b>	<b>Financial</b>	<b>\$0.0120</b>		
<b>Coal</b>	<b>\$34.30</b>				
<b>Total</b>	<b>\$65.05</b>	<b>Total</b>	<b>\$0.0163</b>		
<b>Project</b>		<b>Equity</b>			
<b>Cost of Debt</b>	<b>11.00%</b>	<b>Expected Return</b>		<b>22.00%</b>	
<b>NPV</b>	<b>\$56,302</b>	<b>NPV</b>		<b>\$94,227</b>	
<b>IRR</b>	<b>26.59%</b>	<b>IRR</b>		<b>40.21%</b>	
<b>Payback-Years</b>	<b>10</b>				
<b>Debt Service Coverage.Avg.</b>	<b>2.16</b>				

Source: Enron Feasibility Study Report Power Point presentation to COLMECO's sponsors, Barranquilla, 01.19.00

Based on these results, the most important Colombian companies that were supporting ProBarranquilla, signed on January 19<sup>th</sup> 2001 a LOI expressing their intention to conform a special purpose company that would carry on the project: ACESCO, a flat steel company, who later co-lead a US 1 billion DRI steel mill project in Colombia with CVRD of Brazil; Siderurgica del Norte, an Iron, Aluminum and Copper wire producer; Promigás, the largest natural gas pipeline operator of Colombia, 40% owned by Enron; Monómeros, the largest Andean fertilizer factory; Carbones del Caribe Colombia's largest national coal producer; Termoflores, an electricity generator; Transportes Sanchez Polo the largest Andean Region logistic operator; Naviera Fluvial Colombiana, Colombia's oldest barge operator; Zona Franca de Barranquilla, the city free zone

operator; Cofinorte, a Barranquilla based financing institution, and ProBarranquilla.

Besides this milestone, a more transcendental lesson was achieved: the project bonds risk rating could be lower than the risk of Colombia as a country, and Barranquilla was a safer location than the other sites considered: understanding why led to this thesis.

#### **4.2. COLMECO Risk Profile: Investment Risks from an International Project Finance Perspective**

As explained before, due to Colombia's indiscriminate high political risk international perception, ProBarranquilla sought and leveraged on the World Bank's expression of interest and vital support to be able to engage contractually with one of the MNC that previously had expressed interest on the project. This led to the contractual LOI involvement with EE&C as the project's "champion" on a "first refusal right" basis, which allowed to advance from the initial profile stage to the "feasibility review study" stage.

The very important "catalyst" role of the World Bank Group on FDI projects located in emerging markets is explained by Scott Hoffman, the author of one the best handbook for due diligences: "The law and business of international project finance". He explains how the "World Bank involvement in a project can be extremely important, even though the financial commitment is small. The World Bank has a particular power and influence in the business sectors of emerging countries. In addition to providing loans and guarantees for projects in member countries, the World Bank also affects the availability of funds from other, non-World Bank affiliated sources". (Hoffman 1998:469).

In the particular case of COLMECO, the project counted with the early support of fine local private potential investors, as the ones detailed on the previous page. It also had the explicit commitment of the National Government, who included it as a “strategic private initiative” on Chapter 6 “Key Investment Projects” of President Pastrana’s National Development Plan for 1998-2002. However, far before the “institutional” effect described by Hoffman, and before presenting the project risk profile, I take this opportunity to introduce my conclusion, based on the recurrent private talks with the representatives of the different MNC contacted between 1998 and 2000, that the interest expression of the World Bank had a more important first perception effect on the individual beliefs and decisions of these executives, in terms of serving them as a “backing”, almost “an excuse” to change their “conservative” expressions of interest into an aggressive promotion of the project as “their initiatives” within their organizations. This change of attitude was vital since, after all, if they didn’t assumed the project profile as their own challenge, there was no step towards the project’s feasibility study stage.

This individual perception mechanism can be inferred from Hoffman’s specific quote of the “comfort” provided by IFC: “The International Finance Corporation (IFC), the private sector lending institution of The World Bank, provides loans for projects on a non-concessionary basis. Involvement by the IFC *provides comfort* to lenders that the host government will not fail to support the project *and this view* attracts commercial lenders to IFC transactions” (Hoffman, 1998:123 ea). This was exactly the statement by the EE&C liaison during the project on an e-mail dated 11.01.00, sent to the World Bank staff related to the project, prior to an advancement evaluation meeting: “It is our belief

that in order for this project to move forward, it is critical to secure the support of World Bank, Miga and IFC, since the sensitivity of Colombia is creating concerns to private lenders". In other words, once EE&C had the opportunity to conclude that the project was worth to be undertaken, based on its risk profile, it was facing the same perception restriction ProBarranquilla faced before signing the LOI with EE&C.

I will explain with details how the behavioral mechanisms affect the perceptions of risks, but Hoffman's quote of "comfort" provided an appealing opportunity to introduce it now. Let us now reassuming the "feasibility review" risk profile, to understand why I concluded that political risk is very sensitive to geographic and behavioral economics.

Country-risk is defined as "a potentially adverse impact of a country's environment on the **cash flow** generated by a FDI project" (Mossa, 2002, 131 ea). Another definition presented in the introduction chapter is political risk, as the possibility that political decisions or political or social events in a country will affect the business climate in such a way that investors will loose money or not make as much money as they expected when the investment was made (Howell, 2001 a: 4). These definitions are "useful" when evaluating counties as the unit of analysis, *using theories of country and political risk*. However, when a specific investment is the unit of analysis, as in the COLMECO risk profile, as it is done in the *international project finance theory*, the validity of political and country-risks as the unique restriction factor for FDI decisions gets skewed.

Let us first start with the definition of Project Finance as a "nonrecourse" or limited recourse financing structure in which debt, equity, and credit enhancement are combined for the construction and operation, or the refinancing of a particular facility in



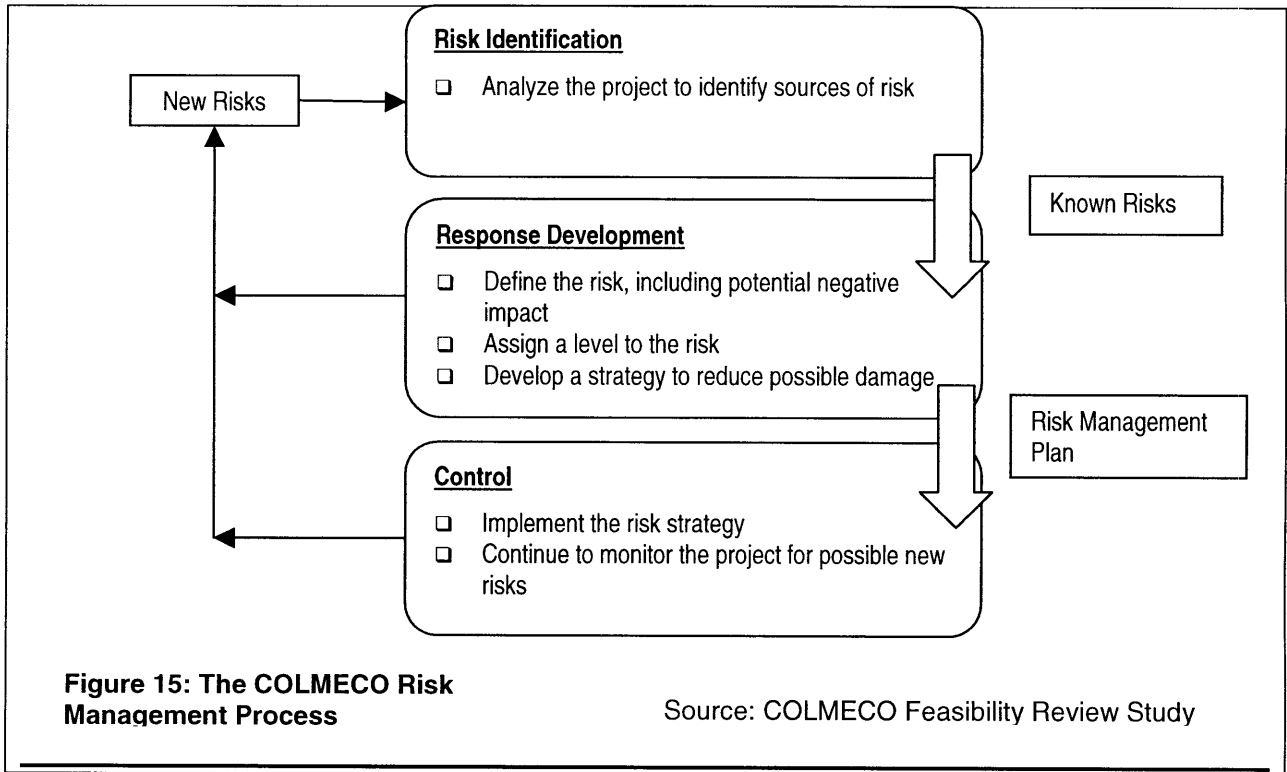
capital-intensive industry, in which lenders base credit appraisals on the projected revenues from the operation of the facility, rather than the general assets or the credit of the sponsor of the facility, and rely on the assets of the facility, including any revenue-producing contracts and other cash flows generated by the facility, as collateral for the debt” (Hoffman, 1998:4). The core element of an international project finance structure is a project feasibility study, done by the interested parties, where the definition of the specific project risks is the most important part. As explained by Brealey, Cooper and Habib, “The allocation of risk is one of the most important aspects of the management of LEPs [large engineering projects, those with investments over US 1 billion]. Indeed, it is viewed by investment bankers and lawyers involved in project financing as *the* central consideration in securing financing” (on Miller and Lessard, eds., 2001:165).

Table 12 shows the content of COLMECO’s “Feasibility review study” report summary:

<b>OVERVIEW</b>	<b>3. THE TECHNOLOGY ( Sesa Kembla)</b>	<b>7. ENVIRONMENTAL</b>
<b>1. THE PROJECT</b>	Process Description	<b>8. THE PROJECT COMPANY</b>
Location	Oven Operation	<b>9. SECURITY</b>
Coal Sources	Coke Quality	<b>10. RISK ISSUES</b>
Colombia	<b>4. MARKETS</b>	<b>11. PROJECT FINANCING</b>
Offshore	Met Coke	Main Items Budgetary Cost
Power In Colombia	Ocean Shipping	<b>12. FINANCIAL OUTLOOK</b>
<b>2. INFRASTRUCTURE OPTIMIZATION</b>	Power	<b>13. CONSOLIDATED SCHEDULE</b>
Road	<b>5. DEVELOPMENT</b>	
River	Developer	
Rail	EPC	
	<b>6. PERMITS</b>	

Source: COLMECO Feasibility Study Review

The projects “risk matrix that was presented as an annex to the report, started with the risk management process diagram shown in figure 15:



The risk management process is an iterative process where all the different possible risks to the project’s cash flow are identified, defined, analyzed, prioritized and mitigation strategies developed, until the project’s control risk strategy covers all the possible risks. In other words, the goal of the risk management process is not to have any single risk source unidentified, or outside the control of the risk management plan. Thus, by nature is an incremental and iterative process.

Figure 16 in next page classifies the different main risk impacts and its logical sequence or relationship to the project’s cash flow. Then, for each of the relevant categories variables a probability distribution function is defined, and a Monte-Carlo simulation technique is applied, running between 200 to 500 different scenario simulations, until the project’s cumulative probability curve of possible results is defined<sup>22</sup>.

<sup>22</sup> For further details see S. Savvide’s (1994) “Risk Analysis in Investment Appraisal”.

Figure 16. Project Risk Impact on COLMECO's Cash Flow

<b>Cash Flow Calculation</b>	<b>Main Risk Impact</b>
Volume Produced	Supply, force majeure, technical
Prices received	Market, Infrastructure
<hr/>	
<b>= Gross Proceeds</b>	
<i>Less:</i>	
Royalties, Fees	Political
Operating Costs	Cost, Management, Environmental, Engineering
Inert Expense	Funding, Syndication
Depreciation, Amortization	Completion
Overhead	Sponsor, Participant
Taxes	Political, Legal
<hr/>	
<b>=Net Profit After Taxes</b>	
+ Depreciation, Amortization	Completion
<i>Less:</i>	
Capital Expenditures	Engineering
Loan Repayment	Debt/Equity Ratio. Funding, foreign exchange, completion
<hr/>	
<b>=Net Project Cash Flow</b>	

Source: COLMECO's Feasibility Study Review Risk Analysis

Then, based on the project's risk sensibility analysis, for each risk category a risk "absorber" is defined, and a risk mitigating action contingency defined, as presented in Figure 17. It is evident here the implications of the "non-recourse" nature of international project finance defined before, as well as the most powerful justification of my statistical and observation bias hypothesis of political risk if observed only at the national level:

From the different 15 risks defined in figure 17 for this US 335 million investment, 13 or 88% are absorbed by the financier. Thus, the financier risk analysis of the project's cash flow is the core element of the project. Only when the bankers feel satisfied with the project's risk profile, the initiative can be regarded as "bankable"; in other clearer words means feasible. Otherwise, in practical sense, it would be only an idea.

Figure 17. COLMECO project Risk Absorption

<b>Risk Category</b>	<b>Absorbed by:</b>	<b>If Risk By:</b>
Supply	Financier	Supply warranty, alternative supply
Operating:		
Technical	Financier	Sponsor
Cost	Financier	Sponsor
Management	Financier	Contract
Infrastructure	Financier, consumer	Consumer
Environmental	Financier	Sponsor
Market	Financier, Sales Offtake Contract	Buy-Back
Political	Financier	Insurer, government
Force Majeure	Financier	Sponsor Hedging
Funding	Financier	Swaps, Hedging
Participant	Financier	JVA, Contracts
Engineering	Financier	Insurers
Completion	Sponsor	EPC Contractor
Syndication	Sponsor (best efforts)	Financier (Underwritten)
Legal	Financier	Insurers <sup>23</sup>

Source; COLMECO's Feasibility Study Review Risk Analysis.

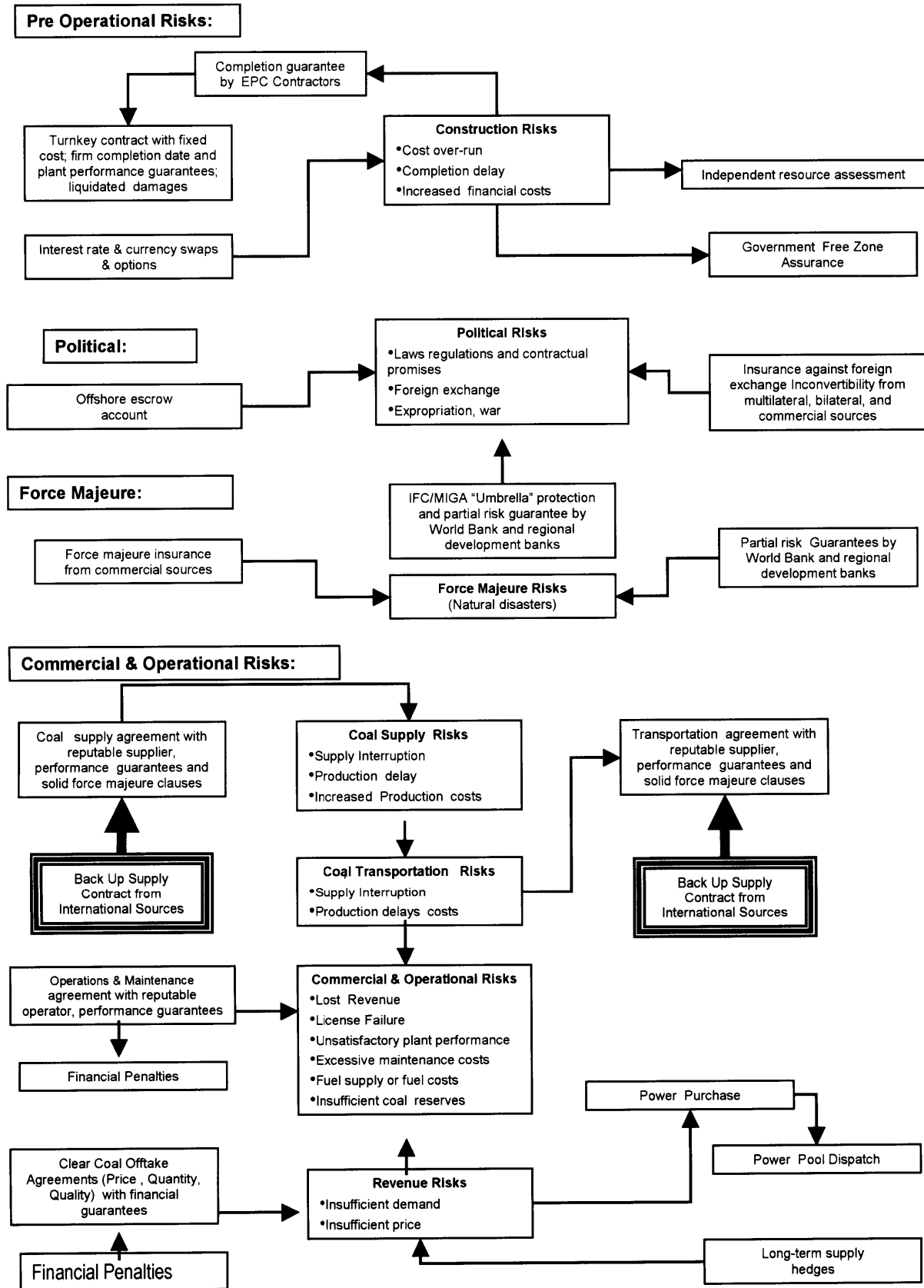
EE&C considered that the two different revenues sources of the project, the international metallurgical coke sales and the national electricity sales, would result on a lower risk, due to its long-term structure:

The full understanding of who takes what risk and general rules applied to projects can result in a remarkably good project, producing solid participation, finance, construction and operation agreements with sophisticated structures achieving both the participants, lenders and project objectives to bankable levels. The COLMECO project, with a dual perspective (power and met coke) is at heart a tolling facility, where coal is converted to coke and to power. **Key components will be coal supply, plant operation, coke sales and power sales.** Proper project finance will require a tenor in the order of 15 plus years, market risk should be covered with dual off-take agreements (power and met coke) (both of them including a firm off-take to cover capital debt, return on equity and taxes and passing through other charges to variable components) Equipment will account for over 70% of the total funding. Usual Turn-key contracts contain LD's benchmarks in the order of 15-25 % (delay and sustained underperformance) and delays in start up (DIS) insurance can be 10-20%. Conventional financing can achieve 80% debt. Due to the dual revenue nature and dual offtake risk of the project (coke-international long term contractor and power-domestic long term or pool sales), the intention is to maximize debt in excess of 80%. Colmeco Feasibility Review Study, Risk Profile Report:4)

The final graphical representation of the project's risk profile is presented in figure 18:

<sup>23</sup> For a very interesting analysis of the legal risks in international project finance see Esty's "Legal Risk as a Determinant of Syndicate Structure in the Project Finance Loan Market" (2001).

Figure 18. Graphical Representation of Risks Profile (Source: Colmecco Feasibility Review Study)



As stated in the previous quote and highlighted in the commercial and operational risk flow chart, the supply of coal was the main source of revenue risks for the project, for obvious reasons. If there is no coal supply guarantee, there is no project.

Enron considered the possibility of locating the plant directly over the “hinterland” metallurgical coal basins, 700 km away from the sea ports (as it is in the Shanxi Province in China), to benefit from lower transportation volumes and costs; but the alternative was discharged rapidly, and finally only the Barranquilla site was considered a viable option due to its unique logistics and reliability river/sea port site function at the Magdalena River mouth, for several reasons:

- Being located at a maritime port, it would have direct access to international back-up metallurgical coal supply, which could also be “maquilated” in Barranquilla. This alternative, which does not makes sense from the engineering and developmental point of view, was on the contrary absolutely indispensable to the “bankability” of the project, given the explained “non-recourse” nature of the international project finance structure. *Obviously bankers do not care about development. They do about recovering their capital investments and profits. And without their resources, there was no project. Therefore, Barranquilla was the only practical feasible site, due to its international coal supply contingency.*
- Although Colombia has abundant excellent quality metallurgical coke, it is managed by small atomized miners with no economic nor administrative capabilities to support the “supply-or-pay” guarantee based contract structure indispensable for the financial closing. It was estimated that at least two to three

years were needed to develop such a supply structure, growing the suppliers into consortiums around the largest capacity mining companies. Thus, the project would start with international metallurgical coal supply guarantees from Enron -- although the plant building process would take the same two to three years.

- Producing the coke directly at a port facility would ensure its maximum mechanical resistance quality, since this location is the only one with optimal minimal handling for merchant vendors<sup>24</sup>. The value of the coke “not lost” and the expectative of a quality premium –not accounted in the financial calculations-- balanced the higher inland transportation costs from the mines to Barranquilla.
- The same barges and towboats convoys that brought the coals to the plant from the interior basins could also transport compensation cargo on the reverse direction, imported through the Caribbean Sea ports but consumed on the “hinterland” urban agglomerations. Thus, it would allow the competitive development of a multimodal transportation system, which has its hemispheric mirror image on the Mississippi transportation system, given the proportions.
- From the developmental point of view, recalling Hirschman, for ProBarranquilla was more important the re-development of massive cargo multimodal transportation between the interior and the Caribbean Coast through the Magdalena River that the coal volumes would generate, as well as easing the possibilities of a further mini blast furnace oven cluster integration, than the evident higher costs of transportation. Thus, ProBarranquilla lobbied heavily until achieving the Government acceptance to grant a Free-Zone status to the project,

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<sup>24</sup> Raytheon Engineering & Construction Company wrote me on a letter early 1999 that the degradation with each handling of coke could be up to 2.5%.

as well as investing on the infrastructure needed (Carare transversal road and coal washing centers). Recalling the political economy and “subjective” nature of political risk, this was a strong investment incentive for the potential investors.

In other words, a project’s supply chain can have higher or lower cash flow risk profile according to its site selection, as recognized by operational due diligences or international project finance theories, despite of being undetectable by political risk assessments based on countries as the unit of analysis.

Unfortunately, shortly later, in January 31<sup>st</sup> 2001 Enron announced ProBarranquilla its withdraw as the leading party of the project, alleging that under a recent corporate strategy restructuring, the corporation was not going to build and operate new assets, but rather focus on its role as a worldwide trader. As a conclusion, and after a long legal clearance analysis of the ties signed under the LOI, one of the Colombian companies decided to take the leading role of the project, but on a smaller scale.

Anyway, the experience served useful for various purposes:

- It validated the concepts of “Atlantico 21<sup>st</sup> Century”, regarding the development of industrial projects that aggregate the highest value to a local commodity, such as metallurgical coal: table 13 shows how a coal blend with an estimated cost of US 36 per ton, could be transformed to be sold as coke in US 104 per ton.
- The project had strong backward linkages, supporting the feasible development of a larger river transportation system between the interior and the coast. It would



also reactivate the mining activity, creating employment and aggregated demand on a depressed zone prone to internal armed conflict manifestations.

- It had also a strong forward linkage, since once a metallurgical coke plant was operating, the eventual establishment of an adjacent mini-blast furnace oven that could use Brazilian iron ore as a raw material, was more viable.
- The initiative involved the deployment of a new technology and FDI, based on an initial financially sound project profile.
- The process was for ProBarranquilla an intense experience, exposing the institution to a multinational and multilateral investment promotion environment. As a “spillover”, ProBarranquilla signed a Memorandum on Understanding MOU on cooperation for FDI promotion with the Multilateral Investment Guarantees Agency of the World Bank Group, oriented to have a closer relationship and support for additional FDI projects in Colombia, as well as for Colombian investments overseas, using political risk guarantees issued by MIGA<sup>25</sup>.

It must be said that the special purpose company stage was achieved with difficulty. Although as shown on figure 13, the project was strategically important for the industry and also very attractive financially, as shown in table 11, there were two main different political risk obstacles for the initiative: Colombia’s indiscriminate risk perception. First, between 1996 and 1998 due to the effect of Colombia’s decertification, mitigated with the early multilateral involvement, and second, due to the effects of Colombia’s internal armed conflict over the project risk profile, as it will be presented now:

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<sup>25</sup> For further details see: <http://www.miga.org/screens/partnerships/partnerships.htm>

#### **4.3. Political Risk drivers in Colombia: between decertification and guerrilla**

During its work as a consultant between 1995 and 1997, SRI contacted the major US coke purchaser. Only Inland Steel responded with signs of interests, as shown in the first comment of figure 13. The reason for this lack of interest was first the low investment capacity of the industry, and allegedly, the negative business circumstances of Colombia's decertification by the United States government.

In March 1996 US President Clinton decertified Colombia for "not fully cooperating on [US] counternarcotics efforts". This decision that placed the country in the same spot shared by Afghanistan, Burma, Iran, Nigeria, and Syria, was triggered by the scandal of allegedly Cali drug cartel contribution to President Samper's campaign in 1994. This event changes the century tradition of good relationships between Colombia and the US, with the exception of 1903 when the US encouraged the secession of the province of Panama. It was aimed to pressure President Samper, who according to the Economist "suffered the indignity of being refused a visa to enter the US" (EUI Country profile 10.01.02), on a highly publicized international event. As presented by the Economist Intelligence Unit country profile report (01.31.97), "Colombia's relations with the USA have become dominated by the drug issue... The Clinton administration insists that improved relations depend on more wholehearted Colombian cooperation with the US anti-drug effort, and Washington is unlikely to be convinced of Bogota's commitment *as long as Mr. Samper remains in office*". The next version of the same report (09.18.1998) notes that "according to US intelligence reports, Colombia has become a

more important security problem for the western hemisphere than Cuba because guerrilla groups have become increasingly involved in drug trafficking and illegal crops”.

The immediate effects over the investment climate of these political decisions was the cut-off of investment guarantees for US business through the Overseas Private Investment Corporation OPIC, and trade financing for US business through the EXIM Bank. The decertification also required US representatives at international financial institutions (World Bank, Inter American Development Bank) to vote against funding for Colombia (CSR Report, 1998: 5). As a result, EXIM Bank cancelled loans of US 1.5 billion for US suppliers in Colombia, generating a very strong uncertainty and insecurity or companies interested in doing business in Colombia (ITA environmental export market plan for Colombia: 5), with obvious detrimental effect on investors confidence. Colombia was decertified again in 1997, but received a national interest “waiver” in 1998, President Samper’s term last year, qualifying once again for OPIC coverage. The US Department of Commerce 1999 Investment Climate Statement reported that “several recent large projects guaranteed by OPIC included a thermoelectric plant in Barranquilla, two transportation equipment projects, and a natural gas pipeline”, but these were initiatives *approved prior to the March 1996 suspension*<sup>26</sup>.

With President Pastrana new government starting in August 1998, the Colombia-US relationships experienced a radical 180 degree positive change, as indicated by President Pastrana’s two visits to President Clinton before the end of 1998. In fact, the US started to mediate to secure fresh support from multilateral institutions to Colombia,

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<sup>26</sup> <http://www.tradeport.org/ts/countries/colombia/climate>.

which served to boost investor's confidence. However, from the perspective of the COLMECO experience, the image of Colombia as an investment option was profoundly damaged by the massive negative press coverage and branding that the decertification brought throughout the US, especially between the financial sectors<sup>27</sup>.

This is why ProBarranquilla aimed the early multilateral involvement as leverage for attracting private potential investors to the initiative, including Europe, Japan and Brazil on its focus, to overcome the political risk real and perception effects of the decertification, *which were undoubtedly structural and common to the entire country.*

Later, starting in 1999, a second different source of structural negative image was installed. On a strategy to raise the co-responsibility awareness that drug trafficking is a cancer without nationality, where the unrestricted illegal consumption of advanced countries like the US, is logically as criminal as the illegal production supplied by the insurgency of Colombia, President Pastrana launched a massive international campaign presenting the role of Colombia as a victim of the drug trade, rather than as its villain. A strong element of this campaign was the promotion of the crude worst realities of the country's internal armed conflict, as the local manifestation of the drugs business cycle.

This new official "conflict image amplifier" mechanism, together with raising international concerns following the presidential concession of control to the FARC guerrilla of a demilitarized zone DMZ the size of Switzerland for the peace talks, changed the political

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<sup>27</sup> This extremely negative print was the "successful" consequence of the explicit "branding" goal of the US decertification, explained by Nicholas Burn on the US Department Of State daily briefing on 03.18.97: "That has implications for not only the pride of the Colombians but also for the reputation in international circles - even in international financial circles" <http://www.hri.org/docs/statedep/97-03-18.std.html>

risk from one based in the were the elements driving Colombia's main headlines and country intelligence reports. The Economist in 1999 wrote that "relations have improved significantly since Andres Pastrana was elected president...Support for Mr. Pastrana's peace policy suggests that the US have accepted that the fight against drug-trafficking is closely related to finding a definitive solution to the war against the guerrillas, who have become heavily involved in the drugs trade" (EIU country profile 05.28.99).

It is a fact that Colombia's Internal Armed Conflict is a serious reality that dominates the international community attention over the country, including that of Colombian themselves, due to its pervasive effect throughout the whole country. As an indicator, an analysis of all the country profile (from 31 Jan. 1997 to 01 Oct. 2002) and country report (from 15 Feb. 1996 to 01 Apr. 2003) of the Economist Intelligence Unit about Colombia available at the MIT libraries data base, shows the concerns regarding the

However, as it will be proofed on the proper internal armed conflict sub-chapter, its effects and manifestations patterns have been very different across departments, on a very consistent way since 1986.

From a generic FDI project perspective, these three attributes differ on their explanatory power to the future expected returns on a given country. There are some with a strong explanatory power on the return over investments in emerging markets, and others with a rather low one. From example, Erb, Campbell and Viskanta found on their seminal work in 1995 that on average, about 40% of the volatilities of emerging equity markets

are explained by variations in *credit quality* measured by financial risk assessments (quoted on Cruces, Buscaglia, Alonso, 2002, 3).

These three authors expanded later the relationship between expected investment returns on emerging markets and the different attributes of country-risk on their 1997 paper “Political Risk Economic Risk and Financial Risk”.

They found on a time series (1984-1995) and cross sectional analysis of 117 countries that “the financial risk measure [measured by the Institutional Investor Credit Risk Rating] contains the most information about future expected returns and that political risk [measured by International Country-risk Guide Political Index] contains the least” (Erb, Harvey, Viskanta, 1997, 1).

But it is also true that there are also significant political risk differences between sub-national regions, especially on countries that are under social strife.

Therefore, since these three attributes of country-risk are not observed or measured at the sub-national level -where in fact the economic activity of a firm or a FDI project is or will be physically located, it represents a national mean value or measure of central tendency, that should be complemented with a measure of variation to be a statistically does not implies that all the regions within that country face the same mean business environments captured by the country indicator, at the national level.

This implicit assumption of countries as “dimensionless points” implies a significant burden for the FDI promotion to relatively safer regions or cities located within relatively

“riskier” countries –both relations referring to international references- since a) the perception or the knowledge about a given nation is easier known than of the regions or cities that compound it, and b) business internationalization procedures usually starts with the selection/rejection or “screening” of viable countries according to their economic and political stability.

From the FDI project perspective; there are indeed risks common to the whole host country, regardless of the sub-national region or city. However, it is also true that there are different kinds of risks that differ geographically.

#### **4.4. The Implications of Behavioral Economics on Political Risk**

The Economics Nobel Prize to Daniel Kahneman and Vernon Smith in 2002 for their bounded rationality provide some elements to understand why the risk aversion to eventual economic losses overrides the complementing probability for economic gains.

The assumption of a “homo oeconomicus”, whose behavior is governed by self interest and who is capable of rational decision making...during the last two decades have undergone a transformation...Real-world decision-makers frequently appear not to evaluate uncertain events according to the laws of probability...nor do they seem to make decisions according to the theory of expected utility-maximization...such shortsightedness in interpreting data might well help clarify various phenomena on financial markets that are difficult to explain with prevailing models –such as the ostensibly unmotivated large fluctuations to which stock markets are often exposed...When faced with a sequence of decisions under risk, individuals thus appear to base each decision on its gains and losses in isolation rather than on the consequences of a decision for their wealth as a whole...Moreover, most individuals seem to be more averse to losses, relative to a reference level than partial to gains of the same size (2002 Economics Nobel Prize Citation to Daniel Kahneman and Vernon Smith <http://www.nobel.se/economics/laureates/2002/presentation-speech.html>)

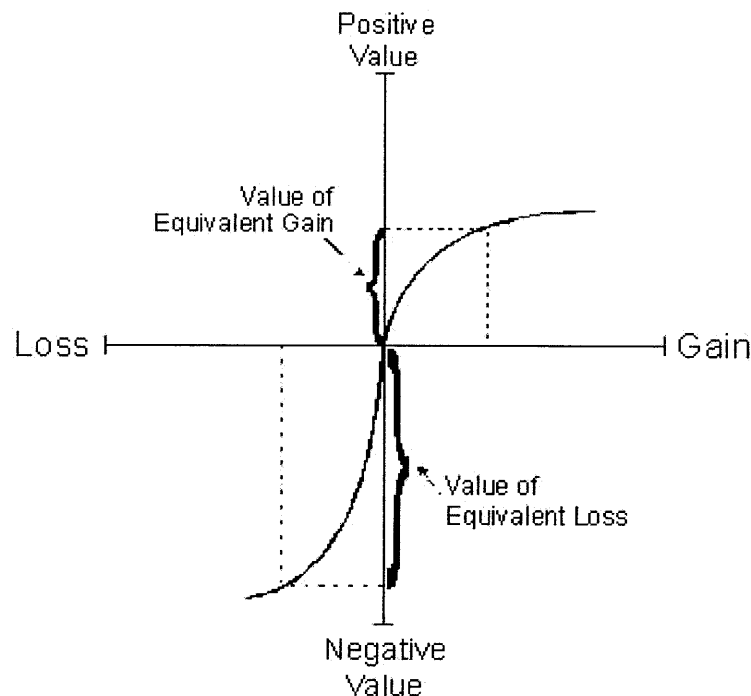
Based on the COLMECO experience and the above quote, I argue that behavioral economics is also present on the “shortsightedness” interpreting political risk data.

In a logical analysis, the probability of loosing or gaining money on a decision and its effect over the investor's wealth is determined by the sum of the support that the two samples provide. That is, the eventual gains multiplied by the probability of the gains plus the eventual losses, multiplied by the probability of those losses.

However, according to the seminal work of Kahneman and Tversky in the late 1970's, under conditions of uncertainty, individuals are much more concern with the probability of loosing money than they are attracted to the complementing probability of earnings, on a factor of two to one, as it can be seen on the following quote and figure:

Negative information tends to be weighed more heavily than positive information. This predisposition can be adaptive because it allows us to avoid or withdraw from threatening events. Risk perceptions about events involving radiation may be particularly susceptible to the over weighting of negative affect. (Flynn, Slovic and Mac Gregor, 2002)

Adapted from Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 263-292.



In a variety of domains, experimental subjects presented with objectively-equivalent gains and losses respond more strongly to the losses than to the gains. In the figure above, the loss "hurt more" than the equivalent gain "felt good". In other words, losses loom larger than gains.

Figure 19: Negative Bias. Quote and Figure Source:  
Decision Science Research Institute: [www.decisionresearch.org/Projects/Low\\_Dose/cd/Lowdose.ppt](http://www.decisionresearch.org/Projects/Low_Dose/cd/Lowdose.ppt)



Thus, building over the previously presented concepts of national political risk assessment scale and perceptual bias, using Kahneman's findings<sup>28</sup>—recognizing its simplification -- even if a safer sub-national city-region like the Atlantico Department decides to promote financially sound and development projects like COLMECO on its safer “business micro-climates”, it is probable that twice the effort will be needed to achieve investments, or that the profitability demanded by potential investors would be much higher than on a similar region on another country without risky regions. This is so, because national political risk assessments built with aggregated data, are logically skewed towards the worst-case scenarios of Colombia's internal armed conflict, without recognizing its geopolitical gradients, therefore amplifying a perceptual bias.

Therefore, a much greater FDI promotional effort is demanded for safer regions located within riskier countries vis-à-vis other equivalent safer regions located in safer countries. It is relatively easy to measure behavioral economics on portfolio investment, rather than on the relationship between political risk and regional FDI options.

As an attempt to measure this phenomena at the sub-national level with the available data on political and county risk, and recalling that internal armed conflicts insensitivity are determined by a given murder rate, I first reviewed the relationship between homicide rates per 100.000 inhabitants and political risk, measured by the PRS model for 71 countries in 2000. It was useless, since I found a very low  $R^2=0.085$ . Homicides – a measurement easily available at city levels throughout the world -- did not work as a political risk proxy. Despite of this finding, I present its graphical representation on

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<sup>28</sup> For a detailed presentation see <http://www.nobel.se/economics/laureates/2002/kahneman-lecture.html> or Kahneman and Tversky, A. 1979. “Prospect Theory: An Analysis of Decisions Under Risk”.

figure 20, since it is interesting to see the strong dispersion of political risk among countries with very low homicide rates. It means that lower numbers of homicides does not necessarily mean lower political risks, as we know from its methodology.

Figure 20. Correlation between Political Risk and Homicide rates for 71 Countries (year 2000).

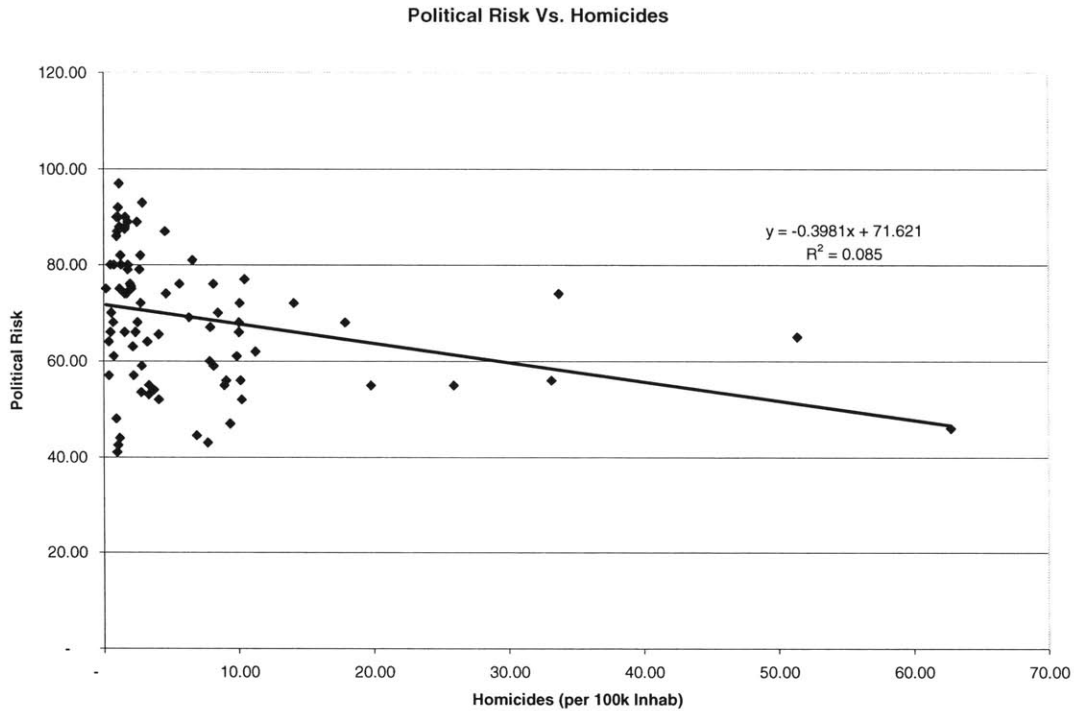
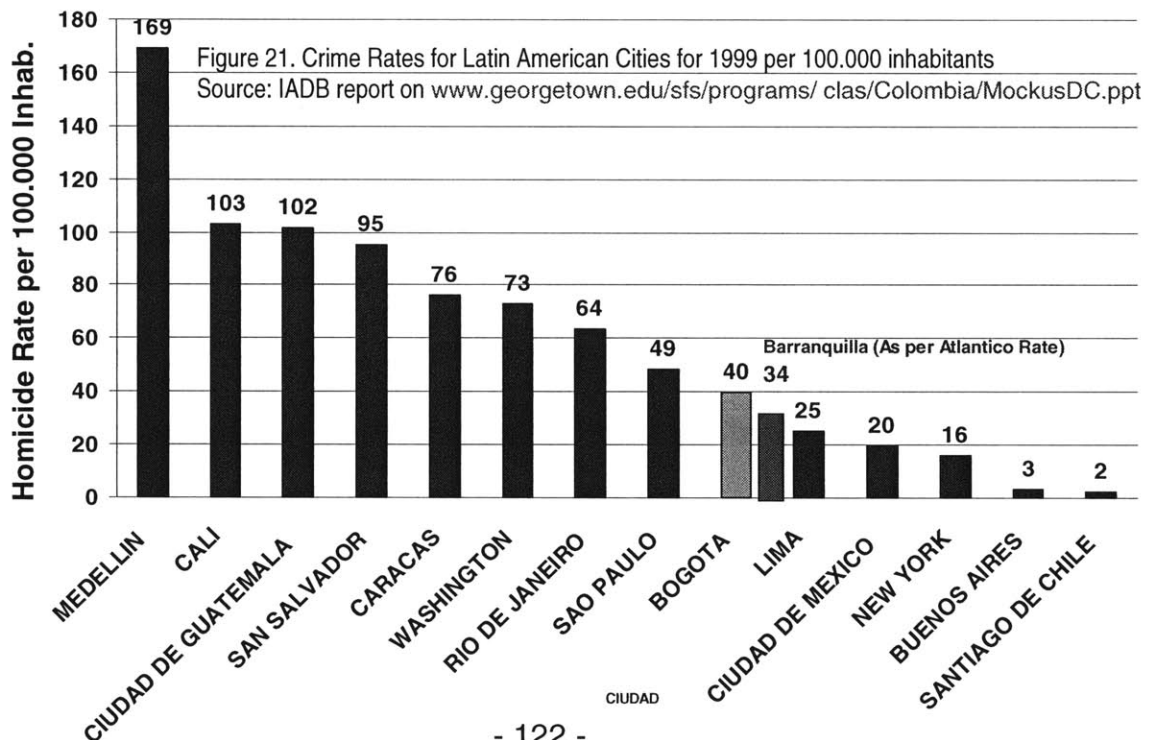
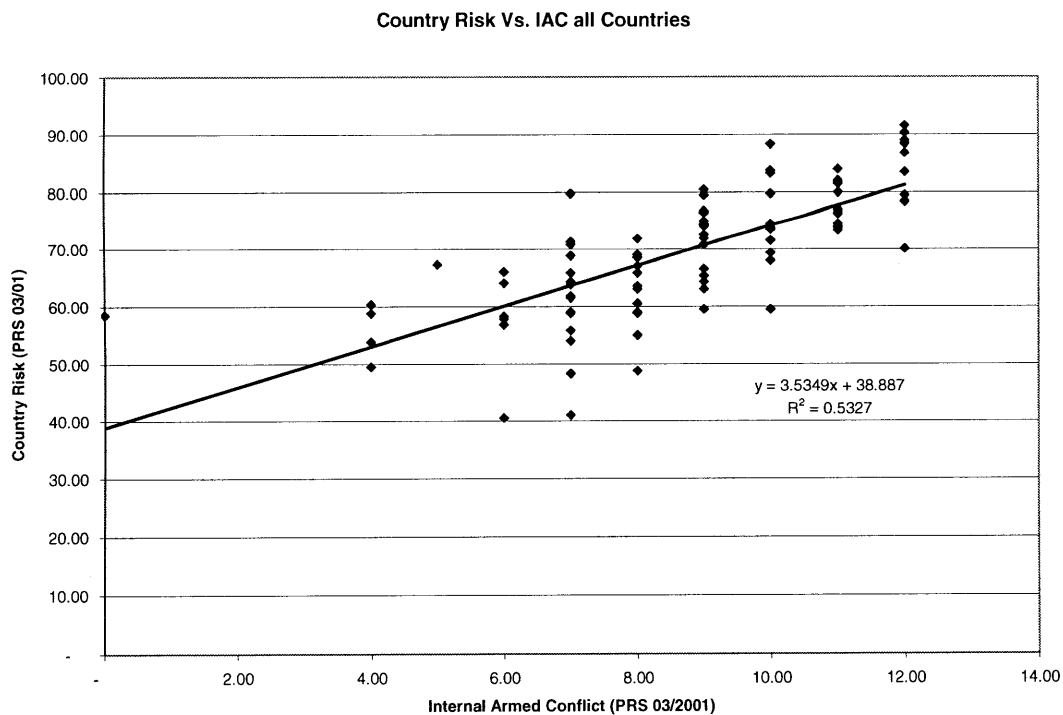


Figure 21 presents a similar dispersion for different cities in Latin America:



Despite of no relationship between political risk and homicides, it is appealing to see how Washington DC has a homicide rate more than twice the one for Barranquilla. Then I decided to focus on relationship between the intensity of internal armed conflicts IAC and the political risk PR and country risk CR indicators, based on the Internal Armed Conflict data for March 2001 provided by PRS for the same 71 countries (Howell a, 2001: 76). The Internal armed conflict is presented on an integer number scale ranging from 0 to 12, meaning 0 an open confrontation (like in Sri Lanka) and 12 a lack of internal conflict, while the country and political risks are constructed as presented on the commercial models segment of this research. I checked the correlation between IAC and both indicators, to find a strong correlation  $R^2=0.53$  for country risk, as shown in figure 18, while a lower  $R^2=0.35$  for political risk. Therefore, I then selected the country risk to analyze the cross-relationship between countries.

Figure 22. Country Risk Vs. Internal Armed Conflict for 71 countries



However, when controlling for only those 41 countries of higher internal conflict (IAC less than 8) the correlation with country risk dropped to an R2=0.0465, as shown in figure 19, whereas political risk has in this panel a R2=0.16. Later on, analyzing the “Cluster” of countries with highest IAC (IAC<5), there were only 6 countries, with a more interesting conclusion presented in table 13:

Figure 23. Country Risk and Internal Armed Conflicts less than IAC=8 for March 2000 (Source: ICRG, Howell a, 2001)

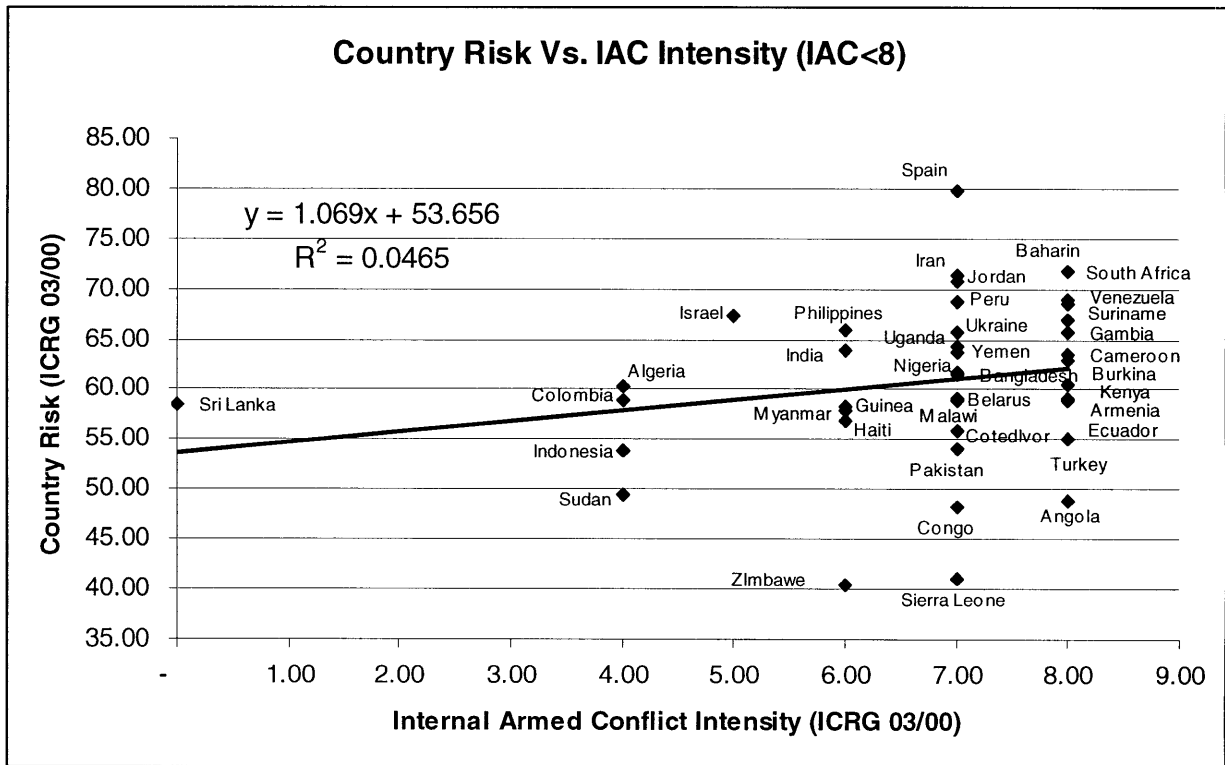


Table 13, Relationship between severe IAC (IAC under 5) and Country, Political, Economic & Financial Risk Ranking

	Sri Lanka	Indonesia	Colombia	Sudan	Algeria	Israel
IAC Intensity	0	4	4	4	4	5
Country Risk	58.5 (4)	53.8 (5)	58.8 (3)	49.5 (6)	60.3 (2)	67.3 (1)
Political Risk	52 (2)	42.5 (4)	46 (3)	36 (6)	41 (5)	57 (1)
Economic Risk	32 (6)	35 (3)	34.5 (4)	33 (5)	41 (1)	38.5 (2)
Financial Risk	33 (4)	30 (5)	37 (3)	30 (5)	38.5 (2)	39 (1)
Total US FDI	NA	8514	4606	NA	NA	3386
Petroleum	NA	5579	872	NA	NA	4
Manufacturing	NA	253	1314	NA	NA	1974
Other Industries	NA	2138	Less 0.5	NA	NA	217

Note: The higher the Number in Parenthesis, the safest the country US FDI in million, dated 2000 (www.bea.doc.gov)

How could Sri Lanka have the same country risk index as Colombia, if according to Sri Lanka's Economist's Intelligence Country Report 2000/2001 (page 9):

In February 2000, several policemen were killed when a female suicide bomber blew herself up outside the prime minister's office. This was followed in March 2000, by a gun battle between security forces and Tamil rebels on a crowded highway in Colombo.

While at the same time in Colombia, the Government and FARC guerrilla reached an initial 12 points peace talks agreement (January 28<sup>th</sup> 2000), sent a joint-delegation to travel through 7 different European countries to study its economic systems (February 2<sup>nd</sup> to 25<sup>th</sup> 2000), parallel to ELN Guerrilla and Government meetings in Caracas?<sup>29</sup>

Or why Algeria was regarded as of lower country and financial risk than Colombia, given their equal IAC? What were the perception mechanisms that could explain this issue? I looked for similarities between the countries in terms of foreign trade, population, FDI (according to UNCTAD data) and it did not make sense. A good recent example is the gap between Israel and Colombia in table 13, vs. legal jurisprudence about war from the US courts under article 13(b) of the Hague Convention on International Child Abduction. This article provides that on an abduction case by the legal custodian of a minor, a court need not to return a child to his country of habitual residence if "there is a grave risk that his or her return would expose the child to physical or psychological harm or otherwise place the child in an intolerable situation" (Hague Convention, art. 13(b)).

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<sup>29</sup> Source: <http://www.reliefweb.int/w/rwb.nsf/0/260454c63c4e57f1c1256a6500323f41?OpenDocument>

In *Escaf vs. Rodriguez* 2002 WL 959312 (E.D. Va. May 6, 2002), the Colombian mother living in Barranquilla, filed for the return of his child, retained by his American father in the US after vacations. His father argued in defense that the child would be exposed to grave risk of harm if returned to Colombia because of the drug wars and anti American sentiment. The court ruled in favor of the mother's request, arguing that "At most, then, the evidence establishes (i) that Colombia may be a dangerous place for some American businessmen and (ii) that there has been a threat to Rodriguez [the father] in Barranquilla. *There is no persuasive evidence specifically establishing a risk to Isidoro [the son] of kidnapping or violence in Barranquilla*".

Whereas "in *Silverman Vs. Silverman*, 2002 WL 971809 (D. Minn. May 9, 2002) the court determined that returning the two children, Sam and Jacob to Israel would expose them to a grave risk of physical harm and place them in an intolerable situation"<sup>30</sup>

These were not businessmen afraid of loosing money, *but the kids of American citizens* which allegedly were in risk of intolerable situations in Colombia and Israel. How then can Colombia have a higher country risk than Israel for doing business, whereas Colombia is safer for kids than Israel? What is the role of perceptions?

To solve the later question, I analyzed the relationship between news and political risk index for Colombia between April 2000 and March 2001.

My hypothesis was that news had a strong effect on perceptions, and to measure this, I looked for the correlation between the political risk monthly index and the number of articles about Colombia that had specific words with different meanings related to

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<sup>30</sup> All quotes taken from L. Morgan "Grave Risk of Harm Under Article 13(b) of the Hague Convention on International Child Abduction: What constitutes a war? "Family Law and Consulting", July 2002

Colombia's internal armed conflict such as war, risk and aid, using the Dow Jones MIT data base that compiles 50 different business periodical publications from different parts of the world. The results of these experiments are presented in table 14:

Table 14. Correlation between Number of Articles about Colombia and Monthly Political risk Index

Covariance between Political Risk Index for Colombia and Articles with the word War, Risk and Aid (months lagged in parenthesis)			
Operator	War	Risk	Aid
	War (-1)		Aid (-1)
	War (-2)		Aid (-2)
R2	0.13	0.13	0.10
	0.09		0.20
	0.08		0.35

Source: The author, based on Dow Jones Data Base and Howell a, 2001.

Why there was a larger correlation between the articles with the word aid and the political risk related to Colombia, when lagged two months? Although there is still too much noise to control in the experiment, in June 2000 President Clinton received Congressional approval for its US 1.3 billion military aid package to Colombia. This brought a significant attention to the case of US potential involvement in Colombia's IAC in the press, with a significant amount of articles warning the potential for a second Vietnam type war for the US.

The higher  $R^2=0.35$  obtained when lagging in two months the time of appearance of the articles and the monthly political risk index can be interpreted as the time taken by the public opinion and analyst to study the Colombia case. This time lag is consistent with the findings of Nuñez, Arias and Agudelo (mimeo) that the effect of changes in the interest rates, devaluation rates and policy changes on Colombia's capital markets framework was correlated with the foreign capital flows in Colombia after two months.

There are several theories that explain the effect of the media in the public opinion.

According to Sieb (2000):

“News coverage strikes at the somnolent, American conscience, polls reflect the change in attitude, politicians take note, and ultimately policy shifts--incrementally or drastically” (Sieb, 2000:61).

The most recent one is Mullainathan and Schleifer (2002) Media Bias paper that explains how on a competitive market for readers, the media develop two biases: The ideology bias, referred to the attempt to affect readers influence in a particular direction, and the spin bias, referred to the attempt to create memorable stories.

A recent example is the recent book “more terrible than death, massacres, drugs and America’s war in Colombia” from Robin Kirk. Praised as “a depressing but vital contribution to the growing literature on Colombia’s tragedy” by Foreign Affairs, the publication of the *Council of Foreign Relations*<sup>31</sup>, whereas as a “very readable and heart-wrenching narrative” by Publisher’s Weekly<sup>32</sup>. Kirk’s “research” states that in Colombia murderers find pleasure on leaving some of the family members of the deaths alive, as a savings account for any emergency killing.<sup>33</sup>

There is no doubt of some extreme manifestations of Colombia’s internal armed conflict, as in other confrontation of this kind. But it is evident why Kirk’s attempt to induce a strong memory on her readers gets much more attention and coverage measured by 1’100.000 hits on the google internet search engine than for example the 501 hits given to a scientific research like Valentino Huth and Balch (2003: forthcoming) “Draining the

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<sup>31</sup> <http://www.foreignaffairs.org/20030301fabook10376/robin-kirk/more-terrible-than-death-massacres-drugs-and-america-s-war-in-colombia.html>

<sup>32</sup> <http://www.amazon.com/exec/obidos/tg/detail/-/1586481045/103-4317411-1185450?vi=glance>

<sup>33</sup> Armando Montenegro, “Carro con cadaver”. El Espectador, Bogota, Colombia, 09.03.03.



Sea: Mass Killing, Genocide, and Guerrilla Warfare”<sup>34</sup>, which analyzes the political economy of those events on an even cruder but scientific way for policy purposes. Kirk appeals to its human rights activism background to denounce the “bigger truths of the American relationship to Colombia and the need to change it”, stating that “the United States through its [illegal drug] consumer habits and official policies has provoked Colombia’s home-grown demons”, referring to the US Congress permission granted to President Bush in 2002 to use training and weapons aid provided to Colombia initially to fight illegal drugs in 2000, now to target guerrillas and paramilitaries (Kirk, 2003:xix). Without disregarding the elements of Kirk’s later point of view, what I want to emphasize is how her “heart-wrenching narrative” and skillful approach to the very sensitive issue of US military aid to Colombia awakens much more attention than the genocide document.

Livingston (1997), explains the media effect on different types of military interventions, which also explains how public opinion, and through it, public policy is influenced by the way news are presented. Although Livingston does not present an analysis for the coverage of guerrilla warfare, he concludes the strong effect that the media can have over foreign policy through forging public opinion.

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<sup>34</sup> [www.cbrss.harvard.edu/programs/hsecurity/papers/june/Valentino.doc](http://www.cbrss.harvard.edu/programs/hsecurity/papers/june/Valentino.doc)

## 5. CONCLUSION AND POLICY IMPLICATIONS

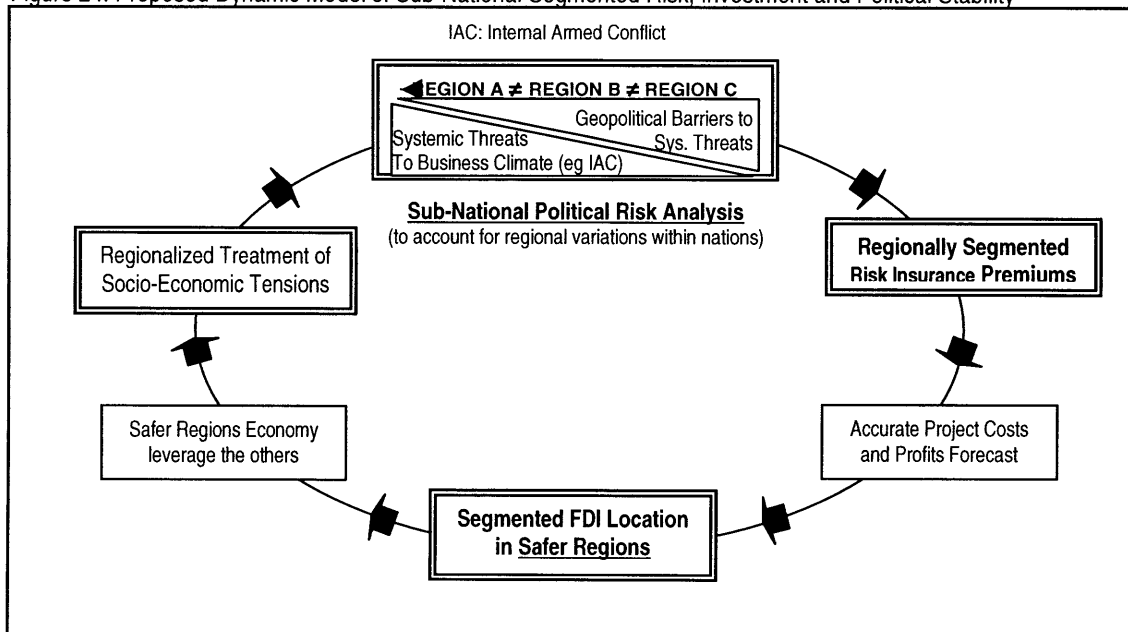
“...the vision, imagination, creativity, and strategic direction required to make a deal profitable depend on the experience and knowledge of the investor’s team. Even in the worst economic and political conditions, investors will find opportunities for profitable transactions”

A. Rosenbloom, 2002. “Due Diligence for Global Deal Making”: 133.

Political-risk attributes varies among nations, especially in the case of countries under systemic threats to business climates such as internal armed conflicts that for geopolitical stable barriers, present different regional patterns and intensiveness.

Therefore, the standard measurement and use of political risk assessments for FDI location analysis, based only on the national scale of observation, should be complemented with sub-national political risk analysis. This would show the regional gradients of investment risks, which in turn should drive the dynamic FDI promotion shown in figure 24.

Figure 24. Proposed Dynamic Model of Sub-National Segmented Risk, Investment and Political Stability



Given the pervasive presence of IAC, and the forces demanding global integration, such a model could help to increase the IAC carrying capacity of nations under such a systemic threat to FDI, by allowing it to locate on those regions where it could be more viable for the benefit of both investors and host country development.

As seen on the political and country risk assessment models, such an approach should not be very complicated. It is rather a matter of defining which variables of political risk should be more appropriated to be “sensitized” to sub-national differences, to then structure effective mechanisms that could provide the periodical information for the sub-national variables that would quantify this risk.

From my perspective of a regional Investment Promotion Agency Director, instead of trying to develop my own model, which demands very specialized and costly resources, it appears to have more sense to approach companies dedicated to political risk assessment as well as terrorism insurance premiums analysis to explore the commercial viability of such proposal.

From the perspective of multilateral agencies such as the World Bank Group and scholars committed to the study and resolution of internal armed conflicts, it is recommended to explore the viability of a parallel “opportunity based” policy approach that could complement the actual “problem based” approach for IAC. Under this proposition, we could think on enhancing the security conditions of “conflict immune city- regions” that could leverage the country’s IAC carrying capacity, such as the

COLMECO project planned to be located in Barranquilla, the capital of the Atlantico Department, a region that has shown a consistent resistance to Colombia's IAC sprawl.

The former approach shares common characteristics implicit on the policy recommendation of Mr. Eduardo Aninat, Deputy Managing Director of the IMF. After warning about how the fiscal costs of peace will likely outrun the available fiscal resources, he stated on his speech "The Economic Foundations of Peace in Colombia", delivered at the Conference on Peace and Security that took place in Washington DC on June 20<sup>th</sup> 2002 to

Give priority to investments that generate synergies with pro-peace programs (including spending on infrastructure and housing, and focused social expenditure.<sup>35</sup>

It is now evident how the Colombian Central Government and the Multilateral Institutions have an unique opportunity to develop further the innovative policy approach proposed on this study for increasing Colombia's conflict carrying capacity, by focusing a specific industrial development program for the Atlantico Department, and supporting the Atlantico 21<sup>st</sup> Century projects that ProBarranquilla has been promoting since 1998.

Finally, media coverage of the Colombian IAC has a significant role on the country's political risk. The media articles related to the military aid given to Colombia by President Clinton in 2000 had a stronger correlation with the country's political risk than other media approaches to the same reality. Therefore, it is necessarily to develop an objective promotional strategy for the objective representation of Colombia's investment opportunities, hidden under the behavioral and geographical economies of political risk.

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<sup>35</sup> <http://www.imf.org/external/np/speeches/2002/062002.htm>, page 5.

## ANNEXES

Table A1. Selected Indicators of FDI and international production, 1982-2002 (US billions & percentages UNCTAD, 2002)

Item	Value at current prices (Billions of dollars)			Annual growth rate (Per cent)					
	1982	1990	2001	1986-1990	1991-1995	1996-2000	1999	2000	2001
FDI inflows	59	203	735	23.6	20.0	40.1	56.3	37.1	-50.7
FDI outflows	28	233	621	24.3	15.8	36.7	52.3	32.4	-55.0
FDI inward stock	734	1 874	6 846	15.6	9.1	17.9	20.0	22.2	9.4
FDI outward stock	552	1 721	6 582	19.8	10.4	17.8	17.4	25.1	7.6
Cross border M&As <sup>a</sup>	..	151	601	26.4 <sup>b</sup>	23.3	49.8	44.1	49.3	-47.5
Sales of foreign affiliates	2 541	5 479	18 517 <sup>c</sup>	16.9	10.5	14.5	34.1	15.1 <sup>c</sup>	9.2 <sup>c</sup>
Gross product of foreign affiliates	594	1 423	3 495 <sup>d</sup>	18.8	6.7	12.9	15.2	32.9 <sup>d</sup>	8.3 <sup>d</sup>
Total assets of foreign affiliates	1 959	5 759	24 952 <sup>e</sup>	19.8	13.4	19.0	21.4	24.7 <sup>e</sup>	9.9 <sup>e</sup>
Exports of foreign affiliates	670	1 169	2 600 <sup>f</sup>	14.9	7.4	9.7	1.9	11.7 <sup>f</sup>	0.3 <sup>f</sup>
Employment of foreign affiliates (thousands)	17 987	23 858	53 581 <sup>g</sup>	6.8	5.1	11.7	20.6	10.2 <sup>g</sup>	7.1 <sup>g</sup>
<i>Memorandum</i>									
GDP (in current prices)	10 805	21 672	31 900	11.5	6.5	1.2	3.5	2.5	2.0
Gross fixed capital formation	2 285	4 841	6 680 <sup>h</sup>	13.9	5.0	1.3	4.0	3.3	..
Royalties and licence fee receipts	9	27	73 <sup>h</sup>	22.1	14.3	5.3	5.4	5.5	..
Exports of goods and non-factor services	2 081	4 375	7 430 <sup>i</sup>	15.8	8.7	4.2	3.4	11.7	-5.4

Source: UNCTAD, based on its FDI/TNC database and UNCTAD estimates.

<sup>a</sup> Data are only available from 1987 onwards.

<sup>b</sup> 1987-1990 only.

<sup>c</sup> Based on the following regression result of sales against FDI inward stock (in millions dollars) for the period 1982-1999: sales=323+2.6577\*FDI inward stock.

<sup>d</sup> Based on the following regression result of gross product against FDI inward stock (in millions dollars) for the period 1982-1999: gross product=364+0.4573\*FDI inward stock.

<sup>e</sup> Based on the following regression result of assets against FDI inward stock (in millions dollars) for the period 1982-1999: Assets= -1 153+3.8134\*FDI inward stock.

<sup>f</sup> For 1995-1998, based on the regression result of exports of foreign affiliates against FDI inward stock (in millions dollars) for the period 1982-1994: Export=254+0.474\*FDI inward stock. For 1999-2001, the share of exports of foreign affiliates in world export in 1998 (34 per cent) was applied to obtain the values.

<sup>g</sup> Based on the following regression result of employment (in thousands) against FDI inward stock (in millions dollars) for the period 1982-1999: employment=12 138+6.0539\*FDI inward stock.

<sup>h</sup> Data are for 2000.

<sup>i</sup> WTO estimates.

**Note:** Not included in this table are the value of worldwide sales by foreign affiliates associated with their parent firms through non-equity relationships and the sales of the parent firms themselves. Worldwide sales, gross product, total assets, exports and employment of foreign affiliates are estimated by extrapolating the worldwide data of foreign affiliates of TNCs from France, Germany, Italy, Japan and the United States (for sales and employment) and those from Japan and the United States (for exports), those from the United States (for gross product), and those from Germany and the United States (for assets) on the basis of the shares of those countries in the worldwide outward FDI stock.

Table A2. Economic Indicators for Latin America

Year		Colombia	Argentina	Bolivia	Brazil	Chile	Ecuador	Mexico	Peru	Venezuela
2001	Gross Domestic Product (billion dollars)	83,4	266,7	8,0	502,5	66,3	18,0	621,0	54,1	124,9
2000	Gross Domestic Product to PPP (billion dollars)	256,0	446	20	1243	138	37	861	120	139
2000	Purchasing Power Parity's Conversion factor (Local currency units per dollar)	642,1	0,6	2,5	0,8	263,7	8394,4	6,2	1,5	585
2001	Inflation (%)	7,6	-1,5	0,9	7,7	2,6	22,4	4,4	-0,1	12,3
2001	Current account balance (% of GDP)	-2,2	-1,6	-3,5	-3,9	-1,8	-5,7	-3,0	-2,0	3,6
2001	Gross international reserves (million dollars)	9.185	20.964	1.034	27.078	16.331	1.408	39.463	8.732	16.401
2001	Gross domestic credit (% annual growth)	13,2	2,9	-3,7	29,7	14,5	30,7	-3,5	0,3	34,8
2000	Actual interest rate (%)	7,3	9,8	29,7	44,5	10,4	-43,5	6,6	23,4	-1,3
2000	Gross savings rate (% of GDP)	14,0	15,0	11,0	19,0	25,0	28,0	21,0	18,0	30,0
2000	Gross capital formation (% of GDP)	12,0	16,0	18,0	21,0	23,0	17,0	23,0	20,0	18,0

Source: Economist Intelligence Unit, Economic Council for Latin America –CEPAL, Business Monitor International, World Development Indicators 2002 –United Nations.

Table A3. Selected Regional Internal Armed Conflict Indicators for Colombia

Department	Armed Action/Armed Contact					Armed Action/Armed Sabotage					Armed Action/Harrazement				
	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
Amazonas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Antioquia	68	101	125	115	234	89	74	120	103	78	22	18	13	25	22
Arauca	10	23	23	42	42	39	43	57	75	50	28	49	80	93	75
<b>Atlantico</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>
Bolivar	20	32	28	19	18	12	6	21	10	22	6	5	4	5	5
Boyaca	6	11	18	17	32	3	2	2	12	27	4	11	5	7	14
Caldas	7	5	10	10	30	4	4	7	11	23	0	2	1	0	3
Caqueta	3	3	11	25	100	15	3	1	5	41	4	2	7	21	28
Casanare	9	16	14	17	37	9	8	18	13	22	10	11	5	3	6
Cauca	17	18	28	43	51	7	4	30	3	12	8	6	15	13	33
Cesar	20	19	30	34	45	13	9	36	31	27	1	1	0	6	3
Choco	4	4	5	15	32	0	6	4	6	13	0	0	1	10	9
Cordoba	4	4	3	5	4	1	1	1	2	0	1	0	0	1	1
Cundinamarca	9	18	23	54	91	12	7	14	4	75	6	9	11	12	32
Guain'a	0	1	0	2	5	0	0	0	0	0	0	0	0	0	1
Guaviare	4	4	1	11	27	1	0	0	0	5	2	2	2	0	3
Huila	8	14	8	21	41	7	5	5	6	35	6	4	9	7	16
La Guajira	13	8	9	16	24	8	3	1	11	12	0	2	0	1	0
Magdalena	14	6	12	25	30	13	11	15	20	19	5	4	1	1	2
Meta	16	14	23	50	138	5	5	4	12	38	19	11	9	12	37
Narino	4	3	18	23	52	2	3	15	5	14	5	7	7	9	10
Norte de Sant	20	49	31	54	50	26	19	26	38	42	10	17	6	16	15
Putumayo	7	7	27	40	31	19	15	13	9	18	5	10	7	2	4
Quindio	1	2	7	6	7	0	0	0	1	2	0	1	1	0	2
Risaralda	5	1	16	12	18	4	9	11	8	8	5	4	6	2	2
San Andres	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santander	23	37	65	43	61	62	27	42	27	15	29	19	13	4	3
Sucre	8	9	11	16	17	4	8	15	10	19	1	2	2	2	5
Tolima	19	21	34	34	51	7	2	7	5	10	16	17	9	3	13
Valle del Cau	15	16	33	18	34	15	8	25	9	6	9	12	11	3	5
Vichada	6	1	1	2	8	0	0	0	0	3	0	0	3	3	2
Vuapes	1	2	4	0	3	0	0	1	0	0	1	4	4	0	0
<b>TOTAL</b>	<b>341</b>	<b>449</b>	<b>618</b>	<b>769</b>	<b>1313</b>	<b>377</b>	<b>282</b>	<b>492</b>	<b>436</b>	<b>637</b>	<b>203</b>	<b>230</b>	<b>233</b>	<b>261</b>	<b>351</b>

Department	Armed Action/Piracy Acts					Armed Action/Harange-Panflets					Armed Action/Reten				
	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
Amazonas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Antioquia	8	33	25	34	17	1	1	0	11	17	6	12	18	18	10
Arauca	9	3	8	5	7	0	0	0	3	6	0	0	4	7	10
<b>Atlantico</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>
Bolivar	0	4	5	6	2	0	0	2	5	2	1	4	8	8	6
Boyaca	2	7	3	3	10	1	0	1	0	9	0	0	5	8	5
Caldas	0	2	1	6	11	1	0	0	1	8	0	1	3	1	5
Caqueta	1	0	0	6	7	2	0	0	0	14	0	2	1	11	16
Casanare	4	15	6	9	13	1	0	1	3	8	1	5	2	5	2
Cauca	6	10	17	20	32	4	1	1	5	7	3	7	19	12	16
Cesar	3	17	16	22	19	0	0	0	1	11	3	2	7	6	5
Choco	0	1	9	31	35	0	0	0	2	13	0	1	3	24	19
Cordoba	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
Cundinamarca	2	6	5	8	17	2	1	0	1	15	2	3	7	4	14
Guain'a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Guaviare	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
Huila	0	1	6	8	11	0	0	0	0	16	1	2	4	1	3
La Guajira	0	0	1	7	8	2	0	0	1	3	0	1	1	2	0
Magdalena	3	2	8	13	11	0	0	0	0	3	0	1	7	1	5
Meta	1	8	5	5	7	0	0	0	0	3	3	0	1	4	13
Narino	0	8	8	7	33	1	0	1	4	51	0	1	24	12	25
Norte de San	1	22	23	23	10	2	4	4	0	9	3	7	20	24	8
Putumayo	1	0	0	2	1	1	0	0	0	4	1	4	5	5	3
Quindio	0	0	0	0	5	0	0	0	1	6	1	0	0	0	0
Risaralda	1	3	7	5	6	1	0	5	3	10	1	2	3	0	3
San Andres	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santander	4	10	5	0	3	1	0	0	1	6	2	5	10	2	3
Sucre	0	5	2	6	3	0	0	0	1	1	0	0	10	2	2
Tolima	1	6	10	12	19	2	2	1	3	3	0	7	5	2	8
Valle del Cau	2	5	10	4	4	4	3	1	4	4	1	2	5	2	2
Vichada	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0
Vuapes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>49</b>	<b>169</b>	<b>180</b>	<b>242</b>	<b>292</b>	<b>27</b>	<b>12</b>	<b>20</b>	<b>51</b>	<b>229</b>	<b>30</b>	<b>69</b>	<b>173</b>	<b>161</b>	<b>184</b>



Department	Paramilitary Confrontation					Armed Action/Ambush					Armed Action/Instalation Attack				
	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
Amazonas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Antioquia	5	5	20	38	49	8	3	5	5	9	3	3	6	2	3
Arauca	0	0	0	1	6	1	2	2	8	6	1	3	3	5	7
<b>Atlantico</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Bolivar	5	4	10	18	9	3	1	1	4	2	0	0	3	2	0
Boyaca	0	0	0	1	2	1	0	1	1	1	0	2	5	4	4
Caldas	0	1	1	2	15	1	0	0	0	3	0	0	1	0	0
Caqueta	0	1	1	3	4	2	0	2	0	5	0	3	5	6	2
Casanare	1	0	4	11	6	0	1	1	2	1	0	1	2	4	0
Cauca	0	0	3	5	1	12	5	6	4	4	0	6	10	4	4
Cesar	1	4	1	2	2	1	4	2	7	3	0	0	0	0	1
Choco	1	2	2	13	25	0	0	1	0	1	0	1	0	2	1
Cordoba	1	4	1	2	8	0	0	0	0	0	0	0	0	0	0
Cundinamarca	0	0	2	1	9	1	1	2	2	5	2	4	2	3	6
Guain'a	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Guaviare	1	0	0	2	1	0	0	1	0	0	0	0	0	0	0
Huila	0	0	0	0	0	1	3	3	7	8	0	0	2	3	5
La Guajira	0	0	0	1	1	1	0	0	2	1	1	0	1	0	1
Magdalena	0	0	5	3	6	2	0	3	0	1	0	1	0	0	0
Meta	0	2	5	3	5	2	0	0	0	2	1	2	1	5	5
Narino	0	0	0	6	8	1	2	2	6	5	1	0	11	3	4
Norte de San	0	3	9	9	9	6	3	2	4	1	2	2	2	0	0
Putumayo	0	0	7	0	4	1	5	1	0	2	0	2	5	1	2
Quindio	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Risaralda	0	0	0	3	0	1	1	4	1	2	0	0	1	0	0
San Andres	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santander	0	1	2	9	6	7	3	4	1	1	1	2	1	1	1
Sucre	0	0	2	2	4	0	0	4	0	2	0	0	0	1	0
Tolima	3	2	1	6	0	4	5	2	1	4	2	3	1	6	1
Valle del Cau	0	2	4	6	3	3	2	0	2	2	2	2	5	1	1
Vichada	0	0	0	1	0	0	1	0	0	0	0	0	3	0	0
Vuapes	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
<b>TOTAL</b>	<b>18</b>	<b>31</b>	<b>80</b>	<b>148</b>	<b>183</b>	<b>60</b>	<b>42</b>	<b>51</b>	<b>57</b>	<b>72</b>	<b>16</b>	<b>37</b>	<b>71</b>	<b>53</b>	<b>48</b>

Department	Armed Action/Town Assault					Armed Action/Private Property Attack					Armed Action/Entity Assault				
	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
Amazonas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Antioquia	3	7	6	1	0	3	4	2	2	2	2	1	0	0	0
Arauca	0	0	0	0	0	0	0	1	0	2	0	0	0	1	0
<b>Atlantico</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Bolivar	3	1	0	0	1	0	1	0	0	0	2	1	0	0	0
Boyaca	4	6	1	1	1	0	0	0	0	0	0	0	6	3	3
Caldas	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0
Caqueta	0	3	1	0	1	0	0	0	0	0	2	0	1	0	0
Casanare	0	1	0	0	0	0	0	1	1	0	0	0	0	1	0
Cauca	4	9	6	6	1	1	1	1	3	0	3	0	1	0	1
Cesar	2	2	1	0	1	2	3	2	10	2	0	0	0	0	0
Choco	0	1	3	0	0	0	0	2	1	3	0	0	0	1	0
Cordoba	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0
Cundinamarca	4	3	3	2	1	1	0	0	0	0	0	6	1	1	0
Guain'a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Guaviare	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
Huila	2	5	4	1	0	0	1	0	2	0	0	1	0	0	1
La Guajira	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Magdalena	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0
Meta	3	1	1	0	0	0	1	2	5	0	1	0	1	2	1
Narino	1	4	6	4	8	0	0	0	1	0	0	0	1	0	0
Norte de San	3	1	0	0	0	0	3	1	1	0	3	0	1	1	0
Putumayo	1	1	0	0	0	0	1	0	0	0	1	0	0	0	1
Quindio	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Risaralda	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
San Andres	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Santander	2	3	0	0	0	1	0	0	4	0	3	3	0	1	0
Sucre	0	0	0	0	0	0	1	0	1	4	0	0	0	0	0
Tolima	3	4	3	4	6	0	0	1	2	1	0	1	0	2	0
Valle del Cau	1	0	1	1	1	0	1	1	0	1	1	1	1	0	0
Vichada	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0
Vuapes	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0
<b>TOTAL</b>	<b>39</b>	<b>56</b>	<b>37</b>	<b>22</b>	<b>22</b>	<b>8</b>	<b>18</b>	<b>14</b>	<b>35</b>	<b>20</b>	<b>20</b>	<b>15</b>	<b>13</b>	<b>13</b>	<b>8</b>

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