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REGIONAL PUBLIC GOODS (RPG):
AN AGENDA IN THE AREAS OF
FINANCE, TRADE AND
INFRASTRUCTURE

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Regional Public Goods (RPG): An Agenda in the areas of finance, trade and infrastructure.ⁱ

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ⁱ This report draws on many sources (see list of References). In particular, Sections 5 and 6 draw heavily on previous IADB studies on trade (Estevadeordal et al, 2009) and transport (Mesquita, et al,2008) in Latin America. Section 4 draws on several papers presented at a 2011 Conference sponsored by CAF and FLAR on regional monetary arrangements and on CLAAF 2012 statement on the subject. Other sections elaborate on recommendations initially developed in a previous study by the author (Perry, G. Transnational challenges in trade, infrastructure and finance in Latin America and the Caribbean, mimeo, March 2012) prepared by request of the IADB independent evaluation office (OVE) for its *Evaluation of transnational programs at the IDB, Inter-American Development Bank* Washington, D.C. June, 2012

1. Introduction

This paper examines the Regional Public Goods (RPG) priorities in Latin America for the next decade in three areas: finance, trade and infrastructure. There are significant RPG priorities in other important areas, such as environment, education, health and security, but these are not discussed in this paper.

RPGs are usually defined as those that require collective action by at least two countries in a region and do not have significant extra-regional spillovers. However, in some cases in which the global collective action that would be the optimal solution is not likely to be forthcoming in the near future, regional cooperation may appear as a feasible second best with significant net benefits for the countries involved. These cases will also be included in our definition of RPG's, as they happen to be especially important in the areas of trade and finance.

Indeed, the need for stronger global institutions is generally recognized as a condition for having a more stable and efficient global economic system going forward. Bretton Woods Institutions (especially the WTO and the IMF) were established to avoid a repetition of the Great Depression and they met their founders' expectations for several decades. However, the 2008/2009 global financial crises proved the inadequacy of the current global financial architecture under present circumstances. While there has been modest progress since in strengthening the IMF, in harmonizing financial regulations through Basle, IOSCO and IAIS agreements, and in strengthening surveillance and cooperation in macro/financial policies through the IMF and the Financial Stability Board, most analysts consider that we are a long shot from what is required. Further, most think that substantial progress in the medium term seems unlikely, unless a new period of deep global financial crisis induces the required political drive, which is presently lacking.

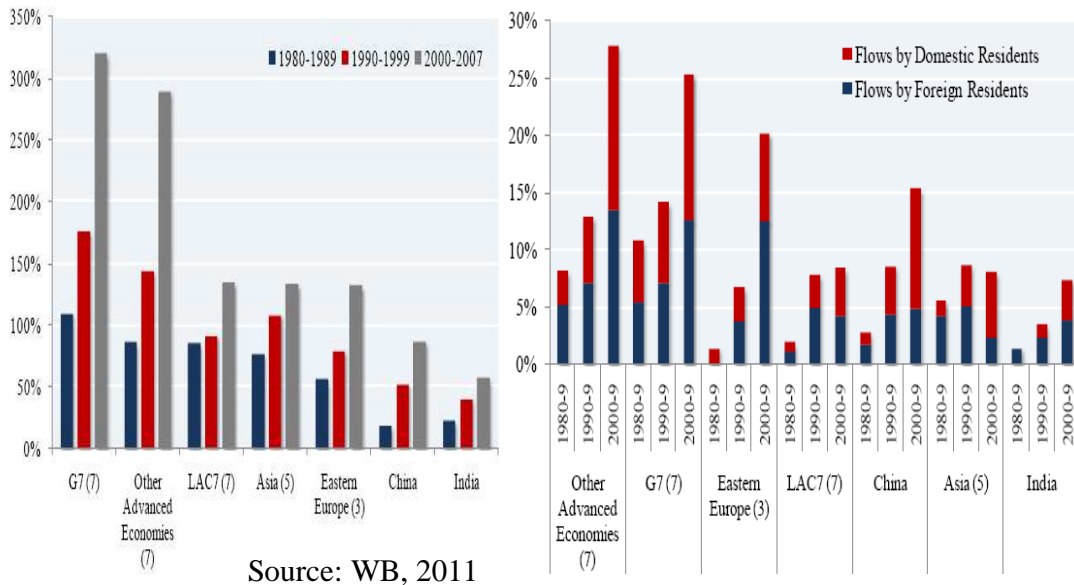
In addition, the disproportionate influence of developed countries Governments and multinationals within these global financial institutions and processes has often led to outcomes that are far from ideal for our region's and other developing areas particular needs. As an example, Basle agreements have often been criticized for leading to suboptimal financing for SME's and cross-border financing for developing countries and to pro cyclical lending, all of which have been especially harmful for Latin American countries.

The importance of these topics for LAC are illustrated by the increasing degree of financial globalization (Graph 1), and hence of risks of financial contagion, which has led all developing countries to increase exponentially the holding of international reserves (Graph 2) as a potential buffer against sudden stops of capital inflows, at a significant financial cost.

Graph 1
Financial globalization (being updated)

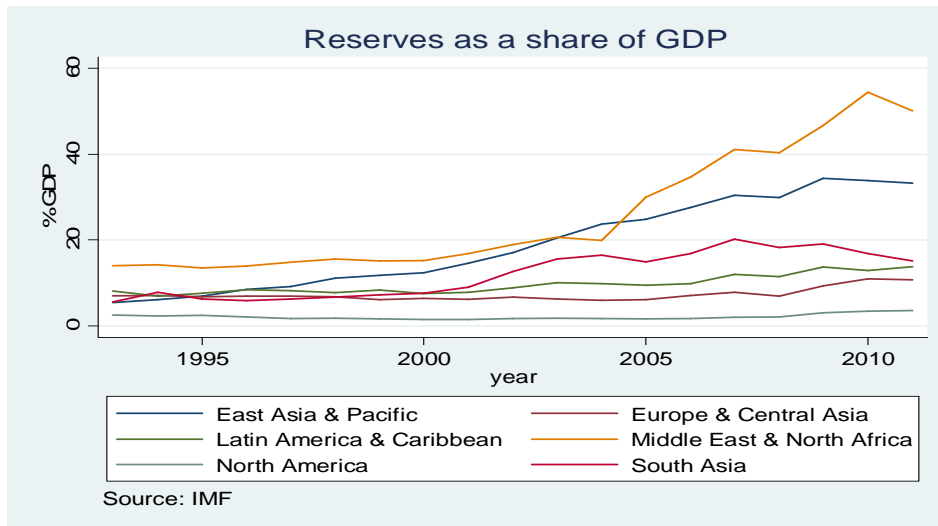
A. Foreign assets and liabilities/GDP

B. Inward and outward capital flows



Source: WB, 2011

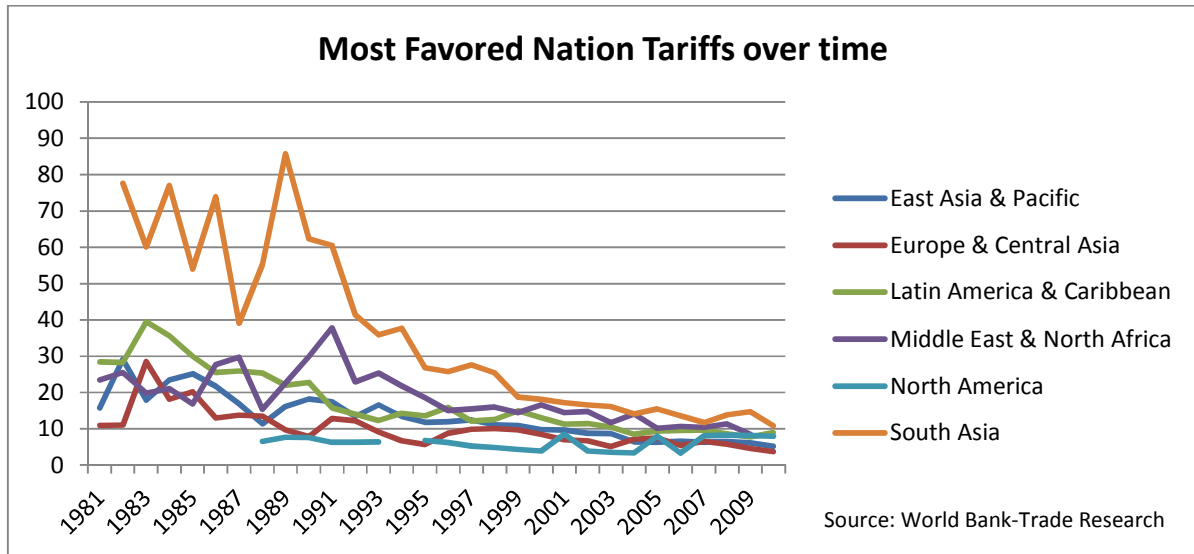
Graph 2



Source: IMF

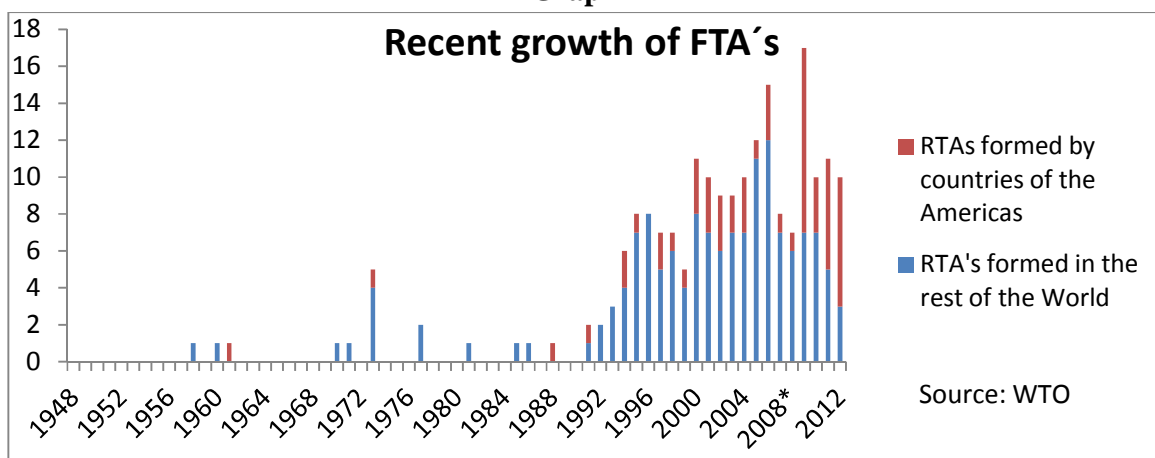
Similarly, there were significant advances in trade liberalization worldwide since the postwar period, especially in trade in manufactured products, under WTO successive rounds of negotiations and unilateral liberalization drives in many if not most developing countries. Latin America, in particular, underwent a process of significant trade liberalization in the late eighties and early nineties (Graph 3).

Graph 3



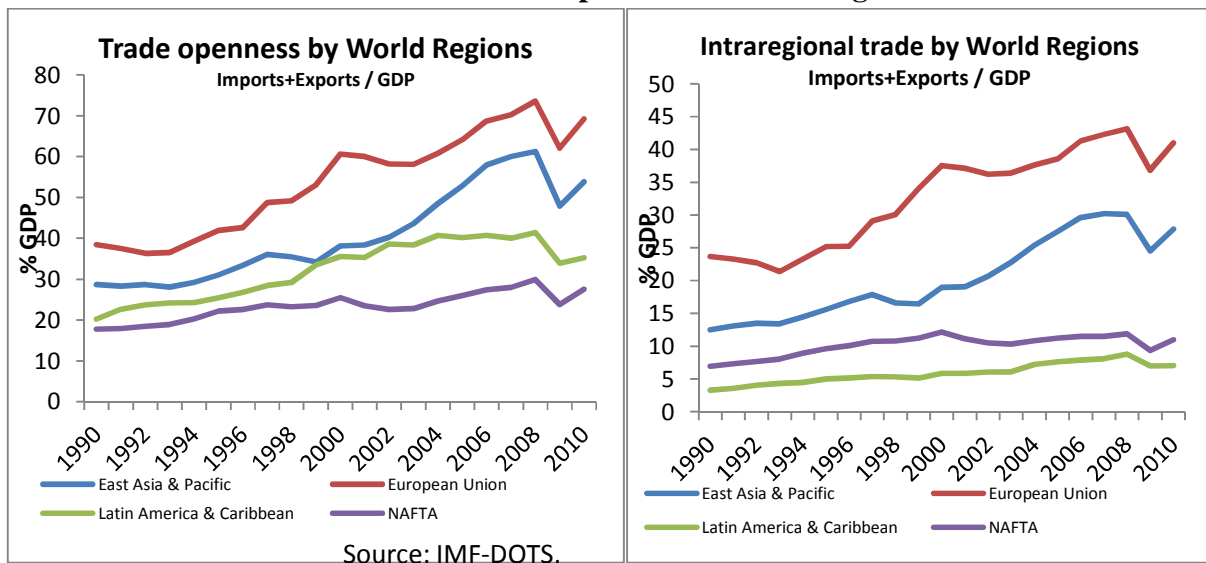
However, the failure of the Doha Round, centered in the liberalization of agricultural trade, of especial importance for Latin American countries, highlighted the present inadequacy of the WTO set up to promote further advances in global trade. As a consequence, regional and other multilateral or bilateral trade agreements, commonly referred to as Free Trade Areas (FTA's), grew exponentially (Graph 4). Countries have advanced towards freer trade through such instances of regional or extra-regional collective action, lacking the possibility of further global agreements. Latin American countries have been especially active in this regard engaging in many regional and several extra regional FTA's, configuring what is commonly known as a 'spaghetti bowl'. Recent evaluations¹ have shown that such agreements have led to significant freer trade and trade creation, and that feared costs of trade diversion have been limited. However, there are important "missing links" (especially between Mexico and Central American countries with their southern counterparts) and the diverse and overlapping rules of origin and trade practices are creating serious efficiency costs for trade within the region and with third partners.

Graph 4

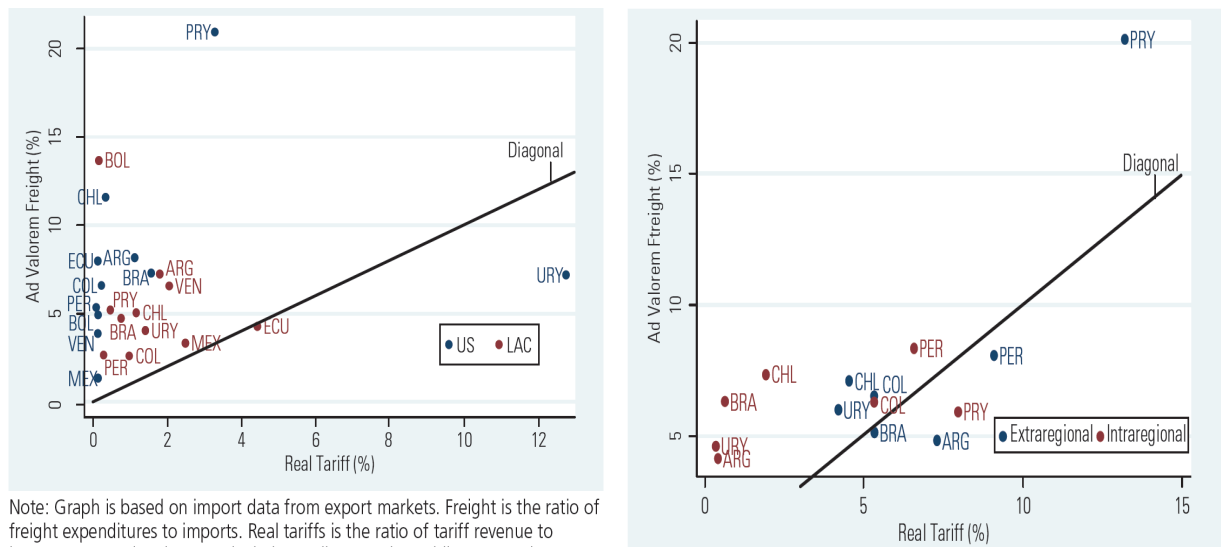


In spite of these efforts, Latin America, and especially South America, remains as a relatively closed region, with a particularly low level of intra-regional trade, as compared with OECD countries and Asia (Graph 5). The higher present growth perspectives for Latin America and the rest of the developing world, as compared to those of developed countries, highlight the importance of deepening intraregional trade and trade with other developing regions, especially with high growth Asia. Achieving this will require further trade opening within regional FTA's, advancing and reducing transport costs, as freight rates have become more limiting to intra and extra regional trade in Latin America than tariffs (Graph 6).

Graph 5
Latin American low trade openness and intra-regional trade



Graph 6
Freight vs Tariff Rates: US vs LAC; extra vs intraregional



Note: Graph is based on import data from export markets. Freight is the ratio of freight expenditures to imports. Real tariffs is the ratio of tariff revenue to imports. Intra-regional exports include Brazil, Argentina, Chile, Peru and Uruguay.

Note: Freight is the ratio of freight expenditures to imports. Real tariffs is the ratio of tariff revenue to imports.

Source: (Mesquita Moreira, Volpe, & Blyde, 2008)

Three major sets of priorities for regional collective action are derived from these considerations. First, insofar as global financial institutions are playing an increasingly important global role, regional cooperation within these institutions may enhance the voice and influence of the region and hence emerge as a key priority in regional collective action. In the case of trade, cooperation within WTO or in extra-regional FTA negotiations may also deliver significant benefits as it may strengthen the bargaining position in favor of common regional interests (e.g., freer trade in agriculture within WTO or in FTA agreements with the US, Europe and Asian countries; as limiting protectionist excesses in intellectual property rights which have become common both within WTO and in FTA's with the US). These issues are examined in Section 2 of this paper.

Second, lacking a faster advance in global financial harmonization and safety nets, Latin American regional financial institutions and policies could play a key role in achieving a safer and more efficient integration into the global economy. Regional harmonization and cooperation in financial and insurance markets regulations and supervision constitute, as a consequence, significant priorities in regional collective action. They have become especially urgent given the large and growing importance of individual foreign and regional banks, and other financial institutions, acting in several financial markets across the region, which may pose cross-stability threats without regulatory harmonization and joint supervision. Collective action in financial regulation and supervision, as well as cooperation in areas such as integration of securities markets and setting up regional catastrophic insurance facilities, can also deliver important efficiency gains, in addition to promoting financial sector stability. These issues are discussed in Section 3.

Though politically more difficult, and hence probably unlikely to happen in the short run, some sort of collective pooling of reserves, and harmonization of policies dealing with short term capital inflows, may also render significant benefits in pursuit of a safer and more efficient financial integration. Potential initiatives in this regard are briefly discussed in section 4.

On the other hand, considering the low growth prospects in Europe and the US, and the much better prospects in the emerging markets world, including our own region, a critically important issue is what regional institutions and policies are required for faster and efficient South-South and, especially, for deeper regional integration. Section 5 examines, thus, regional collective action priorities conducive to deeper and more efficient regional and global trade integration, including both completing missing links in the "spaghetti-bowl" of regional (and extra regional) FTA's, deepening trade liberalization within existing FTA's and, especially, harmonizing rules of origin and other trade practices under current overlapping FTA's. Section 5 also discusses regional cooperation and harmonization options in export and FDI promotion in pursuit of a more dynamic and efficient global and regional integration.

Given that at present high freight costs are limiting trade expansion, and especially intra-regional trade, more than trade tariffs, regional infrastructure initiatives appear as a high priority for further regional integration and trade expansion in general. Section 6 deals with regional transport infrastructure, including harmonization of regulatory frameworks, which is key to advance intra-regional trade, as well as with cooperation in logistics, ports and maritime and air transport negotiations, which can deliver large benefits for deeper and more efficient global integration. Section 7 deals with regional infrastructure and regulation in telecommunications and energy, from which the region can also deliver large gains in efficiency and intra-regional energy trade.

In the sections below we discuss not only the potential benefits, but also the challenges for regional collective action in the areas indicated above. Indeed, regional collective action always faces considerable political, coordination and enforcement problems. Such problems are particularly acute in achieving cooperative planning and design, in efficient and equitable cost allocation, in dealing with conflict resolution and, more generally, in financing and operating regional initiatives and projects. Overcoming these problems along the life of regional programs and projects normally require establishing specific regional institutions and adopting creative cost-allocation and financial solutions. Though such institutional solutions are specially needed in the area of regional infrastructure, they are nonetheless important in all other areas of regional collective action. Existing regional and global financial institutions and agencies, in particular regional development banks and FTA`s, can do much in help solving some of the more complex coordination, technical, cost-allocation, financing and conflict resolution problems involved in regional collective action, including setting up adequate regional institutions for RPG`s.

Annex 1 presents a conceptual framework regarding these conceptual challenges and potential solutions, based on a review of the existing technical literature. This framework is used in the analysis of specific regional collective action priorities in finance, trade and infrastructure in Sections 2 to 7 below. Section 8 concludes, emphasizing the potential role of existing regional institutions, especially regional development banks, in achieving these goals.

2. Cooperation in international bodies and trade negotiations.

Table 1 summarizes our own assessment of potential regional collective action initiatives in this area, according to the discussion that follows.

As mentioned in the Introduction, regional cooperation within several global organizations (the G-20, the Financial Stability Board, the IMF, the World Bank, and the WTO), in which some (Argentina, Brazil and Mexico in the first three of these institutions), or all of the countries in the region participate, can help achieve a more significant regional influence and hence global decisions more responsive to regional needs and priorities. In addition, regional cooperation in

the global processes of harmonizing financial regulations through the Basel Committee on Banking Supervision, other BIS (Bank for International Settlements) specialized Committees, IOSCO (the International Organization of Securities Commissions) and IAIS (the International Association of Insurance Supervisors), may help achieving international regulations that are more adequate for Latin American needs.

Table 1 Cooperation in International Organizations and Negotiations

Regional Collective Action	Stability gains	Efficiency and growth gains	Comments	Geopolitical Likelihood
Cooperation in G-20	++	+++	Argentina, Brazil and Mexico are G-20 members	Unlikely
Cooperation in IMF and Financial Stability Board	++++		All countries are IMF members and Argentina, Brazil and Mexico are members of the FSB.	Medium-high
Cooperation in the World Bank Board		+++	All countries are WB members	Medium-high
Cooperation in the Basle and other BIS Committees, IOSCO and IAIS	++	+++	All countries are members of the BIS Committees, IOSCO and IAIS. Argentina, Brazil and Mexico are members of the Basle Committee.	Medium-High
Cooperation in WTO negotiations	++	+++++	All countries are WTO members	Low, except by subgroups of countries or in specific topics (agriculture).
Cooperation in FTA negotiations	++	++++	Experience in CAFTA and negotiations with EU	Medium-high by subgroups, especially for Central American and the Alliance of the Pacific with Asian countries

Source: author's assessment.

Coordinated participation in Global Financial Institutions and the G-20

Global harmonization of banking regulations is of special importance for global financial stability, and thus it is not surprising that major advances have been achieved in banking regulations through three consecutive so-called Basle Agreements. Industrialized countries and

large multinational banks needs and opinions have mostly shaped these Agreements. They have had, however, significant consequences for developing countries, given the key role of multinational banks and cross-border banking services in their investment and trade financing. Further, regional regulators have adopted, though with lags, many or most of Basle Agreement recommendations. Implementation of Basle agreements is usually complex and countries advance in applying them at very different speeds, or do it only partially. Industrial countries have fully implemented Basel I and most of Basel II (and Basel 2.5) recommendations and are advancing in the process of implementing Basel III. Developing countries typically have implemented Basel I, but most have just partially implemented Basel II recommendations and are preparing for Basle III implementation².

Basle I and II have often been criticized for leading to suboptimal financing for SME's and cross-border financing for developing countries and, especially, to pro cyclical lending, all of which have been specially harmful for Latin American countries, which are characterized by under-financing of SME's and larger business cycles. These shortcomings are largely a consequence of an exclusive focus on idiosyncratic bank risks and excessive reliance on banks own risks assessments, disregarding systemic risks -including those related to macro volatility and open currency exposures, both of which are of key importance for Latin American debtors and hence for their banks. They clearly reflect the significant influence of large multinational private banks within Basle negotiations.

The 2008/2009 global financial crisis revealed the importance of some of these limitations and, thus, Basle III, negotiated after the crisis, attempts to redress some of them. In particular, it strengthens Tier 1 capital requirements (to correct the European recent practice of capitalizing banks mostly through subordinated debt) and requires a national and anti-cyclical capital buffer. Though the latter is a step in the right direction, the way it has been designed has been severely criticized as some experts believe it may even exacerbate credit pro cyclical³. Basle III will require significant statutory increases in minimum Tier I and total bank capital ratios. However, it has been estimated that Latin American banks would not need major adjustments from present their capital structure and levels.⁴

Developing countries regulators and banks have played a minor role in the discussion and negotiation of these agreements, which, as mentioned, end up affecting significantly the way in which their banking systems work. Three Latin American countries are presently members of the Basel Committee on Banking Supervision⁵, established by the G 10 Central Banks in 1974: Argentina, Brazil and Mexico. India, China, Hong Kong, Indonesia, South Africa, Russia and Turkey are also members.

The Basle Committee coordinates with IOSCO (International Organization of Securities Commission) and IAIS (the International Association of Insurance Supervisors) through a Joint

Forum, for which the Basle Committee Secretariat provide technical secretariat services. IOSCO was created in 1983. It has adopted a comprehensive set of Objectives and Principles of Securities Regulation (1998) and a multilateral memorandum of understanding (IOSCO MMoU) to facilitate cross-border enforcement and exchanges of information among securities regulators (2002). IAIS was established in 1994. It has also adopted detailed Insurance Core Principles, Standards, Guidance and Assessment Methodology (2011) and a multilateral memorandum of understanding on Cooperation and Information Exchange (2007). Latin American securities and insurance regulators are regular participants in several of IOSCO and IAIS committees.⁶

Instituting regular meetings of Latin American financial regulators and supervisors, supported by a technical secretariat, would constitute a minimum requirement in order to have an effective and coordinated participation in future negotiations of Basle agreements, BIS, IOSCO and IAIS Committees, while at the same time facilitating further advancements in regional harmonization of financial regulations and cooperation of regional supervisors, as discussed in Section 4. It would be desirable, in principle, to establish a single technical secretariat for regional cooperation of banking, securities markets and insurance companies' regulators and supervisors, for both harmonizing regional regulations, coordinating participation in global institutions and negotiations and cooperation in supervision. This might render significant synergies and cost savings, given increasing interdependence between different financial markets and the trend towards unifying regulation and supervision under a single agency at the national level.

Though not exceedingly costly, setting up and financing such a technical secretariat and the meetings do pose problems of coordination, cost allocation and financing. Regional Development Banks could be instrumental in helping solve these challenges, and in financing the technical secretariat and providing it with technical cooperation resources. The technical secretariat would also rely on the technical capacity of the region national Central Banks (which meet and cooperate on a regular basis and are involved in financial markets regulation and supervision in several countries), regulators and supervisors.

The Financial Stability Board⁷ has become an overarching coordinating body of all the previous institutions since it was created by the G-20, after the 2008 global financial crisis⁸, with the mandate to coordinate the work of national financial authorities and international standard setting bodies⁹ in order to develop and promote the implementation of effective regulatory, supervisory and other financial sector policies. In collaboration with the international financial institutions, the FSB also addresses vulnerabilities affecting financial systems “in the interest of global financial stability”.¹⁰

The significant presence of Latin American countries in the G-20, the Financial Stability Board and the Basle committee on Banking Supervision (3 out of 20) and the fact that commonality of interests in financial issues is stronger than in trade issues, would suggest an opportunity for a considerable influence of the region on global financial issues. However, the three countries (Argentina, Brazil and Mexico) have generally acted in an uncoordinated way in these forums

and have not attempted to represent the wider interests of Latin America. Recently, Mexico requested IADB to convene a meeting of all Finance Ministers of the region at the IADB Annual Meeting in Montevideo in March 2012 in an attempt to coordinate a common LAC position in the next G-20 meeting. Regional Development Banks and FLAR could use their convening power to regularly convene and finance meetings for this purpose with a pre-established Agenda and technical support documents.

Cooperation in WTO and extra-regional FTA's

Another area of potential collective action among LAC countries is related to cooperation in trade negotiations with third parties. This type of cooperation has always been present in FTA negotiations with the European Union, as the latter's trade policy is to negotiate only or mostly with regional groupings.

A prime example of the potential benefits of this type of collective action was provided by the CAFTA negotiations with the US. Though, in the end, each intervening country signed a bilateral agreement with the US, negotiations were conducted jointly. A negotiating Committee was set up from the start, composed by Trade or Economic Ministers from each country, a decision taken within the political organs of the CACM. The negotiating committee selected the Minister of Trade of Costa Rica as coordinator. This agreement facilitated a very intense technical contribution of multilateral agencies (especially the World Bank and IADB) and sub regional agencies (SIECA and CABEI). The end result was highly positive, as the CAFTA/DR agreements showed significant improvements, for Central American interests, as compared to NAFTA.

CARICOM had for a while the more ambitious initiative in this respect: the Caribbean Regional Negotiating Machinery (CRNM) which was established as a body quasi-independent from the CARICOM Secretariat. The CRNM carried on the negotiation of EPA with the European Union, but strong dissatisfaction from several CARICOM members with this process led to its formal incorporation into the CARICOM Secretariat as the Office of Trade Negotiations (OTN) in 2009. Since then it has somewhat languished for lack of new important negotiations.

It is rather surprising however, how little regional cooperation in WTO negotiations or in negotiations with Asian countries has taken place. Countries, especially the large ones like Brazil and Mexico, have preferred acting in tandem with other groupings within the WTO negotiations. Brazil has recently opted to join forces with other BRICs, Mexico with its NAFTA partners and some other South American countries with the CAIRNS group, which, lead by Australia and Canada, was the main force behind agricultural trade liberalization in recent rounds. Differences in trade interests partially explain this lack of regional cooperation within WTO, but lack of effective regional leadership and convening capacity does also seem to have contributed to the

lack of regional collective action, since there are significant common interests in areas such as agriculture, services and intellectual property rights. Again, multilateral development banks, such as IADB and CAF, can play a role in convening and financing preparatory meetings and technical documents in an attempt to develop presently missing collective action in this area.

Cooperation in trade negotiations with Asian countries may be more likely and urgent, given the already large potential markets and continuous high growth prospects of that region. Such collective action is especially important for middle sized and small Latin American countries, which find it difficult to negotiate on their own with giant powers like China. Part of the motivation of the initiative of ARCO among Latin American Pacific Basin countries, and latter on of the Alliance of the Pacific among Mexico, Colombia, Peru and Chile, was to take full advantage of trade negotiations with APEC countries. Such cooperation would not be limited to trade negotiations, but may include export and FDI promotion (section 6). It may eventually include regional infrastructure required by non-Pacific basin Latin American countries (such as Argentina, Brazil and Venezuela) to fully exploit trade opportunities with Asia (Section 7).

3. Financial markets: Market integration, regulatory harmonization and cooperation in supervision.

Table 2 summarizes an author’s assessment of priorities in collective action in this broad area, based on the discussion below

Table 2 Harmonization and cooperation in financial and insurance markets regulations and supervision

Regional Collective Action	Stability gains	Efficiency and growth gains	Advances and deeper options	Likelihood
Harmonization of banking and non-banking financial regulations	Reduced probability of banking and financial crisis and contagion +++	Efficient development of regional banks and financial institutions +++	Some through RTA’s Towards LAC Basle III +?+++++	High in Central America and the Caribbean Low elsewhere
Harmonization of capital market regulations	Reduced probability of stock market crises and contagion ++	Facilitate regional issuing of stocks and bonds ++	Some through RTA’s	Medium in CA and AP Low elsewhere
Integration of stock markets		Development of deeper regional stock and bond markets	Advances in MILA ++	Medium-high within the Alliance of the

		++++	Towards full integration? ++++	Pacific Low elsewhere
Harmonization of institutional investors regulations	Reduced probability of stock market crisis and contagion ++	Development of deeper regional stock and bond markets +++		Medium low in CA and AP Low elsewhere
Harmonization of insurance regulations (including social security) and cooperation in extra regional reinsurance	Deeper insurance coverage ++	Benefits from risk pooling and labor mobility +++ Social security portability?+++++ Cooperation in catastrophic insurance? +++++	Some through RTA's	Low Long term objectives.
Cooperation in banking, financial and stock market supervision	Reduced probability of banking and financial crisis and contagion +++++		'Colegios de supervisores' Consolidated Supervision	High in Central America. Medium low elsewhere Low. Long term objective

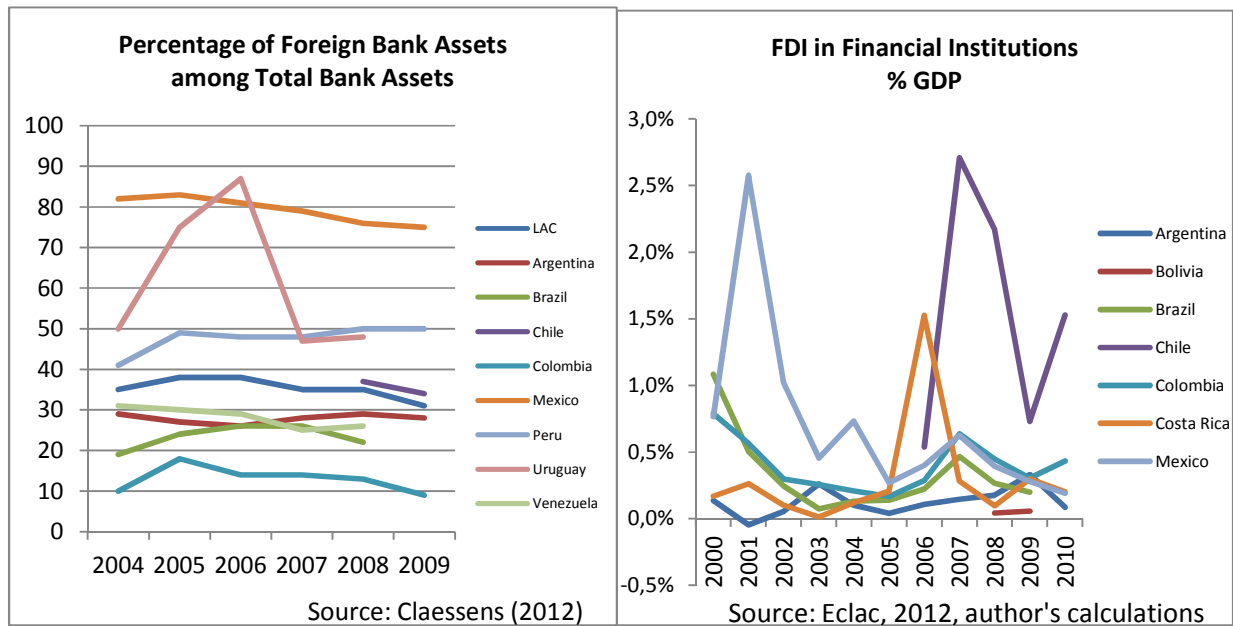
Harmonization of financial regulations

As mentioned above, there is a significant process of global harmonization of financial regulations in progress, through the Basle initiatives, IOSCO, IAIS and other international standard setting bodies, under the overall coordination of the FSB since recently. LAC countries are participants in these processes and their gradual adoption of these global agreements would automatically lead to some degree of intra-regional harmonization of financial and related (e.g., accounting and auditing) regulations. However, progress at the global level is slow and specific characteristics and needs of developing countries are often under-estimated in these processes, in which the US and Europe and large northern multinational financial institutions have had unusually high influence. These considerations alone would suggest that LAC countries should not only cooperate in these global forums (as discussed above), but also advance faster in regional and sub-regional harmonization. By doing this, Latin American countries would enhance their common voices in global forums.

The main reason to advance faster in regional or sub-regional harmonization of financial regulations (and cooperation in supervision) is the fact that extra and intra-regional FDI in financial institutions and cross-border financial operations are increasing at a very high rate. (Graph 6). Harmonization of financial regulations and cooperation in supervision would make this process much more intense and efficient, by reducing costs for financial institutions

operating in several countries. Harmonization of financial regulations would facilitate FDI in financial institutions, especially intra-regional FDI, and cross-border financial services, thus increasing depth and competition in the supply of financial services.

Graph 6



More importantly, it will make this process safer for both receiving and exporting financial services countries in the region, through avoiding regulatory arbitrage opportunities and facilitating cooperation in supervision of transnational financial institutions. It should be emphasized that foreign banks and LAC international financial institutions tend to be large in both the importing and exporting countries domestic financial markets. This is the case, for example, for the three largest Colombian banks operating in Central America, where they already own nearly 40% of Central American banking assets, which are equivalent to nearly one third of the total assets of these banks.

Areas in which regional financial regulatory harmonization is more desirable are:

- Regulations regarding foreign entry and cross-border operations
- Accounting and disclosure rules.
- Micro prudential regulations on capital requirements (definitions, tier 1 and tier 2 requirements, etc.), liquidity requirements, provisions and reserves.
- Macro prudential regulations, such as counter cyclical capital and provisions requirements, restrictions on foreign currency exposures, etc.

Present differences in accounting standards and counter cyclical provisions, which are required under some rules and not accepted under others, can increase substantially costs for bank operations in the region. This is the case, for example, between Central America and Colombian regulations. Also, existing differences in risk valuations and definitions of Tier 1 and 2 capital can lead to significantly different levels and quality of required capital as well as to regulatory arbitrage. Harmonization options include the possibility of a LAC Basle III plus Agreement, more suited to the particular needs and the financial institutional setup in Latin America, as proposed by Powell (2011)¹¹

Cooperation in Financial Supervision is essential when there are financial institutions that are systemically important in two or more domestic financial markets. Countries in which these multinational firms are based and originated should aim at consolidated supervision, which require close cooperation of host country supervisors. The latter need to know better the strengths and weaknesses of the subsidiaries acting in their countries and the degree to which they can count on effective support by their parent companies in case of liquidity or solvency risks and this is not possible without effective cooperation of supervisors of the parent company.

An additional advantage of harmonization in prudential regulations and cooperation in supervision in small markets is that domestic regulators and supervisors may strengthen their independence, avoiding domestic capture and arbitrage.¹²

Harmonization and cooperation in financial markets is especially important for Mesoamerica and the Caribbean countries, given the smaller size of their domestic markets and the already high intensity and importance of transnational (and in particular intra-regional) financial services, both in terms of FDI in financial institutions and cross-border transactions. Because of this, and the higher development of integration institutions in these regions, it does not come as a surprise that most important advances in these areas have taken place precisely in these sub regions (see, for example, Box 1 for the *Central American Council of Superintendent of Bank, Insurance and other financial Institutions*). But it should also be a high priority in Mercosur and, more generally, in the whole area, as some international financial institutions are large players through-out all of Latin America and intra-regional flows are spreading fast in all directions (in particular, Chilean, Brazilian and Colombian financial institutions are investing and rendering cross-border financial services in other countries in the region). ASBA, the Latin American Association of Bank Superintendents, could eventually develop a similar operative structure across the whole region, based on the experience of Central America, with the support of regional development Banks, the World Bank and the IMF.

Box 1

The Central American Council of Superintendents of Banks, Insurance and other Financial Institutions

A working model of cooperation among sub regional supervisors is provided by the Consejo Centroamericano de Superintendentes Bancarios, de Seguros y de otras Instituciones Financieras (CCSBSO),¹³ to which the Colombian Financial Superintendence recently joined as observer. These Supervisors meet periodically to exchange information about the state of their domestic financial systems, potential internal and external risks and best practices, informally since 1976 and more formally since 2007. They are supported by a permanent Executive Secretariat since 2011 in Panama (whose functions previously rotated among members) and technical cooperation provided by IADB, the World Bank and IMF. There are operative Committees on Harmonization of Financial Statements, Consolidated Cross-Border Supervision and Implementation of Basle III, among others. The Supervisors also meet regularly in Colegios de Supervisores in order to review jointly the situation of a specific financial group that span across their jurisdictions, in a first step towards consolidated supervision. However, there are no formal agreements or enforcement mechanisms.

Harmonization of regulations and integration of securities markets

Domestic securities markets development is severely limited by market size.¹⁴ This is a consequence of both fixed costs, economies of scale and, above all, liquidity and risk diversification limitations. Investors shy away from illiquid markets as, even when they plan to hold securities for long periods in their portfolios, they may need to cash them when faced with liquidity constraints. Further, liquidity is critical for the existence and development of secondary markets and efficient price revelation. Liquidity requires large volumes and high frequency of issuance of individual securities. Further, a significant number of actively trading large firms is required as investors need to diversify risks. This is not possible in concentrated or small markets where risks are highly correlated. These reasons, together with technical and reputational issues, explain the large concentration of trading in a few large stock markets globally.

In the region, only Brazil has the size required for being a developed securities market. Indeed only Bovespa has attained a significant level of turnover in equities and derivatives, by international standards. Even then, however, bond markets remain underdeveloped in Brazil due to the high level of domestic interest rates.

Latin American markets are not only small in a global context, but have non-insignificant risk correlations. Hence, they will probably continue to represent just a fraction of the portfolios of most international investors in the medium term, including Latin American institutional

investors. For the same reason, they will probably continue to represent only a fraction of the target markets for foreign issuance by Latin American governments and corporations. That said, informational and cultural advantages, as well as home and regional biases, may make them more important than their sheer size and ratio of idiosyncratic to correlated risks might suggest. Further, they can act as 'training' grounds for globalization of medium size corporates issuance and for institutional investors' incipient international investment strategies. Thus, deeper or faster regulatory harmonization, on top of their adoption of international standards, would significantly increase their attractiveness, especially for regional issuers and investors.

As a consequence, harmonizing basic capital markets regulations, such as disclosure rules and issuance and trading requirements (minimum size and other characteristics of issuance and individual transactions), as well as rules against use of insider's information and others, could significantly benefit the development of regional capital markets and, especially, intra-regional operations, with important benefits for regional issuers and investors alike. In particular, institutional investors may be more willing to invest directly in partner countries, especially if there is harmonization of regulations, further facilitating their present risk diversification strategies. Some degree of harmonization of regulations of investment portfolios of institutional investors, especially Pension Funds, would further facilitate their regional risk diversification strategies. Physical integration of securities markets, as Chile, Colombia and Peru are undertaking through MILA (to which Mexico will be soon joining), would go even farther in these purposes by sharply reducing transaction costs and increasing market liquidity, which as mentioned is normally related to market size. We discuss below this latter option in more detail.

Physical integration of securities markets

Cognizant of the severe restrictions imposed by small size to the development of domestic securities markets, individual stock exchanges all over the world have looked for ways of integrating. However, only a few cases have succeeded, as significant limitations stand on the way, such as jurisdictional issues, convertibility and currency risks, as well as limited cumulative size and risk diversification, in comparison to large and well established global stock markets (such as New York or London) to which governments, large national firms and national institutional investors have access. Further, there is need of national regulators' approval and support through considerable regulatory harmonization¹⁵. Still, as discussed above, these initiatives may render significant benefits, especially for medium size firms and national institutional investors.

The best known success case is the integration of the Scandinavian stock markets in OMX, which began in 1998 and was concluded in 2006, later bought by NASDAQ in 2007. Another successful case was the integration of the Amsterdam, Bruxelles and Lisbon stock exchanges in EURONEXT (2004), later bought by NYSE in 2007. This merger was enormously facilitated by the single (Euro) currency trade.

BOX 2
MILA: the Integrated Latin-American Market

Integrated routing of stocks to be paid in cash in the secondary market was chosen as the first step for several reasons. First, requirements of harmonization of regulations were lower in stocks than in the case of currency trade, derivatives or bond markets (actually, stocks are similarly regulated all over the world). Second, trade in stocks was already 100% electronic in the three markets, which was not the case for bonds which have large OTC components everywhere¹⁶. Government bond markets are only liquid in Colombia (where trading is fully electronic). Third, in practice some large investors were already buying stocks in other markets through international brokers: direct routing represented a significant reduction of costs for them, and paved the way for smaller size investors to join. Fourth, non-cash transactions would need transnational and international custody and clearance processes in order to reduce counterparty risk. Fifth, integrating primary markets require significant regulatory harmonization; in particular, full recognition of primary issuers of the three markets as local issuers. Sixth, direct market access would require significant regulatory and supervisory harmonization as well as transnational compensation and liquidations systems and a considerable degree of integration of technical platforms, which are complex and costly and would only be justified once transnational transactions reach a large volume. MILA is currently planning to integrate in 2013 currency and derivatives trade (for which there is already a fully electronic liquid market in each country) and primary issuing of stocks. Other short term developments may include introducing international custody services for non-cash transactions and integrating trade in repos and securities lending. Regulators are meeting periodically to harmonize regulations to facilitate these developments and so do supervisors to facilitate cooperation in supervision.

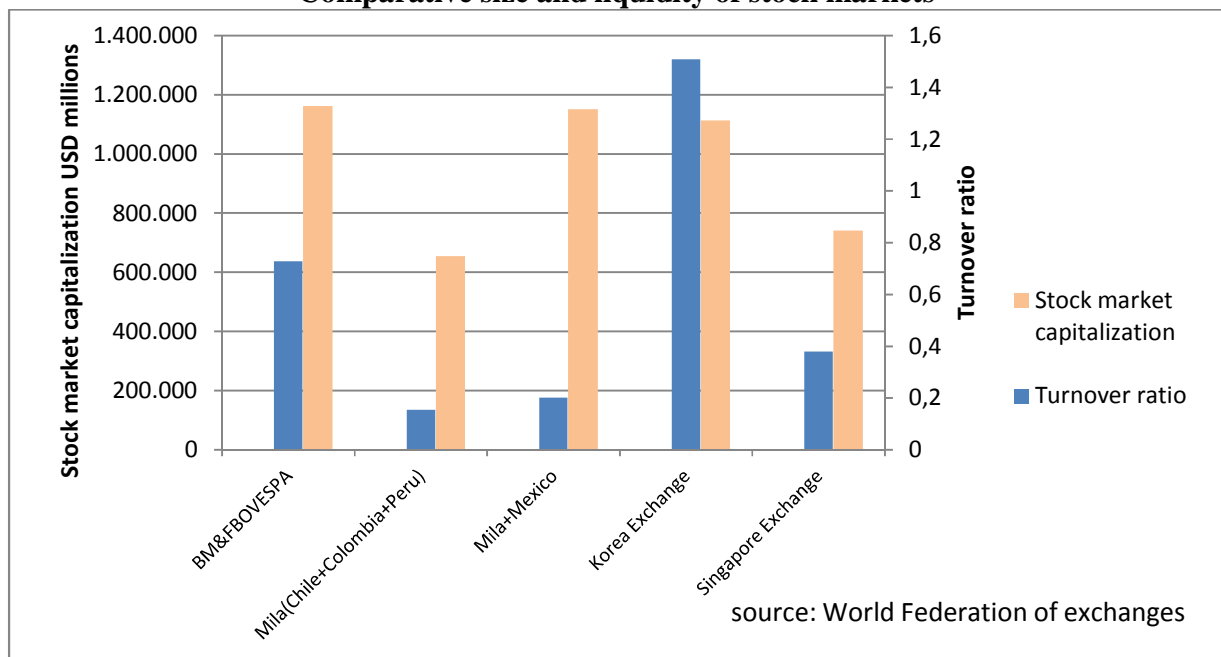
In 2010 the Stock Markets of Bogota¹⁷, Lima and Santiago, together with the respective depositary Agencies in the three countries and with the support of the respective regulators, announced their intention to integrate. Intermediated routing of orders for stocks in the secondary market to be paid in cash is already operative since May 2011. This is the simplest form of integration and is intended to be a first step in a process of deeper integration. The goal was to achieve in a short period of time the maximum integration possible within the minimum regulatory harmonization requirements, in order to showcase the benefits to all participants and to facilitate the progressive engagement of regulators in a process of cooperation. Hopefully this will deepen going forward, as they gain trust in MILA and with each other. See Box 2.

Full integration is a longer term goal that would require deep regulatory harmonization and unified supervision, as well as establishing transnational depositary, compensatory, clearance and settlements institutions and full integration of technical platforms.¹⁸ It would also require harmonization of tax treatments and of institutional investors' portfolios (especially of pension

funds investment regimes), unified foreign exchange registries and conflict resolution instances. This is a complex agenda that would take considerable time and effort and require significant financial resources.. Authorities will likely proceed by incremental steps, as indicated in Box 1. Technical and financial support from MDB´s would be extremely helpful in going forward. CAF and IFC have already been giving technical and financial support to this first phase.

The stock markets of Colombia, Chile and Peru have together the larger number of issuers in the region, though the combined market capitalization is second to Bovespa Brazil and joint turnover is third to Mexico and Brazil. In December of 2011, in the Summit of the Alliance of the Pacific, the four Presidents signed an Agreement of Intention for *Bolsa de Mexico* to join MILA, which requires some regulatory changes in Mexico and maybe ready for 2014. This would roughly double the size of MILA (to make it comparable to Bovespa, the Korean and the Singaporean stock exchanges, though turnover will probably continue to be lower than in the Brazilian and Korean cases), becoming the fifth largest stock market in emerging countries. Integration with Bovespa maybe a long term goal, once MILA plus Mexico is consolidated and has attracted large global investors' interest. Size and liquidity asymmetries would present new challenges and opportunities. See Graph 7.

Graph 7
Comparative size and liquidity of stock markets



Another natural candidate for this type of initiatives would appear to be a partnership between Bovespa and the Buenos Aires stock exchange, eventually including regional stock markets in Mercosur. However, market asymmetries are too large (benefits to Bovespa would be marginal) and differences in regulation and the degree of market infrastructure modernization are huge.

The same is true among Central American Countries (which might rather be interested in joining MILA) and the Caribbean, where domestic stock markets are very thin, with the exception of Trinidad and Tobago that has the initiative, so far with limited success, of converting itself into a major financial center for the region.

Harmonization of insurance markets and cooperation in catastrophic insurance

Insurance companies acting regionally may obtain important risk diversification benefits by pooling idiosyncratic risks across countries. Further, they may thus become more attractive for reinsurers and obtain lower reinsurance fees. Harmonization of regulations (especially on technical reserves and investment policies) would significantly help the development of intra-regional insurance markets and cooperation in supervision would facilitate these processes.

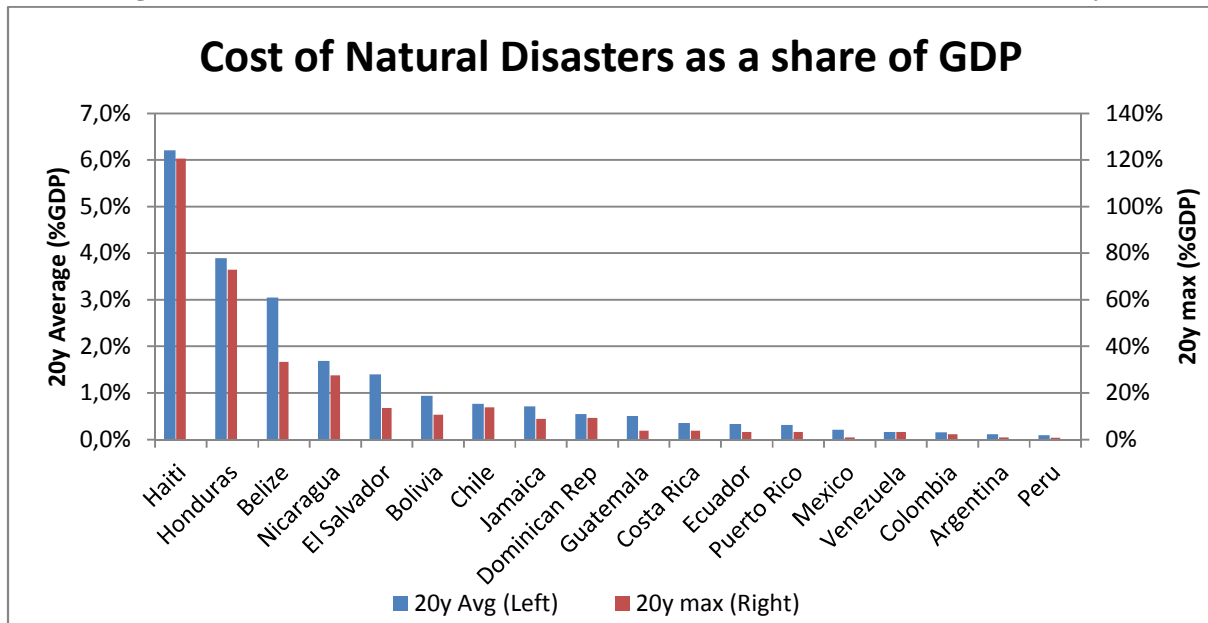
Introducing some regional competition on the provision of mandated insurance (e.g. that associated with public procurement, social security –especially health insurance- and transport), which has been generally kept closed to foreign entry and cross-border services in most of the region, would deliver high benefits to users. Though politically difficult, it maybe much easier to open up these markets to regional or sub regional competition through reciprocal agreements, than liberalizing them unilaterally or through agreements with extra regional Governments.

Cooperation in the development of catastrophic insurance, which has very low penetration rates in the region, maybe of special importance. We next discuss this increasingly important topic.

Cooperation in catastrophic insurance

The importance of Catastrophic Insurance is vividly illustrated by the recent increase in natural disasters costs in the region and elsewhere, a trend that is likely to continue given fast economic development in the emerging world and the potential consequences of ongoing climate change. Graph 8 shows the average and maximum annual costs in several countries in the region. Incidence is especially high in the Caribbean and Central America, followed by the Andean countries (including Chile).

Graph 8
Average and maximum annual costs of natural disasters in Latin America (20 years)



Source: Centre for Research on the Epidemiology of Disasters (CRED)

Though there has been a significant increase in the insured fraction of expected economic loss for natural disasters in industrial countries (from around 20 percent in 1980 to about 40 percent in 2006), the corresponding figure for the average of developing countries has remained at a very low 3 percent¹⁹. Very few developing countries have average property insurance premiums higher than 50US\$ per capita, while the corresponding figures for developed countries are above 500US\$²⁰.

There are several reasons behind these huge differences. Property insurance and catastrophic insurance in particular, are highly sensitive to price, especially in low-income countries. In addition, catastrophe reinsurance fees are high and very volatile. For example, fees skyrocketed in the United States after Hurricane Katrina. Similarly, there were huge increases in insurance premiums after the major hurricane damages in Cancun in 2005, which paralyzed investment in tourism development in that country for a while, because private investors did not want to go uncovered.

High and volatile fees are the consequences of several facts. When a high-cost, low-probability event occurs, reinsurance companies may see a large chunk of their capital washed out, as their risk capital is normally just about 30 to 50 percent of maximum economic losses. To mitigate this problem, many governments have agreed to be residual risk takers in the upper tails of the probability distribution of natural disasters, and have achieved as a consequence higher insurance penetration in their jurisdictions.²¹ In these cases government support is normally triggered

automatically when the underlying physical event exceeds pre specified parameters. In addition, there is low risk diversification by reinsurance companies, precisely because catastrophic insurance is still basically concentrated in industrial countries. Finally, high reinsurance premiums are also the result of the fact that syndication is a common practice in the industry, given the high capital exposure of reinsurance companies, and such a practice significantly reduces competition among them.

Another major reason for low penetration of catastrophic insurance in developing countries has to do with their poorer prevention policies and enforcement of zoning and building codes.

In summary, deepening catastrophic insurance penetration requires a well-integrated prevention and Government insurance support program. However, in most developing countries today, governments are far from being able to support private catastrophic insurance penetration by taking on part of the burden, because they themselves are not adequately insured against these casualties. In spite of the rapid development of the Catastrophic Bond (CAT Bond) markets, very few developing countries Governments have issued bonds in these markets, and they have done so in small amounts and at high costs.²²

A recent initiative, the Caribbean Catastrophic Reinsurance Facility (CCRF), demonstrates the potential importance of regional collective action in this area. See Box 3. Through a combination of reduced cost of capital, risk pooling (covering earthquake and hurricane risks) and partial risk retention, premiums were reduced by approximately 68 percent (of which about 35 percentage points was due to lower cost of capital and the rest to risk-diversification benefits) compared with individual country solutions²³.

Benefits from risk diversification could be significantly higher for a facility including a group of countries located in different latitudes and for coverage of a broader category of natural disasters risks, as risk correlations would be significantly lower than in the case of CCRF. However, its setting would have to overcome significant coordination, technical design and cost allocation problems. The regional development banks, possibly in cooperation with the World Bank, which promoted the CCRF, could help overcome coordination problems and provide required capital and technical cooperation contributions. Committing resources and efforts to the development of collective insurance mechanisms would be a more efficient way to help countries manage these risks than present practices of contingent lending in individual country operations. Increasing the debt of a country struck that has suffered a high wealth loss due to a natural disaster is clearly an inadequate financial solution: insurance is theoretically the right response to such events.

Box 3

The Caribbean Catastrophic Reinsurance Facility (CCRF)

The CCRIF is a risk pooling facility, owned by 16 Caribbean country governments. It is the world's first regional fund utilizing parametric insurance, giving Caribbean governments the opportunity to purchase earthquake and hurricane catastrophe coverage with lowest-possible pricing. The facility retains some risk, which is significantly reduced by pooling, and diversifies the rest through either reinsurance or the issuance of CAT bonds. It was capitalized by the World Bank, the European Union, the Caribbean Development Bank, and the governments of Government of Canada, the UK, France, Ireland and Bermuda, as well as through membership fees paid by participating members with the support of other donors Governments. The CCRIF paid out almost \$1 Million to the Dominican and St Lucian governments after the November 2007 earthquake in the eastern Caribbean; \$6.3 Million to the Turks & Caicos Islands after Hurricane Ike in 2008 and a payment of \$7.75 Million to the Government of Haiti after the January 2010 earthquake. However, it must be recognized that there has been dissatisfaction from some members that were hit by hurricanes that caused major costs but did not qualify for disbursements under present parametric rules.

4. Regional pooling of international reserves

Table 3 summarizes the author's assessment of potential collective action initiatives in this area, based on the discussion presented below.

Given the present high degree of globalization of trade and financial markets, it would be desirable to have a full-fledged international lender of last resort that can help individual Governments to avoid or mitigate liquidity crisis and thereby moderate their effect over the global economy. Though there has been some recent progress in this direction, through a considerable increase in IMF resources and the adoption of more automatic stabilization credit lines, under present circumstances most developing countries find in their interest to accumulate large stocks of international reserves, in addition or in lieu of their potential access to IMF resources, to cushion from eventual liquidity shocks. The large accumulation of individual country reserves that has taken place since after the 1997/98 crisis (Graph 2 above) is, however, highly inefficient from a global perspective and very costly from the individual countries standpoint²⁴.

Table 3
Alternatives for pooling of international reserves

Regional Action	Collective	Reduced probability of BP crisis	Reduced cost of reserve accumulation and faster response	Comments	Geopolitical likelihood
Converting FLAR into a fully regional institution and increasing contributions		++ (especially for small size economies)	++++ (especially for small and medium size economies)	Chiang-Mai style	Medium: Brazil and Mexico would have mostly geopolitical incentives
Plus FLAR-IMF (FCL) agreement		+++++	+++++	G-20 recommendation	Low: resistance to IMF by some FLAR members
Plus FLAR-US Treasury agreements		+++++	+++++	US Treasury gave liquidity support to Brazil and Mexico in 2008	Medium-low: complex multilateral negotiation
Plus FLAR-China (or other Asian or oil exporting countries) agreements		+++	+++	China (and other Asian countries) maybe persuaded of acting regionally	Medium-low: not likely in the short term

In this context, significant benefits can be obtained by pooling international reserves among groups of countries whose financial risks are normally weakly correlated, as the group could thus obtain the same degree of coverage with a much lower level of hoarding and carrying costs. Recent estimates show that correlations among terms of trade or capital flows shocks among Latin American countries are indeed low in normal times²⁵. However, in times of global financial contagion regional risks correlation become higher and a regional reserves Fund would not be able to provide simultaneous liquidity support to most countries in an efficient manner (without an excessively large pooling of reserves), so that access to IMF becomes essential in such circumstances, even with the presence of a regional reserves fund. This fact highlights the complementary nature of regional funds and the IMF. On the other hand, a regional reserves fund can respond faster than the IMF (unless the country is prequalified for the FCL). Further, those countries that cannot or would not hoard enough reserves for self-protection, or that cannot or would not easily access IMF, could remain an eventual source of regional or sub regional financial contagion and instability, unless they are members of a regional fund.

With these considerations in mind, several regional initiatives of pooling of reserves have flourished and many authors and more recently the G-20 (since 2010) recognized that there is room in the international financial architecture for regional mini-IMFs²⁶, that would be especially helpful for smaller countries within each region. As a consequence, the G-20 gave the IMF the mandate to strengthen such a system. Regional reserves funds are thus presently seen as

a complement to the IMF and other ad-hoc actions by the international community, such as the FED credit lines established during the 2008/9 global financial crisis to support systemically important developing countries (included Brazil and Mexico).

Existing regional initiatives include the Arab Monetary Fund (AMF), created in 1976, covering 22 Arab countries; the so-called Chiang Mai Initiative in Asia, created in 1997 and reformed in 2010; the Europe's Medium Term Financial Assistance Mechanism; the North American Framework Agreement, created as part of NAFTA, and FLAR (the Latin American Reserves Fund), created in 1978, which at the present has 7 member countries.²⁷ A recent study found that existing regional funds can be expected to have superior information about the economy in crisis and react more quickly to address a stress situation in comparison to the IMF, which are important pluses, but at the same time lacked the expertise to define the policy course towards external sustainability and the amounts of funding necessary to reassure markets. In summary, they can all be helpful complements but not substitutes of the IMF²⁸. Another comparative assessment of 5 of these initiatives found that: (i) the reserves pool should be large enough to meet prospective needs (all 5 cases pools are barely enough to support smaller members potential needs, though Europe's Medium Term Financial Assistance Mechanism has, in principle, full backing from the EU), (ii) effective members surveillance capacity is generally low (Chiang Mai has just set up a research group -AMRO- and FLAR has some capacity); (iii) speed in decision making and legitimacy is high (the NAFTA mechanism is the only one that has not been actually tested) and (iv) the ability to work in coordination with the IMF is mixed (neither the Arab Fund nor FLAR have mechanisms in place for this coordination)²⁹

FLAR was initially created in 1978 (as FAR, the Andean Reserves Fund) by the five Andean countries (Bolivia, Colombia, Ecuador, Peru and Venezuela), as part of the Andean Community integration effort. Its main objective was to support Andean countries when incurring in balance of payments crisis, as a first-stop complementing IMF eventual support when needed, and to help consolidate sub-regional trade integration efforts, as countries accessing FLAR would commit not to impose restrictions on imports from other FLAR members. Additionally, FLAR would lend different types of technical and financial services –such as administration of international reserves and depositary services- to its Central Banks constituency and other agents –such as national pension funds- and support efforts to coordinate monetary, foreign exchange and financial policies. In 1989 FAR was converted into FLAR and its constituency opened to other Latin American countries. So far only Costa Rica and Uruguay have joined, in 2000 and 2009 respectively. Results of a recent evaluation are presented in Box 4.

FLAR results highlight a key practical aspect of regional reserves funds: they may be able to fully attend eventual balance of payments and liquidity needs of their smaller members, while complementing IMF support to eventual needs of larger members. This is precisely the principle on which the Chiang Mai initiative was constructed, with Japan and China expected to be net

lenders helping to cover through mutual pooling of reserves all balance of payments and liquidity needs of smaller members.

In the Latin American case, it highlights the importance of larger regional members (Brazil and Mexico) joining: if they do, FLAR would be able to cover all eventual BOP and liquidity needs of both medium and small size economies in the region. As systemically important countries, Brazil and Mexico would receive large and immediate support from the IMF and the rest of the international community when needed, as happened with the credit lines extended by the FED in late 2008.

Box 4
FLAR experience.

All participating countries have eventually accessed FLAR resources in times of need and a recent evaluation estimated that all of them have derived net financial benefits from their membership³⁰, though these have been much higher for Ecuador, and lower for the three larger countries (Colombia, Peru and Venezuela). It also highlighted the fact that FLAR was able to obtain an A+ S&P and an Aa2 Moody's rating in 2002 and a higher AA S&P rating in 2008, six notches above the higher individual member rating and higher than regional development banks such as CAF and BCIE, due to its conservative financial management, high liquidity, seniority and market reputation. At present FLAR capital and reserves (amounting to 2237.5 million dollars) would permit total loans of 3051 million dollars, enough to allow attending simultaneously maximum statutory demands of all four smaller countries (Costa Rica, Bolivia, Ecuador and Uruguay) and 30% of maximum statutory demands by the 3 larger countries (Colombia, Peru and Venezuela). During 1978-2003 FLAR disbursements amounted to 60% of IMF disbursements to Andean countries³¹

Strengthening FLAR through broader participation of Latin American members and support from the IMF and/or the FED would be consistent with both recent political mandates in the G20 and UNASUR. However, the political economy of the process is complex. On the one hand, Brazil and Mexico, as potential net lenders to FLAR, would have to be persuaded –based on the positive experience of the larger countries within FLAR- that their joining would permit managing negative externalities from smaller countries in the region by containing potential spillovers, while at the same time delivering net financial benefits and geopolitical gains. To facilitate their joining, and required increases in the contributions by present members, capital contributions would have to be counted as country reserves, as happens in the case of contributions to the IMF. This can be accomplished if there is an automatic first tranche at least equal to each country's contribution (could be higher than the contribution for small and medium sized countries).

Graph 9 shows that required contributions would be a relatively low fraction of present reserves, or GDP, which indicate the economic feasibility of a Latin American reserves fund (Graph 9). In all cases contributions total 25 billion dollars, as recommended by CLAAF³², a sum, with a conservative leverage of one, would have covered half of the regional net capital outflows dating 2008/09 (102 billion dollars)³³ and more than all net capital outflows of all countries except Brazil and Mexico (41.6 billion dollars). This is equivalent to 0.5% of GDP (higher than present FLAR of 0.27% of GDP, but much lower than Chiang Mai contributions (0.84% of GDP) or of regional contributions to the IMF (1.3% of GDP). As a fraction of present reserves, it would amount to only 3.5%³⁴

Graph 9

Required contributions for a Latin American Monetary Fund that would have covered half of regional net capital outflows in 2008/09

	%GDP			%Reserves		
	FLAR	FMI	CMI	FLAR	FMI	CMI
Brazil	0.2%	0.3%	0.3%	1.7%	2.0%	2.4%
Mexico	0.5%	0.5%	0.7%	4.0%	4.0%	5.7%
Argentina	0.4%	0.8%	0.4%	4.3%	7.6%	4.0%
Chile	0.8%	0.6%	0.7%	4.7%	3.4%	4.4%
Colombia	0.6%	0.4%	0.6%	6.2%	4.0%	5.8%
Peru	1.1%	0.6%	1.1%	4.0%	2.2%	3.8%
Venezuela	0.6%	1.4%	0.6%	7.0%	15.8%	6.7%
Bolivia	4.0%	1.2%	0.2%	8.2%	2.4%	0.5%
Costa Rica	2.4%	0.7%	0.1%	20.7%	5.7%	1.1%
Ecuador	1.5%	0.9%	0.1%	33.3%	19.5%	1.8%
Uruguay	2.1%	1.1%	0.1%	9.6%	5.0%	0.5%
Paraguay	4.1%	0.7%	0.2%	19.7%	3.3%	1.1%
Total	0.5%	0.5%	0.5%	3.6%	3.6%	3.6%

Source: author's calculations based on (Titelman, 2012)

Graph 9 show three alternative criteria for distribution of contributions and its implications. It should be noted that Chiang Mai criteria would be the most demanding for Brazil and Mexico, while FLAR criteria would be the most demanding for smaller countries. Though smaller countries would benefit more and, thus, it is reasonable that they contribute a higher fraction of their GDP and reserves (as happens to date in FLAR), political viability would probably require something in between these two criteria.

As discussed above, the regional reserves fund must be complementary to the IMF. Ideally, FLAR should benefit from an FCL line, which would require a reform of the IMF charter. Such an arrangement would permit IMF to wholesale FCL in the region (to date only Colombia and

Mexico have requested an FC). However, a fully organic relation with the IMF (as in the Chiang Mai or the European cases) would probably be resisted by some of FLAR members, on ideological grounds, even if under an FCL arrangement the IMF might not require adopting full IMF conditionality on individual countries (FLAR has had so far almost unconditional lending). It should be observed that Chiang Mai has never been used, so far, because of the requirement of having an IMF program for drawings over 30% of CMIM quotas (formerly just 20%).³⁵ Though a second best, external support from the FED and/or the US Treasury, or extra regional liquidity providers such as China and other Asian countries, or oil exporting countries, might have a higher political viability.

Regional Development Banks, as perceived honest brokers, can help overcome the significant coordination problems associated with the required FLAR enlargement and financial and technical strengthening. They might even consider being lenders to FLAR, instead of providing directly short term liquidity to countries in stress, a function which is neither central to their development mandates, nor part of their core competencies.

5. Cooperation in trade and investment promotion and policies

As mentioned in the Introduction, there has been a recent worldwide explosion of FTA's. Some highly recognized trade experts, such as J. Bhagwati and T.N. Srinivasan, warned about the potentially distortionary trade diverging effects of FTA's and considered that they could become "stumbling blocks" in the building of a more open global market.³⁶ However, most of the more recent technical literature and multilateral institutions, such as the IMF and the World Bank³⁷, have adopted a more nuance stand.³⁸ This change of attitude reflects the fact that empirical analysis has found that trade diversion effects of RTA's are small in comparison to their positive trade creation effects³⁹, except for agricultural trade (as happens in particular with the EU), an unsurprising result given the prevalence of high MFN trade barriers in this sector. This view has been reinforced by the fact that the recent explosion of FTA's has happened in a context of lower multilateral MFN tariffs achieved by previous WTO rounds. Further, it has been accompanied by substantial unilateral liberalization in developing countries under an 'open regionalism' strategy, as opposed to previous protectionist strategies that attempted to just build expanded protected markets under regional FTA's, in order to gain some economies of scale. This shift has been particularly notorious in Latin America since the early nineties.

Perhaps more importantly, it has become clear that the stagnation of DOHA negotiations is mostly due to increasing problems of global collective action, and that the proliferation of RTA's is more an answer to, than a cause of, this trend. The rapid increase in the absolute number of intervening players in WTO negotiations, and in particular the emergence of influential BRICs, have eroded the traditional role of US and Europe bilateral accords in guiding and consolidating multilateral trade negotiations. Further, as trade in manufactures has already been significantly

liberalized, more contentious and difficult issues have taken central stage; further complicate reaching new agreements within such an enlarged membership. In particular, liberalizing trade in agriculture and services –in which neither Europe, nor the US, have a fully liberalizing stand-, as well as agreements in trade complementary disciplines (on investment flows, intellectual property rights, competition policies, etc.), have proven to be more complex and divisive than liberalizing trade in manufactures.

Under such a global framework, FTA's have been progressively seen less as “stumbling” and more as “building” blocks of a freer global trading system. The role of FTA's in facilitating deeper ‘club’ agreements in the liberalization of services and in trade complementary disciplines, is now seen by most as a highly positive feature that have permitted advances and experimentation in these areas, which latter on may find their way into global agreements. Moreover, it is argued that trade liberalization in a regional setting may help undercut protectionist lobbies and yield an overall more open trading environment, thus helping to pave the way for liberalization at the multilateral level.

Regional Trade Agreements (RTA's) can also promote exports of so- called “regional products”—goods that are not traded in the global market but do in the regional market—and serve as a training ground for export operations elsewhere down the road. Further, implementing RTA trade facilitation measures—e.g., modernizing customs procedures, providing for a single window for exporters—can benefit trade with third partners. As important, RTA's may lead to the provision of regional public goods to facilitate their trading relationships, such as regional infrastructure networks (see Section 6), which can also benefit trade with third partners. RTAs can also help “locking in” domestic reforms via binding agreements with developed countries (this was an important motivation behind Mexico's interest in NAFTA). Finally, they may facilitate cooperation in international negotiations, thereby increasing their members bargaining power.⁴⁰

Harmonization of regulations and further liberalization within FTA's: Untangling the spaghetti Bowl⁴¹

All those arguments in favor notwithstanding, limitations of a world map of overlapping FTA's are widely recognized. As the number of FTA's increase, those countries included in more and larger market agreements achieve considerable liberalization and market access, but those left out witness increasing costs of trade diversion⁴². This is evident in the Western Hemisphere with the “missing-links” in the Spaghetti Bowl, some of which are quite important: e.g., the existence of few FTA links between South America with Mexico, Central America and the Caribbean and the significant FTA missing link between the US and Canada with Mercosur countries.

As important, most FTA's have different rules of origin, and agreements in trade-related disciplines, that make life increasingly complex and inefficient for domestic firms engaged in trade across several countries covered by different FTA's. Further, the spread of FTAs can lead to the rise of hub-and-spoke systems centered on a few normally large hub countries (which make FTA's with most other countries in the region), in which the potential cost savings among the spokes remain largely untapped. This is exemplified by the case of bilateral Latin American FTA's with the US.

Table 4 summarizes the author's assessment of priorities in collective action in this area, based on the discussion below.

Table 4: Completing and untangling the spaghetti bowl

Regional Collective Action	Efficiency and growth gains	Comments	Geopolitical Likelihood
Mexico-Mercosur FTA's	++		Medium-low
CA-Mercosur FTA's	++		Medium-low
USA-Mercosur FTA's	++++		Very low
Further liberalization within FTA's	+++	Mercosur and the Andean Community are in crisis. The Caribbean Common Market is stagnant. The Central American Common Market is well advanced.	Low High, but limited additional scope
Harmonizing rules of origin within FTA's	+++++	Under study in Alliance for the Pacific	Medium-high in Alliance for the Pacific. Low elsewhere
Harmonizing other trade practices within FTA's	+++		Medium in Alliance for the Pacific. Low elsewhere
Harmonizing trade facilitation measures	+++	Significant advances in Central America and some in Mercosur and bilaterally between some neighboring countries	High

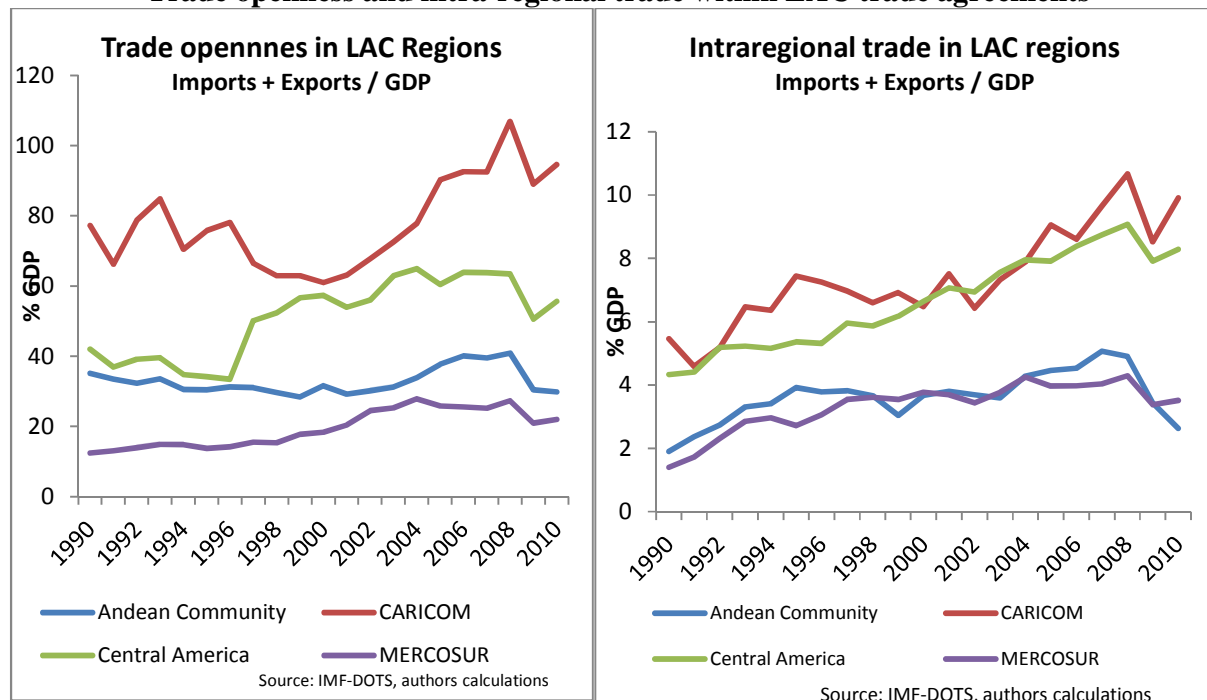
Graph 5 showed how, in spite of progress, trade, and especially intra-regional trade intensity, remain low in Latin America as compared to the EU, North America or Asia. Graph 10 below

shows that trade openness and intraregional trade are particularly low in the Andean Group and, especially, in Mercosur countries.

RTA's flourished and deepened in the region during the early nineties: NAFTA, CAFTA-DR, deepening of the Andean Common Market, an ambitious agreement for a Common Economic Space in the Caribbean, some limited progress in Mercosur and a host of bilateral FTA's. As will be shown below, these efforts led to substantial reductions in tariffs and non-tariff restrictions within RTA members. At the peak of activity, the initiative for a hemispheric FTA (WHAFTA) awoke a lot of enthusiasm and substantial efforts were devoted to technical preparations. After its failure some momentum survived through further bilateral FTA's.

However, since the late nineties progress within most RTA's stalled or was reversed, with the notable exception of the Central American Common Market. The Andean Community was substantially weakened as a consequence of Venezuela's exit, allegedly due to the initiation of bilateral negotiations of Colombia and Peru with the US. Venezuela's temporary unilateral breaking of trade relations with Colombia further affected trade flows within this area.

Graph 10
Trade openness and intra-regional trade within LAC trade agreements



Existing problems in Mercosur increased significantly since the Brazilian devaluation of 1999 and the Argentine crisis of 2001. Argentina and Brazil have often resorted to unilateral restrictive actions between themselves and with respect to the smaller Mercosur countries. Tensions between Argentina and Uruguay increased significantly with the dispute over the Rio de la Plata

paper mills. With the recent expulsion of Paraguay, and the simultaneous entry of Venezuela, political tensions within the region heightened.

Almost no progress has taken place in Caribbean Common Economic Space for more than a decade. Strong ideological divides and the abandonment of adherence to free trade policies by some countries in the region make it highly unlikely for this state of affairs will change in the near future, unless sweeping political changes happen in countries like Venezuela or Argentina.

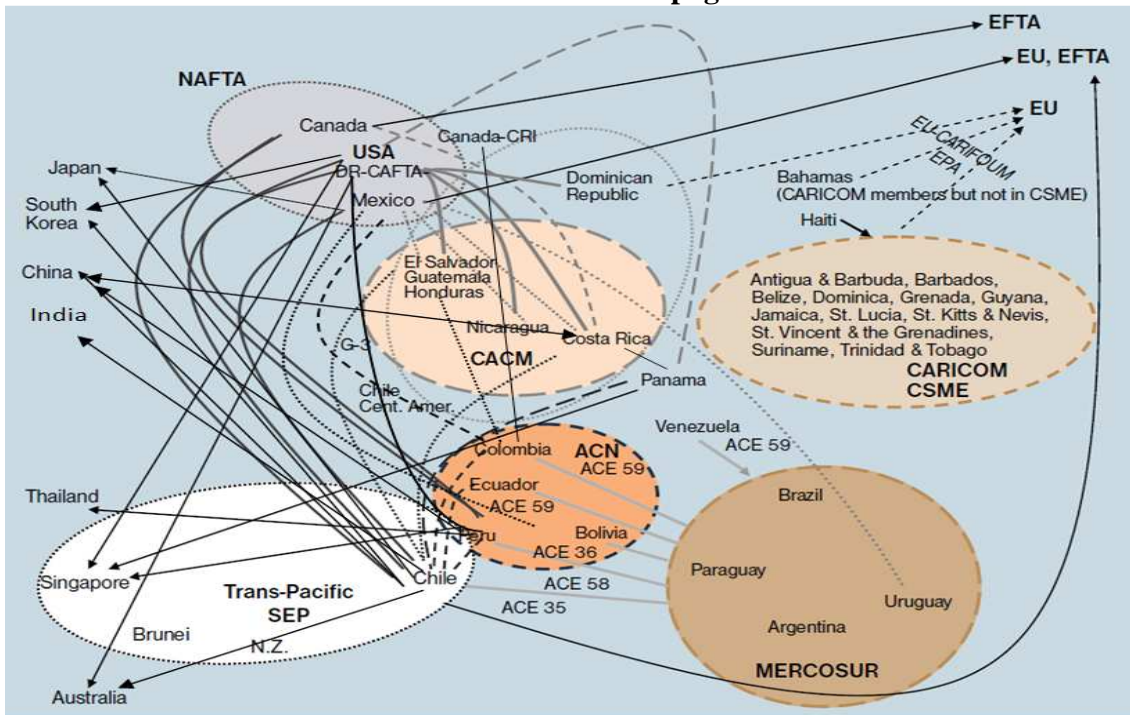
The only bright spots are the Central American Common Market (CACM) and the new Alliance of the Pacific. The CACM had a major push forward after CAFTA-DR was signed, as countries recognized that they could get larger advantages from trade and investment with the US through an enlarged regional market. Intra-regional trade is already free for the most part. Thus, increasing potential gains from trade and investment in the sub region depend more now on collective action in other areas such as trade facilitation, logistics, infrastructure and financial integration. The strengthening of the CACM has had a major influence in the notable sub region advances in all these areas, as discussed below and in other sections of this paper.

The Alliance of the Pacific (an agreement by Chile, Colombia, Mexico and Peru for deeper integration and joint promotion of extra regional Pacific economic relations) was an outgrowth of a failed initiative to promote economic integration through all the countries with coasts on the Pacific (the Arco del Pacifico initiative). When this initiative stagnated, Chile, Colombia, Mexico and Peru decided to move ahead on their own. Though political motives (containing the by then increasing influence of the Chavez regime in the region) loomed large initially, latter on the alliance has become a highly pragmatic club sponsoring all kind of initiatives for trade deepening, financial integration and joint actions vis-à-vis Asian Pacific countries in search of deepening economic ties with these fast growing markets. If it shows advances, it is likely that other countries with coasts on the pacific (Central American countries, Ecuador) may join the alliance or some of its initiatives,

Untangling the complex spaghetti bowl (Graph 11) created by the proliferation and superposition of intra and extra regional FTA's, and in particular overcoming problems created by the divergence of FTA rules and hub-and-spoke relations, could be achieved, in principle, in different ways. The first would be through further WTO based or unilateral liberalization of all countries involved. If external tariffs of members of FTA's are brought down by whichever of these mechanisms, the distorting effects of divergent FTA rules would be reduced significantly and the mere need to keep some of them (such as rules of origin) would eventually disappear. As a matter of fact, applied MFN tariffs today are at relatively modest levels in the region: the median chapter average for applied external tariffs in Latin America ranges from around 6% in Chile to 14% in Colombia. The regional median is not very different from that of China and well below the corresponding median in India (Graph 12). Tariff dispersion in the region is also rather

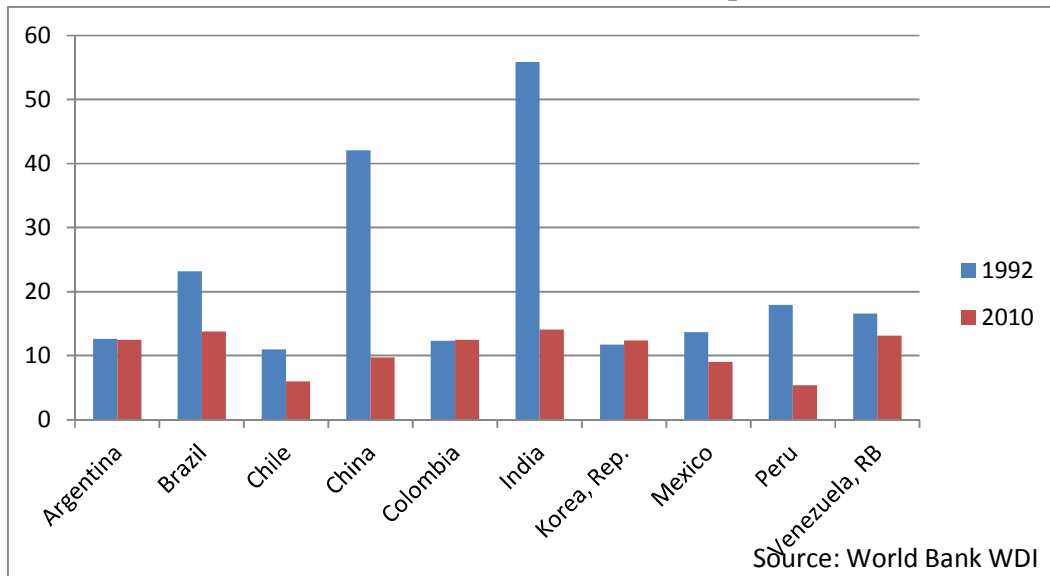
moderate, except for tariffs applied to agricultural products in some countries. Western Hemisphere most liberalized countries in the FTA sphere—Chile, Central America, Canada and the United States—also have low MFN average tariffs and dispersion.⁴³ However, further progress through WTO or unilateral liberalization seems unlikely at present, except for occasional unilateral actions by some countries attempting to counteract real exchange rate appreciation pressures, as happened recently in Colombia.

Graph 11
The Latin American Trade Spagetti Bowl



Source: Estevadeordal, Suominen (2009) Updated for 2012

Graph 12
MFN Tariffs in Latin America compared



The second route would be through negotiating broader RTA's. In the extreme, a revival of the WHAFTA initiative would do away with all hemispheric problems, though some would remain between WHAFTA and existing FTA's with extra-regional actors. This route is out of the question in the medium term, given increased protectionist pressures in the US and in some Latin countries and deep ideological divides.

The third way would be through completing the web of interlocking FTA's and a process of "convergence" of rules among groups of countries covered by different FTA's. This route has a somewhat higher political viability than the first two, though completing missing links in the hemisphere would require overcoming important political economy issues among partners. Political viability seems higher in the "second leg" of this strategy: convergence of rules within existing overlapping FTA's.

A recent study found that Latin-EU, Mexican, Chilean, U.S., and some Latin-Asian agreements have quite restrictive rules of origin.⁴⁴ Though those in Latin-U.S. agreements have become less restrictive over time⁴⁵, the EU has kept using the same rules of origin in all of its FTAs with Latin American and other regions. At the sectorial level, agricultural products and textiles and apparel are marked by the most restrictive rules of origin in most FTA's.

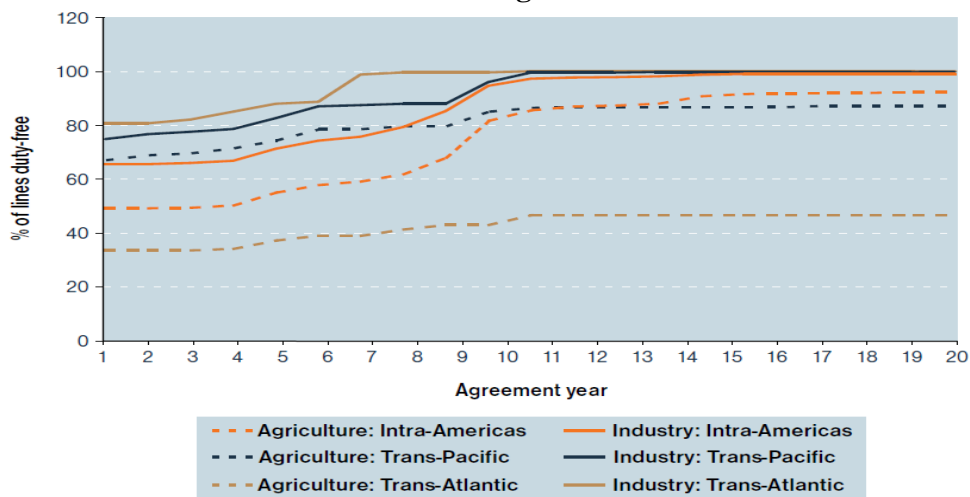
Solving these problems would require establishing a common regime within existing overlapping FTAs, permitting cumulation among all members and harmonizing market access rules and other trade related disciplines. In order to solve all existing problems, such a process should be

accompanied with a reduction of remaining internal tariffs within FTA's and adopting other measures to facilitate intra-regional trade.

The viability of such a process is highlighted by the following considerations. First, liberalization within Latin American FTA's has advanced significantly: overall, FTA's free more than 90 percent of the product categories within the first 10 years into the agreements – though some agreements have full exceptions or else provide for up to 20 years for sensitive products, especially in agriculture. Laggards are the Mercosur-Andean agreements, but even they will achieve more than 80% liberalization by 2016⁴⁶. By sectors, the laggard is agricultural: on average, only 56 percent of tariff lines in agriculture will be free by year 5 and 70 percent by year 10 in western hemisphere FTA's, while reaching duty-free treatment for 80 and 96 percent of industrial goods, respectively, by the same points in time.⁴⁷ (Graph 13)

Graph 13

Liberalization through LAC FTA's



Source: Estevadeordal, Suominen (2009)

Second, there is already an important agenda in progress with respect to trade facilitation measures in the region. Modernization of customs procedures, agricultural, health and security inspections and other trade-related procedures can deliver important increases in trade flows, both in intra-regional and extra-regional trade. Adopting electronic single windows and authorized economic operators can further speed transit of goods and increase trade. Coordination of trade facilitation initiatives, including electronic or joint customs controls at border crossings, and enabling customs clearance to be performed within each trade partner can deliver significant gains. An important example is the Mesoamerican International Transit of Merchandise (TIM), within Proyecto Mesoamérica.⁴⁸ See next section.

Third, there have been some (admittedly modest) initiatives about convergence of rules of origin within Western Hemisphere FTA's. CAFTA-DR contains provisions for cumulation of inputs

from Canada and Mexico in the production of garments of woven fabric and the cumulation provision is now in force between Mexico and several Central American countries. Further advances could be easily made among Mexico, Central American and Andean Countries and Chile. Countries of the Alliance of the Pacific are presently engaged in technical preparations for adopting convergence measures in rules of origin and other trade practices.

Fourth, the agreements between members of MERCOSUR and the Andean Community share a common origin text, including a provision for cumulation that includes all nine countries. Though the product-level rules were negotiated bilaterally and are not uniform across bilateral relationships, which complicates the implementation of genuine regional cumulation, these problems could be easily solved through coordinated action.

Fifth, there is already some convergence in market access rules within NAFTA-style FTA's (including all FTA's signed by the US, Canada and Mexico with other regional and extra-regional members) and, especially, within Mercosur-based FTA's (including those signed between Mercosur and other regional and extra-regional groupings). Similarly, there are a number of sectors in which there are only marginal differences across the hemispheric agreements.⁴⁹

Finally, three-quarters of all agreements cover the main provisions within trade related disciplines (investment rules, intellectual property protection, etc.). Again, there is clear clustering of FTAs into families centered on NAFTA members and Chile, which have highly comprehensive and very similar agreements, and Mercosur and intra-South American agreements, which are quite thin in these areas

It is important to stress that the scope for enlarging intra-regional trade appears to be quite significant (the World Bank and IADB estimated that exports from Latin America countries to other countries in the hemisphere can increase between 30% and 60% through these type of measures)⁵⁰, especially now that regional economies are growing at a decent pace and there are no balance of payments problems in sight. This economic environment should facilitate some pragmatic collective action in convergence of FTA rules.

Regional Development Banks can play an important role in these processes, in order to overcome coordination, cost allocation and financing problems, both due to their convening power as perceived honest brokers and by providing technical cooperation and financial assistance. As a matter of fact, they and the World Bank played such a role in the CAFTA-DR negotiations and IADB has effectively supported the negotiation of common rules of origin between Mexico and the northern triangle of Central American countries, as well as present efforts within the Alliance of the Pacific.

Harmonization and cooperation in export and FDI promotion

Table 5 summarizes the author's assessment of priorities in collective action in this area, based on the discussion below.

Private sector internationalization can be fostered, even without further progress in trade liberalization, by trade facilitation measures, as discussed above, and other pro-active measures. Some Export Promotion Agencies in the region and elsewhere have been found to have had significant effects in terms of market and product diversification and market penetration.⁵¹ The same can be said of Investment Promotion Agencies.⁵² Further, important synergies can be obtained when export and investment promotion programs are coordinated, mostly through the same Agency, as already happens in several Latin American countries.

Table 5
Harmonization and cooperation in export and FDI promotion

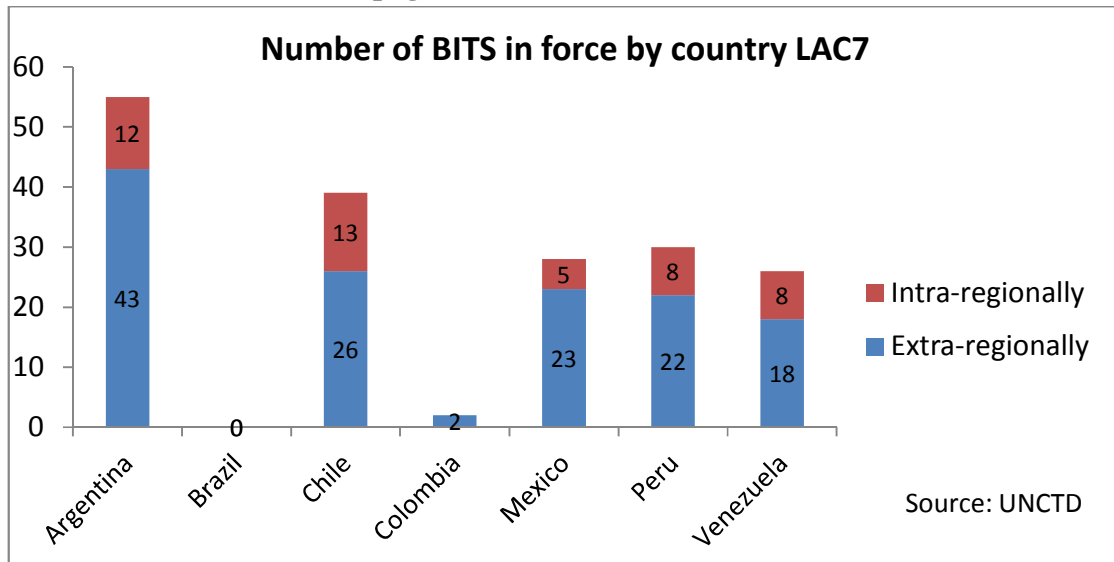
Regional Action	Collective	Efficiency and growth gains: increases in trade and FDI volumes, diversification of export products and markets and of FDI origins and sectors of destiny	Comments	Geopolitical Likelihood
Harmonization of regulations Exports FDI		Rules of origin and trade practices: +++ Smoothing the spaghetti bowl: +++++		Medium in CA and AP Low elsewhere
Joint missions and promotion		++++	Experiences in CA	Medium in CA and AP Low elsewhere
Regional FDI dispute resolution agencies		++++	Initial studies	Low: a long term objective

There can be group gains in jointly promoting the regional or sub-regional attractiveness for trade exchanges and investment, both generally and sectorially. Thus, cooperation among regional Export and Investment Promotion Agencies in third markets can deliver significant benefits in both areas. Such cooperation can be effectively supported by multilateral agencies to overcome coordination, cost allocation and financing problems. MIGA has been particularly active in promoting sub regional cooperation in investment promotion in several developing regions. IADB has promoted joint missions of some Latin American countries to Asian markets in order to promote both export and investment flows. It has also supported Central American-DR common efforts to expand exports of foodstuffs and textiles to the US market. The Alliance of the Pacific has this as one of its objectives with respect to Asian markets and FDI. IADB already supported a joint Colombian-Chilean trade mission to Asia.

Most Latin American countries have liberalized significantly FDI flows, mostly unilaterally and in some cases through FTA clauses. In addition, there is already a web of overlapping multilateral or bilateral investment treaties (BITs) and agreements on double taxation (ADTs) with intra and extra regional partners, largely following the FTA spaghetti bowl. See Graph 14. BITs complement national regulations, protect investors from political risks and provide more certainty with respect to the regulatory framework for international investment. ADTs help remove critical tax disincentives, when all or part of investment income is taxed twice, by the host and the FDI originating country. Most BIT's or investment provisions in FTA's regulate FDI flows between individual Latin American countries with the US and Canada or within

traditional sub-regional trade partners in CARICOM, CACM, ACN and MERCOSUR. The network of ADTs has a similar pattern, but it is significantly less dense.⁵³

Graph 14
The BITS Spaghetti Bowl (number of ratified BITS)



As in the case of FTA's, there is the need to complete this investment and double taxation treaties 'spaghetti bowl', by filling missing links, and to reduce distortions and costs for investors through convergence and harmonization of investment and tax rules within them. Convergence of investment rules within BIT's and FTA's should address both issues of coverage and quality of regulations, as there have been significant changes since such rules were negotiated.

Harmonization of investment and tax regulations in key sectors (such as finance and infrastructure) would help significantly in attracting further FDI flows, and especially intra-regional FDI flows, within these important sectors. We already discussed relevant issues in finance above and will discuss issues of harmonization of infrastructure regulations in the next sections.

Another priority of collective action in this area should be the establishment of a regional advisory center for dispute settlements, as has been done within Central America, in order to reduce the cost of and facilitate access of investors to effective dispute settlement mechanisms. Further, it would be convenient to set up a Regional Dispute Resolution Agency, especially given that some countries in the area have been walking away from multilateral dispute resolution agencies, such as ICSID at the World Bank. Such an Agency might also deal with dispute resolution issues among participants in RPG's, when this cannot be solved through their own institutional setup. Regional development banks can play a useful role in this area helping overcome coordination, cost allocation and financing problems, given their convening power as

perceived honest brokers and through provision of technical assistance and financing to carry on the necessary studies and the establishment and operation of an eventual regional or sub regional Agency.

6. Regional infrastructure, cooperation and harmonization of regulations in transport, energy and telecommunications.

The importance of collective action in transport and logistics

As tariffs have gone down substantially in the region, except for a few sectors such as agriculture, the regions high transport costs have become the main obstacle for increased trade, both intra regionally and with third partners.⁵⁴ See Graph 6 above.

High transport costs, as high tariffs, undercut potential trade gains by limiting specialization and scale. They also have a negative impact on dynamic trade gains insofar as they reduce competition, obstruct knowledge diffusion and increase the costs of introducing new products and penetrating new markets.

But transport costs differ from tariffs in three important respects that lead to a more deleterious impact on Latin American trade. First, they cause higher penalties for products that are more “transport intensive”, both because they exhibit low price-to-weight ratios (as is the case with agricultural and mineral exports, which are especially important for Latin America) and due to higher time-related costs (inventory-holding and depreciation) and on-time-delivery failures. The latter are exactly the type of products for which LAC, for its proximity with the U.S. market, should enjoy both a comparative advantage and a competitive edge.

Second, transport costs are highly variable over time. Their degree of uncertainty is higher the lower the quality of the country’s transport infrastructure and regulation. In addition to the high level of transport costs, the uncertainty originated in the poor quality of Latin American transport infrastructure and regulation is likely to inhibit export diversification.

Finally, transport costs respond to a wide set of variables including the degree of competition in the transport industry and the volume of trade flows. Bringing transport costs down, therefore, requires a more complex set of policy actions than those involved in typical trade liberalization. Particularly complex issues arise in connection with inter-country externalities derived, especially, from transnational infrastructure.

Table 6 summarizes the author’s assessment of priorities in collective action in this area, based on the discussion below.

Table 6: Regional transport and logistics

Regional Collective Action	Efficiency and growth gains: cost and time reductions, increased regional trade	Comments	Geopolitical Likelihood
Building and operating regional transport corridors	++++	Significant advances in Central America (Pacific Corridor). Modest advances within IIRSA	High in Central America. Require institutional strengthening in IIRSA
Cooperation in logistics and border-crossings	++++	Significant advances in Central America: TIM in the Pacific Corridor. Modest advances within IIRSA	High in Central America. Require institutional strengthening in IIRSA
Cooperation in maritime transport and ports	+++ Larger gains in the Caribbean and Central America.	Some advances in the Caribbean	Medium-low in the Caribbean and Central America. Very low elsewhere
Cooperation in air transport and airports	++++ Larger gains in Central America and the Caribbean.	Advances across the region, especially in Central America. Ideal: LAC open skies agreement	High Medium

A recent study on transportation and trade costs in Latin America and the Caribbean leads to the following conclusions⁵⁵. To begin with, as mentioned above, countries in the region face international transport costs that are significantly higher than in other latitudes. Thus, in US-LAC trade US freight costs are on average 3.7% of the value of its exports, while the average for Latin America is 7.2%. (See Graph 6 above). As a further example, while Latin American average distance to the US is just 20% of China's, regional exports average freight costs to the US amount to 70% of those of China exports, thus significantly reducing locational advantages. Though an important part of these differences are explained by Latin American exports (commodities) being "heavier" than those of other countries, due to the weight of commodity exports, once the influence of trade composition is netted out, two factors that are related to the efficiency of the countries' infrastructure explain the bulk of the remaining difference between LAC and other countries:

- Low port efficiency generally explains about 40 percent of the differences in shipping costs between Latin America and the United States and Europe. Further, these differences in port efficiency have become more important as shipping costs have been increasing in

the last decade in response to increases in fuel costs. Overprices in maritime freight are especially onerous for Latin America, given its commodity intensive export structure.

- Airfreight costs are significantly higher for Latin America than for developed countries and this difference has been increasing overtime, as airfreight costs have been coming down in the developed world much faster than in the region, due to higher competition. In addition, though the quality of airports has improved in the region, ancillary services are often subject to anti-competitive prices. The importance of on-time delivery for Latin America exports to the US market highlights the increasing importance of these overprices in air cargo services for the region.

Collective action to enhance maritime and air freight efficiency are especially important for Central American and Caribbean countries. Air freight optimization is well underway in the Central American region, where private regional companies (LACSA and COPA) have created a highly efficient system of hubs and spokes, with significant cooperation of local airport authorities. Optimizing multi-modal transport modes, taking into account the regional's best potential location of ports, and facilitating road transport connections and transit form and to them could further bring huge potential gains to Central American countries. The Caribbean countries would also benefit substantially from further customs, ports, transshipment and airports cooperation, which has been so far very thin in the area in spite of a very clear natural system of hubs (Freeport in Bahamas, Kingston in Jamaica and Port of Spain in Trinidad and Tobago) and spokes.⁵⁶

Another factor with potential policy implications for LAC countries is the low degree of competition among shipping and air freight companies. Collective action in negotiating maritime and air routes agreements may benefit significantly small and medium sized countries in LAC. The adoption of a multilateral Open Skies agreement would bring substantial benefits in the frequency, quality, efficiency and costs of air cargo services within the whole LAC region and its trade partners.

Not only are average international transport costs high in the region, but freight rates are almost as high for intra-regional than for extra-regional trade for many Latin American countries.⁵⁷ (See Graph 6, Panel B). The average time costs to get goods across the border are frequently higher than maritime trade costs to export to the United States, and in some cases considerably so. Latin America's average number of days required to export in 2007 (22.4) was more than twice the OECD average (9.8)⁵⁸.

Though improving domestic transport infrastructure does not require or benefit, in general, from collective action among countries, an important exception refers to domestic transport portions of multinational corridors, which are of fundamental importance for intra-regional trade.

Cooperation and coordination is necessary in the design, construction and operation of multinational corridors (including border crossing, customs and ancillary services and regulation of trucking services and use of railroads) in order to maximize net benefits from such infrastructure for all parties involved. The technical, institutional and financing challenges associated with planning, building and operating multinational transport corridors and in implementing so-called regional transport projects (that involve two or more countries) are substantial, as these programs and projects are plagued with externalities and coordination failures, as discussed in the Annex.

Collective action in energy and telecommunications infrastructure and markets

Physical interconnections in energy and telecommunications may also deliver significant regional benefits and savings. In these areas, even more than in transport, regional harmonization of regulations is essential to deliver full benefits of such interconnections.

Table 7 summarizes the author’s assessment of potential collective actions in energy and telecommunications, based on the discussion below.

Table 7

Regional telecommunications and energy markets

Regional Action	Collective	Efficiency and growth gains	Comments	Geopolitical Likelihood
Physical connections: Telecoms Energy (transmission lines, pipelines)		++ ++++	Significant advances in Central America (SIEPAC and MIH). Some advances in South America.	Medium-high
Regulatory harmonization Telecoms Energy		++++ +++++	Some advances in Central America. Confrontations and failures in the Southern Cone	Medium for telecoms. Medium-low for energy in Central America. Very low for energy in the Southern Cone
Joint planning Telecom Energy		++ +++++	No advances	Very low

Challenges going forward in collective action in infrastructure are illustrated by an analysis of previous regional initiatives in this field, to which we turn now.

Challenges in regional infrastructure: review of past and current initiatives

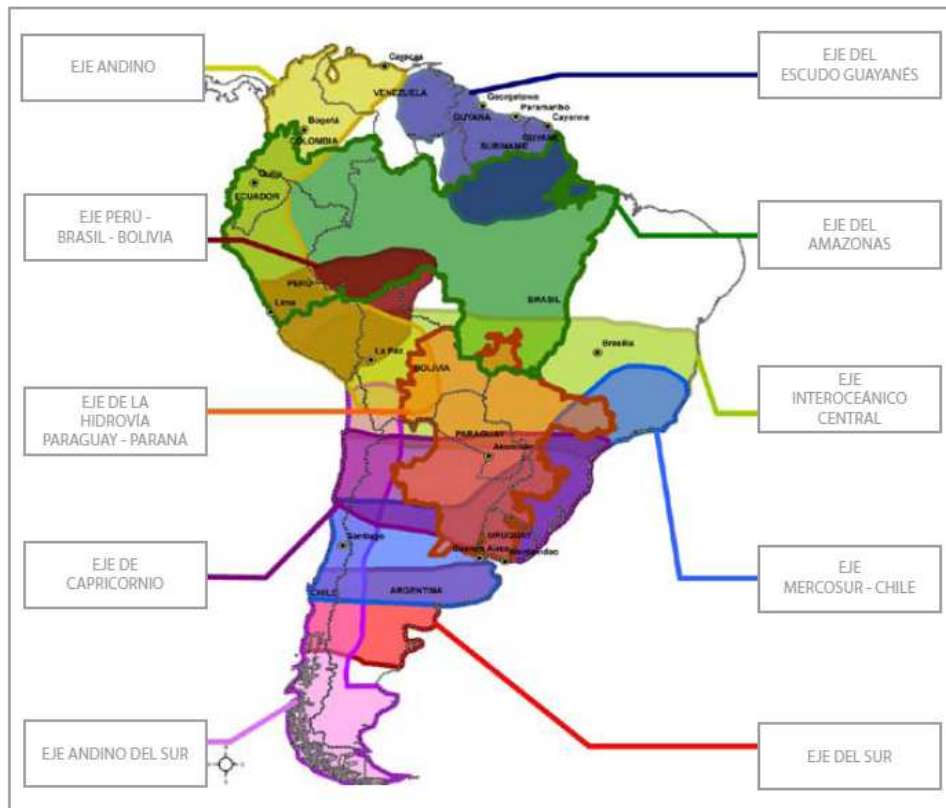
There have been two major initiatives to cooperate in regional infrastructure in the region: IIRSA, in South America, and Proyecto Mesoamerica, centered initially in Central America with Mexico joining in latter (Plan Puebla Panama) and more recently to Colombia, whose experience must be briefly reviewed to extract lessons for the future. See Boxes 5 and 6

Box 5 The IIRSA Experience

IIRSA was launched in August 2000 in the first meeting of South American Presidents in Brasilia. It was decided that it would not have formal instances, except for a decision body -the Executive Committee- composed of Government representatives (normally infrastructure Ministers), and a Technical Coordination Committee composed by regional multilateral agencies (IADB, CAF and FONPLATA). The latter three agencies would serve as the Secretariat of IIRSA. In 2003 IADB/INTAL was appointed as the permanent Secretariat. Since 2010 the secretariat role was assigned to UNASUR. The technical and financial support of IADB and CAF has been the key drivers behind the initiative achievements.

The Montevideo Action Plan (PAM) 2000-2010 set general, highly ambitious, guidelines for IIRSA: to develop an integral vision of South American infrastructure in which projects should fit within a planned integration strategy; to harmonize and modernize policies and regulations; to strengthen environmental and social aspects of projects and to develop consultative processes and joint design, finance and execution of projects. Results have fallen far behind these goals and expectations, according to IIRSA's self-evaluation⁵⁹. From 524 approved projects to date (for 96 billion dollars) for 2005 to 2010, most of them related to road transport (nearly 90% in number), only about 12% (6.5% in 2010 when the plan was initially envisaged to be completed) had been built and around 30% were in execution in September 2012.⁶⁰ Further, most of these projects are purely national (83%, representing 75% in total value of investments), a modest share binational (15%) and only 2% multinational in character. Progress in regulatory matters has been especially disappointing: there had been only two programs approved for a value of 6.3 million dollars: Agreements for Roaming on Telecommunications and Exports through Mail Services for PYMES.

Graph 15
IIRSA priorities



Source: IIRSA (2011)

There are several reasons behind the modest IIRSA results presented in Box 5⁶¹. On the one hand, IIRSA adopted initially an essentially ‘qualitative’ methodology to select projects proposed by countries and based on experts’ recommendations. Though the planning methodology has improved over the years to reflect a regional perspective, IIRSA has essentially recognized existing national projects which national authorities are interested in pursuing along selected transport corridors⁶². See Graph 15.

Further, there has been an overwhelming emphasis on searching for multilateral financing of ‘hard’ infrastructure projects, with scant attention paid to regulatory issues (except for environmental and social impacts), which often determine their actual operation and usefulness

In the last analysis, such modest outcomes are largely due to the lack of an institutional structure enabled to promote the design, financing and execution of truly transnational projects and to a traditional lack of attention to transnational infrastructure services in South America. Neither Mercosur nor the Andean Community ever considered the need to coordinate actions in physical integration and infrastructure regulation.

Box 6

Proyecto Mesoamerica: An ambitious integration program

Proyecto Mesoamerica (previously Plan Puebla Panama –PPP-) is composed by a wide set of initiatives developed by Mexico and the Central American countries, to which Colombia has recently joined, including cooperation in:

- *Transport*
 - i. *Pacific Corridor*: a 3210 kms network extending from Mexico to Panama, of which 2213kms require project investments for 2.256 billion dollars in new construction or in improvement or rehabilitation of existing infrastructure.
 - ii. *Network of Mesoamerican Highways (RICAM)*
 - iii. *Mesoamerican Multimodal Transport System (STMM)*
 - iv. *Short Distance Maritime Transport (TMCD)*
 - v. *International Transit of Goods and services (TIMS)*
- *Energy:*
 - i. *SIEPAC: interconnection of the seven Central American countries*
 - ii. *Regional power market (MER)*
 - iii. *Interconnection Guatemala-México*
 - iv. *Interconnection Panamá-Colombia*
- *Telecommunications:*
 - i. *Mesoamerican Information Highway (MIH)*
 - ii. *Networks of Research and Education (RNIE)*
 - iii. *Reduction of long distance and roaming tariffs.*

An evaluation of Plan Puebla Panama (PPP) carried out at IADB by the independent evaluation office (OVE) in 2008 concluded that ‘the best PPP results were obtained only for the initiatives that have already experienced previous efforts of implementation prior to the PPP, such as the energy (SIEPAC) and transportation networks (RICAM), which had been coordinated by SICA - *the Central American Integration Secretariat*- commissions in charge of these areas’. To these should be added the Mesoamerican Information Highway (MIH), which benefitted from using the physical infrastructure and land strips of SIEPAC. This notwithstanding, in 2004 the Summit of Presidents saw the need to hire an Executive Director and determine that cooperation between the Executive Commission of PPP and SICA (which was envisaged since the start to support execution) would become operational through “Operational Agreements”.

These conclusions highlight the already mentioned importance of RTA’s as facilitators to overcome coordination and trust problems that normally stand on the way of transnational

infrastructure projects, as well as the need to establish a specific operative institutional setting to facilitate continuous regional decision making.

As indicated in Box 7, a dense network of agencies (EPR, EOR, CRIE) had to be created to finance, build, operate and regulate SIEPAC and the regional energy market that it serves. Structuring SIEPAC and establishing these multinational enterprises to build, regulate and operate international interconnections and the future regional energy market, took a lot of time and effort⁶³. However, such efforts paid handsomely in the end: SIEPAC is by far the most advanced truly multinational infrastructure project not just in Central America but in the region.

The existence of EPR facilitated agreeing on an optimal design of SIEPAC and obtaining multinational finance. This notwithstanding, the harmonization of national regulations to create a unified power market (MER) has not advanced at the same pace than construction and hence the physical power interconnection will not deliver all the expected benefits in terms of optimal energy transfers, expansion of generation capabilities and operation of the integrated system. MER will actually be just a seventh market superimposed on the six national markets for authorized agents to undertake international energy transactions within Central America. However, full harmonization of planning and regulations (agreeing on optimal investments in countries that should be permanent exporters to the other members and eliminating priority to attending national demands) is not yet envisaged and, without it, energy exchanges will probably be limited to occasional surplus capacities.⁶⁴

The difficulties involved in agreeing on financing and cost allocation are exemplified by the SIEPAC experience. It took a major political deal at Presidential level to agree on each country's utility to be an equal partner in the equity and decision making of EPR. Further, the discussion of cost allocations in repayments has had major complications. Initially a formula was set through a take-or-pay formula based on the length of the line in each country and their total demand for energy, giving more weight to the former. This worked against Nicaragua and had to be modified after protracted negotiations. IADB helped in facilitating agreements by extending concessional funds to Honduras y Nicaragua to be invested in rural electrification.

SIEPAC illustrates the importance of adopting consensus rules for constitutional and other major decisions. When the need for a Second Protocol of MER arose, this issue was resolved by consensus through the SIEPAC Directive Council, a high level political body with direct access to the Presidents. Though ordinary decisions are taken by simple majority by SIEPAC institutions, a serious impasse with Guatemala ensued. The Guatemalan Government felt that its interests had not been duly considered by the other countries represented in the Council and hence argued that its national laws did not permit implementing the agreement. The impasse had to be solved with a full renegotiation (a consensus agreement) with IADB acting as a neutral honest broker.

Box 7

SIEPAC: successes and limitations

The Power Interconnection System of Central America (SIEPAC) is a successful example of how a transnational project can be financed and built through a multinational enterprise (including extra-regional partners) supported by regional MDB's. It included the design and construction of a 1,790 kilometers transmission line of 230KV, 15 substations and 4632 towers through six Central American countries from Guatemala to Panamá. The line can deliver power transfers up to 300 MW. 90.9% of construction was finalized by end 2011 and the rest is expected to be done by end 2013. By September 2012 more than 50% of the network was operational and nearly 90% is expected to be energized by end 2012.

Initially, an Executing Unit created by SICA (well before the Plan Panama Puebla) carried on the design phases. The project was constructed and is owned and operated by Empresa Proprietaria de la Red (EPR), a private public partnership of the 6 Central American public utilities, CFE of Mexico, ISA of Colombia and Endesa of Spain. Initial debt was also taken by equal parts guaranteed by each country (Endesa, CFE e ISA have responded by the Spanish, Mexican and Colombian obligations without sovereign guarantee). SIEPAC was prepared and designed with non-reimbursable technical cooperation funds of IADB and its total cost of US 494 million was financed with equity contributions and loans by IADB, BCIE, CFE of Mexico and CAF

Energy dispatches through SIEPAC is the responsibility of the Ente Operador Regional (EOR), under the guidelines agreed by the Mercado Energetico Regional (MER) and its Executive Council, and regulation by the Comisión Regional de Interconexión Eléctrica (CRIE).

The framework Treaty for MER was signed in 1996 and operating Protocols were signed in 1997 and 2007. All countries congresses had approved these Protocols by end 2011. MER was expected to be fully operational in January 2013.

SIEPAC is complemented by an interconnection line already built between Mexico and Guatemala and another line expected to be built between Panama and Colombia⁶⁵

Advancing the complementary Mexico-Guatemala and Panama-Colombia projects mentioned in Box 7 have been greatly facilitated by the institutional structure developed for SIEPAC, thanks to the deep integration in Central America. However, there are important issues remaining about sales to third Central American countries. These might require both Mexico and Colombia to become full members of MER. Their participation in Proyecto Mesoamérica might facilitate this process, but it will be quite demanding as requires approval by the 8 parliaments.

RICAM advanced much more slowly. The contrasting experience with SIEPAC led Proyecto Mesoamérica Governments in 2011, based on an IADB recommendation, to agree on establishing a 'Unidad Gestora' and a special vehicle for financing and executing *Corredor Pacífico*, the most advanced of RICAM projects. The decision, in principle, is to concession the project and finance it through Project Financing based on the securitization of tolls and budgetary commitments through a special financing vehicle. Securitized bonds would be guaranteed by IADB with Government counter guarantees in proportion to their established shares. These shares are, however, proportional to costs within each territory, which is problematic as Nicaragua would have a higher share in costs (a large fraction of the length of the project is in its territory) and will not benefit in the same proportion. The way out may be to let Nicaragua use a higher share of tolls (which will be paid by all traffic) than budgetary commitments as compared to other countries. IADB received a mandate to structure this vehicle (which would not require Congressional approval in each country as SIEPAC institutions did) but a final decision was still to be taken by end 2012.

Proyecto Mesoamérica has also advanced on physical integration of telecommunications networks. The Mesoamerican Information Highway will be a broad band optic fiber network, using the infrastructure of SIEPAC, from Guatemala to Panama. The execution of this project was enormously facilitated by the institutional set up and the physical regional infrastructure of SIEPAC, under the Central American Common Market and Proyecto Mesoamérica institutional frameworks. Even then, participating partners realized that a specialized independent agency was needed, and EPR was asked to promote the creation of a multinational enterprise (Central American Fiber Optics Network –REDCA-) that has been in charge of construction and will operate the network. REDCA is requesting authorizations of domestic regulators with the goal of initiating operations in 2013.

Proyecto Mesoamérica has also achieved long distance and roaming tariffs reductions among Central American countries. There have also been some advances in Agreements for Roaming on Telecommunications in South America under IIRSA

The importance of establishing a regional institution or agency for designing, building and operating regional infrastructure projects is further exemplified by two pioneering binational power projects that have been operating for many years in the southern cone: Itaipu and Yacireta. Itaipu is a bilateral project between Brazil and Paraguay and Yacireta is owned by Argentina and Paraguay. In either case, a "bilateral entity" was established, in which each country shared equally in equity and debt (through their respective national power agencies), decision making (through a high level Council of Administration and an Executive Committee), management and energy produced. Brazil and Argentina, respectively, helped in either guaranteeing Paraguay's debt or financing Paraguay in exchange for exclusive rights to buy Paraguay's surpluses at pre-determined prices. However, Paraguay has felt that the distribution of net benefits has resulted against its interests in both cases. On the one hand, the agreements fixed price has resulted too

low by today's standards. On the other, Paraguay has not been able to sell surpluses from Yacireta to Uruguay as both of these countries desired. Hence Paraguay has been requesting renegotiations of the original agreements.

More generally, there are potentially enormous benefits to be reaped by energy and telecommunications markets integration in South America. So far, in addition to the above mentioned binational projects, there have been several cases of bilateral exchanges of power and gas between neighboring countries in the region: exports of gas from Bolivia to Brazil and Argentina, from Argentina to Chile and from Colombia to Venezuela; and exports of power from Colombia to Ecuador and Venezuela. Normally these have been initiated by a political agreement between the respective Governments followed by the construction of required facilities (power lines, pipelines) and the subscription of long term contracts between domestic public enterprises and utilities specifying amounts, prices and other conditions of the exchange. An exception was the gas pipelines and exchanges between Argentina and Chile which were mostly private initiatives.

Some of these agreements have worked well even during periods of serious political confrontations between Governments, as has been the case with the power and gas exports of Colombia to Venezuela and Ecuador which continued unabated during the heightened tensions at the end of the Uribe administration which led to unilateral interruptions in diplomatic relations between Colombia and both of these countries and a substantial unilateral reduction of imports of goods and services imposed by the Government of Venezuela. Exchanges in the Southern Cone operated smoothly during long periods and then were questioned by one of the partners and subject to traumatic unilateral actions, as happened with the Bolivian and Argentinian gas exports. Contracts were renegotiated in the case of Bolivia, but resulting uncertainty led Brazil to revise its planned investments in Bolivia and to concentrate efforts in off-shore exploration with major findings. Chile had to build capacities for liquid natural gas imports at a much higher cost after the unilateral interruption of Argentine exports. The consequences of these unilateral actions for energy market integration in the Southern Cone will probably be felt for decades to come.

Lessons from experience

Most initiatives in regional infrastructure in Latin America have so far have focused excessively on physical integration and have advanced much less on harmonization of regulations and dispute resolution problems. Both Proyecto Mesoamérica and IIRSA show that these asymmetry leads to under achievement of potential benefits, as in the case of SIEPAC and RIMAC, or in national projects dominating over really transnational projects (as in IIRSA). Advancing harmonization of regulations prior to or *pari passu* with the design and construction of physical interconnections would guarantee that the potential benefits of investments are fully realized

when construction is finalized, and knowing this in advance will facilitate decision making and financing of transnational projects.

Important exceptions in this regard have been logistics agreements in border crossings in the southern cone (where unified inspections of cargo have become the norm) and, to a lesser extent, the *Procedimiento Mesoamericano para el Tránsito Internacional de Mercancías* (TIM) in the case of the Pacific Corridor. TIM is partially operational since October 2011, permitting an easy flow of traffic through the partially completed infrastructure (more than 460.000 transit operations had used TIM by December 2012⁶⁶). However, the goal of establishing just one inspection for trucks traveling through several countries in Central America is still far from being achieved, highlighting the importance of guaranteeing that harmonization of regulations either starts earlier or advances *pari passu* with physical integration. Based on this experience authorities had decided to extend TIM to all multimodal transit within Central America, Mexico and Colombia starting in 2012.

In addition, all these experiences show the need to create some form of multinational agency or vehicle for facilitating the design, financing, construction and operation of transnational infrastructure projects that require continuous collective decision-making, though their specific institutional form and financing may depend on project and regions characteristics. Thus, SIEPAC and Pacific Corridor institutional and financing solutions have been constructed to fit important differences in these projects even within the same region.

The combined effect of lack of adequate regional institutions and harmonization of regulations has impeded obtaining large potential regional gains from specialization in energy and transport infrastructure. These limitations have been behind the failure of the southern cone to fully exploit the high potential mutual benefits of the rich local energy endowments in some countries of the region, or of Central America and the Caribbean of not taking advantage of potential hub and spoke ports specialization.

Third, previous experiences also show the critical importance of dealing with cost allocation issues when net benefits are asymmetrical, as indicated by the problems encountered in the case of Nicaragua in both the SIEPAC and the Pacific Corridor cases.

Fourth, they also illustrate theoretical conclusions on decision rules (see Annex 1). Constitutional issues have in all cases been decided by high-level (Presidential) consensus, as happened with the entrance of Mexico and Colombia through PPP and Proyecto Mesoamérica Summits, and with the solution of serious impasses in the workings of MER.

Fifth, the role of MDB's has been critical in overcoming coordination and negotiating problems in many instances. IADB has played a fundamental role in both SIEPAC's success and the

Pacific Corridor advancement. Also, without the active involvement of IADB and CAF even the modest achievements in transnational projects in IIRSA would probably not have happened. That said, IIRSA looks pretty much like an association that facilitates multilateral financing of fundamentally national projects. It would have been useful if both MDB's had adopted differentiated incentives in favor of truly transnational projects.

These lessons are reinforced when considering the success of initiatives elsewhere, in particular with regard to the Transportation European Network. This case illustrates the importance of a strong transnational institutional structure, which is governed through consensus but is endowed with the power and resources to do top down designs and facilitate allocation of costs by subsidizing poorer countries with its own resources. The same is the case of The North-South Mekong Corridor in Asia, another successful experience in transnational infrastructure⁶⁷

7. The role of regional development banks

Along this paper we have noticed how regional development banks (RDB's), or other financial institutions, can play a significant role in helping overcome the considerable coordination, cost allocation and financing problems involved in the design, set up and operation of regional public goods and services, especially in the case of transnational infrastructure projects. MDB's convening power as perceived honest brokers, and the financial and technical resources that they can bring to the table, may play a catalyst role in both reaching agreements on design, cost allocation, financing, institutional building and conflict resolution. We have observed how they have indeed often effectively played this role in promoting and supporting collective action initiatives such as those of IIRSA, Proyecto Mesoamérica (SIEPAC, RICAM, TIM and MIH), MILA, the Caribbean Catastrophic Reinsurance Facility, the Consejo Centroamericano de Superintendentes Bancarios, de Seguros y otras Instituciones Financieras, the CAFTA trade negotiations and the Alliance of the Pacific initiatives.

This notwithstanding, regional development banks could do much more if they had more adequate financial instruments and internal incentives for this purpose. First, non-reimbursable technical assistance funds can play a most useful role for low cost initiatives, such as the Council de Banking Supervisors in Central America, and for the early design stages of more complex and costly initiatives. However, as indicated in the independent office evaluation of IADB's transnational programs⁶⁸, the fraction of such funds allocated to regional projects and programs in that institution has had a historical downward trend and recent initiatives, such as the Regional Public Goods Initiative or the Fund for Infrastructure Integration (FIRII), have very limited resources. Further, these resources have been allocated to minor initiatives on demand, generally lacking strategic focus.

For financing larger and more complex RPG's, especially related to transnational infrastructure projects, IADB and CAF have had to use a collection of individualized country loans with sovereign guarantees. However, the use of individualized country loans (or Sovereign guarantees) weakens considerably the regional effectiveness of the corresponding operations and the incentives of individual countries to join. In practice, according to OVE, IADB has only supported two truly transnational programs between 2000 and 2011 (SIEPAC and Trifinio), while the rest of the initiatives under IIRSA or PM/PPP (43) have really been national projects or programs with some cross-country externalities.⁶⁹

Given that there are considerable individual disincentives to participate in transnational collective actions, as discussed in this paper, it would be convenient to use regional banks concessional resources to stimulate the production of regional public goods and services. This could be achieved by earmarking an important fraction of non-reimbursable and concessional funds for collective action programs, and not counting these allocations against individual country envelopes. This is actually international best practice, as followed by IDA, the Asian Development Bank and the African Development Bank.⁷⁰

Further, given the demonstrated importance of establishing adequate regional institutions for solving recurrent collective action problems, even within the same program or project, regional development banks should be able to fund directly these regional agencies or institutions with concessional funds, without requiring sovereign guarantees from participating countries. There were actually several such operations with CDB from 1977 up to 2010, after a statutory reform in 1974 authorized on-lending to OECS countries through CDB, even if those countries were not members of IADB⁷¹. Similarly, IADB lent to CABEI at least four loans with FSO resources from 1965 to 1975 for road construction and maintenance in Central America through the Fund for Central American Integration established by CABEI shareholders for these purposes⁷²

ANNEX 1

Challenges in regional collective action and RPG's: conceptual framework and literature review.

Regional or sub regional collective action among countries usually present complex coordination problems. To begin with, national agencies commonly plan and design policies, programs and projects with a purely national outlook and RPG's should be planned and designed with a regional perspective. Second, and more problematic, costs should be allocated among countries in proportion to the benefits they enjoy from the program or project. To the technical difficulties in evaluating and allocating benefits and costs across countries⁷³, and usual bargaining problems in cost allocation in joint projects, we must add the considerable domestic political resistance to finance and own assets or institutions located in other countries and to delegate decisions to supranational institutions. Dealing with conflict resolution among participating countries throughout design, construction and operation of regional initiatives is especially demanding, given political realities and the lack of supranational enforcement mechanisms. Further, collective decisions are usually required repeatedly or continually during planning, implementation and operation phases.

Given all this, it is often the case that highly valuable RPG's never come into existence without setting specific regional agencies or institutions, with adequate governance and financing, that are endowed with the capacity of solving in an efficient way coordination problems on an ongoing basis. Further, RPG's and setting regional agencies to produce and operate them, often require the intervention of third partners –such as multilateral organizations- who help solve coordination, cost allocation and financing problems. Naturally, the complexity of coordination problems and the required institutional solutions vary from one type of RPG to the other. For example, decisions on who pays, who finances (and guarantee loans), who plans, who builds and who operates are specially complex in large infrastructure projects, but can also be problematic in many other RPG's, as will be seen along this paper.

There is a growing technical literature around these issues, especially with respect to regional infrastructure projects, whose main conclusions are summarized in this section. To begin with, asymmetric information, as well as strategic bargaining, make difficult and unlikely the success of decentralized agreements among several countries to build, finance and operate RPG's. Laffont & Martimort (2003) developed a theoretical bargaining model for analyzing regional infrastructure projects from which they conclude: “Lower than optimal transnational investment results from poor identification of the benefits of transnational projects, country reluctance to pay for infrastructure assets located abroad, and the lack of socially acceptable mechanisms to distribute costs and benefits among countries. Therefore, it may take a great deal of time for two

countries to enter into a dialogue about a project with cost and/or benefits in both nations if they lack rules for cooperation and/or incentives to communicate with each other about the project costs and benefits". These problems are obviously larger the larger the number of countries involved and when externalities and the distribution of net benefits are highly asymmetric. See, for example, Schiff & Winters (2002) ⁷⁴.

Lack of trust, national pride, political tensions, high coordination costs and the absence of international courts or higher authorities (which make enforcement of property rights ambiguous and weak at the international level) further reduce the possibility of successful agreements in the provision of regional public goods. Schiff & Winters (2002) conclude: 'As a result, international agreements must be self-enforcing, which, in turn, reduces the set of feasible cooperative solutions possibly to nothing'.

In addition, the dynamic bargaining nature of the process of investing in and operating regional public goods require the establishment of sound arbitration and decision rules. Thus, discussing regional infrastructure projects Barbera (2003) ⁷⁵ concludes: "Two essential features of transnational projects are the need for a continued relationship among partners (as opposed to once-and-for-all deals), and the variability of issues involved in the relationship. Partners in transnational projects are engaged in long-term and complex relationships with numerous occasions for disagreement and conflict. Under the basic assumption that they expect sufficient benefits from working together, even if this means accepting some partial losses and occasional compromises, it becomes important to agree upon arbitration rules that would apply in case of conflict, rather than waiting for conflict to arise". "The nature of the partnerships means that detailed contracts cannot be written because there is too much uncertainty and variety in the type of questions that need to be discussed. If the partnership is open-ended, the range of issues that must be decided can include additional projects, new entrants and other topics that extend beyond the scope of the original partners. Moreover, national sovereignty adds to the difficulty of letting a judge arbitrate on the basis of any detailed contract, even if one could be written".⁷⁶ Barbera further concludes on the need to endow partnerships with two types of decision rules: 'One of the rules would be used for everyday decisions, and the other for changing the rule of everyday decision. The latter should be chosen in a way that guarantees overall stability'. His analysis indicates that constitutional decisions require unanimity and operational decisions may be better served, at least initially, through qualified majorities.⁷⁷

An existing or new regional institutional framework or agency can help solve some of the more pressing coordination, information asymmetry and enforcement issues within this dynamic decision making context. Examples of such regional institutions or agencies in trade (e.g., RTA's), infrastructure (e.g., multinational enterprises) and finance (e.g., councils of regulators and superintendents) will be discussed below. Agreeing on and establishing such effective

regional institutional rules or agencies is, of course, fraught with all the difficulties discussed above, including strategic bargaining, which explain why there are so few that are successful.

Further, such multinational enterprises, agencies or institutions will still be faced with significant coordination, asymmetric information, cost allocation and enforcement issues in their ongoing decisions. The discussion above indicates that to be successful such an agency or enterprise must be endowed with sensible constitutional and operational rules. In particular, in discussing regional enterprises for infrastructure projects, Laffont & Martimort (2003) conclude: “the design problem faced by the agency comes from finding the optimal share of the costs that each country should bear”. Further, financing large projects through such multinational agencies or enterprises remain a complex issue, as they would either need a large capital base or guarantees from participating country governments or members.

Existing multilateral agencies can help solve many of the problems arising from asymmetric information, strategic bargaining, high coordination costs and lack of enforcement mechanisms within such a dynamic decision making environment. In particular, they may play a key role in helping establish and supporting specific regional institutional settings, agencies or enterprises. Laffont & Martimort (2003) conclude: “Given the difficulty of giving the power to propose the mechanism for building the project to any single government, the natural actors in charge with doing become the international agencies (such as development banks), which can also provide technical expertise and financial assistance”. The international agency “acts as a benevolent mediator in the bilateral bargaining between countries, reducing transaction costs and bridging informational gaps more easily”.⁷⁸ Similarly, Schiff & Winters (2002) conclude that “International organizations - such as the World Bank - have often helped achieve agreements that might not have been possible otherwise. They can use their credibility, technical expertise, broader perspective, neutrality and financial resources to broker and enforce deals outside the set that is feasible for the countries acting alone”. In practice IADB, the World Bank and CAF have played this role in several regional initiatives in infrastructure and financial matters within the region, as well as in helping set and supporting regional institutions, agencies or enterprises, as will be shown below.

The institutional setting of operative Regional Trade Agreements RTA’s may also help solving some of the coordination, asymmetric information, strategic bargaining and enforcement problems that characterize RPG’s, well beyond their trade objectives. Thus, (Schiff & Winters, 2002) argue that while a coordination mechanism or agency can be designed ad-hoc for each regional project, “a wider set-up shared by a whole set of agreements could be both cheaper and more effective. Also, the ties of collaboration and frequent interactions at policy-level provided by some RTA’s generate practice in shared problem solving and can raise the degree of trust among the parties. Moreover, RTAs can also help by putting more issues on the table and embedding them in a wider agreement, which both lowers the size of the compensatory transfers

required to get agreement on particular issues and makes enforcement more effective'. In practice, some RTA's, most notably the Central American Common Market, have indeed proved useful for promoting cooperation in regional infrastructure projects as well as in collective action on financial matters (and on other areas, such as environment⁷⁹), as shown in the paper.

¹ (Estevadeordal & Suominen, Bridging regional trade agreements in the Americas, 2009)

² See BIS, Progress Report on Basel III Implementation, April 2012.

³ See (Repullo & Saurina, 2011)

⁴ (Galindo, Rojas-Suarez, & del Valle, 2012)

⁵ The Committee's work is organized through four main Sub-Committees: the Standards Implementation Group (which monitors advances in implementation of the Basle Agreements), the Policy Development Group (which identifies emerging supervisory issues and brings new proposals to the Committee), the Accounting Task Force (in charge of accounting and auditing standards and practices) and the Basel Consultative Group, which provides a forum with non-member supervisors and experts around the world. Technical support is provided by the Bank for International Settlements (BIS), at Basle, which was created in 1932 to support Central Banks in their pursuit of monetary and financial stability, to foster international cooperation in those areas and to act as a bank for central banks.

⁶ IOSCO has several active committees dedicated to different policy areas, consultations, support and assessments of implementation of IOSCO Principles and the MMoU, an emerging markets committee and four regional committees. IAIS It has three standing Committees (on Financial Stability, Standard Setting and Implementation) and a permanent technical secretariat

⁷ The FSB has a Steering Committee and 3 standing committees on Assessment of Vulnerabilities, Standards Implementation and Supervisory and Regulatory Cooperation. It monitors member implementation of FSB and other international standard setting bodies' recommendations and carries out members financial systems peer reviews. The FSB has issued several influential agreements on 'Improving Financial Regulation' (September 2009), 'OTC Derivatives systems Reform' (2008), 'Effective Systems for Banking Resolution' (2011), 'Shadow Banking: Strengthening Overview and Regulation' (2011), 'Macro prudential policy tools and Frameworks' (2011), 'Core Principles for Deposit Insurance' (2012), Securities Lending and Repos (2012), among others. Its main technical support comes from the BIS and the IMF.

⁸ In April 2009, when it replaced the previous Financial Stability Forum created by the G-7 in 1999, with a 'stronger institutional basis and enhanced capacity'. G-20 London Summit, 'Declaration on strengthening the Financial System'

⁹ The Standard-Setting Bodies include, in addition to those already mentioned, the Financial Action Task Force on Money Laundering (FATF), the International Accounting Standards Board (IASB), the International Auditing and Assurance Standards Board (IAASB), the IMF, the WB and the OECD

¹⁰ FSB, Charter, as amended in June 2012

¹¹ Powell, Andrew, IADB, mimeo,

¹² "When the financial system is small and there are direct links between regulators and banks, supervision is usually not guided by independent policies. Integrating formally or harmonizing can reduce this risk, as it increases the number of participants and interests governing the financial system. In an integrated system, regulatory principles are driven by supranational principles that are likely to be less influenced by domestic interests" (Inter-American Development Bank, 2011), Chap 5

¹³ The Council was created in 1976 by the Superintendents of Honduras, Guatemala, El Salvador, Nicaragua y Costa Rica. Panama and Dominican Republic joined in 1999 and Colombia joined as an observer in 2012.

¹⁴ See "Whither Latin American Capital Markets" (de la Torre & Schmukler, 2004).

¹⁵ Several attempts between large stocks exchanges (the Paris and Frankfurt, the Paris and London, the New York and Frankfurt and the Singapore and Australia stock exchanges), were frustrated mostly by lack of national regulators' approval or support.

¹⁶ Even in Europe bonds are not part of MIFID and in NY only treasury bonds are traded 100% electronically.

¹⁷ There had been a previous integration between the stock markets of Bogota, Medellin and Cali in Colombia in year 2001

18 Morris, F, *Análisis de la integración Financiera en la Iniciativa del Área de Integración Profunda*, PPT, BID, 2011

¹⁹ Gurenko & Zelenko, 2007

²⁰ Geo Risks Research. 2006. Swiss Re.

²¹ Examples include the State of Florida (which after a highly successful experience has recently got into financial problems as a consequence of an excessive increase in government subsidies) and Turkey. In the latter case, the World Bank supported the Government in an integrated program that included a Government sponsored. Turkish Catastrophe Insurance Pool, which was partially financed by the World Bank. The program led to an increase in penetration to around 20%, which is an unusually high figure for a developing country.

²² Only Mexico in Latin America has issued a CAT, at a very high price.

²³ See (Ghesquiere & Mahul, 2007) for a more general treatment of this point.

²⁴ See, among others (Eichengreen, 2011) and (McKay, Volz, & Wölfinger, 2010)

²⁵ (Titelman, *Hacia una cobertura regional más amplia de un fondo de reservas*, 2012)

²⁶ “We recognize the importance of effective global and regional safety nets.” G-20 Summit, June 2012. Since October 2011, the G20 Finance Ministers and Central Bank Governors agreed on six “Principles for Cooperation between the IMF and Regional Financing Arrangements”, which were later endorsed by the G20 leaders at the Cannes Summit in November 2011

²⁷ There was also a failed initiative to establish a sub-regional reserves fund in Central America (CAPTAC).

²⁸ (McKay, Volz, & Wölfinger, 2010)

²⁹ (Eichengreen, 2011).

³⁰ The estimation is done assuming that countries would have needed to keep a higher level of reserves to attend differences between support actually received from FLAR and paid in capital.

³¹ (Titelman, 2007).

³² CLAAF, December 2012

³³ (Titelman, *Hacia una cobertura regional más amplia de un fondo de reservas*, 2012)

³⁴ Chiang Mai contributions are lower as a fraction of reserves (2.33%) given the much higher accumulation of reserves in Asia as compared to Latin America

³⁵ (Sussangkarn, 2010)

³⁶ (Bhagwati & Krueger, 1995)

³⁷ (Tumbarello, 2007)

³⁸ See, for example, “Global Economic Prospects” (World Bank, 2005)

³⁹ DeRosa, 2007 found that some of the world’s major RTAs (EU, NAFTA, ASEAN, MERCOSUR, and EFTA) were trade-creating both between “insiders” and, in most cases, for outsiders as well. Similar results were found by (Robertson & Estevadeordal, 2009) and (Estevadeordal, Freund, & Ornelas, 2008), for Western Hemisphere RTAs.

⁴⁰ Other reasons: First mover advantages. The very dynamic generated by the proliferation of RTAs around the world may also have generated diffusion and contagion effects. Under (Baldwin, *A Domino Theory of Regionalism*, 1993) domino theory, the proliferation of trade agreements gives outsiders incentives to form new RTAs, or to join existing ones, lest they see their market access erode. A complementary theory of competitive liberalization holds that specially developing countries are in a race for RTAs as tools to capture investment (Bergsten, 1997)

⁴¹ This section recommendations are largely based on (Estevadeordal & Suominen, *Bridging regional trade agreements in the Americas*, 2009)

⁴² “The proliferation of RTAs means that although any given country will likely be an insider to a growing number of RTAs, it will also be an outsider to an even larger set of RTAs. Even the most prolific integrator countries can thus end up facing some degree of discrimination and/or preference erosion in a growing number of RTA markets”. (Inter-American Development Bank, 2011)

⁴³ *ibidem*

⁴⁴ (Suominen, 2004) and (Estevadeordal, Harris, & Suominen, 2009)

⁴⁵ NAFTA (1994) rules of origin were more restrictive than those of the U.S.-Chile RTA of 2004, which were more restrictive than those of DR-CAFTA of 2005, which were in turn more restrictive than the U.S.-Peru and U.S.-Colombia RTAs negotiated in 2006.

⁴⁶ Estevadeordal and Suominen, 2009

⁴⁷ TIM's has been effectively supported by IADB, through technical cooperation and financing investments in physical infrastructure and automated regional information-sharing platforms.

⁴⁸ Investing in Integration (2011)

⁴⁹ (Estevadeordal & Suominen, Bridging regional trade agreements in the Americas, 2009)

⁵⁰

⁵¹ (Volpe, 2010), (Lederman, Olarreaga, & Payton, 2010).

⁵² (Lederman, Olarreaga, & Payton, 2010)

⁵³ Investing in Integration, World Bank and IADB, 2011

⁵⁴ (Mesquita Moreira, Volpe, & Blyde, 2008)

⁵⁵ (Mesquita Moreira, Volpe, & Blyde, 2008)

⁵⁶ See (Sanchez & Wilmsmeier, 2009),

⁵⁷ Ibidem

⁵⁸ (World Bank 2007a).

⁵⁹ (IIRSA, 2011)

⁶⁰ See Tables in IIRSA webpage:

http://www.iirsa.org/BancoConocimiento/A/aic_proyectos_en_ejecucion/aic_proyectos_en_ejecucion_ENG.asp?CoIdIdioma=ENG

⁶¹ Based on IIRSA auto-evaluation, "*IIRSA 10 años después: Sus logros y desafíos*" (IIRSA, 2011), and interviews with IADB and national officials done by the author for OVE (2012)

⁶³ Feasibility studies began in the 70's. By end of 80's Endesa presented a final feasibility study for a 500kv, 500 million dollars and proposes to the Spain Government to finance it as part of the 500 Spanish conquest's anniversary. Spain establishes the Fifth centenary Fund at IADB and asks this institution to take charge. IADB re do feasibility studies and approve in 1997 a 300Ú\$ 230kv line to be executed by a regional enterprise (EPR) conformed by the 6 utilities and under the condition of the creation of a regional market (MER) with a regulatory body and an operator. EPR debt was to be guaranteed by the 7 participating countries Governments. This proves to be unviable (legally and politically) and in 2001 the project is reformulated with loans to each of the 6 Central American utilities guaranteed by their Governments.

⁶⁴ COSEFIN, *Plan de Inversiones y Financiamiento para Centroamérica, Panamá y la República Dominicana* (PIFCARD)

⁶⁵ A 400KV transmission line of 103 km was built between the public utilities of Mexico and Guatemala and a supply agreement for 120 MW was signed in September 2010. It is envisaged that Mexico will sell electrical energy to other Central American countries through this line, but negotiations on this are still not completed. A 600MW transmission line of approximately 600 km between Colombia and Panama is being designed and construction is expected to start in 2013 and completed in 2014. The line will be constructed and operated by Empresa Interconexión Eléctrica Colombia-Panamá S.A. (ICP), owned jointly by ETESA-Panamá and ISA-Colombia. The two countries have advanced in harmonization of regulations according to MER. There was, however, an impasse in the concession auction.

⁶⁶ Proyecto Mesoamerica website: <http://www.portaltim.sieca.int/sitio/>

⁶⁷ See "Strategy and action plan for the greater Mekong subregion north-south economic corridor"(ADB, 2010)

⁶⁸ IADB/OVE (2012)

⁶⁹ Ibidem

⁷⁰ IADB, OVE (2012), page 20

⁷¹ Op.cit.

⁷² See G.Perry (2012)

⁷³ For example, in allocating benefits and costs from increased trade and in defining how to choose appropriate discount rates and deal with changes in exchange rates. See FOR EXAMPLE Jenkins, G. P., & Yan Kuo, C. (2006). Evaluation of the Benefits of Transnational Transportations Projects. *Journal of Applied Economics*, 9, 1-17

⁷⁴ Schiff & Winters, Regional cooperation, and the role of international organizations and regional integration, World Bank, 2002.

⁷⁵ Barberá, S. (2003). Designing Decision Rules for Transnational Infrastructure Projects. (I.-A. D. Bank, Ed.) *IDB publications*, 38898

⁷⁶ (Barberá, 2003) (Barberá, 2003)

⁷⁷ "Veto power is a guarantee that others will not easily overrule the proposals of one partner, and some potential participants may, in fact, shy away unless given a guarantee in the form of rules that require high levels of consensus in order to make new decisions. It may be that rules involving less veto power for partners become increasingly acceptable to the extent that past experience induces mutual trust. But it is clear that most partners will demand some guarantees. This is one reason why low majority requirements may work against actual decision making. Second, a small majority may sometimes slow down the adoption of new projects, if partners foresee that they can fall too easily into a minority and become unable to redress the decisions made by others" (Barberá, 2003)

⁷⁸ Just as National Governments usually solve these types of problems for the provision of national public goods

⁷⁹ E.g., the Central American Biological Corridor, cooperation in protection of the Amazons, etc.

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