

DIMINISHING FOREIGN DIRECT INVESTMENTS (FDIs) IN THE ANDEAN COMMUNITY OF NATIONS (CAN) AND THE KNOWLEDGE-BASED SOCIETY

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ABSTRACT

The CAN country members are located on the wrong side of the 'digital gap' as any other less developed countries (LDCs), and confront an enormous challenge from the network revolution which is unfolding. The privatization and deregulation of the communication sector act as an incentive to bring to the LDCs foreign direct investment (FDIs) that not only provide the financing required to develop the industry, but also provide the know-how embedded in them. New policies and political reforms concerning deregulation and privatization in countries seeking foreign investments are in place so that these countries could develop their economic potential. Currently a diminishing trend of FDIs is preponderant in the region and this affects the knowledge-based society.

Keywords: digital gap, knowledge-based society, Latin America, foreign direct investments

According to the World Bank (15) the majority population of the earth, about five billion people, live in Less Developed Countries (LDCs) and confront an enormous challenge from the networking revolution which is unfolding. These countries located on the wrong side of the "digital gap" could become victims or beneficiaries of the new changes as a sequel to the technological exigencies stimulated by the change itself. The location within the latter is based on the implementation of domestic and supranational policies and programs that allow them to develop the necessary infrastructure in the telecommunication-computing realm to attract the necessary foreign direct investments (FDIs) and technological "know-how" that is embedded in them. This allows them to establish competitive advantage. The FDIs into the CAN grew between 1993 and 2002 from \$1491 to \$7063 million as depicted on Table 1. This is the outcome of new policies and political reforms concerning deregulation, an aperture to foraneus investment, and the privatization of state owned enterprise in the sectors of telecommunications, and electrical power generation and distribution (14). International Joint Ventures (IJVs) are the most prevalent strategic alliance to be present within the FDIs framework (7).

United Nations' Economic and Social Council based on the decision 1999/281, resolved that the high level segment of the agenda for the year 2000 will be dedicated to "The Development and International Cooperation in the XXI Century: The Function of Information Technology in the Context of a World Economy Based in Knowledge". Therefore, representatives of Latin American and Caribbean Countries met in the town of Florianopolis, Santa Catarina, Brazil on June 20 to 21, 2000, to issue the guidelines to design and implement the necessary mechanism to move these countries into the 'knowledge-based society' (12).

The mechanism will be based on an agenda that will contain several public policies to increase the efficiency and equity during the transition to a knowledge-based society. These include, but are not limited to cost of telecommunication services, access to the digital network, and cost and accessibility to the computational structure. Education of the users at any level is necessary and access must be provided to the mass population with scarce financial resources to the information society. To reach the latter, the establishment of terminals in public places and community centers is necessary. All the above have to be performed within a legal framework

that provides the needed elements to guarantee electronic transactions and therefore generates a large volume of trade using this media (6).

The literature emphasized the convergence between computing power and telecommunications. These parameters are inter-related to computing infrastructure, new communication technology and governmental policies that will make the old telecommunication model, a monopoly, obsolete, and therefore, a new paradigm will evolve that makes this technology accessible to everyone, specially to the inhabitants of LDCs through a new system that promotes and encourages competition within the private sector. It has been stated that the governments of LDCs should be responsible for the utilization of their political power to create the required mechanisms so the mass population will be able to have access to the benefits provided by technology, and be a constituent of the knowledge-based society (9).

Another 'gap' present in Latin America that has a great repercussion on the digital economy, is the one that could be defined by its components: socio-economics, and technology (5). Further, there is an uneven distribution of wealth between countries, and within them. A large price differential regarding telecommunications cost and coverages exists. Due to economic and social factors in Latin America the role of regional governments to oversee this new arrangement is not only preponderant but could be controversial. Elements such as the amount of control to be adopted by the government, regulations, and privatization will be relevant to the development of the knowledge-based society within the legal framework same as the education and exposure of the population to the new virtual society.

Regarding the economy, the flow of information has been present as an integral part of activities related to production, trade, and investments among others. Therefore, historically a strong correlation exists among economic and networking development. Also the latter plays a very important role in the development of modern social and institutional structures. The report concurs with the research literature concerning the development of the telecommunication sector that has evolved rapidly from a well defined state-sanctioned monopoly in the 1980s to a great majority acceptance of the benefits of liberalization and competition in the 1990s (15).

Purpose of the Paper

The objective of this paper is to demonstrate that the diminishing flow of FDIs have profound effects on the knowledge-based society due to the lack of investment on sectors, such as, but no limited to, telecommunications, and will influence the evolution of this new societal paradigm in the member countries of the CAN.

BACKGROUND

In Latin America, regional as well as multilateral integration schemes have a predominant role within integration agreements. Good representation of the above includes, but is not limited to, MERCOSUR: Brazil, Argentina, Uruguay, and Paraguay. The Andean Community of Nations (CAN) composed of Bolivia, Ecuador, Colombia, Peru, and Venezuela and the Group of Three (G3): Colombia, Mexico, and Venezuela. These organizations have the intent to institute the required infrastructure that, in the future, may evolve into a political union (11). Another regional pact is The CARICOM, composed of English speaking countries within the Caribbean Basin. The proliferation of these regional and multilateral agreements with integration as a purpose have and will continue to generate a high flow of goods, services, and investments among these countries (6). From the economic perspective, the outcome is trade and, therefore, stimulus to economic growth. Information technology that is embedded in the productivity equation is a relevant parameter in this endeavor. The significance of business

transactions using electronic means to acquire a new high-performance business model is present and the Internet and e-commerce play a preponderant role in this new and changing e-commerce world. A Foreign Direct Investment can greatly contribute to a host country's economy providing the required factors of production described above.

The decade of the 80s in Latin America (LA) was characterized by the lack of hard currency and hard economic times. Several governments look at privatization as a process to raise money on hard currency and also a way to acquire new technologies, know-how and/or upgrade and expand the existing networks. All over the region the primary role of the government changed from owner of the monopoly to regulator. Chile, Argentina, Mexico, and Venezuela were the first to start restructuring their telecommunication realm and today the list of countries that have adopted and implemented reform includes, among others, Bolivia, Brazil, Colombia, Ecuador, El Salvador, Honduras, Panama and Peru (10).

Privatized telecommunications operators enjoy the status of quasi-monopoly entities in the basic service sector that includes the long-distance segment (10). After privatization the new enterprise searched for new business opportunities, such as in Chile annual investment in public telecommunications increased from \$109 million in 1988 to \$575 million in 1994. The number of main lines increased twofold to 1.5 million between 1989 and 1994. Almost all Latin American Countries have participated in the World Trade Organization (WTO) Negotiations on Basic Telecommunications and most of them have made commitments to further liberalize their telecommunications service industry to include voice telephone, mobile services, and satellite services among others.

The research literature confirmed that investment capital flows had returned to Latin America in the 1990s succeeding almost a decade-long (the 1980s) so-called debt-crisis during which negative transfer of resources was generated (4). The latter is characterized by the volatility of the investment and lack of investors' confidence that led to a deep recession. The author also mentioned the importance of designing and implementing policies to limit the volatility of short-term flows and to encourage long-term capital. Within this framework FDIs could perform a significant role considering they have a proclivity to be more stable, as well as to convey other advantages such as access to technology and markets; among others, tangible determinants. Today the flow of FDIs toward Latin America and the Caribbean has diminished considerably, during the year 2001 and there are no signs of improvement for the year 2002 (Table 1, Charts 1 & 2). This is not only applicable to new investments but also to mergers and acquisitions. The receding of FDIs is attached to the end of economic reforms especially the privatization of State enterprises in the realm of energy and basic services, and there is also the relevance of China's attraction to FDIs as a powerful incentive to the redirection of them (14). High correlation exists between parameters such as political stability, macroeconomics reforms, privatization and deregulation, a well-established legal framework, and the inducement to FDIs.

After 1991, when the constraints to country members of the Andean Pact (AP), currently CAN, to individually attract FDIs were removed, the country members adopted a new policy on foreign and technological investments that brought about a flow of FDI's. According to the new Regime for Foreign Investments, the economy of the CAN is now open and is more integrated within the global system. The former is to be in compliance with the Andean Commission Decisions No. 291 and No. 292, March 1991; such provisions grant equal treatment to foreign and capital investment (2).

The members of the CAN in accordance with Article No. 27 of the Cartagena Agreement have accepted the application of the Andean Decision on Common Provisions. These are

applicable to foreign capital and trademarks, patents, licenses and royalties in this area. In 1991 after economic reforms pertaining to FDIs were made, there was not only the need for capital, but for technology, and know-how (2).

DISCUSSION

In regards to privatizations, the year 2001 shows almost none. Acquisitions and mergers were reduced to a minimum, due to the fact that only a few large entities remain within the State ownership, especially in the hydrocarbon sector in CAN's country members such as Colombia and Venezuela. Within the telecommunication sector, there are new concessions in the wireless sub-sector of Venezuela. Telecom Italia Mobile (TIM) with presence in Bolivia, Venezuela, and Peru among others Latin American countries will invest another \$200 million in Peru to reach one half of billion dollars in the wireless telecommunication sector (1). In the generation and distribution of electricity, Peru issued new contracts to European Union's (EU) recipients. Regarding the investment and banking sector, the second quarterly reports of the Spaniard banks: Santander Central Hispano, and Banco Bilbao Vizcaya Argentaria (BBVA) for the year 2002, will be affected greatly due to the poor performance of Latin American's countries currency, and the almost nil economic growth due to a regional financial crisis. Latin America provides between one-fifth, and one-half of the income of these banks (3).

The investment on research and development in the realm of science and technology in Latin America is very small, approximately 3.1 percent of the total amount spent at world level. Meanwhile the governments of the region were in charge of the industrialization of the countries, even in the large economies of the region the investments in the latter never surpass the one-half of one percent of their Gross Domestic Product (GDP). In Latin America and The Caribbean, the private sector finances only one third of research and development (R&D). This contrasts with 69 percent for the same activity in the United States. In the member countries of the CAN, the number of researches for every hundred people of the economically active population is an average of 0.04. At the time of privatization of state-owned enterprises, and the liberalization of the economies, it was recommended to increase the expenditures of R&D in relation to the GDP, but no public policies were implemented to reach that goal. Regarding the human resources realm has been an increment of programs to train people in the use of the technology. Software such as CAD-CAM, Enterprise Resource Planning-ERP, Supply Chain Management-SCM, and Customer Relationship Management-CRM, among others, helps organizations to operate in real time within the business process and add value not only to themselves but, to others within their sector. This is very positive, and a major step toward knowledge-based society, unfortunately it is only available, due to cost factors, to only few sophisticated enterprises (13). The use of this programs not only increased the efficiency and effectiveness of some industries, but also has contributed to create a by-pass product composed of people and financial resources: a domestic industry dedicated to the support and developed the latter.

In 1998, only 1 percent of the population of LA and the Caribbean were connected to the Internet. It is necessary to emphasize the fact that the region has shows the most rapid growth in the world. Today due to FDIs, and the implementation of policies that attract them, 84 percent of the telecommunication infrastructure is digital and completely automatic. Within the wireless sector the first quarter of 2001, 70 million subscribers exist. E-commerce usage in the region is less than one fifth of subscribers of the Internet that still is at incipient levels (13). There is high correlation between Internet connectivity and the GDP of countries. The privatization and deregulation of the communication sector act as incentives to bring to the LDCs foreign direct investment that not only provides the financing required to develop the industry, but also

provides the know-how embedded on them. The only way that these countries located at the wrong side of the 'digital gap' could evolve within the technology environment rests on foreign sources of funding. Governments of LDCs should be responsible for the utilization of their political power to create the necessary mechanism so the mass population will be able to have access to the benefits provided by technology, and, consequently be constituents of the knowledge-based society (8).

CONCLUSION

Due to economic and social factors in LA, the role of regional governments to oversee this new arrangement is not only preponderant but could be controversial. Any new implemented policies should contain essential provisions addressing not only the significance of social accountability and responsibility, but also delineate the framework required to address the implications of social effects generated by the digital revolution. The latter will abet in reaching the goals within social inequality (9). Countries of the region should transact within the framework of regional and/or multilateral agreements to acquire the endowment to develop the computer-information infrastructure required to handle the new "virtual society"(6).

The flow of foreign direct investments (FDIs) has contributed almost in an incommensurate manner to the economic growth and development of the member countries of the CAN not only in the realm or sector in which they were invested but, as a sequel in the regional economy as a whole. The GDP index is affected due to the fact that the positive effects of FDIs are present in diverse elements of production. Emphasis should be placed on the high correlation between Teledensity and GDP, among others, indexes stated in the research literature. The caveat resides in some factors that should be present for the FDIs to work; political stability, improvement in education and developing of the human resources with the managerial skills necessary to perform their functions, macroeconomic stability, liberalized trade regimes and the political and legal framework required to attract foraneus investments (8).

Table 1 and Chart 2 depict the growth rate of FDIs into the CAN. Year 1997 shows the highest amount of FDIs \$12938 million (Chart 1) with a rate of growth equal to 0.49, after this peak, the trend becomes negative. The latter depict large disinvestments caused by, among other factors, the ones described above as the caveat. The consequence of this trend is a diminishing of the GDP and, therefore, Teledensity, which will affect interconnectivity especially in a region of scarce economical resources. Another negative factor is the lack of critical mass necessary to accelerate the process of access to the "net". All this plays an important role against convergence, which is a relevant parameter in the knowledge-based society.

Table 2, shows the rate of connectivity in member countries of the CAN during the period 1995 to 2000. The numbers are based on Internet providers (Host) per 10,000 inhabitants and using as reference a world benchmark (WBM). During the year 1995, all of the country members were at low-level. By the year 2000 only two countries Colombia and Venezuela move to the median position, the others Bolivia, Ecuador, and Peru remain at low-level in comparison to the world countries. As Table 2 depicts, only Venezuela moves from below WBM to expected value based in GDP income per capita. At year 2000, the growth rate of FDIs is still positive after that the data declines to a negative position (Table 1 and Chart 2). The lack of external source of funding will affect economic development and, therefore, the economic growth. As a corollary, the knowledge-based society will come to a phase of stagnation.

Table 1. FDIs IN THE CAN

	(million \$)										
	93	94	95	96	97	98	99	2000	2001	2002	
BOLIVIA	125	147	391	472	728	952	983	693	647	721	
COLOMBIA	719	1298	712	2784	4753	2032	1336	1905	2386	1864	
ECUADOR	474	576	452	500	724	870	648	720	1330	1335	
PERU	687	3108	2048	3242	1697	1880	1969	662	1063	1943	
VENEZUELA	-514	455	894	1676	5036	4262	2789	4357	2684	1200	
	1491	5584	4497	8674	12938	9996	7725	8337	8110	7063	
GROWTH RATE	2.75	-0.19	0.93	0.49	-0.23	-0.23	0.08	-0.03	-0.13		
TOTAL											
FDIs	1491	5584	4497	8674	12938	9996	7725	8337	8110	7063	

CHART 1

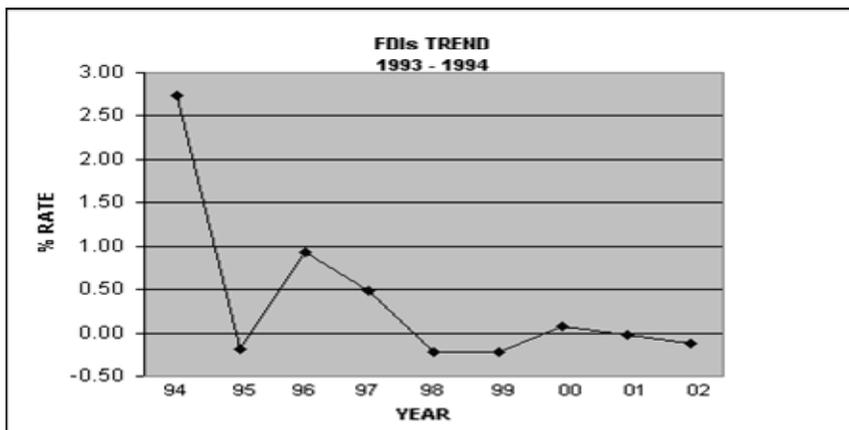
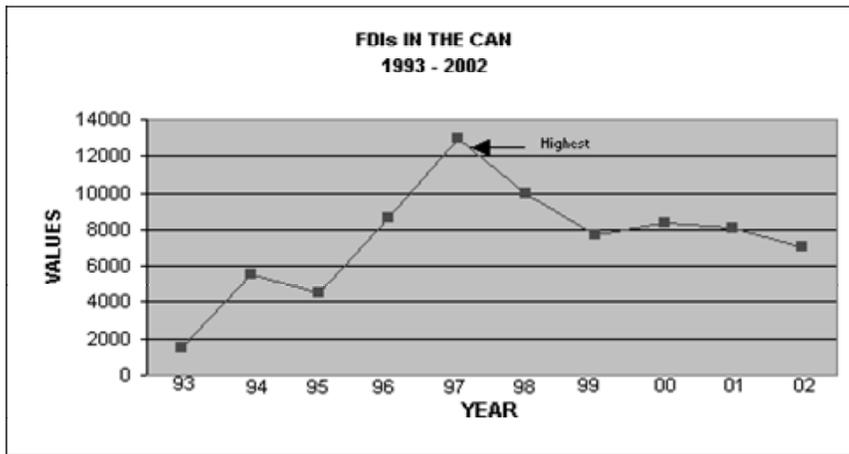


Table 2. CAN'S RATE OF

CONNECTIVITY-PERIOD 1995-2000 – RE: WORLD BENCHMARK (WBM)
 (Internet Host per 10,000 inhabitants) – Digits in bold = year 2000

		2000 MEDIAN	LOW
	BOLIVIA		b> b: 0.3
LOW	COLOMBIA	b> s: 1.9	
1995	ECUADOR		b> b: 0.3
	PERU		b> b: 0.7
	VENEZUELA	b> l: 1.2	
		b > s move from below to above WBM	
		b > b below WBM	
		b > l from below WBM to expected value	Source: UN-CEPAL 2002

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