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FDI as a Catalyst for Change: Economic Development in Brazil and Mexico

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December, 2005

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**FDI as a Catalyst for Change:
Economic Development in
Brazil and Mexico**

Abstract

The objective of this project is to analyze socio-cultural, political, and economic developmental factors to assess the impact of foreign direct investment (FDI) on the development trends of Brazil and Mexico. I was able to do my research and reach my conclusions through the examination of documents that I obtained through the university library and my faculty mentor.

Now that I have completed the project, I have a much clearer understanding of the link between FDI and economic development. When large transnational corporations invest in foreign markets, such as Brazil and Mexico, they bring in the capital and experience that helps build the local economy and infrastructure. Furthermore, liberalized economies encourage the flow of investments and goods. The influx of transnational corporations creates a competitive atmosphere that stimulates growth and increased competitiveness in local firms.

These conclusions signify the importance of free trade and international competition. From a policy perspective, barriers to trade and investment should be removed to facilitate the flow of FDI. This will lead to development and the subsequent improvement of infrastructure and living conditions.

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Introduction

The objective of this project is to analyze socio-cultural, political, and economic developmental factors to assess the impact of foreign direct investment (FDI) on the development trends of Brazil and Mexico. I intend to demonstrate that FDI is a developmental catalyst that accelerates growth and competitiveness. Furthermore, the presence of transnational corporations (TNCs) that accompanies FDI encourages the development process by exposing local firms to competition. As local firms become more competitive, their success manifests in outward FDI and the subsequent growth of local economies.

The two countries selected for this study, Brazil and Mexico, are similar in the sense that they are both developing Latin American countries that show a lot of promise. However, they differ in that they are completely different cultures pursuing development from different perspectives. A secondary objective of this project is to shed some light on the impact of culture on the developmental strategies of Brazil and Mexico.

At the heart of this study are the goals of development (McGaskey 2004). One goal of development is to increase the availability and distribution of basic life-sustaining goods. Many economic regions exist that do not have a readily available supply of basic life-sustaining goods, such as medicine and hygiene products. Development can provide both the resources to supply these goods and the money for people to consume them. A

second goal of development is to increase the level of living by increasing employment rates, income per capita, education, cultural awareness, and human values. Thirdly, development expands the range of economic and social choice available to the people. What use is higher education without a viable market to apply it to? Development enables people to seek satisfying work and pursue upward mobility while having more lifestyle choices, which can equate with increased liberty and self-actualization.

The benefits of development cannot be realized without economic growth. Capital, labor, and technology are the three necessary components of economic growth (McGaskey 2004). The capital component, in this case, is investment in productive units and economic and social infrastructure. Labor refers to the presence of both skilled and unskilled workers, an abundance of which is present in both Mexico and Brazil. Lastly, technology is needed to increase productivity and efficiency. Therefore, the key to economic growth is capital investment, which is needed to utilize labor and implement technology to improve processes and infrastructure. Capital has two components: direct investment in productive units, and investment in economic and social infrastructure (McGaskey 2004). Examples of direct investment in productive units are investments in factories, machinery, and materials. Investment in economic and social infrastructures includes improving and building road networks, electricity supply, communications, and human capital investments (i.e. training and development).

Part One: Basic Data

(All data in this section from CIA World Factbook 2005)

Brazil Overview

Brazil is the largest country in Latin America, both in terms of geographic area and population. After gaining independence from Portugal in 1822, Brazil operated under a military regime until 1985 when power was peacefully ceded to civilian leaders.



In size, Brazil is only slightly smaller than the USA and borders every country in South America except Chile. Brazil's largest border is with the Atlantic Ocean, which extends 7,491 km along the eastern border. Natural resources are mostly found in the rich interior of the country and include: bauxite, gold, iron ore, manganese, nickel, phosphates, platinum, tin, uranium, petroleum, hydropower, and timber. The proximity of other South American countries and easy coastal access give Brazil a strategic location advantage, which coupled with the right policies, investments, and resources, enables Brazil to be a major player in the global economy and a regional economic leader.

Unfortunately, exploitation of natural resources has led to major environmental issues for Brazil. Deforestation in Amazon Brazil is rapidly destroying habitat and endangering numerous indigenous plants and animals. Another major environmental threat is the lucrative and illegal trading of wildlife on the black market. Rio de Janeiro, Sao Paolo, and other large cities suffer from air and water pollution, and improper mining activities lead to land degradation and water pollution in rural areas. Additionally,

encroachment is causing serious wetland degradation, which furthers water pollution issues (wetlands act as a natural buffer against pollution), and severe oil spills are common due to the huge petrochemical industry.

The population of Brazil is estimated to be 186,112,794 as of July, 2005, making it the sixth most populous nation behind China, India, the EU, the US, and Indonesia. Life expectancy at birth is 67.74 years for males and 75.85 for females. According to the 2000 census data, most Brazilians are white (53.7 percent). Other major ethnic groups are mulatto (38.5 percent) and black (6.2 percent), and Japanese, Arab, Amerindian, and other minority groups only represent .9 percent of the population. Most of the religious population is Christian. 73.6 percent of the population is Roman Catholic, 15.4 percent is Protestant, and 1.3 percent is Spiritualist. Interestingly, a significant portion of the population (.3 percent) practices Candomblè, a Brazilian version of Bantu, a West African voodoo religion and the subject of several Anne Rice novels (*Merrick* for example). Though Portuguese is the official language of Brazil, Spanish, English, and French are also spoken, and 86.4 percent of the population is literate.

All these factors indicate a large and capable base for human capital, but Brazil struggles with highly unequal income distribution. This indicates a need for further development. However, rich national resources and an abundance of labor are two factors that can help a nation attract FDI. Petroleum prospects alone are enough to attract international attention, and Brazil has a diverse set of natural resources. Additionally, Brazil is easily accessible from the east. Numerous, large seaport towns facilitate the flow of goods in and out of the country, and almost every other country in South America can be accessed through Brazil. From a demographic standpoint, Brazil has what it takes

to become a large and successful country. One major issue that Brazil should pursue to increase its attractiveness is education. Educational developments would lead to a more skilled workforce, which would help Brazil advance to higher stages of development in the future.

Mexico Overview (from CIA World Factbook)

Mexico is a nation with a tumultuous history. Spanish Conquistadors invaded Mexico early in the 16th century and took control of the advanced Amerindian

civilizations that already existed there.

Spaniards maintained control of Mexico for three centuries before Mexico gained



independence in the early 19th century. A peso crisis in 1994 threw the country into economic turmoil shortly after the implementation of NAFTA in January of the same year. However, Mexico has mounted an impressive recovery since then and the economy of Mexico is steadily growing. Ongoing economic and social concerns include low real wages, underemployment for a large segment of the population, inequitable income distribution, and few advancement opportunities for the largely Amerindian population in the impoverished southern states.

Mexico is nestled strategically on the southern border of the United States. The proximity of Mexico to the United States is important for the development of Mexico. By being so close to the US, Mexico has a competitive advantage over other Latin

American nations in both Central and South America. At about 1/5th the size of Brazil, Mexico is roughly three times the size of Texas. Natural resources include petroleum, silver, copper, gold, lead, zinc, natural gas, and timber. The abundance of human capital, natural resources, and a rich trading partner to the north places Mexico in an attractive position for development and economic leadership. Additionally, Mexico has over 9,000 km of coastline on the Pacific Ocean, the Atlantic Ocean (via the Gulf of Mexico), and the Caribbean Sea, which makes Mexico a convenient import/export location.

Unlike Brazil where flooding and draught are the major natural hazards, Mexico is threatened by tsunamis on the Pacific coast, volcanoes and destructive earthquakes in the center and south, and hurricanes on the Pacific, Gulf, and Caribbean coasts. These natural hazards pose a threat to local businesses. Hurricanes Katrina and Rita have certainly demonstrated the disastrous effects nature can have on business.

Mexico is notorious for environmental issues. Scarcity of hazardous waste disposal facilities leads to air, water, and soil contamination throughout the nation. Rural to urban migration overburdens the insufficient infrastructure. Fresh water resources are scarce and polluted in the north and are inaccessible and of poor quality in the center and extreme southeast. Additionally, the Valley of Mexico has been forced into land subsistence by groundwater depletion. Raw sewage and industrial effluents pollute urban rivers (ever been to Tijuana?). Additional environmental issues include deforestation, widespread erosion, desertification, deteriorating agricultural lands, and serious air and water pollution in Mexico City and urban centers along the US-Mexico border. The lack of clean water and deforestation issues are so serious that the government considers them issues of national security. Mexico is party to several international environmental

protection efforts, but pollution remains a major issue while much of Mexico is wastes away.

Mexico's population is just over 105 million. Life expectancy at birth is 72.42 years for males and 78.1 for females, which is lower than in Brazil. This can partly be attributed to the extremely poor hygiene conditions for the poor living in the large urban areas. 60 percent of the population is Amerindian-Spanish, 30 percent is Amerindian or mostly Amerindian, 9 percent is white, and the remaining 1 percent is composed of immigrants of various nationalities. A larger portion of the population of Mexico is indigenous compared to Brazil, and the religious population is significantly more Christian. 89 percent are Roman Catholic and six percent are Protestant, leaving only 5 percent of the population in the "other" category. Additionally, a larger percentage of the population is literate in Mexico than Brazil. 92.2 percent of the population can read and write by the age of 15.

Mexico's struggle with environmental issues is an indication that further policy development is needed. Soon Mexico's environmental issues could become a limitation on the country in the near future. Mexico is becoming very industrialized, and the traditional disregard for the environment is coming to a head. Like in Brazil, Mexico is in need of further infrastructural development if it is going to become more competitive. However, Mexico does have a number of characteristics that make it an attractive investment location. The proximity of the United States provides a large and stable market for exports. Additionally, Mexico can be easily accessed from all sides, making it an ideal trade partner. Natural gas reserves in Mexico are a very valuable resource due to

the rising natural gas prices in the wake of hurricanes Katrina and Rita, and the large, mostly literate population provides a good human capital base for development.

Part Two: Cultural Environment

In 1967, Geert Hofstede surveyed over 116,000 respondents from over 70 countries around the world (Hodgetts, Luthans and Doh 101). All of the correspondents worked in IBM local subsidiaries. Some have criticized his work is too narrow in scope because of the cultural consistency within IBM at all of its subsidiaries. Hofstede argues that it is the very consistency of IBM's corporate culture that makes his analysis more accurate:

The only thing that can account for systematic and consistent differences between national groups within such a homogenous multinational population is nationality itself. The natural environment in which people were brought up before they joined this employer. Comparing IBM subsidiaries therefore shows national culture differences with unusual clarity. (qtd. in Hodgetts, Luthans and Doh 101)

Since his research began, Hofstede's Cultural Dimensions have gained wide notoriety in the business world, and his study is now a standard for cultural comparisons in the business environment. This is partly due to the broad acceptance of his research, but his success is also attributable to the scope of his study. From his website one can easily access and compare cultural analyses for over 50 countries and regions, and he has continued to refine his work over the years (Hofstede 2003).

Hofstede identified four cultural dimensions: power distance, individualism, masculinity, and uncertainty avoidance (Hofstede 2003). These five dimensions will be

used to assess the cultural environments of Brazil and Mexico and identify important cultural differences that can impact business (see Figure 1). Each dimension is assigned a value from zero to 100. For each dimension, higher scores indicate a strong correlation with each dimension. All scores are taken from the website titled “Geert Hofstede Cultural Dimensions,” which is supported by *itim International*.

Country	PDI	IDV	MAS	UAI
Brazil	69	38	49	76
Mexico	81	30	69	82
USA	40	91	62	46
(Source: Hofstede 2003)				

Power distance (PDI) is defined as “the extent to which less powerful members of institutions and organizations accept that power is distributed unequally” (Hodgetts, Luthans and Doh 102). Brazil has a PDI score of 69, and Mexico has a power distance score of 81 (Hofstede 2003). This indicates that Mexicans are more accepting of unequally distributed power. This is further supported by Mexico’s high population percentage living below the poverty line. In Mexico, 40 percent of the people live below the poverty line, whereas in Brazil only 22 percent of the population is below the poverty line (CIA World Factbook 2005). This could also explain why pollution has become such a big issue in Mexico. With such high tolerance for unequal power distribution, polluters have little accountability and people are more accepting of the actions of others.

Brazilians are less tolerant of unequal power distance, and those in power have a higher level of accountability in Brazil. To get a sense of perspective, the United States has a PDI score of 40 (Hofstede 2003), indicating a moderately low tolerance for unequal power distribution.

Next, individualism (IDV) is defined as “the tendency of people to look after themselves and their immediate family only” (Hodgetts, Luthans and Doh 102). Countries with a very low IDV score are characterized by collectivism, the tendency of people to belong to groups or collectives and to look after each other in exchange for loyalty.

Brazil has an IDV score of 38 and Mexico’s score is 30 (Hofstede 2005). According to Hofstede, all the Latin American countries are considered to be Collectivist societies when compared to Individualist cultures (such as the US with an IDV score of 91). Collectivism manifests in loyalty to the group, which could be the family, extended family, or close friends, and loyalty is paramount, overriding most other societal rules. Collectivist countries tend to have less support for the Protestant work ethic that is prevalent in the US, less individual initiative, and organizational promotions tend to be based on seniority (instead of accomplishment).

Masculinity (MAS) is defined as “a situation in which the dominant values in society are success, money, and things.” Countries with a low masculinity score are said to be feminine. Femininity is defined as “a situation in which the dominant values in society are caring for others and the quality of life.” (H., L., & D. 103)

With a MAS score of 49, Brazil is more of a feminine culture, which complements the collectivistic nature of Brazilian society. People tend to place more

importance on cooperation, friendly atmosphere, and employment security. Cultures with low masculinity are also said to favor small-scale enterprises. This could potentially cause a problem for investors looking for large-scale opportunities, but it should be noted that Brazil is neither strongly masculine nor strongly feminine. Mexico, however, is quite different. Mexico has the second highest MAS score in Latin America (69). This indicates the importance of earnings, recognition, advancement, and challenge. Mexico's high MAS score also indicates a tendency to favor large-scale enterprises, and economic growth is seen as more important than conservation of the environment. This is evident when visiting Mexico. The nation has an atmosphere of rushed economic growth and disregard for environmental consequences.

Lastly, uncertainty avoidance (UAI) is defined as "the extent to which people feel threatened by ambiguous situations and have created beliefs and institutions that try to avoid these" (H., L., & D. 102). Hofstede has found that most Latin American cultures, including Brazil and Mexico, are predominantly Catholic countries and that there is a strong correlation between Catholicism and high UAI. People in high UAI cultures are said to implement strict rules, laws, policies, and regulations in order to maintain a high degree of control and reduce the unknown (Hofstede 2003). This correlates well with the structure of the Catholic religion. Therefore, it is not surprising that Brazil has a UAI score of 76 and Mexico has a UAI score of 82. Both Mexican and Brazilian cultures are very risk averse, which could indicate a poor attitude towards new ventures and a poor investment climate.

Overall, this cultural analysis highlights the need for foreign investment in Mexico and Brazil. The people that do have money to invest domestically in the

development of the two nations are less likely to do so because of their collectivistic nature and aversion to uncertainty. Unfortunately, Mexico's high tolerance for power distance coupled with its masculine nature has led to exploitive development with little regard for the people and environment of the Mexico. Brazil suffers less from exploitive development than Mexico, but Brazil still has its share of problems.

From the perspective of Hofstede's cultural dimensions, Brazil and Mexico are very similar to most Latin American cultures. The major differences between the two are Brazil's higher individualism level and Mexico's higher masculinity level. However, both nations are averse to uncertainty and are somewhat tolerant of high power distance. As an investor considering the cultural aspects of each nation, it would seem that both are equally attractive. Mexico is more likely to be tolerant of large-scale projects, but at the same time workers in Brazil are more individualistic, forming a balance between the two.

Part Three: Political Environment

Brazil

As the largest economic entity in Latin America, Brazil is in a strategic position to make its size and relative development level a competitive advantage in the global market. However, sheer size, population, and resources alone are not enough to achieve global competitiveness. Strategic policies can protect a country from outside economic forces, but such protectionist policies cripple a country's ability to compete with liberalized economies. The lack of competition stifles development. Further, "by limiting imports and placing severe restrictions on inward FDI, governments in many Latin American countries created environments that did not promote innovation"

(Daniels, Krug and Trevino 2). Now that Brazil is open to global economic interests, its economy is improving.

Technically speaking, Brazil is a presidential and federative republic (CIA World Factbook). The original constitution was modeled after the US constitution (Hudson, "Government and Politics"). A national constituency directly elects the president, and "very parochial regional interests" (Hudson, "Structure of Government") elect the Congress.

Since the 1980s, Brazil has been becoming increasingly privatized (Hudson, "Privatization"). The trend was slow at first, with only 38 enterprises being privatized before 1990 for a total of \$723 million. Privatization continued at an increasing rate under the governments of Collor, Franco, and Cardoso. As a result, a number of investment opportunities became available in Brazil, attracting a growing amount of FDI. While Brazil was undergoing privatization, the global marketplace was booming. The 1980s and 90s saw a rapid increase in the globalization process, and multinational corporations sought investment opportunities all over the world. This led to an increasing amount of inward FDI and a larger number of multinational corporations in Latin America.

By 1984, trade policy makers in Brazil were finally realizing that trade policy was a potential instrument for domestic economic stabilization. When Collor de Mello took office in 1990, the country was nearly in a state of crisis. Inflation was over 70 percent during the first few months of 1990 (Hudson, "Trade Policies"). He emphasized deregulation and openness to foreign markets, a major conceptual change for Brazilian leaders. Import licenses became readily available, and tariffs were broadly cut. New

entities were created to continue the development of Brazil's foreign policy. Specifically, the Technical Coordinating Office for Trade (Coordenadoria Técnica de Intercâmbio Comercial--CTIC) and the Technical Coordinating Office for Tariffs (Coordenadoria Técnica de Tarifas--CTT) were given discretionary control over trade policy. By the end of the 1990s, Brazil had become a much more open and effectively functioning economy than it had been coming into the global expansionary period of the 1980s. (Hudson, "Trade Policies")

Some government efficiency issues still hinder Brazil's economic growth. According to the IMD World Competitiveness Yearbook of 2005, the three weakest criteria are the creation of firms, the cost of capital, and real corporate taxes (107). Legislation is a hindrance to the creation of new firms. Business development is deterred by the cost of capital in the Brazil, and the high real corporate tax levels discourage entrepreneurial activity. Other issues that hamper business activity are tax evasion, real short-term interest rates, and bureaucracy (IMD 107).

Mexico

The best way to describe the Mexican political environment is to say it is very Spanish, the inevitable imprint of over 300 years of Spanish rule. "Mexicans' adherence to a highly codified civil law tradition, their acceptance of heavy state involvement in business and civic affairs, and the deference accorded the executive over other branches of government can be traced to the administrative and legal practices of the colonial period" (Merrill, "Government"). Though things operate very differently in Mexico, the Mexican federal republican government is structured very similarly to that of the United States. It consists of three branches: Executive, Legislative, and Judicial (Merrill,

“Government Structure”). Additionally, each of Mexico’s 31 states has its own constitution and the right to legislate and levy taxes, except interstate customs duties. The local or municipal level holds the last word on most public services. These services include utilities, street cleaning and maintenance, and maintenance of parks (Merrill, “Government Structure”). Unfortunately, a visit to the average Mexican town makes it look as though they are not very busy at the municipal level.

The stability of Mexico’s political system is somewhat baffling. From 1988 to 1994, a number of political activists were killed and two leaders of the Institutional Revolutionary Party (PRI), the long-standing ruling party of Mexico, were assassinated (Schmidt and Mendieta 1995). Even after the PRI presidential candidate was assassinated in 1994, the party recovered and placed a different candidate in office, and everyone carried on with his or her political lives as if assassinations were just another bureaucratic speed bump. Schmidt and Mendieta argue that the political stability in Mexico is attributed to “the existence of a cohesive network of power which controls conflict and the major political processes” (1995). This coincides well with the importance of connections when doing business in Mexico. Even at the presidential level, Mexico is relatively stable, due to the natural checks and balances of its high relationship orientation. Though the president holds most of the power, other competing forces keep the political environment balanced. Research by Schmidt and Mendieta clearly indicates that there are elaborate formal and informal relationship structures in Mexico that drive the political arena (1995). Many networks are formed through historical family relations, some of which date back to the Revolution. Others come from sports, university, and other social activities.

The central themes of Mexico's foreign policy are free trade and liberalization. Mexico has focused on foreign relations, most notably with the North American Free Trade Agreement (NAFTA). Mexico has signed twelve free trade agreements with nations all over the globe (SICE Foreign Trade Information Database). The most recent agreement was established with Japan, which went into force in April of 2005. Mexico also has a free trade agreement with the EU, which, combined with NAFTA, opens the country to a huge base of economic opportunities. Mexico is also involved in five economic complementation agreements in Latin America, as well as a partial-scope agreement with Panama (SICE Foreign Trade Information Database). Clearly part of Mexico's development strategy involves strategic alignment with other developing nations and free trade access with major economic entities.

From the perspective of government efficiency, Mexico is somewhat better off than Brazil. The biggest government inefficiencies that currently inhibit growth in Mexico are exchange rate instability, parallel economies (black-market, recorded activities such as illicit drug production and trafficking), and political parties that do not understand today's economic challenges (IMD 281). Additionally, product and service legislation and high costs of capital deter business development. Other major issues relate to corruption. Tax evasion, lack of personal security and private property protection, and harassment and violence hamper business activity and destabilize the workplace (IMD 281).

Part Four: Economic Environment

Brazil

The economy of Brazil is capitalistic in form. Brazil's Finance Minister, Antonio Palocci, and President, Luiz Inácio Lula da Silva, are the crafters of Brazil's economic policies (CIA Factbook). Though they have managed to bring some stability back to Brazil in the wake of the currency crisis of 1999, Brazil's economy remains a bit shaky. However, one cannot ignore Brazil's well-developed agricultural, mining, manufacturing, and service sectors, which make Brazil's economy the largest in all of Latin America. Brazil's economy rests on three principles: a floating exchange rate, an inflation-targeting regime, and a tight fiscal policy (CIA Factbook).

Porter, Sachs, and McArthur of Harvard University have identified three levels of economic development (2001). The first stage is the Factor-Driven stage. At this low level of development, the major concerns are providing stable political and macroeconomic environments, as well as economic liberalization. The next stage in development is the Investment-Driven stage. At this stage of development, the primary concern is attracting investments and facilitating business. The most advanced stage of development, the Innovation-Driven stage, is characterized by innovative business practices and intense competition among firms. Brazil is currently in the Investment-Driven stage. As an Investment-Driven economy, Brazil focuses on manufacturing and outsourced service exports. During this stage of development, it is important for the government to focus on infrastructural improvements that will facilitate ongoing economic development (Porter, Sachs and McArthur 2001). Other important focus factors for the government of Brazil are regulatory arrangements, such as customs,

taxations, and company law, which allow further integration with global markets. It is common to see more sophisticated products and services being generated in the Investment-Driven stage than in the earlier, Factor-Driven stage of development. However, at this stage of development, Brazil is still susceptible to fluctuations in the foreign exchange market, as well as fluctuations in sector-specific demand (Porter, Sachs, & McArthur 17-18).

Brazil has fought hard to stabilize its economy after the currency crisis of 1999. As can be seen in the chart below, inflation rates in Brazil steadily increased from 1999 to 2003, reaching a high of 14.7 percent in 2003 before beginning to fall in 2004 (CIA World Factbook). Antônio Palocci, the finance minister of Brazil, has helped to bring about stability via strict control on government spending, reducing government debt, and high interest rates to keep inflation at bay (CIA World Factbook). Unfortunately for Brazil, an ongoing corruption scandal may force Palocci out of office, which could have a devastating affect on the stability Palocci has struggled to maintain (Wheatley “Brazil’s Economic Stability”). Only time will tell if Brazil’s stability is sustainable.

This year, Brazil’s overall performance rank was 51 in the *World Competitiveness Yearbook*, which was a slight improvement from last year’s rank of 53 (IMD 104). Brazil’s overall performance ranking has dropped



Source: CIA World Factbook

drastically from its position of 37 in 2002 and stabilized near the bottom of the list. Brazil's drop in competitiveness coincides with the temporary destabilization of the economy in 2003, reflected by the high inflation rates of that year (see inflation rate chart above). Major economic performance issues for Brazil are low trade levels relative to GDP (indicating a struggle to perform internationally), low exports of commercial services as a percentage of GDP, and low real-growth in direct investment stocks abroad. Other major issues are low GDP per capita and high unemployment rates (IMD 107).

It should be noted, however, that IMD compares Brazil's economic performance to the economic performance of every other significant entity in the world, including highly developed nations such as the USA, Hong Kong, Germany, Switzerland, etc. Brazil is actually a leader in Latin America in several areas identified by IMD as major weaknesses, principally real-growth in direct investment stocks abroad (Daniels, Krug and Trevino 2005). The research results of IMD highlight the overall weakness of the Latin American market relative to other major markets, such as the USA, Canada, the EU, and China.

Additionally, Brazil's economic performance and business efficiency are very positive at 33 and 31 respectively (IMD 105). The major areas that are preventing Brazil from becoming more competitive are government efficiency (which is hampered by bureaucracy) and infrastructure (which is notoriously poor). Up to 33 from 53 last year, Brazil's improvement in economic performance is a good sign that the country is on the road to recovery, but the improvements may not be sustainable (IMD 105).

Mexico

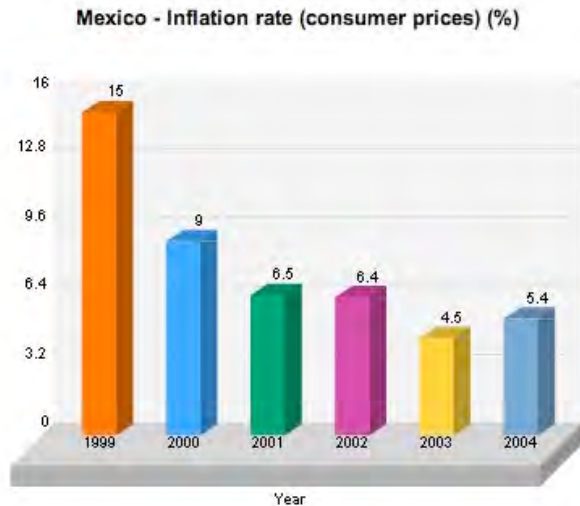
Mexico's economic system is also a capitalist system. The Mexican Constitution governs Mexico's economic regulation process (León "Legal Framework"). Article 73 of the Constitution authorizes the Congress to enact laws to encourage the promotion of Mexican investment and the regulation of foreign investment. Under Article 89, the

President must ensure that the laws passed by Congress are faithfully executed. The Constitution also says that the public, private, and social sectors will participate in the economic development of Mexico (León “Legal Framework”). Mexico has put protectionist policies in the past, where they belong, and is actively pursuing global economic integration.

Of the three stages of economic development identified by Porter, Sachs, and McArthur, Mexico, like Brazil, is currently in the Investment-Driven stage (2001). An Investment-Driven economy focuses on manufacturing and outsourced service exports. During this stage of development, it is important for the government to focus on infrastructural improvements that will facilitate ongoing economic development. Other important focus factors for the government of Mexico are regulatory arrangements, such as customs, taxations, and company law, which allow further integration with global markets. It is common to see more sophisticated products and services being generated in the Investment-Driven stage than in the earlier, Factor-Driven stage of development. At this stage of development, Mexico is still susceptible to fluctuations in the foreign exchange market, as well as fluctuations in sector-specific demand (Porter, Sachs, & McArthur 18).

Stability is not the first word that comes to mind when thinking about Mexico’s economy. However, Mexico has managed to bring its inflation rate down to a reasonably low level, where it has remained for four years now (see inflation rate chart below). In 1999, inflation was at fifteen percent. By 2000 it was down to nine percent, and it has remained between six and four percent ever since (CIA Factbook). Malcolm Knight, General Manager of the Bank for International Settlements, argued in a recent speech

given at the conference on “Stability and Economic Growth” in Mexico City that Mexico’s floating exchange rate and brisk peso-dominated bond market indicate that Mexico’s stability is sustainable (Knight “Central Bank Independence”). If he is correct, Mexico’s stabilization of the economy is a major step towards development.



Source: CIA World Factbook

In the field of competitiveness, Mexico’s overall performance rank of 56 is lower than that of Brazil at 51 (IMD 279). The only area where Mexico outranks Brazil is in government efficiency, which is possibly the result of Mexico’s close bureaucratic ties to the United States. Mexico’s overall performance has been steadily declining since 2001, in spite of the fact that Mexico has shown signs of increasing economic stability (see inflation rate chart above). This can possibly be attributed to the relatively high value of the Peso relative to the currencies of other developing nations, such as China, that maintain artificially low currency values.

Mexico’s weakest economic criteria are portfolio investment assets, exports of commercial services, and resilience of the economy to economic cycles (IMD 281). Other significant issues are low GDP per capita, real growth in inward direct investment stocks, real growth in direct investment stocks abroad, real growth of goods exported, and high unemployment and underemployment (IMD 281).

As with Brazil, it should be noted that IMD's study compares the economic performance of Mexico with every other significant entity in the world, including benchmark performers such as the USA, Hong Kong, Germany, Switzerland, etc. Mexico and Brazil's economies are the two largest economies in Latin America, and Mexico is actually among the leaders in Latin America in foreign investment outflows (Daniels, Krug, & Trevino 5) and inflows (UNCTAD Press "FDI Rebounds").

Part Five: Technological Environment

Brazil

Beginning in the 1970s, technological development in Brazil was intended to make the country "self-sufficient economically, powerful militarily, and better able to withstand international pressures and constraints" (Schwartzman & Castro "Science and Technology"). Brazil made large infrastructural investments for the production of steel, machine tools, energy, communications, and transportation (Schwartzman & Castro "Science and Technology"). Brazil even set up a few high-tech projects in atomic energy, aeronautics, and space research. Universities were restructured using the United States model, and hundreds of graduate programs were established, funded generously by fellowships (Schwartzman & Castro "Science and Technology"). These moves on the part of the Brazilian government were well regarded internationally and considered wise moves to rise out of "underdevelopment, poverty, and international dependency" (Schwartzman & Castro "Science and Technology"). Unfortunately, the 1980s were not good years for Brazil. Debt accumulated virtually unchecked and inflation was sky high. By implementing protectionist policies, Brazil was able to protect technology industries from international competition during the 1980s, but the overall economic impact was negative. As said previously, protectionism stagnates competition and innovation.

Macroeconomic issues of the 1990s, such as runaway inflation, cast a shadow over technological development, and Brazil does not appear to have a long-term technology plan. (Schwartzman & Castro “Science and Technology”)

The government of Brazil seems to have too many problems to focus on technology policies. Scandals, corruption, inflation, currency devaluation, environmental protection, and a number of other factors leave little room for technological considerations. More focus on the part of the Brazilian government is needed to successfully implement technology in the development plan. Brazil should follow the example of countries like Japan that have used technology as a means of establishing a new set of internationally competitive core competencies. Brazil could use technology and modern management practices to achieve benchmark levels of industrial efficiency and quality control as Japan has successfully done.

Since the liberalization of the Brazilian marketplace and the privatization of government firms began, Brazil has made improvements in the technological sector. By opening the economy to outside forces, Brazil initiated stimulation for increased research and design. Brazil is currently engaged in efforts to improve its competitiveness in science and technology so that the country will be better able to respond to changing market conditions (Embassy of Brazil “Science and Technology”). For example, Brazil has eliminated non-tariff market protections for information technologies and lowered all customs barriers. This will continue to stimulate the international competitiveness of domestic firms. According to the Brazilian Embassy, “The Brazilian Government is fully aware that only by strengthening [science and technology] is it possible to cooperate with

other industrialized nations and developing countries to achieve economic and social equity and welfare” (Embassy of Brazil “Science and Technology”).

Mexico

Because Mexico liberalized its economy sooner than Brazil, it has perhaps become more advanced from a technological perspective. The government of Mexico recognizes the importance of science and technology research for the development of the economy and the improvement of Mexico’s ability to compete internationally (Duarte “Mexican Government”). Last year, Mexican President Vicente Fox, “signed a decree stating that the Mexican government must spend at least one per cent of the country’s GDP on scientific research and technology development” (Duarte “Mexican Government”). This move comes as a response from a complaint by the Organization for Economic Cooperation and Development (OECD) that Mexico was the worst performer in the organization in the area of science and technology (Cevallos “Mexico-Technology”).

The problem that Mexico has with technology is that most technological innovations are coming from outside the country. The same is likely true in Brazil and most other developing nations. Almost all of the patents registered in Mexico are developed by foreigners (Cevallos “Mexico-Technology”). This can be attributed primarily to the development stage that Mexico is in right now. As mentioned previously, Mexico and Brazil are both in the Investment-Driven stage of development, during which “technology and designs still largely come from abroad. Technology is accessed through licensing, joint ventures, foreign direct investment, and imitation” (Porter, Sachs & McArthur 18).

It can be expected that the technological environments of Brazil and Mexico will become a problem as the two economies continue to grow. The transition to the next stage of development, the Innovation-Driven stage, will be difficult for both countries, and it could be the cause of yet another slump for both economies. Porter, Sachs & McArthur point out the necessary steps to achieve the transition into the Innovation-Driven stage (2001). The governments of Brazil and Mexico must take direct action to encourage innovation “through public as well as private investments in research and development, higher education, and improved capital markets and regulatory systems that support the start-up of high-technology enterprises” (Porter, Sachs & McArthur 18). Such government action can be very difficult. Additionally, the transition often requires extensive restructuring of enterprises towards flatter corporate structures. The transition also requires vertical integration and large investments in human resource training and development programs.

Part Six: FDI and Development

The development of any economy requires capital. There really is not any way around it. Capital investments are needed in both productive units and infrastructure. Therefore, it seems logical that FDI is the prime indicator of economic development. Some criticize inward FDI, claiming that investors steal opportunities from local firms. It is also argued that FDI smashes out local businesses, harming the entrepreneurial atmosphere (Daniels, Krug & Trevino 9). However, it should be noted that local companies do benefit from transnational corporation (TNC) investments. TNCs serve as benchmarks for local companies that are at an earlier stage of development. Additionally, large TNCs bring in new technology that would not have been developed

otherwise, and they serve as large customers for local suppliers (Daniels, Krug, & Trevino 9). Lastly, FDI by TNCs brings much needed capital into the country that otherwise would be difficult to obtain.

To become competitive in the global market, it is essential that barriers to trade and FDI be dropped to increase incentives for investment and expose local firms to competition. It is widely regarded that without competition, there are no incentives for innovation, change, and growth. This is applicable not only to economics but also education, sports, and personal development. Protectionist policies are like overprotective mothers who shield their children from everything that could cause them harm. When they are in the arms of their mothers, the children are happy and safe. However, when the overprotected child leaves home, they are hopelessly unprepared for reality. Such is the case of protected economies in the global arena. It takes confidence and a strong network of trading partners to successfully liberalize an economy, but that is only the first step.

Porter, Sachs, and McArthur describe the first stage of development as the Factor-Driven stage (2001). The Factor-Driven stage is the first step towards development. During this stage it is important to establish stable political and macroeconomic environments and free markets so that a country can utilize primary commodities and unskilled labor to build domestic firms and attract FDI. This is exactly what was seen in Brazil and Mexico in the 1980s and early 1990s. Increasing FDI inflows in the 1990s (see FDI flowcharts below) lead to domestic market growth and increased competition in home markets. During the same time period in the early 1990s, trading blocs such as MERCOSUR and NAFTA emerged. Such trading blocs encouraged free trade and

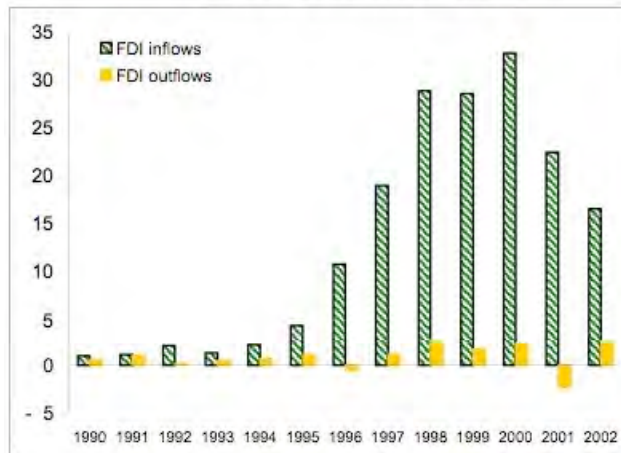
internationalization among firms. The combination of high FDI levels through the 1990s and the emergence of trading blocs were the keys to Brazil and Mexico's advancement to the second stage of development, the Investment-Driven stage.

The conditions established by trading blocs are consistent with international investment theory, which can be simplified to three steps: "testing markets before investing in them, rationalizing production to reduce costs within a larger market area, and displacing competitors in a member country" (Daniels, Krug &

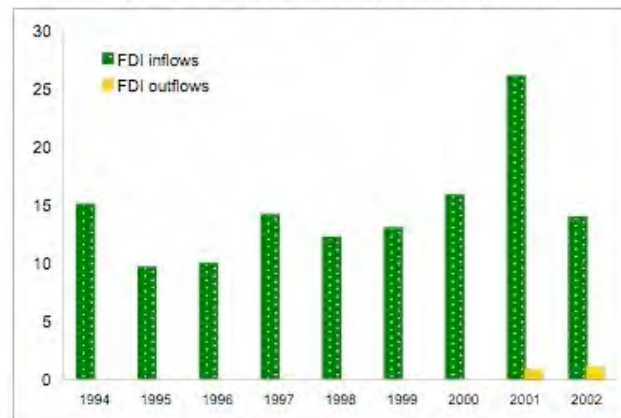
Trevino 8). As domestic firms in Brazil and Mexico grew, the presence of trading blocs encouraged those firms to stretch into other markets. Typically, firms are risk averse, but trading blocs reduce both perceived and actual risk of internationalization. Member countries are typically neighbors with similar cultures, which reduces perceived risk. Additionally, trading blocs reduce barriers to entry, which encourages action (Daniels, Krug & Trevino 8).

From the late 1990s until recently, there has been a growing trend towards outward FDI in Mexico and Brazil, which is a distinct sign of successful development

Brazil FDI flows, 1990-2002
(Billions of dollars) Source: UNCTAD



Mexico FDI flows, 1994-2002
(Billions of United States dollars) Source: UNCTAD



and increased competitiveness. This is supported by evidence (see figure below) from Daniels, Krug, and Trevino’s study on FDI in Latin America, which was presented recently at the 2005 meeting of the Academy of International Business – South East (AIB-SE).

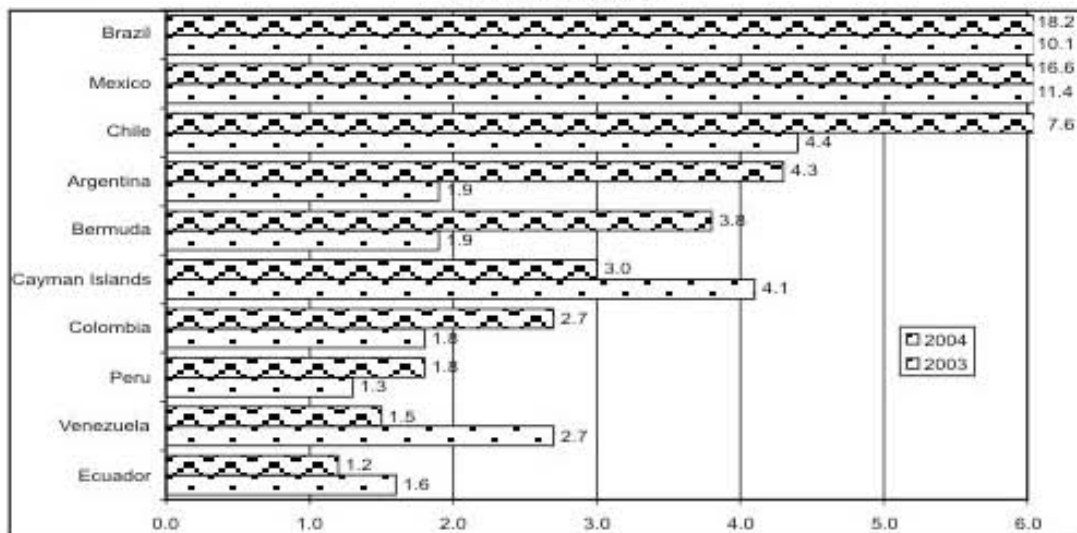
Table 2
Foreign investment outflows from Latin America, 1980-2002 (\$U.S. millions)

Region	1980 - 1990	%Total	1991- 2002	%Total	1980- 2002	%Total
Argentina	2	0.0	13,440	22.7	13,439	20.7
Brazil	2,866	49.2	11,127	18.8	13,992	21.5
Chile	134	2.3	15,139	25.6	15,273	23.5
Colombia	453	7.8	3,771	6.4	4,224	6.5
Jamaica	37	0.6	830	1.4	867	1.3
Mexico	1,040	17.8	8,285	14.0	9,325	14.3
Peru	2	0.0	626	1.1	628	1.0
Venezuela	1,156	19.8	4,568	7.7	5,724	8.8
Other	141	2.5	1,414	2.3	1,559	2.4
SUBTOTAL	5,831	100.0	59,200	100.0	65,031	100.0
Cayman Islands	694		19,332		20,026	
Panama	3,378		12,668		16,046	
SUBTOTAL	4,072		32,000		36,072	
TOTAL	9,903		91,200		101,103	

Source: UNCTAD, Division on Investment, Technology and Enterprise Development, Geneva.

More current evidence from the UNCTAD (see figures on the next page) indicates that inward FDI levels in Latin America are gaining strength. According to UNCTAD’s *World Investment Report 2005*, FDI inflows to Latin America increased 44 percent in 2005 to \$68 billion (UNCTAD Press “FDI Rebounds”). Brazil and Mexico accounted for the largest shares of the FDI inflows with 27 and 25 percent, respectively, of the total. Additionally, the UNCTAD has identified the five largest TNCs in Latin America and the Caribbean. Three are Brazilian firms and two are Mexican (UNCTAD Press Office “FDI Rebounds”).

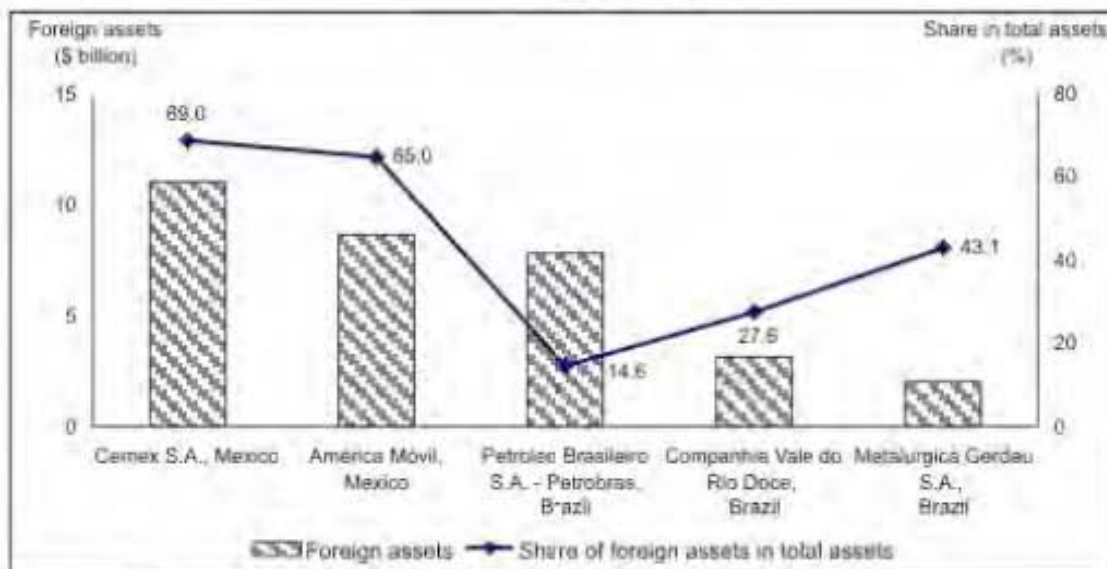
FDI inflows to Latin America and the Caribbean, top 10 economies, 2003, 2004 ^a
(Billions of US dollars)



Source: UNCTAD, *World Investment Report 2005*.

^a Ranked on the basis of the magnitude of 2004 FDI inflows.

The five largest TNCs from Latin America and the Caribbean, by foreign assets, 2003
(Billions of US dollars and per cent)



Source: UNCTAD, *World Investment Report 2005*.

There is an undeniable link implied in the latest data from the UNCTAD *World Investment Report 2005* between inward FDI and the development of successful TNCs. Furthermore, the recent study by Daniels, Krug, and Trevino, suggests that successful outward FDI in developing nations is an indication of developmental progress. Outward FDI is beneficial in the sense that it, “strengthens Latin American companies not only by enabling them to acquire and develop operating advantages commonly attributed to international operations, but also by enabling them to develop learning capabilities abroad” (Daniels, Krug & Trevino 10).

The development of operating advantages and learning capabilities enables growing companies to develop and apply distinctive competencies at home and apply them abroad. External growth is a commonality among the world’s most developed countries. It is no coincidence that the five firms in Latin America with the largest stocks of foreign assets (e.g. the most successful TNCs in the region) are based in the two nations that are the largest recipients of FDI in the region. Therefore, one can conclude that FDI levels are a useful determinant of development.

Conclusion

The basis for my interest in development stems from the lives of people in lesser-developed countries. Through deregulation and the globalization process, governments have the opportunity to structure foreign, monetary, and fiscal policies to attract FDI and create new business opportunities. Those new business opportunities lead to new jobs and better pay. People need that stability so they can provide food, shelter, and clothing for their families. The companies that create those jobs bring money into the country, which can be used to improve education and infrastructure, leading to further

development at a higher level. Successful local firms can learn how to be competitive and stand up and form strategic alliances. A successful developing nation is able to take care of its people and be internationally competitive while integrating with other regional economies.

The point of this project is that nothing can happen without FDI. FDI is the key to development, and attracting FDI is the key to helping people. Economies can grow and flourish, but to do so requires modern strategy. Technology and globalization have changed the business landscape. Now that communications and logistics are well developed, companies can outsource services and production to anywhere on Earth. Competition among nations is increasing, but so are the opportunities available. It is the responsibility of national governments to create strategic plans for the stabilization of their economies and the creation of investment friendly atmospheres so they can attract the FDI that is needed for growth.

When looking into development, it is very important to be mindful of the culture. One needs to understand why people do what they do. Brazil and Mexico are both risk-averse and community-oriented cultures. These cultural characteristics can act as barriers to development. If people are unwilling to let outsiders come into their communities, it can be very difficult to establish new businesses. Additionally, if people are not willing to make a risky, growth-oriented investment, they can really miss out on great opportunities.

It is possible that the low levels of outward FDI in Latin America identified by Daniels, Krug, and Trevino (2005) are partly the result of high uncertainty avoidance. There is a great deal of risk involved when making a foreign investment, and it may take

some time and experience before Latin American firms become more active outward investors. Governments must do what they can to create an entrepreneurial atmosphere and encourage growth at the local level. Communities can come together and create new businesses, but people have to go beyond their fears and start thinking about global communities and not just villages.

Limitations and Future Research

This project was done as a student research paper. I was able to do my research and reach my conclusions through the examination of documents from a variety of print and electronic sources. Due to feasibility constraints, the scope of my research had to be limited to facilitate completion. One constraint was time. This project is the cumulative result of my undergraduate studies at the University of Tennessee. I have only recently come to understand many of the concepts applied to this project through my senior courses in management theory, and this project had to be completed before I graduate this semester. The second constraint is the reliability of FDI data from developing nations. FDI figures from developing countries are known to be fragmented and scarce (Daniels, Krug & Trevino 11). It can be very difficult to find accurate and up-to-date figures on investment flows from Brazil and Mexico. This is due to different investment recording standards between nations. More research needs to be done regarding the specific investment flows of corporate entities in Latin America, and government policy makers need to pursue standardized reporting procedures. Additionally, statistical methods exist that could be used to improve the quality of the data, but that was not within the scope of my research.

In the future, I would like to continue exploring the impact of FDI on development by incorporating recognized investment theories into my work. A more solid theoretical framework would improve the quality of my work as well as provide a basis for further research and debate. Unfortunately, at this point I have not had the opportunity to formally study any forms of investment theory. That will be a strong consideration as I move forward with my education. I would also like to explore the possibility of developing an investment database to track investment flows over a longer period of time to explore long-term investment trends. That, of course, would be a difficult process that would require collaboration among a group of researchers.

In the nearer future, I hope that my thoughts and research will prove to be beneficial in some way. I am genuinely interested in development and the improvement of peoples lives in lesser-developed nations. If nothing else, my work could be used as a justification for free trade and development. I intend to refine my project and pursue publishing opportunities in the spring. With the help of my mentor, I hope to make this an internationally recognizable and valuable piece of research.

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