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# INSTITUCIONES, DINÁMICAS SECTORIALES E INVERSIÓN EXTRANJERA DIRECTA EN AMÉRICA LATINA: UNA NUEVA REALIDAD EMERGENTE

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## RESUMEN

A pesar de la incertidumbre en la economía global, los países de Latinoamérica han atraído un monto significativo de inversión extranjera directa (IED) en los últimos años. Invertir en Latinoamérica ahora es un pilar fundamental en las estrategias económicas de muchas corporaciones internacionales y países desarrollados. Firms de América del Norte, Asia y Europa poseen acciones en América Latina en sectores como: recursos naturales, telecomunicaciones y financieros. Analizando data de IED en 19 países de América Latina desde 1995 hasta el 2011, usando un modelo de panel, este documento investiga la relación entre la mejora en los resultados de sectores específicos de la economía y la atracción de la IED. Se enfoca en las dinámicas sectoriales, tales como el crecimiento de los sectores no transables así como también de los sectores basados en recursos naturales, y explora la conexión con las instituciones domésticas e internacionales.

# INSTITUTIONS, SECTORIAL DYNAMICS AND FOREIGN DIRECT INVESTMENT IN LATIN AMERICA: A NEW EMERGING REALITY

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## ABSTRACT

Despite uncertainties in the global economy, Latin American countries have attracted a significant amount of Foreign Direct Investment (FDI) in recent years. Investing in Latin America is now a central pillar of many international corporations' and developed countries' economic strategies. North American, Asian, and European firms have stakes in Latin America's natural resources, telecommunications, and financial sectors. Analyzing data of FDI in 19 Latin American countries from 1995 to 2011, using a panel model, this paper investigates the link between the improving performance of specific sectors of the economy and the attraction of FDI. It focuses on sectorial dynamics, such as the growth of non-tradable sectors as well as the growth of natural resources based sectors, and explores the connection with both international and domestic institutions.

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# **INSTITUTIONS, SECTORIAL DYNAMICS AND FOREIGN DIRECT INVESTMENT IN LATIN AMERICA: A NEW EMERGING REALITY**

By Michael Penfold<sup>1</sup>

## INTRODUCTION

Despite uncertainties in the global economy, Latin American countries have attracted a significant amount of Foreign Direct Investment (FDI) in recent years. Investing in Latin America is now a central pillar of many international corporations' and developed countries' economic strategies. North American, Asian, and European firms have stakes in Latin America's natural resources, telecommunications, and financial sectors (CEPAL 2011). The growth of foreign investment in Latin American began in the 1990s when many countries in the region began to privatize state assets, make fiscal adjustments, and liberalize trade. Today's growth in FDI, however, differs from that which took place in the 1990s. In the 1990s, European countries and the United States were the primary investors. Today, on the other hand, Asian -- especially Chinese -- investors are active in the region. Several Latin American companies (known as "multilatins") have also recently made investments in different economic sectors across the region, becoming an important and relevant source of FDI for several Latin American countries (Santiso 2008). In addition, foreign investors are now sinking money into Latin American service and manufacturing industries, as well as physical infrastructure, in part, to meet the needs of the region's burgeoning middle class (Penfold and Curbelo 2013).

To be sure, the recent increase in FDI is still concentrated in industries relating to commodities and natural resources and complimentary non-tradable service industries such as construction, telecommunication, and finance. FDI in other sectors remains scarce. Further institutional reforms enacted by Latin American governments to secure property rights and reduce transaction costs, which has been considered as an important obstacle to private investment, could attract more FDI to non-traditional sectors. Yet, the relationship between FDI and international and domestic institutional

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features -- such as regime type, economic regulations, corruption, power of veto players, rule of law, preferential trade agreements, and bilateral investment treaties -- remains unclear (Montero 2008; Busse and Hefeker 2005; Buthe and Milner 2008).

Experts disagree about what has caused the recent increase in FDI in Latin America. Some argue that it is related to the expansion of investment opportunities caused by high commodity prices (CEPAL 2011). Others contend it is in response to growing Latin American consumer needs; the growth of domestic markets and the expansion of the middle class might explain the increase in foreign investment in non-tradable sectors (Penfold and Curbelo 2013). Certain institutional factors might also attract FDI. With some important exceptions, most countries in the Latin America have more representative and accountable political systems than ever before. Many countries in the region also now have stronger, pro-market economic regulations and are more open to trade than they were in previous eras. Still, it is unclear whether these institutional changes have attracted FDI. In fact, several studies of FDI in Latin America show that the quality of institutions is not a determining factor in attracting FDI, especially compared with broader macroeconomic conditions (Montero 2008). Other regional studies argue that institutions are important, but that some matter more than others (Tuman and Emmert 2004; Amal, Tomio and Raboch 2010; Staats and Biglasier 2012). These findings are at odds with global studies that argue there is a robust relationship between the quality of a country's institutions and the amount of FDI that a country is able to attract (Busse and Hefeker 2005; Stein and Daude 2008; Li 2005)

Latin American economic experts also debate the role sectorial dynamics play in determining the amount of FDI a country receives (CEPAL 2011). Although most studies find a positive relationship between a country's overall economic growth and its ability to attract FDI, few investigate specific dynamics within the economy to see if there is a relationship between the development of certain economic sectors and the attraction of FDI (Staats and Biglaiser 2012).

Analyzing data of FDI in 19 Latin American countries from 1995 to 2011, using a panel model, this paper investigates the link between the improving performance of specific sectors of the economy and the attraction of FDI. It focuses on sectorial dynamics, such as the growth of non-tradable sectors, the middle class' increased consumption, as well as the growth of natural resources based sectors. This paper also explores the connection between sectorial dynamics and international and domestic institutions. Different industries demand different types of institutions and regulations.

For example, capital-intensive natural resources industries (i.e. mining) usually require stability contracts from the government. A country that has bilateral investment treaties, rule of law, and an accountable government, equip with checks and balances, is less likely to revise or revert contracts and, as a result, attracts investment in the natural resources sector. A growing service economy, on the other hand, demands institutions that are more efficiency oriented. As such, preferential trade agreements, strong microeconomic regulations, and an expedient, uncorrupt government bureaucracy can enhance the business environment for foreign investors in services. Thus, this paper takes into account the role of preferential trade agreements and bilateral investment treaties; and domestic features such as democracy, government stability, number of veto players, rule of law, corruption, crime levels, regulatory quality, and government efficiency.

For the most part, this paper's findings are consistent with most recent literature on FDI, albeit with some interesting caveats. With the exception of democracy, government stability, presence of veto players, and crime levels, institutional variables in Latin America have a positive impact on the attraction of FDI. This suggests that investors seem to consider the quality of regulations and the transparency of government more than the overall political system when making investment decisions. Countries that are more integrated to the global economy receive more FDI. However, countries that have signed free trade agreements or bilateral investment treaties do not necessarily attract more FDI. FTAs and BITs seem to have a positive impact on FDI only when they are bundled with existing domestic institutions. In other words, international institutions help attract FDI when working in concert with domestic legal and regulatory institutions, which enhance market access derived from these trade and investment protection agreements.

Increasingly, FDI in Latin American countries is concentrated in non-tradable and manufacturing economic sectors and not exclusively in the commodity sector, with the exception of agricultural industries. Foreign investors seem to be attracted to Latin America's growing service and manufacturing industries. Thus, institutions that promote more efficiency and growth by ensuring regulatory quality and combating corruption increase a country's attractiveness in the eyes of foreign investors.

## REVIEW OF EXISTING LITERATURE ON FDI IN LATIN AMERICA

There is an extensive canon of literature that discusses factors that attracts FDI in developing countries. Overall, most studies identify countries' economic growth rates, levels market openness, geographic features, and participation in domestic and international institutions as the most important variables (Busse and Hefeker; Stein and Daude 2006; Bisson 2011; Milner and Buthe 2008). Similarly, most studies focusing on FDI in Latin America report that the growth rate, size, and openness of a country's economy are the most significant determinants of FDI (Bittencourt and Domingo 2002; Tuman and Emmert 2004; Biglaiser and DeRouen 2006; Montero 2008; Amal, Tomio, and Raboch 2010; Gómez Soler 2011; Staats and Biglaiser 2011; Treviño and Mixon 2011). These regional studies also echo the findings of global research by highlighting how geography and time zones can affect a country's ability to attract FDI (Levy Yeyati, Stein and Daude 2003; 2004; Daude and Stein 2007).

Most global studies also argue that there is a robust relationship between non-economic factors such as institutional quality and FDI (Busse and Hefeker; Daude and Stein 2007). According to these global studies, a government's political stability, regulatory quality, rule of law, and level of corruption have a statistically significant effect on foreign investment. However, the role of these factors in attracting foreign investment in Latin America specifically remains contested among regional experts. Regarding U.S. investment in Latin America, some studies argue that political stability and level of organized violence matter more than any other institutional variables (Tuman and Emmert 2004; 2009). Others argue that a country's political system has little bearing on its ability to attract investment. Indeed, multinational companies seem to prize institutions that promote stability and efficiency, rather than those that protect political rights. Treviño and Mixon (2004), and Amal, Tomio, and Raboch (2010) admit that strong institutions can improve the business climate in the host country by reducing transaction costs and securing property rights, but argue that, overall, regime type is much less important of a determinant than is the presence of institutions that make financial transactions more efficient. Montero (2008; 2009) agrees, claiming that regime type, political violence, and human rights violations are not statistically significant predictors of FDI. Instead, he claims, economic drivers and countries' overall macroeconomic balance attracts investment.

Hausmann and Fernández Arias (2000) claim that developing countries with weak institutions can actually attract more FDI because investors sometimes prefer to operate directly in unregulated environments as the cost of engaging in more developed markets can be high. On the other hand, these same authors argues that countries with more developed institutions tend to attract foreign capital with a higher financial component. According to them, institutions work through indirect channels that affect economic policy, which in turn directly makes countries more attractive to certain type of capital.

The importance of international institutions is another source of debate among experts. Some scholars argue that FTAs and BITs make countries with weak domestic institutions more attractive to FDI, because such international agreements offer credible guarantees, particularly against future expropriations, and protect foreign investors' property rights (Buthe and Milner 2008). Trade agreements not only increases market access, but also make it more costly for host countries to bend rules, go back on promises, or revert existing policies related to trade liberalization. Similarly, BITs require host countries to delegate power to a third party responsible for resolving conflicts over property rights with foreign investors. In other words, international institutions offer security to foreign investors who might otherwise be scared off by a country's weak institutions or rule of law. Data from both developed and developing countries seems to confirm that FTAs are powerful predictors of FDI and can help secure investment. Buthe and Milner claim that a developing country's membership in multilateral trade institutions, such as the World Trade Organization, or FTAs reassures foreign investors. Specifically in regards to Latin America, Levy Yeyati, Stein, and Daude (2003) report that regional and preferential trade agreements have a positive and substantial impact on attracting FDI.

In sum, the current literature on determinants of FDI in Latin America echoes the findings of global studies regarding the role of economic variables, geography, and international institutions, but differs in regards to the role of domestic institutions. This is in part because most of the data used for regional studies in Latin America covers a limited time period and number of countries (Montero 2009). Furthermore, other methodological problems arise when explaining the relationship between institutions and foreign investment: institutional quality is measured in several different ways across studies, which are difficult to standardize and compare (La Porta 1999; Anghel 2005). Thus, it is difficult to determine how a specific domestic institution negatively or

positively interacts with FDI (Anghel 2005). There is also a strong correlation between development indicators and institutional quality indicators. As a result, endogeneity and multicollinearity bias most estimates.

Moreover, domestic institutions usually work in tandem with other forces. FDI likely varies according to the combination and interaction of different institutions and factors within a country. For example, most of the current literature on FDI in Latin America also fails to explore the possibility that domestic and international institutions might complement each other and, working together, attract FDI. Indeed, FTAs and BITs might be more effective when domestic institutions are strong, and might not have any effect when domestic institutions are weak.

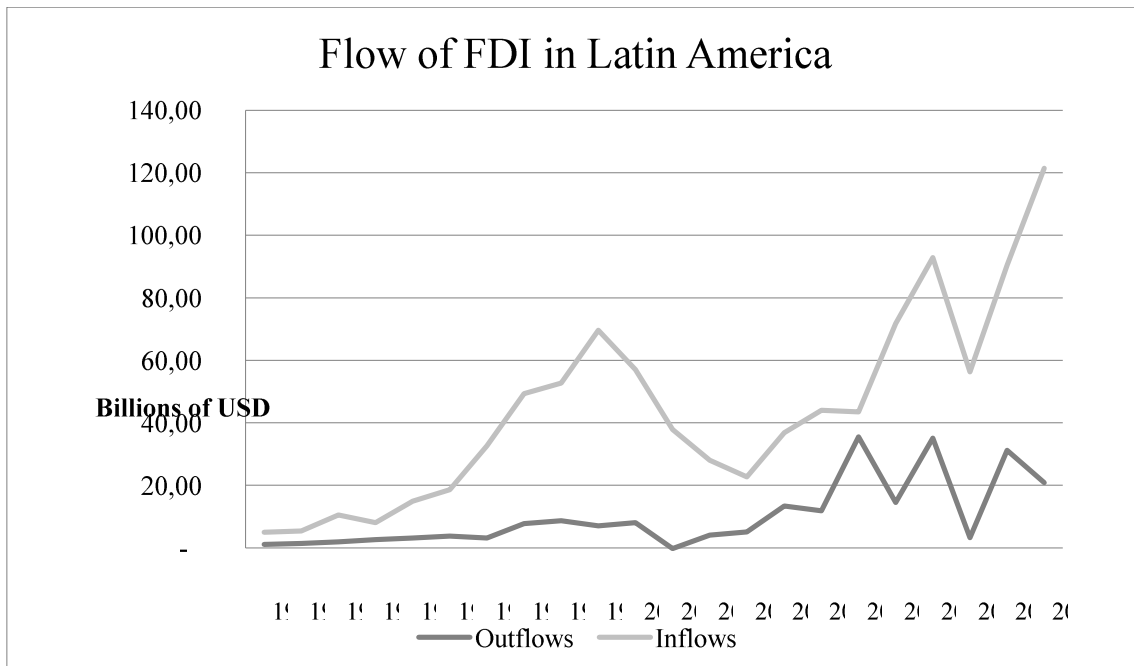
This paper attempts to address these problems in several ways. First, the statistical analysis used is based on a panel data set that covers the period 1995 to 2011 for 19 different Latin American countries -- a larger data set than that which has been used in previous regional studies. Second, the specification of the regression omits strongly correlated variables in order to reduce multicollinearity. Third, this paper explores the interaction of domestic institutions and international institutions. Finally, it includes statistical information on the growth of key sectors, such as mining, services, agriculture, construction, and manufacturing, which might affect the attraction of FDI. These methodological corrections should help to set the record straight and inspire new research questions regarding the relationship between institutions and FDI in Latin America.

## CONTINUITIES AND CHANGING PATTERNS OF FDI IN LATIN AMERICA

FDI in Latin America has grown consecutively over the past decade, with the exception of a single year, 2008, during which foreign investment decreased because of the global financial crisis. By the year 2011, foreign investment in Latin America had not only recovered, but it achieved its maximum historic level, exceeding 120 billion dollars (see Graph 1 below).



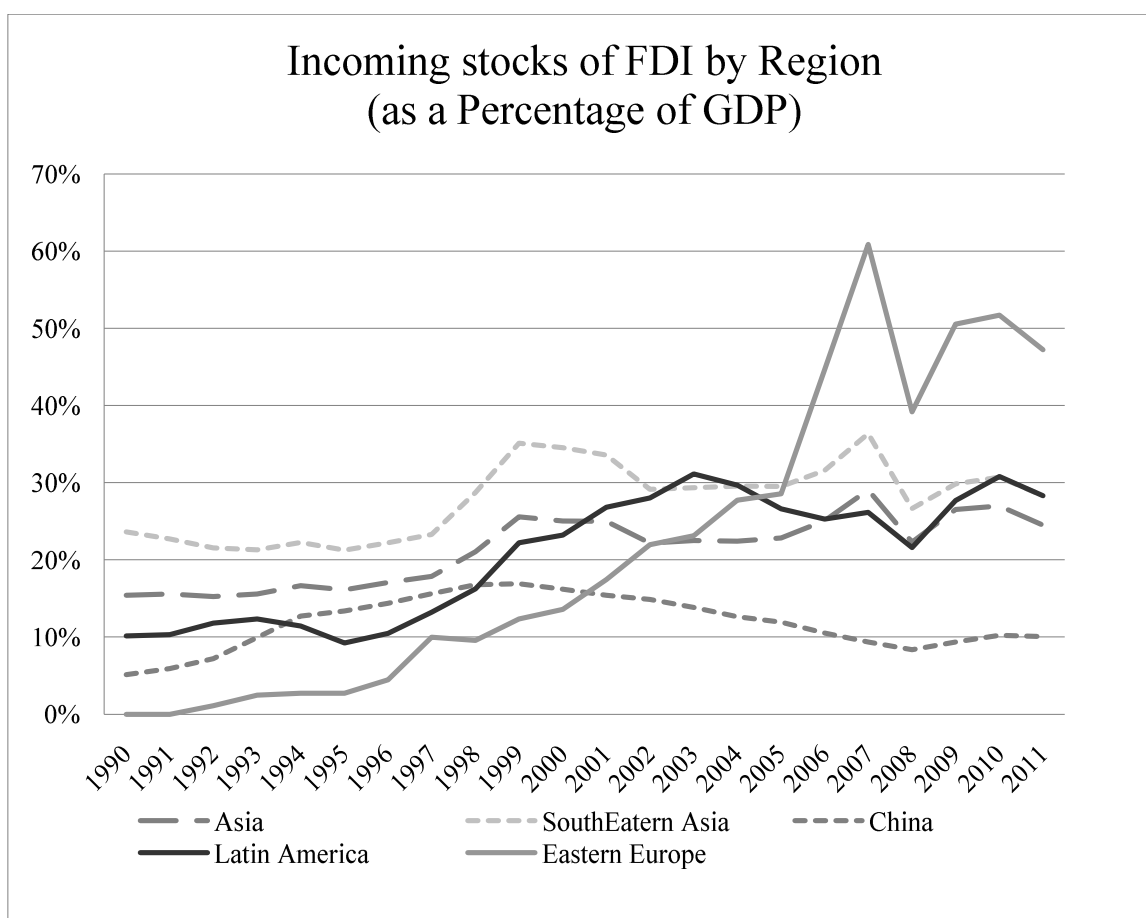
**Graph 1: Flow of FDI into Latin America**



Source: UNCTAD (2011)

In terms of Latin America's GDP over the past decade, the trend is less positive. The size of foreign investment stocks as a percentage of GDP in Latin American economies is smaller than it is in other regions. For instance, in Southeast Asia and eastern Europe, FDI stocks account for more than 50 percent of GDP. In most Latin American countries, by comparison, FDI stocks represent around 30 percent of countries' GDPs. Still, Latin America beats out China, where the foreign investment stock makes up only 10 percent of GDP. The behavior of Latin American FDI does not change significantly with regard to the annual flows of investment against GDP in comparison with eastern Europe, Southeast Asia, and China (see Graph 2 below).

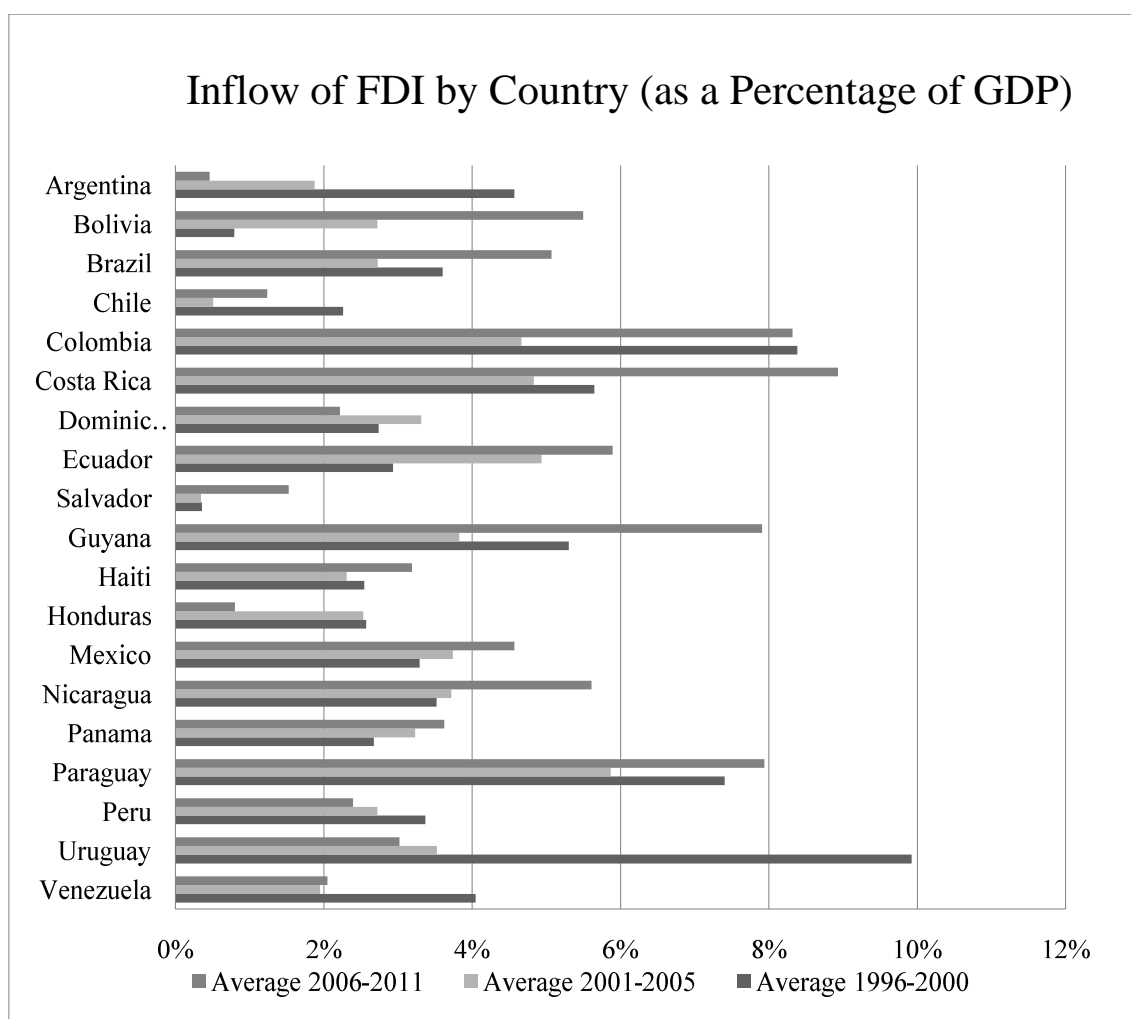
**Graph 2: Incoming FDI Stocks by Region as a Percentage of GDP**



Source: UNCTAD (2012)

Over the past five years, most FDI in Latin America has gone to a small group of countries: Brazil, Mexico, Colombia, Chile, Peru, Uruguay and Panama. FDI has been important to these countries' economies, as seen when comparing the annual flow of FDI in these countries as a percentage of GDP over the last three five-year periods (1996-2000; 2001-2005; 2006-2011). In Panama and Chile, FDI hovers around eight percent of GDP; in Brazil and Mexico, it is 3.5 percent and 2.5 percent of GDP, respectively. In Colombia, Uruguay, and Peru, FDI increased in the 2006-2011 period compared to the 1996-2000 period. In Uruguay and Colombia, FDI for 2006-2011 averages were 5.5 percent and 3.5 percent of GDP, respectively. On the other hand, Venezuela, Bolivia, and Argentina experienced a drop in FDI as a percentage of GDP throughout these three periods due to large national expropriations in oil and gas (see Graph 3 below).

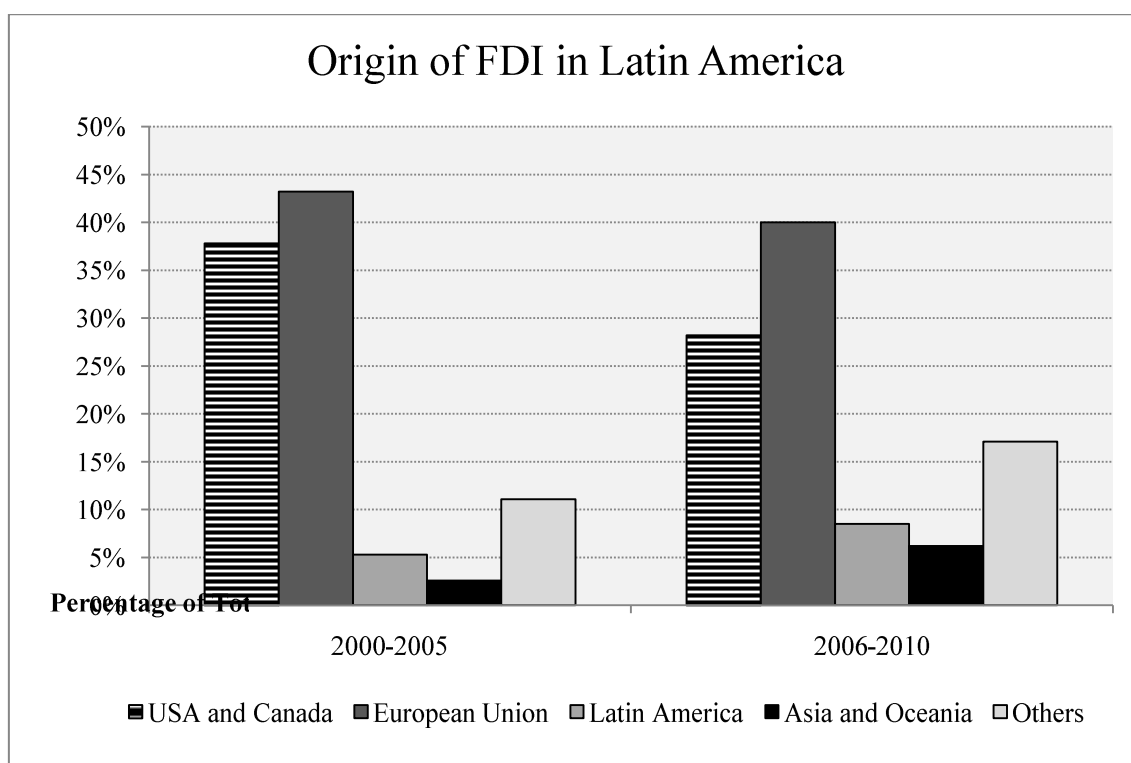
**Graph 3: Inflows of FDI by Country as a Percentage of GDP**



Source: UNCTAD (2012)

The origin of FDI in Latin America changed significantly between the 2000-2005 and 2006-2011 periods. In the earlier period, both the EU and the United States were the primary foreign investors in Latin America. EU investments made up over 45 percent of annual FDI flows between 2000 and 2005, and 40 percent between 2006 and 2011. Between 2000 and 2005, U.S. investments made up 37 of annual flows, but this dropped between 2006 and 2011 to only 28 percent (see Graph 4 below).

**Graph 4: Foreign Investors in Latin America**



Source: CEPAL (2011)

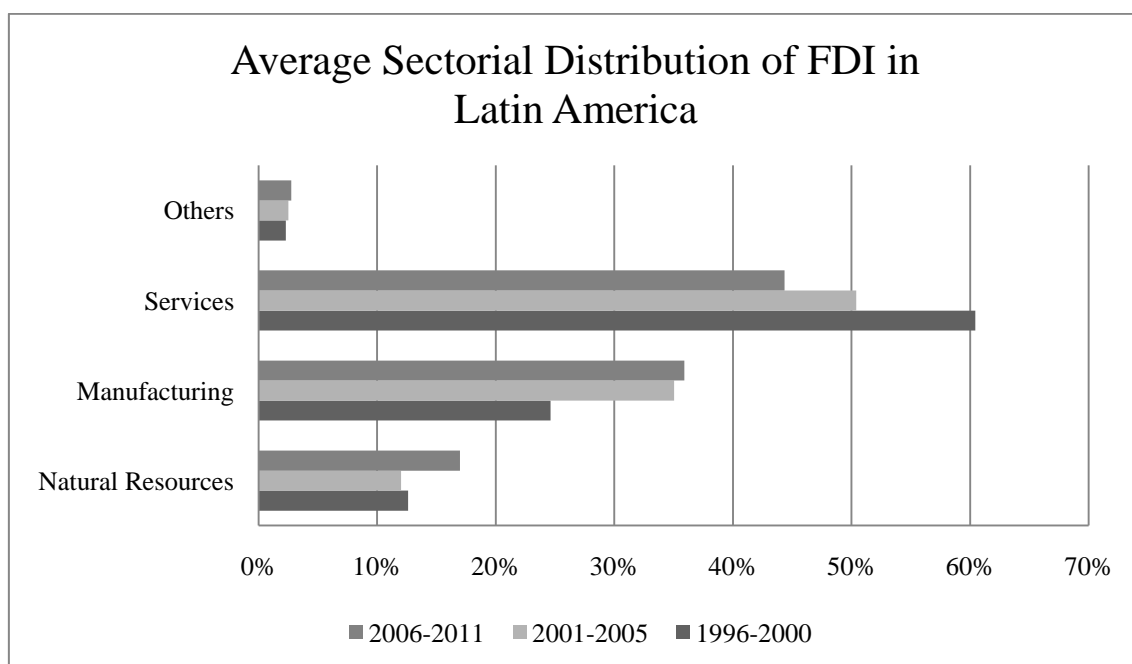
During the 2006-2010 period, as Western investment declined, Asian investment grew. Between the two five-year periods, investment originating from Asian countries grew about five percent. Multilatinos began investing more in the region as well (Santiso 2008; Guillén and García Canal 2011; 2012). Between 2000 and 2005, only 10 percent of total FDI originated from Latin American investors, but this value grew to 17 percent in the 2006-2011 period. In other words, in the 2006-2011 period, Asian and Latin American investment grew, while European and U.S. investments shrunk in relative importance (although they remained the region's primary source of investment).

Sectorial behavior of FDI in Latin America has also changed significantly since the 1990s. The region is increasingly dependent on exporting natural resources, such as petroleum, gas, coal, and food. This trend has been furthered by the high prices that these commodities enjoy in international markets today. In the 1990s, FDI in Latin America was highly concentrated in the service sector mainly due to the opportunities generated by privatization and the opening of financial, telecommunication, public service, and manufacturing sectors. Mexico did particularly well in attracting investment in export-oriented manufacturing, thanks to the country's commercial integration with the United States and Canada through the North American Free Trade

Agreement. Foreign investors sought to seize such opportunities, to the point that in the late 1990s, the majority of FDI in Latin America was concentrated in the service and manufacturing sectors. Meanwhile, investment in natural resources hardly reached 12 percent of total FDI, the majority of which was concentrated in the Venezuelan petroleum industry alone.

Since the late 1990s, the proportion of FDI in the service sector has decreased -- dropping to 43 percent of total flows in the 2006-2011 period, compared to its previous high of 60 percent in the 1996-2000 period. On the other hand, FDI in the manufacturing sector reached 33 percent in the 2006-2011 period. FDI in natural resources also increased, representing 28 percent of total inflows in 2009 to 2011 (see Graph 5 below).

**Graph 5: Average Sectorial Distribution of FDI in Latin America**



Source: UNCTAD (2012)

Various developments explain these trends. In the early 2000s, investors capitalized on opportunities following privatization processes, especially in the financial and telecommunications sector, that took place in countries across the region. More recently, however, the growth of the middle class and the reduction in the poverty gap in many Latin American countries has expanded domestic markets (Birdsall 2012; Lustig, Birdsall and McLeod 2011). This social and economic reality has spurred many

foreign companies to invest in service and manufacturing sectors to exploit the opportunities that a buoyant middle class might offer. The growing purchasing power of the new middle class has forced the mass consumption industry to expand, invest more in researching market trends, and produce consumer-tailored products. In addition, the industry has had to cut costs and develop new production and distribution schemes in order to meet the middle class' low-price demands. Thus, many manufacturers have collaborated with multinational companies that can provide capital as well as expertise to meet these new demands.

In the natural resources sector, a large inflow of FDI has been spurred by new public policies favorable to foreign investment in industries relating to petroleum and mining, and discoveries of new resource deposits in countries such as Colombia, Brazil, and Peru. Several Latin American countries, such as Chile, Colombia, Brazil, and Peru, have also recently simplified their regulatory frameworks -- permitting private investment in various large-scale projects. Some other Latin American countries, such as Argentina, Bolivia, and Venezuela, have moved in the opposite direction by enacting public policies that bring key resource industries under state control. These countries have subsequently suffered a decline in foreign investment.

Between 2005 and 2007, more than 48 percent of FDI in Latin America was accounted for by capital contributions. This percentage dropped to 40 percent between 2009 and 2011, as reinvesting profit became the primary type of investment -- representing 50 percent of FDI. These changes occurred because Latin American companies believed risk levels were falling and subsequently were willing to finance regional expansions. This shift will likely have long-term positive effects on the economic and producing performance of the region as important firms expand overseas. Still, overall, foreign investors are more attracted to opportunities that arise from changes in the regulatory frameworks in Latin American countries, such as privatizations or opening of sectors, than to countries' competitive improvements, such as the provision of a beneficial tax policy or the establishment of industrial areas.

Latin America is also starting to receive foreign investment in the form of venture capital funds -- mainly concentrated in Brazil and Mexico, with an incipient presence in Chile, Peru, and Colombia. In 2011, these funds had invested close to \$6.5 billion in the region, which represents close to five percent of global FDI in the venture capital industry (Ernest & Young 2011; McKinsey & Company 2012). Many of these funds serve as development capital, oriented more toward equity investment in ongoing

companies than toward risk investments. This is boosting business development, injecting dynamism and growth into medium-sized companies with high potential. However, in order for this process to continue, countries will need to find new ways of attracting risk capital, strengthening their markets, and building up national and regional innovation systems.

Many countries in the region are already earning the trust of foreign investors with regard to future growth. A growing amount of foreign profit is being reinvested in the host countries. This has expanded range of activities that multinational companies engage in and has inspired some few to establish research and development (R&D) centers across the region. Multinational companies, such as Siemens, General Electric, Cargill, and Procter & Gamble, have bolstered their Latin American R&D centers. Latin American governments would do well to enact policies that stimulate and consolidate these initiatives, given the significant economic and scientific impacts of R&D investment. Although the total R&D investment in Latin America is low compared to global averages, certain countries, such as Brazil, Mexico, and Chile, are making unprecedented progress in attracting this type of FDI (Navarro 2010; Unesco 2011). The private sector in Chile and Mexico finances almost 50 percent of the countries' total R&D investment. In Brazil, the amount is 40 percent.

The origin of FDI in Latin America has also changed in recent years. Chinese investors have focused on sectors related to the exploitation of natural resources, mainly petroleum and coal, and incipiently in the agricultural and telecommunication sectors. The main driver of Chinese investment is the need to secure raw materials strategic to China's growth (Downs 2011). Chinese state companies have played a preponderant role in investment in the region, receiving additional funding through Chinese development banking institutions (Downs 2011; Dussel Peters 2012). Latin America has become a key region for China: during the 2000-2011 period, China invested over \$26 billion in the region -- close to 11 percent of total FDI in the region for that same time period (Dussel Peters 2012). China has conducted over 862 transactions in Latin America, with the average amount of each deal around \$300 million. Only eight of these transactions were carried out by private companies -- the rest involve state owned enterprises (Dussel Peters 2012).

Not all investment in Latin America comes from far off countries, however. The emergence of the multilatins reflects the reverse side of globalization: developing countries are now investing in other developing countries and sometimes even in

developed countries. In fact, of the 100 biggest companies in emerging markets, nine of them have headquarters in Latin America. Among these multinationals are Cemex, Telcel, Embraer, Votorantim, and Vale Do Rio Doce. Between 1970 and 1990, multinational investment made up only 0.5 percent of global FDI. But this amount skyrocketed between 2000 and 2009, reaching 3.7 percent of global FDI (López and Ramos 2011). Moreover, multinational investment accounts for 27 percent of the total FDI originating in developing countries (López and Ramos 2011). To be sure, multinationals are not as relevant as their Asian counterparts are, but their importance is only growing (Santiso 2008).

As mentioned previously, more than 17 percent of FDI received by Latin America originated from within the region in the 2006-2011 period. This illustrates the importance of multinationals in promoting market expansion and productive integration in the region. This type of expansion tends to take place through merger and acquisition processes and “greenfield” investments, which refers to the construction of new facilities abroad. Differing from Chinese investment, multinational investment is attracted to industries related to engineering, food and beverages, construction, steel, metallurgy, and transport, in addition to petroleum and coal. Furthermore, medium-sized Latin American companies are now emulating the internalization patterns of multinationals and becoming suppliers of regional enterprises.

### STATISTICAL EVIDENCE OF FDI IN LATIN AMERICA

The most important objective of this study is to identify the factors that make Latin American countries more attractive to FDI. Other studies have measured countries’ attractiveness based on stocks of FDI rather than studying yearly inflows, which does not necessarily capture yearly variation and domestic and international economic conditions (Daude and Stein 2001; 2006; 2007; Amal, Tommió y Raboch 2010). Measuring stocks captures the flow of investment between two different countries but does not explain the overall attractiveness of a specific country. Therefore, adopting a model used by others, we measure attractiveness in terms of FDI over GDP on a yearly basis (Hausman and Fernández Arías 2000; Anghel 2005; Bigleiser y DeRouen 2006; Montero 2008; Gómez Sóler 2011; Staats and Bigleiser 2011). As mentioned previously, our sample includes 19 Latin American countries, observed over a 17-year period (1995-2011).



This statistical model is based on panel data with either fixed or random effects, according to the results of a Hausmann specification test for each regression. Each regression uses similar independent variables. As control variables, we use common indicators used in other models and includes openness (measured as exports plus imports over GDP), inflation rate, global GDP growth, country-specific GDP growth, and GDP growth in different economic sectors: manufacturing, services, construction, agriculture, and mining. In some regressions, the study excludes highly correlated sectorial GDP growth rates and runs regressions separately to avoid multicollinearity (in particular regarding the relationship between mining and manufacturing). We also exclude GDP per capita -- a measure that has been used in other studies (Hausman and Arias 2000; Tummam and Emmert 2004; Biglaiser and DeRouen 2006; Staats and Biglaiser 2011). This measure is excluded because the level of income and institutional variables create a multicollinearity problem that would bias the results (Acemoglu, Johnson and Robinson 2000; Engermann and Sokolff (2002)). In addition, the size of the economy is already partially captured by the study's dependent variable.

Variables relating to international and domestic institutions are also included in the statistical model. Both Stein and Daude (2001) and Buthe and Milner (2008) measure countries' FTAs and BITs in order to show the impact of international institutions on FDI. However, this institutional indicator is misleading because it does not take into account how much of the market these international agreements affect. To correct for this shortcoming -- which Buthe and Milner agree needs to be addressed -- our study measures accumulated FTAs and BITs but also controls for the size of the economy accessed by these agreements. This indicator is measured as the logarithm of one plus the sum of the GDP of the country that has signed and ratified the agreement with the host country for each year. This helps reduce the effects of extreme values.

For domestic institutions, we include a dummy independent variable for election years to observe whether political uncertainty affects FDI inflow. In addition, the study used ten other institutional variables, including six governance indicators developed by the World Bank to measure regulatory quality, government effectiveness, rule of law, accountability, political stability, and corruption levels. In addition to these six, we add three other institutional indicators: public perception of corruption as calculated by the nongovernment organization Transparency International, democratization levels as measured by the Polity IV research project, and crime rates as measured by the Organization of American States. Finally, we include an indicator for veto players to

account for many presidents' inability to unilaterally change existing policies and property rights, as measured by Heinsz (2013). To measure how relevant domestic and international institutions are in attracting FDI, we use the following statistical model:

The results are reported in the attached tables. Table 1 runs regressions for panel data mostly with random effect for all institutional variables, excludes GDP growth for manufacturing, and includes it for mining. Tables 2 and 3 run the same model but focus on the interaction between international and domestic institutional variables. Table 4 reports the estimates for the different regressions using panel data with random and fixed effects for all institutional variables and it includes GDP growth for the manufacturing sector, but excludes it for mining. Tables 5 and 6 also show the estimates for the interaction between different domestic and international variables.

The results of our study show that economic variables such as openness are statistically significant, which is consistent with the existing literature. Therefore, those countries in Latin America that are more exposed to the international economy tend to attract more FDI. However, in a departure from the conventional wisdom, our study finds that Latin American countries' ability to attract FDI is not linked to changes in the world economy's growth rate. In other words, a Latin American countries' attractiveness to FDI seems to be independent from both positive and negative shocks caused by global GDP changes. Instead, FDI seems to respond smoothly to increases in domestic GDPs. Macroeconomic factors, such as inflation, are not statistically relevant.

Another important finding is related to how growth in certain domestic economic sectors can attract FDI. Our various regression models show a strong relationship between growth in the manufacturing and service sectors and inflow of FDI. In some regression models, the same relationship is observed for the agricultural sector. By contrast, growth in mining and construction sectors does not seem to attract significant amounts of FDI. Therefore, sectorial behavior in the economy seems to be a relevant driver.

In terms of the impact of international and domestic institutions on FDI, we found that neither FTAs nor BITs affect the attraction of FDI. A country being in an election year also does not influence attraction of FDI. Furthermore, general institutions, such as democracy, political stability, and veto players seem irrelevant. Other domestic institutions such as regulatory quality, government effectiveness, rule of law, accountability, and corruption do have a significant impact on foreign investment. Crime is relevant in some cases, but overall is not statistically significant. International institutions are relevant only when they interact with domestic institutions. In particular, both FTAs and BITs become relevant when they interact with domestic features such as regulations, rule of law, government accountability, and corruption controls.

## CONCLUSION

Latin America is a key player in the attraction of FDI at the global stage. This paper has described some of the most important regional trends in the behavior of FDI and has identified some variables that can help explain the success of some countries. There are several features that stand out when explaining the dynamics underlying the attraction of FDI in Latin America. First, unlike what some studies have suggested (CEPAL 2011), FDI in the region seems to be moved by the growth of the domestic market more than the behavior of international markets. In other words, domestic growth seems to be the engine fueling the attractiveness to foreign firms (by trying to access new markets) and take advantage of higher income levels due to high prices in commodity exports, which in turn has boosted an expansion in domestic consumption. Countries in Latin America with sustained economic growth and higher degrees of economic openness seem to be increasingly perceived as a potential new market for foreign players.

Second, domestic institutions can make an enormous difference in making countries more attractive to investors. Domestic institutions that seem to make a difference in terms of improving flows of FDI are by nature more regulatory and efficiency oriented. In this sense, reforms that reduce corruption, strengthens the rule of law in order to protect property rights, improves regulatory quality, enhances government efficiency, among others, are the factors that have helped some countries in Latin America to become more attractive to foreign investors. By contrast, reforms

aimed at making general institutions more democratic or politically stable seem to be less relevant for investors. Interestingly, international institutions, such as FTAs or BITs, are not statistically relevant for explaining variations in the degree of attractiveness for a particular country. In Latin America, international institutions seem to matter only when they interact with good domestic institutions. Thus, attempts by governments to bypass domestic institutional reforms, by signing trade agreements or delegating to international arbitration the protection of property rights, are insufficient to make countries in the region more attractive to FDI. In fact, these reforms seem to make a specific country more attractive only when they bundle with functioning domestic institutions aimed at improving the business environment. This finding is consistent with the previous conclusion: foreign investors look at countries in Latin America more as a source of expansion for their own products and services in domestic markets than platforms to export to other parts of the world; as a consequence, domestic variables seem to be more relevant than access to foreign markets due to trade agreements.

Finally, FDI responds to the growth dynamics of specific sectors. In Latin America, those sectors that have proven to make themselves more attractive to FDI are services, manufacturing and agriculture. Some of these sectors –particularly those related to non-tradables- have probably become more attractive as a result of the expansion of a growing middle class. As such, these sectors require more sophisticated domestic institutions aimed at reducing transaction costs and improving the investment climate in the host country. Interestingly, the type of institutions and the kind of investment that countries in Latin America are able to attract seem to reinforce each other. Other sectors, commodity driven and more capital intensive, such as mining, have not attracted as much foreign investment, probably because they remain closed due to state controls and strict regulations (particularly in countries such as Ecuador, Venezuela, Argentina and Bolivia). Only in the past few years, has Latin America started to receive an important flow of foreign investment in these more extractive sectors, particularly in countries such as Peru, Colombia and Brasil, which will help to increase production. Overall, sectorial growth dynamics and institutional performance in Latin America seem to be linked to improvements in the degree of a country's attractiveness to foreign investment.

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ANNEX

Table 1: Institutions, FTAs and BITs (Mining GDP)										
	1	2	3	4	5	6	7	8	9	10
Openness	0.0351***	0.0380***	0.0325***	0.0278***	0.0267***	0.0312***	0.0186	0.0272***	0.0435***	0.0308***
	3.7600	3.8800	3.4600	2.9200	2.7000	3.3200	1.5400	2.9500	3.6400	2.7000
Inflation	-0.0091	-0.0201	-0.0136	-0.0196	-0.0241	-0.0128	0.0031	-0.0101	-0.0084	0.0163
	-0.4900	-1.0600	-0.7200	-1.0200	-1.2500	-0.6700	0.1900	-0.7000	-0.5700	0.7100
GDP Growth	0.0766**	0.0487	0.0691*	0.0621	0.0761*	0.0677*	0.0605	0.0684*	0.0755*	0.1401***
	1.9900	1.2300	1.7900	1.5600	1.9000	1.7300	1.4300	1.7600	1.8900	3.1200
World GDP	-0.0067	0.0440	-0.0063	0.0604	0.0438	0.0406	0.0850	0.0449	0.0365	-0.1157
	-0.0900	0.5600	-0.0800	0.7700	0.5500	0.5200	1.0100	0.5700	0.4600	-1.4200
Agricultural GDP	6.8311	14.0694*	14.5109*	10.1415	14.4641*	24.0916***	17.3447*	11.1461	26.4581**	4.6014
	0.8700	1.7600	1.8300	1.2500	1.6900	2.8300	1.8800	1.4000	2.3500	0.4000
Construction GDP	-0.8761	9.7393	6.9444	5.9312	5.6301	11.8408	11.4076	4.2385	10.9052	3.6363
	-0.1100	1.2500	0.9100	0.7600	0.6900	1.5000	1.1900	0.5300	1.0400	0.4300
Mining GDP	-0.6720	6.5297	7.0365	4.8974	8.8906	14.5757**	6.8491	6.1393	1.6972	3.8133
	-0.0900	0.9200	1.0100	0.6800	1.1900	2.0300	0.8300	0.8500	0.1800	0.4100
Services GDP	5.5028	11.6523*	13.2533**	16.1101**	19.4531***	21.5303***	20.3682***	19.1463***	22.7270***	15.4217**
	0.8300	1.8100	2.1300	2.5500	3.0000	3.5100	2.9600	3.1300	3.0100	1.9800
Election	-0.1455	-0.1016	-0.1347	-0.0738	-0.0720	-0.0044	-0.0481	-0.1084	-0.1944	-0.4221
	-0.5000	-0.3500	-0.4600	-0.2500	-0.2400	-0.0100	-0.1500	-0.3800	-0.6700	-1.4200
Log FTAs by Market Size	0.0040	0.0175	-0.0088	-0.0231	0.0179	0.0323	0.0858	0.0289	0.0125	0.2280**
	0.0700	0.3100	-0.1600	-0.3900	0.3000	0.5700	0.9100	0.5300	0.1900	2.3500
Log BITs by Market Size	0.0209	0.0073	-0.0146	0.0168	0.0176	0.0161	0.0392	0.0366	0.1292*	-0.0534
	0.4100	0.1400	-0.2800	0.3200	0.3200	0.3100	0.6800	0.6900	1.9000	-0.8300
Regulatory Quality	0.0656***									
	4.9300									
Government Effectiveness		0.0697***								
		3.98								
Rule of Law			0.0744***							
			4.57							
Voice and Accountability				0.0546***						
				3.0600						
Political Stability					0.0205					
					1.19					
Corruption Control (WB)						0.0591***				
						3.9700				
Corruption Control (TI)							6.1188***			
							3.1800			
Democracy (PolityIV)								0.0047		
								0.4200		
Veto Players (5)									0.6107	
									0.6200	
Murders										-0.0323*
										-1.92
N. of Observations	266	266	266	266	266	266	217	285	282	178
R2	0.6253	0.5242	0.5826	0.4754	0.3211	0.4262	0.3588	0.2674	0.1260	0.4694
Hausman Test	0.3357	0.4539	0.5402	0.1800	0.9907	0.7190	0.1736	0.2021	0.0183	0.8389
Estimator	RE	RE	RE	RE	RE	RE	RE	RE	FE	RE
Note: All regressions included a constant. T-statistics are reported below coefficients.										
*: significant at 10% level; **: significant at 5% level; ***: significant at 1% level										

Table 2: Interaction between FTAs and Institutional Variables (Mining GDP)										
	1	2	3	4	5	6	7	8	9	10
Openness	0.0325***	0.0331***	0.0292***	0.0273***	0.0272***	0.0395***	0.0185*	0.0431***	0.0297***	0.0351***
	3.7700	3.8400	3.4700	3.1300	3.0000	3.1400	1.8200	3.7300	3.9200	3.3300
Inflation	-0.0197	-0.0243	-0.0198	-0.0247	-0.0254	-0.0224	0.0029	-0.0102	-0.0120	0.0123
	-1.0400	-1.2800	-1.0500	-1.2900	-1.3200	-1.1500	0.1900	-0.6900	-0.8300	0.5300
GDP Growth	0.0597	0.0487	0.0591	0.0587	0.0709*	0.0586	0.0564	0.0652*	0.0797**	0.1448***
	1.5400	1.2300	1.5200	1.4700	1.8000	1.4600	1.3500	1.6700	2.0200	3.1900
World GDP	0.0421	0.0619	0.0312	0.0671	0.0482	0.0629	0.0862	0.0411	0.0156	-0.1145
	0.5400	0.7900	0.4000	0.8400	0.6100	0.8100	1.0400	0.5300	0.1900	-1.3800
Agricultural GDP	10.2247	11.7536	13.2914*	11.7706	12.3388	25.1168**	13.5759	13.2033	6.9425	-2.8961
	1.4000	1.6200	1.8300	1.5700	1.6100	2.5500	1.6300	1.5100	1.0500	-0.2600
Construction GDP	0.2370	4.5078	3.2677	4.4272	4.5766	11.3282	9.4679	8.4659	3.2372	2.7769
	0.0300	0.6100	0.4500	0.5800	0.5800	1.0700	1.0900	0.8200	0.4700	0.3400
Mining GDP	2.5729	4.8846	5.4751	6.2751	7.4571	3.1952	3.6074	-1.7380	6.5357	1.9524
	0.3700	0.7200	0.8200	0.9000	1.0500	0.3400	0.5000	-0.1900	1.0700	0.2200
Services GDP	10.8521*	13.6236**	14.7021**	17.3154***	18.1401***	20.3299***	17.7035***	18.2976***	15.7067***	12.5125
	1.7500	2.2800	2.5200	2.9000	2.9700	2.7500	2.8100	2.6300	2.9400	1.6300
Election	-0.1306	-0.1109	-0.1423	-0.0868	-0.0821	-0.1052	-0.0813	-0.1466	-0.1168	-0.3674
	-0.4400	-0.3700	-0.4800	-0.2900	-0.2700	-0.3600	-0.2500	-0.5100	-0.3900	-1.2100
FTA-Regulatory Quality	0.0026***									
	3.6400									
FTA-Government Effectiveness		0.0027***								
		3.31								
FTA-Rule of Law			0.0032***							
			3.87							
FTA-Voice and Accountability				0.0017**						
				2.0900						
FTA-Political Stability					0.0013					
					1.46					
FTA-Corruption Control (WB)						0.0026**				
						2.3600				
FTA-Corruption Control (TI)							0.4303***			
							3.7900			
FTA-Democracy (PolityIV)								0.0003		
								0.3700		
FTA-Veto Players (5)									0.1177**	
									2.0600	
FTA-Murders										-0.001
										-1.07
N. of Observations	266	266	266	266	266	266	217	285	282	178
R2	0.5127	0.4977	0.5441	0.4033	0.3633	0.2946	0.4252	0.1508	0.4594	0.4593
Hausman Test	0.1846	0.1283	0.3301	0.5670	0.1636	0.0988	0.2965	0.0752	0.0026	0.3017
Estimator	RE	RE	RE	RE	RE	FE	RE	FE	FE	RE
Note: All regressions included a constant. T-statistics are reported below coefficients.										
*: significant at 10% level; **: significant at 5% level; ***: significant at 1% level										

Table 3: Interaction between BITs and Institutional Variables (Mining GDP)

	1	2	3	4	5	6	7	8	9	10
Openness	0.0505***	0.0473***	0.0251***	0.0226**	0.0266***	0.0391***	0.0194*	0.0432***	0.0467***	0.0365***
	4.0500	3.7800	2.8600	2.4400	2.8300	3.1500	1.7500	3.7300	3.8500	3.5100
Inflation	-0.0144	-0.0206	-0.0143	-0.0195	-0.0234	-0.0170	0.0006	-0.0101	-0.0089	0.0121
	-0.7500	-1.0600	-0.7500	-1.0200	-1.2200	-0.8700	0.0400	-0.6800	-0.6100	0.5200
GDP Growth	0.0801**	0.0645	0.0746*	0.0721*	0.0774**	0.0745*	0.0674	0.0656*	0.0790**	0.1427***
	2.0400	1.6300	1.9400	1.8500	1.9700	1.8900	1.6100	1.6900	1.9900	3.1400
World GDP	0.0212	0.0571	0.0184	0.0603	0.0415	0.0546	0.0759	0.0410	0.0137	-0.1168
	0.2800	0.7400	0.2400	0.7700	0.5300	0.7100	0.9100	0.5300	0.1800	-1.4100
Agricultural GDP	27.8511***	26.7971***	15.5345**	14.6976*	14.1174*	30.3343***	17.5661*	13.2556	17.4331*	-3.3943
	2.9200	2.7400	2.0700	1.9100	1.7500	3.0300	1.9200	1.5200	1.9200	-0.3000
Construction GDP	5.2134	11.2607	3.9932	3.5482	5.7161	11.4563	10.2767	8.4441	10.9791	3.6547
	0.4900	1.0700	0.5300	0.4500	0.7100	1.0900	1.1100	0.8300	1.0500	0.4500
Mining GDP	-0.5394	2.8207	6.9514	6.2585	8.8485	7.1723	8.2101	-1.7163	-0.9791	2.0234
	-0.0600	0.3100	1.0100	0.8800	1.2100	0.7600	1.0500	-0.1900	-0.1100	0.2300
Services GDP	17.2131**	20.3329***	16.0146***	19.0533***	19.4984***	24.8727***	21.1091***	18.3908***	18.6574***	11.8724
	2.3700	2.7700	2.6900	3.1600	3.1700	3.3100	3.1300	2.6400	2.6800	1.5700
Election	-0.1680	-0.1211	-0.1053	-0.0757	-0.0618	-0.0739	-0.0509	-0.1456	-0.1866	-0.3711
	-0.5800	-0.4800	-0.3600	-0.2600	-0.2100	-0.2500	-0.1600	-0.5100	-0.6500	-1.2200
BIT-Regulatory Quality	0.0028***									
	3.7100									
BIT-Government Effectiveness		0.0029***								
		2.92								
BIT-Rule of Law			0.0031***							
			3.75							
BIT-Voice and Accountability				0.0021**						
				2.5200						
BIT-Political Stability					0.0011					
					1.18					
BIT-Corruption Control (WB)						0.0031***				
						3.2300				
BIT-Corruption Control (TI)							0.2755***			
							2.7100			
BIT-Democracy (PolityIV)								0.0003		
								0.4200		
BIT-Veto Players (5)									0.0849	
									1.5200	
BIT-Murders										-0.0009
										-1.02
N. of Observations	266	266	266	266	266	266	217	285	282	178
R2	0.2859	0.2635	0.4637	0.3747	0.3038	0.2324	0.2596	0.1524	0.1767	0.4788
Hausman Test	0.0656	0.0615	0.2453	0.1223	0.2519	0.0707	0.4413	0.0235	0.0214	0.3357
Estimator	FE	FE	RE	RE	RE	FE	RE	FE	FE	RE

Note: All regressions included a constant. T-statistics are reported below coefficients.

\*: significant at 10% level; \*\*: significant at 5% level; \*\*\*: significant at 1% level

Table 4: Institutions, FTAs and BITs (Manufacturing GDP)

	1	2	3	4	5	6	7	8	9	10
Openness	0.0357***	0.0394***	0.0343***	0.0290***	0.0285***	0.0391***	0.0211*	0.0414***	0.0312***	0.0332***
	3.8200	4.0900	3.7200	3.0900	2.9400	3.2000	1.7400	3.6500	3.6900	2.8400
Inflation	-0.0106	-0.0194	-0.0127	-0.0194	-0.0232	-0.0146	-0.0004	-0.0153	-0.0180	0.0132
	-0.5700	-1.0400	-0.6900	-1.0200	-1.2100	-0.7600	-0.0300	-1.0500	-0.8900	0.5700
GDP Growth	0.0884**	0.0555	0.0762**	0.0702*	0.0811**	0.0892**	0.0628	0.0873**	0.0892**	0.1336***
	2.3400	1.4400	2.0200	1.8100	2.0700	2.2900	1.5300	2.2700	2.2700	3.0900
World GDP	-0.0316	0.0161	-0.0386	0.0321	0.0145	-0.0005	0.0628	0.0063	-0.0131	-0.1161
	-0.4100	0.2100	-0.4900	0.4100	0.1800	-0.0100	0.7500	0.0800	-0.1600	-1.4400
Agricultural GDP	8.1245	9.9941*	10.1875*	7.2786	8.4397	25.9469***	12.0847*	26.7829***	3.5378	1.0927
	1.4400	1.7200	1.7800	1.2400	1.3700	2.8300	1.6900	3.0300	0.6900	0.1400
Construction GDP	1.6692	9.6846	7.0301	6.3281	4.6441	9.9364	10.1757	7.5963	3.0791	3.7898
	0.2400	1.3200	0.9900	0.8600	0.6100	1.0100	1.1700	0.7900	0.4600	0.4700
Manufacturing GDP	11.4628*	14.4757**	15.9576***	13.7326**	16.1051***	22.2425***	14.4973**	20.1726***	11.3792**	7.0936
	1.9300	2.4200	2.7000	2.2500	2.5800	3.0700	2.1500	2.9600	2.0200	0.9500
Services GDP	7.8381*	9.027**	10.201***	14.4637***	15.2595***	22.6804***	17.0594***	25.3020***	13.1462***	12.9017***
	1.9300	2.1700	2.6000	3.7300	3.7300	4.7100	3.9600	5.5000	3.6900	2.7900
Election	-0.1247	-0.0888	-0.1218	-0.0600	-0.0592	-0.0377	-0.0211	-0.1310	-0.1205	-0.3989
	-0.4300	-0.3100	-0.4200	-0.2000	-0.2000	-0.1300	-0.0700	-0.4700	-0.4100	-1.3400
Log FTAs by Market Size	-0.0001	0.0234	-0.0029	-0.0180	0.0295	0.0182	0.0912	0.0354	0.0476	0.2355**
	0.0000	0.4200	-0.0500	-0.3100	0.5000	0.2600	1.0400	0.5600	0.9700	2.4200
Log BITs by Market Size	0.0098	-0.0119	-0.0370	-0.0006	-0.0071	0.0497	0.0218	0.1077	-0.0001	-0.0545
	0.1900	-0.2300	-0.7200	-0.0100	-0.1300	0.7200	0.3800	1.6400	0.0000	-0.8600
Regulatory Quality	0.0619***									
	4.8000									
Government Effectiveness		0.0692***								
		3.97								
Rule of Law			0.0761***							
			4.73							
Voice and Accountability				0.0528***						
				3.0000						
Political Stability					0.0191					
					1.13					
Corruption Control (WB)						0.0630***				
						3.1600				
Corruption Control (TI)							6.1809***			
							3.2500			
Democracy (PolityIV)								0.0019		
								0.1700		
Veto Players (5)									2.0471**	
									2.5000	
Murders										-0.0316*
										-1.93
N. of Observations	266	266	266	266	266	266	217	285	282	178
R2	0.5760	0.4829	0.5336	0.4199	0.2547	0.2569	0.3114	0.1223	0.4211	0.4574
Hausman Test	0.1630	0.1965	0.3891	0.1566	0.0234	0.0296	0.1687	0.0023	0.0015	0.8481
Estimator	RE	RE	RE	RE	FE	FE	RE	FE	FE	RE

Note: All regressions included a constant. T-statistics are reported below coefficients.

\*: significant at 10% level; \*\*: significant at 5% level; \*\*\*: significant at 1% level

Table 5: Interaction between FTAs and Institutional Variables (Manufacturing GDP)										
	1	2	3	4	5	6	7	8	9	10
Openness	0.0426***	0.0448***	0.0431***	0.0411***	0.0411***	0.0380***	0.0253	0.0425***	0.0423***	0.0369***
	3.7700	3.6400	3.5500	3.3400	3.3300	3.1200	1.6100	3.7700	3.6900	3.4200
Inflation	-0.0245	-0.0270	-0.0241	-0.0272	-0.0267	-0.0215	-0.0048	-0.0172	-0.0170	0.0102
	-1.2900	-1.4100	-1.2700	-1.4100	-1.3800	-1.1300	-0.3100	-1.1900	-1.1700	0.4400
GDP Growth	0.0823**	0.0757*	0.0805**	0.0821*	0.0909**	0.0796**	0.0733*	0.0887**	0.0889**	0.1417***
	2.1100	1.9000	2.0700	2.0600	2.3100	2.0500	1.7400	2.3300	2.3100	3.2300
World GDP	-0.0128	0.0063	-0.0221	0.0101	-0.0027	0.0066	0.0502	-0.0097	-0.0168	-0.1160
	-0.1700	0.0800	-0.2800	0.1300	-0.0400	0.0900	0.6000	-0.1300	-0.2200	-1.4200
Agricultural GDP	23.9186***	22.1949***	23.9801***	22.1786***	20.5464***	26.4619***	22.8402***	16.8482***	16.8554**	-4.7425
	3.3300	3.1100	3.3500	3.0400	2.8400	3.6100	2.6100	2.5800	2.4700	-0.6700
Construction GDP	6.5844	9.8206	8.4923	9.0134	9.2999	9.4214	14.2591	8.5896	10.8636	3.2464
	0.6600	0.9900	0.8600	0.9000	0.9200	0.9500	1.2400	0.8900	1.1100	0.4200
Manufacturing GDP	23.3280***	23.4564***	24.8081***	23.6048***	22.5299***	25.9304***	20.7819***	21.4237***	21.7657***	4.8197
	3.3200	3.2800	3.4800	3.2600	3.1200	3.6100	2.7100	3.1300	3.1800	0.6600
Services GDP	18.2469***	20.5197***	20.4929***	22.7306***	22.2579***	22.3319***	22.8779***	23.0068***	22.6409***	11.2508**
	3.7500	4.3600	4.4300	4.9100	4.7600	4.8900	4.1700	5.2600	5.1300	2.5000
Election	-0.1369	-0.1196	-0.1537	-0.1041	-0.0974	-0.0686	-0.0764	-0.1157	-0.1724	-0.3502
	-0.4800	-0.5100	-0.5300	-0.3600	-0.3300	-0.2400	-0.2400	-0.4100	-0.6100	-1.1600
FTA-Regulatory Quality	0.0024***									
	2.2700									
FTA-Government Effectiveness		0.0023**								
		2.14								
FTA-Rule of Law			0.0032***							
			2.87							
FTA-Voice and Accountability				0.0014						
				1.5200						
FTA-Political Stability					0.0008					
					0.76					
FTA-Corruption Control (WB)						0.0033***				
						3.0200				
FTA-Corruption Control (TI)							0.4860***			
							3.3300			
FTA-Democracy (PolityIV)								0.0002		
								0.2900		
FTA-Veto Players (5)									0.0009	
									0.0100	
FTA-Murders										-0.001
										-1.05
N. of Observations	266	266	266	266	266	266	217	285	282	178
R2	0.2663	0.2630	0.3102	0.2001	0.1761	0.2796	0.2797	0.1521	0.1401	0.4592
Hausman Test	0.0187	0.0108	0.0271	0.0459	0.0571	0.0020	0.0510	0.0945	0.0000	0.2486
Estimator	FE	FE	FE	FE	FE	FE	FE	FE	FE	RE
Note: All regressions included a constant. T-statistics are reported below coefficients.										
*: significant at 10% level; **: significant at 5% level; ***: significant at 1% level										

Table 6: Interaction between BITs and Institutional Variables (Manufacturing GDP)										
	1	2	3	4	5	6	7	8	9	10
Openness	0.0487***	0.0461***	0.0432***	0.0421***	0.0277***	0.0392***	0.0215**	0.0426***	0.0452***	0.0381***
	3.9700	3.7500	3.5800	3.4500	2.9900	3.2400	1.9600	3.7700	3.9100	3.6700
Inflation	-0.0160	-0.0211	-0.0182	-0.0231	-0.0215	-0.0167	-0.0021	-0.0171	-0.0158	0.0087
	-0.8400	-1.1000	-0.9600	-1.2100	-1.1400	-0.8800	-0.1400	-1.1900	-1.1000	0.3700
GDP Growth	0.0985**	0.0838**	0.0909**	0.0867**	0.0850**	0.0914**	0.0693*	0.0891**	0.0974**	0.1379***
	2.5600	2.1500	2.3600	2.2200	2.2000	2.3700	1.6900	2.3400	2.5200	3.1500
World GDP	-0.0199	0.0104	-0.0281	0.0219	0.0117	0.0067	0.0548	-0.0102	-0.0295	-0.1174
	-0.2600	0.1300	-0.3600	0.2800	0.1500	0.0900	0.6600	-0.1300	-0.3800	-1.4200
Agricultural GDP	28.4170***	25.5198** *	24.7572***	27.5206***	9.0988	26.9396***	11.5748*	16.8138**	19.5677***	-6.0192
	3.8100	3.4500	3.4700	3.5500	1.6200	3.6700	1.7400	2.5700	2.9300	-0.8800
Construction GDP	5.4916	9.8107	7.9263	6.9294	4.5023	8.5446	7.8487	8.6634	10.8156	3.9125
	0.5500	0.9900	0.8000	0.6900	0.6000	0.8700	0.9200	0.9000	1.1100	0.5200
Manufacturing GDP	18.1120**	19.5732** *	21.2401***	19.9612***	16.2576***	21.8389***	14.4793**	21.3803***	20.7343***	5.2325
	2.5400	2.7300	3.0100	2.7900	2.6100	3.1000	2.1500	3.1200	3.0100	0.7400
Services GDP	20.6512***	21.7880** *	20.4391***	25.2228***	16.0923***	23.8423***	17.1219***	23.0245***	22.6971***	10.0894**
	4.5000	4.7400	4.4400	5.3500	4.1200	5.2200	4.0400	5.2600	5.1900	2.3300
Election	-0.1346	-0.1131	-0.1341	-0.1001	-0.0494	-0.0552	-0.0229	-0.1182	-0.1645	-0.3506
	-0.4700	-0.3900	-0.4700	-0.3500	-0.1700	-0.1900	-0.0700	-0.4200	-0.5800	-1.1500
BIT-Regulatory Quality	0.0025***									
	3.2800									
BIT-Government Effectiveness		0.0025**								
		2.56								
BIT-Rule of Law			0.0035***							
			3.18							
BIT-Voice and Accountability				0.0027**						
				2.4400						
BIT-Political Stability					0.0009					
					0.97					
BIT-Corruption Control (WB)						0.0029***				
						3.1800				
BIT-Corruption Control (TI)							0.2617***			
							2.6100			
BIT-Democracy (PolityIV)								0.0001		
								0.2100		
BIT-Veto Players (5)									0.0631	
									1.1400	
BIT-Murders										-0.0009
										-1.13
N. of Observations	266	266	266	266	266	266	217	285	282	178
R2	0.2770	0.2448	0.3203	0.2487	0.2265	0.2086	0.2168	0.1520	0.1704	0.4898
Hausman Test	0.0224	0.0542	0.0964	0.0301	0.1482	0.0208	0.2699	0.0963	0.0050	0.3971
Estimator	FE	FE	FE	FE	RE	FE	RE	FE	FE	RE

Note: All regressions included a constant. T-statistics are reported below coefficients.  
\*: significant at 10% level; \*\*: significant at 5% level; \*\*\*: significant at 1% level