Bit By Bit: An Analysis of the Role of Bilateral Investment Treaties on China's Investment in Latin America

Matthew Forgette

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BIT BY BIT: AN ANALYSIS OF THE ROLE OF BILATERAL INVESTMENT TREATIES ON CHINA’S INVESTMENT IN LATIN AMERICA

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ABSTRACT

Over the past 15 years, the political and economic relationship between China and Latin America has progressed rapidly. Chinese investment in Latin America has risen to unprecedented levels, and numerous Latin American leaders have praised and welcomed China’s growing influence in the region. A key component of this burgeoning relationship has been the emergence of bilateral investment treaties between China and Latin American nations. Over the past 30 years, China has signed a bilateral investment treaty with 12 different Latin American countries. In light of their increasing importance, this paper seeks to analyze the role of bilateral investment treaties in the Sino-Latin America relationship. Through both quantitative and qualitative analysis, this paper examines what factors motivate China and Latin American countries to sign bilateral investment treaties and also analyzes whether these agreements are useful tools for encouraging investment. The quantitative section of this paper establishes that factors traditionally recognized as motivations for Chinese investment in Latin America do not have a significant effect on signing a bilateral trade agreement. The qualitative section addresses and further examines this surprising finding, both by comparing Chinese investment in two different countries and analyzing the treaties themselves. Overall, the paper finds that normal motivations for Chinese investment in Latin America do not apply to the signing of bilateral investment treaties. Furthermore, the findings challenge the prevailing assumption that bilateral treaties stimulate foreign direct investment, at least in the context of the Sino-Latin American relationship.
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CHAPTER 1: INTRODUCTION

In 2008, the Colombian national newspaper *El Espectador* ran an article announcing the signing of a bilateral investment treaty between Colombia and China. In the piece, Colombia’s then-Minister of Commerce Luis Guillermo Plata touts the agreement, declaring that, “For Colombia, this agreement is of particular importance, as it will protect China’s investment in (our) country... (and) increase the confidence of Asian investors” (“Colombia y China” 1). While on the surface Plata’s declaration sounds like standard political rhetoric, its significance lies in its candor. In the 21st century, Chinese investment in Latin America is absolutely of “particular importance,” and more and more effort is being made by Latin American governments to ensure “the confidence of Chinese investors.”

China’s newfound influence in Latin America embodies the dramatic change that China has undergone since its 1978 Open Door Policy released its borders to foreign trade and investment. Since that declaration, Chinese foreign investment and engagement has expanded at a breathtaking rate. In less than 40 years, China has transformed from a protectionist nation wary of foreign influence into one of the world’s foremost economic and political actors. China’s expanding global influence is particularly striking in Latin America. In a region historically dominated by American control and influence, the Chinese have made profound economic and political inroads.
One of the most significant codifications of China’s expanding influence in Latin America has been the rise of bilateral investment treaties. Since 1992, China has signed 12 different bilateral investment treaties with various Latin American countries (United Nations Conference on Trade and Development). In theory, these treaties serve as physical representations of China and Latin America’s mutual commitment to trade and investment. As one article from the *Georgetown Journal of International Law* explains, “Countries sign BITs to promote foreign investment with their treaty partners...for developing country governments, BITs are a way to reassure investors and thereby attract more investment by making a credible commitment to protect property rights” (Hadley 260). Furthermore, some empirical research suggests bilateral investment treaties have a significant effect on investment.

This paper seeks to answer two questions related to the importance of bilateral investment treaties in the China-Latin America relationship. First, it will investigate which factors motivate China to pursue a bilateral investment treaty with a Latin American nation. Intriguingly, the quantitative and qualitative analysis in the paper suggests that some of the most-commonly cited motivations for signing bilateral investment treaties may not apply to the China-Latin America relationship. A thorough review of scholarly literature reveals two competing hypotheses as to what motivates China to invest in Latin American countries. The first hypothesis theorizes that China is targeting Latin American countries rich in natural resources in an effort to extract primary goods to fuel its industrial economy. The second theory posits that China is using foreign direct investment as a tool to align with left-
wing governments in Latin America and spread its global political influence. Of course, these two motivations are not wholly exclusive of one another. Many of the most resource-rich countries in Latin America are led by powerful left-wing governments. If it is true that these are China’s primary motivations, then it is likely that China would target these countries. Thus, this paper will use quantitative analysis to assess the impact of each of these motivations on the signing of bilateral investment treaties in an attempt to determine what factors make China-Latin America bilateral investment treaties more likely.

The second question this paper seeks to address is more fundamental: are bilateral investment treaties important tools for Chinese investment and influence in Latin America? Many scholars assume that bilateral investment treaties are indicators of mutual commitment to greater economic cooperation; however, the quantitative analysis in this paper suggests that bilateral investment treaties between China and Latin America have not been correlated with greater levels of economic investment. In fact, several of China’s top trade and investment partners, such as Venezuela and Brazil, do not have a bilateral investment treaty with China. This paper will investigate this apparent discrepancy through case studies that compare various Latin American countries and analyze the terms of the bilateral investment treaties.

The meteoric rise of Chinese investment in Latin America over the past two decades has imbued the questions addressed in this paper with mounting importance. As China begins to challenge U.S. economic and political hegemony in Latin America, it is vital to understand China’s motivations and methods for
investment in the region. The increasing importance of the relationship has produced new questions for scholars. Are bilateral investment treaties indicative of greater economic investment? If they are, what factors make China and Latin American countries more likely to sign them? If they are not, what other methods are being used to encourage greater economic cooperation? Essentially, this paper seeks to contribute to a greater understanding of the China-Latin America economic relationship, a relationship of rapidly growing importance to the world.
CHAPTER 2: LITERATURE REVIEW

The Importance of Bilateral Investment Treaties

Bilateral investment treaties are the subject of this paper. In the quantitative section, the signing of a bilateral investment treaty is used as a dependent variable that is expected to indicate and correspond with greater levels of foreign direct investment. In the qualitative section, bilateral investment treaties are critically analyzed to gain a deeper understanding of the Sino-Latin America economic relationship. Thus, in order for both of these analyses to have validity, it is vital to clearly establish the importance of bilateral investment treaties both internationally and within the context of the Sino-Latin America relationship.

Perhaps the greatest evidence for the significance of bilateral investment treaties is their sheer abundance. According to the United Nations Conference for Trade and Development, there are 2946 bilateral investment treaties throughout the world, involving nearly every country. Furthermore, bilateral investment treaties continue to be by far the most common methods for generating foreign direct investment, as multilateral treaties remain rare. As international law expert Dr. Tarcisio Gazzini explains, “There exists no multilateral treaty on foreign investment comparable in terms of participation to multilateral trade agreements... As a matter of treaty law, therefore, foreign investments are currently protected by a complex web of bilateral investment treaties” (Gazzini 2). The pervasiveness of these treaties bears witness to their important global role.
There are a number of reasons why bilateral investment treaties have become so prominent in the international community. Most obviously, bilateral investment treaties offer a number of advantages relative to other options. Specifically, bilateral investment treaties tend to be rather flexible and open to amendment. As Gazzini notes, “The flexibility of the bilateral framework permits states to tailor their commitments in accordance with specific needs...(and) the bilateral nature of these treaties facilitates their modification” (Gazzini 6). In other words, these treaties can be made to order.

These inherent advantages of bilateral investment treaties relative to multilateral investment treaties explain bilateral investment treaties’ continued significance. However, an even more compelling reason for the profusion and proliferation of bilateral investment treaties is competition. An investigation co-authored by researchers Zachary Elkins, Andrew Guzman, and Beth Simmons in 2008 found that “the diffusion of BITs is associated with competitive economic pressures among developing countries to capture a share of foreign investment” (Elkins et al. 265). Put simply, competition breeds growth. Countries have shown a greater eagerness to sign bilateral investment treaties after seeing competitor countries sign the same agreements. This has led to the diffusion of bilateral investment treaties worldwide.

This diffusion of bilateral investment treaties has spread to China and Latin America. Latin America as a whole has more than 380 bilateral investment treaties, and ten separate Latin American countries possess a bilateral investment treaty with China. Additionally, almost all of these treaties have been signed within the
past 25 years,suggesting an increasing interest in investment between China and Latin America. Some experts have claimed that the propagation of these treaties in Latin America is due to the favorable terms of China’s loans in comparison to those of its traditional Western investor counterparts such as the World Bank and International Monetary Fund. However, analysis on this subject has been mixed, with some studies suggesting that Chinese banks actually impose stricter terms than the World Bank (Gallagher et al.). Thus, the motivation for the increase in both bilateral investment treaties and actual foreign direct investment dollars between China and Latin America remains unclear.

One difficulty in determining China’s motivations for investment in Latin America is the relative scarcity and unreliability of current foreign direct investment data. Because of this, scholars have struggled to conduct empirical analyses that could directly link variables like political leaning or natural resource wealth with increased investment. In light of this, this paper assumes bilateral investment treaties as a signifier of China and Latin American countries’ mutual commitment towards investment. This assertion is backed by quantitative analysis. A 2005 empirical study by economists Eric Neumayer and Laura Spess concluded, “Developing countries that sign more BITs with developed countries receive more FDI inflows” (Neumayer & Spess 27). Subsequent studies have been mixed, but have, for the most part, reinforced the notion that bilateral investment treaties promote FDI. However, as of yet, no scholars have investigated this correlation in the specific context of the China-Latin America relationship. This paper seeks to fill that void.
The Sino-Latin America Economic Relationship

Since 2000, trade between China and Latin America has increased by 2,000%, and China has become the world’s third-largest provider of foreign direct investment (Peters 1). Furthermore, over the past five years, China has invested over $10 billion annually in Latin America, and has also pledged to directly invest more than $750 billion over the next decade (Dollar 1). As a result, China has established itself as an influential economic presence in Latin America, serving as the top trade partner and investor to a number of Latin American countries such as Brazil, Peru, and Venezuela (Coyer 1).

Perhaps most significantly, it has begun to challenge the United States’ economic hegemony in parts of the region. Its level of foreign direct investment is now second only to the United States, and President Xi Jinping has made multiple tours of Latin America, often touting China’s ambitious One Belt One Road investment initiative. The rhetoric has had an impact. Following one recent speech, Chilean Foreign Minister Heraldo Munoz said this: “China said something that is very important, that it wants to be our most trustworthy partner in Latin America and the Caribbean and we greatly value that” (Cambero & Sherwood).

Yet, while China’s investment and influence in Latin America have both grown dramatically over the last two decades, the most recent data indicates that the trade boom may be ebbing. In 2016, exports from Latin America to China remained stagnant for the third year in a row. Moreover, Latin American imports from China actually fell by 14%, the first significant dip in over a decade. Though this slump could simply be attributed to the region’s overall economic recession (a
.8% GDP drop in 2016), it is a reminder that China’s economic presence in the region remains secondary to that of the United States (Ray & Gallagher 2).

**The Natural Resource Extraction Theory**

Despite this slight downturn, Chinese investment continued to surge in one key area: extractive industries. In 2016, China purchased a record 22% of Latin America’s extractive exports, and more than half of its public sector lending to Latin America was concentrated in extractive industries (Ray & Gallagher 3). This data aligns with a trend scholars have been highlighting for years in the Sino-Latin America economic relationship, namely that China appears to target resource-rich Latin American countries as recipients for foreign direct investment with the goal of using these resources to fuel its developing economy.

In 2015, the Global Economic Initiative at Boston University published a report on Sino-Latin American trade relations revealing that “Latin American exports to China, as well as Chinese investment in the region, have been...concentrated in primary commodities” (Ray et al. 2). This focus on primary goods has led many to posit that China’s burgeoning economic involvement in the region is motivated by a desire to exploit Latin America’s natural resource wealth. A separate report from the International Monetary Fund notes, “Foreign direct investment from China...is heavily oriented toward the expansion of natural resource exploitation in Latin America” (Elson). These assertions are backed up by data. Over the last decade China has more than tripled its share of Latin American extractive exports and doubled its share of Latin American agricultural exports (Ray et al. 4). Recently, China has even openly acknowledged that natural resources are a
key component of the Sino-Latin American economic relationship. In its 2016 official policy paper on Latin America, China highlighted “energy and resources cooperation” as one of its top policy priorities (Ministry of Foreign Affairs).

A few of the natural resources being pursued by China are sufficiently important to merit their own discussion, namely oil and minerals. The United States Department of Energy recently reported that China surpassed the U.S. as the world’s top oil importer in 2017. China now imports approximately 7.4 billion barrels of oil a day. In 2007, that number was 3.2 million barrels, meaning that China has more than doubled its oil imports in the past decade (Johnson). A host of factors, including China’s swiftly industrializing economy and increasingly oil-reliant populace, have contributed to its greater appetite for oil. In Latin America, China has found a number of eager oil exporters, including Venezuela, Brazil, and Mexico.

Besides oil, minerals have been the other primary target for Chinese extraction. China’s desire for rare earth minerals has been well documented in scholarly literature, particularly in the case of Africa. While Latin America has received less attention, minerals quietly accounted for more than 35% of its exports to China from 2011-2015 (Ray & Gallagher 7). Additionally, China has funded numerous mining projects in various Latin American countries aimed specifically at copper and steel extraction. In 2014, Peru received funding for four major mining projects worth more than $13 billion (Avendano et al. 8). Evidently, China has an interest in accumulating minerals, and Latin America’s relative abundance of minerals makes it a prime target.
The Left-Wing Political Alignment Theory

Though it seems clear that China is eager to import Latin American natural resources, resource accumulation may not be the sole reason for increased Chinese engagement in the region. In fact, several scholars have proposed an alternative hypothesis, relating specifically to China’s political alignments with several far left-wing Latin American governments. In their book *Latin America Facing China*, political scientists Alex Fernandez Jilberto and Barbara Hogenboom postulate that a convergence in political ideology between China and several Latin American countries has driven increased trade. They note, “Both the Beijing Consensus and Latin America’s new Left consider the participation of the state crucial in making the globalization and liberalization of the economy a sustained success” (Jilberto & Hogenboom xiii). Other sources echo these claims, with one *Economist* article describing China as an “anti-imperialist sugar daddy” to left-wing Latin American governments (“A Golden Opportunity” 1).

One crucial piece of evidence for China’s underlying political motivations in Latin America comes from David Dollar, a senior fellow at the Brookings Institution. In 2017, Dollar investigated the impact of quality of governance on Chinese investment in Latin America. Traditionally, scholars have found that countries with high-quality governance are more likely to be destinations for foreign direct investment and trade, as their good governance lends stability and a greater likelihood for return on investment.

However Dollar’s research indicates that China shows no such preference for countries with good governance. In fact, the data exhibits a slight bias towards
countries with poor governance. Some of China’s top investment targets, such as Venezuela, Ecuador, and Argentina, are rated poorly for their quality of governance. Dollar’s finding lends credence to the idea that China’s motivations for investment in Latin America may not be purely economic. If China is willing to risk investing in volatile states, where return on investment is far from assured, it would certainly appear that political incentives play a key role in its decision-making calculus.

With the diversity of scholarly opinion surrounding China’s investment incentives, an empirical question emerges: how do the two principal theorized motivations for Chinese investment influence the likelihood of China signing a bilateral investment treaty? Is China more likely to sign a bilateral investment treaty with a left-wing government or a nation rich in natural resources? Does the combination of those two characteristics all but ensure a bilateral investment treaty? The quantitative data analysis below seeks to provide answers to these questions.
CHAPTER 3: HYPOTHESES

In light of the findings above, I have formulated two hypotheses regarding China’s likelihood of signing a bilateral investment treaty with a Latin American country. First, all else being equal, I would expect Latin American countries with a greater wealth of natural resources to sign a bilateral investment treaty with China. Scholars have repeatedly postulated that China is focused on using its investment to extract natural resources to feed its industrializing economy, and there have been numerous Chinese investment projects identified by scholars that focus on natural resource extraction. Second, all else being equal, I would expect Latin American countries with left-leaning governments to sign a bilateral investment treaty with China. These governments hold a natural ideological alignment with China, and China may be seeking to spread its global political influence. My third and final hypothesis deals with the role played by the United States in the formulation of Sino-Latin America investment treaties. I predict that, all else being equal, countries that already hold bilateral investment treaties with the United States will be less likely to sign a bilateral investment treaty with China. Traditionally, the United States has held a hegemonic role in Latin America, and a number of countries in Latin America rely on the United States for foreign aid and investment. Countries already aligned with the United States through bilateral trade agreements may view signing an agreement with China as unnecessary or potentially even harmful to their agreement with the United States.
Although each one of these hypotheses is distinct, together they can be viewed as one broader theoretical postulate. That is, China is very specific and deliberate in targeting Latin American countries for trade and investment. Furthermore, I am postulating that the signing of a bilateral investment treaty signals a commitment toward greater levels of trade and investment. This postulation is due to the evidence presented in my literature review that demonstrates China’s motivations for investment as well as the importance of bilateral investment treaties. Thus, since resource-rich countries with left-wing governments should be attractive targets for Chinese investment, they should sign bilateral investment treaties with China more quickly.
CHAPTER 4: METHODOLOGY

This paper takes a mixed-methods approach toward investigating what factors make China more likely to sign a bilateral investment treaty with a Latin American country. It begins by using a quantitative analysis known as the Cox proportional hazards regression to determine which factors may be significant in impacting when China signs a bilateral investment treaty with a Latin American country. Then, to augment the statistical analysis, the qualitative section of this paper encompasses a number of illustrative case studies that compare and contrast various Latin American countries’ relationships with China in an effort to ascertain the importance of bilateral investment treaties as a tool for Chinese investment in Latin America.

By combining quantitative and qualitative methods of analysis, this paper attempts to gain greater depth and understanding by comparing and contrasting the results of both methods, while also offsetting the weaknesses of each approach. As will be seen, the quantitative portion of this paper yields rather surprising results, and thus the qualitative phase is useful for explaining these results and filling in gaps in understanding.

**Method of Quantitative Analysis**

The Cox proportional hazards regression is useful for studying the effect of multiple variables on the amount of time it takes for an event to occur. In this case, the event is the signing of a bilateral investment treaty between China and a Latin
American nation, while the independent variables represent the hypotheses for increased Chinese investment in Latin America. Essentially, this model attempts to identify which factors may cause China to sign a bilateral investment treaty more quickly.

Interestingly, the Cox Proportional Hazards model is often used in medical research to investigate the survival times of patients by examining multiple predictor variables. Of course, it is also often used in the political science realm. In the context of this paper, it is useful due to its ability to analyze the effect of several different factors simultaneously. The model will evaluate the effect of each of the independent variables and determine if this effect is statistically significant.

In order for the Cox Proportional Hazards model to effectively measure the impact of the various independent variables, a key assumption is that the hazards (in this case the signing of bilateral investment treaties) are proportional. Hazard proportionality essentially means that the effect of a given independent variable does not change over time. Thus, in order to ensure that the Cox model was appropriate for this examination, this paper utilized a procedure known as the Schoenfeld Residuals Test to check this assumption. The quantitative results of this analysis can be found in the appendix. The Schoenfeld Test found that proportionality was upheld, and thus the Cox Proportional Hazards model was an appropriate method of analysis. Another method for testing the rate at which the bilateral investment treaties were signed between China and the Latin American countries is the Kaplan-Meier Survival Estimate. This descriptive method graphs the percentage of Latin American countries in the analysis that have signed a bilateral
investment treaty with China over time. A copy of this graph has also been included in the appendix.

The Cox Proportional Hazards model utilized in this paper analyzed 262 data observations across 12 countries. These 262 observations represent each year in which it was possible for a Latin American country to have signed a bilateral investment treaty with China. There were 12 spells (the time period during which an event can occur). In this case, the spells represent the time period during which each Latin American country could sign a bilateral investment treaty with China. Finally, there were 9 events. These 9 events represent the 9 times that a Latin American country did in fact sign a bilateral investment treaty with China.

As a final note, the quantitative portion of this paper utilizes data from a variety of sources, including the United Nations Conference on Trade and Development, the work of Andy Baker at the University of Colorado, and the World Bank.

**Dependent Variable**

The dependent variable in this study will be the time elapsed from China’s economic opening in 1978 until it signs a bilateral investment treaty with a Latin American nation. This is determined using the United Nations Conference on Trade and Development Data and includes data from 12 Latin American countries. Time was chosen as the dependent variable in this study because it allows for comparison between the different Latin American countries. Theoretically, countries with certain characteristics (i.e. high levels of natural resources and far left-wing governments) will be more eager to sign bilateral investment treaties with China.
and thus sign the treaties more quickly. The Cox Proportional Hazard model tests this theory.

*Independent Variables*

The study will include a number of independent variables. The first independent variable is the natural resource wealth of the Latin American countries. This is a ratio level variable that is determined using data from the World Bank. It measures a country’s total natural resource rents as a percentage of its GDP.

Related to the natural resource wealth variable are two variables that test for resources that previous scholarly literature has identified as uniquely important. The first of these is whether or not the Latin American country is a major oil producer. This is a dummy variable in which Brazil, Mexico, and Venezuela are labeled as oil producers (due to their collective output of 75% of the region’s oil). The second of these two specific natural resources variables measures whether or not the Latin American country is a major mineral producer. This is also a dummy variable in which Bolivia, Chile, and Peru are labeled as mineral producers (due to being the top three exporters of minerals according to World Bank data).

The fourth independent variable in this study is the political identity of the Latin American countries. Countries are labeled “left-leaning” or “right-leaning” depending on the political affiliations of their governments. This is a categorical variable that is determined through research by Andy Baker, a political scientist at the University of Colorado. Baker’s research assigns Latin American political candidates ideological scores on a scale of 1-20 (1 being ultra-left and 20 being ultra-right) by analyzing the candidates’ voting behavior.
The final independent variable in this study is whether or not the Latin American country holds a bilateral investment treaty with the United States. This dummy variable seeks to assess whether or not states holding investment treaties may be dissuaded from signing investment treaties with China. The data is taken from the United Nations Conference on Trade and Development Data. By using all of these independent variables, this quantitative study seeks to explore the relevant factors that contribute to the signing of bilateral investment treaties between China and Latin American countries.
CHAPTER 5: QUANTITATIVE DATA ANALYSIS

Before proceeding with the analysis of the Cox proportional hazards regression, it is useful to examine the United Nations’ country-by-country data on China’s direct foreign investment in Latin America. It should be noted that this data is limited in both its timeframe and its abundance. It extends from just 2001-2012, and several Latin American countries are missing years, with a few lacking data entirely. Nevertheless, the data is useful for getting a general sense of which Latin American countries are the primary targets of Chinese foreign direct investment. The countries listed in Table 1 are all the countries that had at least one year of reported FDI data. Countries that hold a bilateral investment treaty with China are labeled with an asterisk.

Table 1: Country-by-Country Sum FDI Inflows from China (2001-2012)

<table>
<thead>
<tr>
<th>Country</th>
<th>FDI Inflows (millions of US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>1455</td>
</tr>
<tr>
<td>Venezuela</td>
<td>729</td>
</tr>
<tr>
<td>Argentina*</td>
<td>505</td>
</tr>
<tr>
<td>Panama*</td>
<td>491</td>
</tr>
<tr>
<td>Ecuador*</td>
<td>418</td>
</tr>
<tr>
<td>Mexico*</td>
<td>252</td>
</tr>
<tr>
<td>Chile*</td>
<td>97</td>
</tr>
</tbody>
</table>
A few things are worth of attention in this data. Chiefly, one can observe that the majority of Latin American countries receiving FDI inflows from China have a bilateral investment treaty in effect. However, rather surprisingly, the top two recipients of China’s foreign direct investment in Latin America, Brazil and Venezuela, do not hold a bilateral investment treaty with China. This is notable because it contradicts both the conventional wisdom and empirical evidence surrounding the relationship between bilateral investment treaties and foreign direct investment. If bilateral treaties lead to greater investment, then why does Bolivia, a country that received just $13 million U.S. dollars from China over this eleven-year span, have a bilateral investment treaty while Brazil, the top recipient of China’s foreign investment, does not? One way to approach this puzzle is to examine China’s investment in Latin American countries relative to their GDP. This method scales Chinese foreign direct investment and is helpful for assessing the importance of Chinese foreign direct investment to each country. Table 2 below lists the FDI inflows of China from 2001-2012 as a percentage of each Latin American country’s 2012 GDP.

<table>
<thead>
<tr>
<th>Country</th>
<th>FDI Inflows (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peru*</td>
<td>86</td>
</tr>
<tr>
<td>Colombia*</td>
<td>53</td>
</tr>
<tr>
<td>Costa Rica*</td>
<td>21</td>
</tr>
<tr>
<td>Bolivia*</td>
<td>13</td>
</tr>
<tr>
<td>Paraguay</td>
<td>-11</td>
</tr>
</tbody>
</table>

*Holds bilateral investment treaty with China
## Table 2: Country-by-Country Sum FDI-GDP Ratios from China (2001-2012)

<table>
<thead>
<tr>
<th>Country</th>
<th>Chinese FDI as a Percentage of Country's 2012 GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panama</td>
<td>1.20%</td>
</tr>
<tr>
<td>Ecuador*</td>
<td>.47%</td>
</tr>
<tr>
<td>Venezuela</td>
<td>.20%</td>
</tr>
<tr>
<td>Argentina*</td>
<td>.09%</td>
</tr>
<tr>
<td>Brazil</td>
<td>.05%</td>
</tr>
<tr>
<td>Costa Rica*</td>
<td>.05%</td>
</tr>
<tr>
<td>Peru*</td>
<td>.04%</td>
</tr>
<tr>
<td>Bolivia*</td>
<td>.04%</td>
</tr>
<tr>
<td>Chile*</td>
<td>.03%</td>
</tr>
<tr>
<td>Mexico*</td>
<td>.02%</td>
</tr>
<tr>
<td>Colombia*</td>
<td>.01%</td>
</tr>
<tr>
<td>Paraguay</td>
<td>-.04%</td>
</tr>
</tbody>
</table>

*Holds bilateral investment treaty with China

Introducing a country's GDP into the equation yields a few changes. China's foreign direct investment in relatively small economies, such as those of Panama and Ecuador, now appears more significant. Both of these countries possess bilateral investment treaties with China, perhaps suggesting that the treaties could play a significant role for smaller, less developed countries that presumably have less access to the international investment market. Nevertheless, there are still results that merit interest and further examination. For example, the top recipients
of foreign direct investment have vastly different levels of natural resource wealth. Resource-wealthy countries like Ecuador and Venezuela sit atop the list alongside relatively resource-poor Panama. The impact of bilateral investment treaties on FDI levels also remains unclear. Three out of the five top recipients lack a bilateral investment treaty, including the top recipient, Panama, calling their importance into question. Fortunately, a more sophisticated quantitative analysis, such as the Cox Proportional Hazards model, can offer answers to some of these remaining questions.

The Cox Proportional Hazards model is used in this paper to examine the motivations for creating a bilateral investment treaty in greater depth. As explained in the methodology, the model analyzes the various independent variables’ effect on the likelihood of a Latin American country signing a bilateral investment treaty with China. The results of this analysis are presented below in Table 3.

**Table 3: Cox Proportional Hazards Coefficients of Likelihood of Signing BIT with China**

| Variables               | Coefficient Estimate | Standard Error | P>|z|  |
|-------------------------|----------------------|----------------|------|
| Left-Right Ideological Score | -.750                | 1.167          | .520 |
| Natural Resource Wealth | -.058                | .116           | .619 |
| Oil                     | -1.214               | 1.133          | .284 |
| Mineral                 | .708                 | .766           | .355 |
| U.S. BIT                | 1.598                | .812           | .046** |

*p-value<0.1; **p-value<0.05; ***p-value<0.01
An analysis of this model reveals a number of surprising results. First and most importantly, the two primary theoretical motivations for Chinese investment, left-wing ideology and natural resource wealth, are not associated with a greater likelihood of signing a bilateral investment treaty. Neither “Left-Right Ideological Score” nor “Natural Resource Wealth” is statistically significant in affecting the likelihood of signing a bilateral investment treaty. Likewise, the two sub-variables measuring specific natural resources, “Oil” and “Minerals,” exhibit no statistically significant impact on the likelihood of signing a treaty. In fact, the only variable that exhibits a statistically significant effect is whether a Latin American country possessed a bilateral investment treaty with the United States. However, although the “U.S. BIT” variable is statistically significant, it is correlated in the opposite of my hypothesized direction. Countries possessing a bilateral investment treaty with the United States experience an increase in the likelihood of signing a bilateral investment treaty with China. This would seemingly suggest that certain countries simply prefer to sign bilateral investment treaties in general, while other countries are more reticent or prefer different investment strategies.

There are two discernible explanations for this rather surprising result. The first would be that the two principal proposed motivations for Chinese investment in Latin America do not significantly impact investment. This explanation seems extremely unlikely. As demonstrated in this paper’s literature review, there is an abundance of scholarly research that indicates these two factors do have a significant impact on determining the amount and location of Chinese investment in Latin America. Empirical studies have demonstrated high levels of Chinese
investment in natural resource-rich Latin American countries. David Dollar’s research has shown that China is indifferent to quality of governance when investing in Latin America, strongly suggesting that potential political alignments play a role in its investment decisions. In short, it is exceedingly improbable that the model fundamentally rebukes the proposed motivations for Chinese investment in Latin America.

The much more likely second explanation for the model’s results is that bilateral investment treaties are not accurate predictors of increased investment, at least when it comes to the Sino-Latin America economic relationship. This finding, while slightly less shocking, still contradicts the established scholarly literature. Eric Neumayer and Laura Spess’s assertion that “developing countries that sign more BITs with developed countries receive more FDI inflows” may not hold true for the China-Latin America relationship (Neumayer & Spess 27). In fact, the results from the Cox Proportional Hazards analysis are more aligned with the earlier, less sophisticated data analysis in this paper, in which it was observed that several of China’s top FDI recipients have not signed a bilateral investment treaty with China.

If it is true that bilateral investment treaties are not important tools for increasing trade and investment between China and Latin America, then a few fundamental questions remain: Why do bilateral investment treaties exist in the Sino-Latin America economic relationship? Why have some countries signed bilateral investment treaties while others have not? What purposes could these treaties serve?
CHAPTER 6: CASE STUDIES

Method of Qualitative Analysis

The following section will attempt to answer the questions posed at the end of the last chapter through detailed qualitative case studies. The first case study is a comparison between Brazil and Bolivia, two countries with similar characteristics (such as high levels of natural resources and strongly left-leaning governments) that have different outcomes with regards to their economic relationship with China. This case study will explore the two countries’ economic relationship with China in depth in an effort to account for these differences.

The second case study is a comparison of Ecuador and Colombia’s bilateral investment treaties with China. The two treaties were signed within a two-year timeframe in the early 1990s but have led to two distinct economic relationships with China. By examining the two countries’ bilateral investment treaties, this case study will attempt to identify difference in the wording and structure of the treaties that could account for these different outcomes.

Bolivia and Brazil—Similar Countries with Different Results

What makes the Latin American countries Brazil and Bolivia such fascinating subjects of analysis and comparison is that they share similar circumstances and characteristics but maintain very different relationships with China. In terms of variables identified as key motivators for Chinese foreign investment (i.e. natural resource wealth and left-wing governance), Brazil and Bolivia are very similar. For
instance, both Brazil and Bolivia are rich in natural resources, albeit in different sectors. Brazil is the largest producer of oil in Latin America, while Bolivia is one of the region’s top mineral exporters. Furthermore, both countries have traditionally been led by left-wing governments. In Bolivia, Evo Morales’ decade-long tenure as President has maintained a stable socialist regime with the potential for ideological alignment with China. In Brazil, government control has swung between parties, but the presidencies of Luiz Lula da Silva and Dilma Rousseff were both periods of sustained left-wing government.

Because of these similarities, it is rather surprising that Brazil and Bolivia’s economic relationships with China are quite distinct. Brazil is China’s number one trade partner and recipient of FDI, cultivating perhaps the strongest relationship with China of any country in Latin America. Despite this, Brazil has yet to sign a bilateral investment treaty with China. Bolivia, on the other hand, was one of the first countries to sign a bilateral investment treaty with China when it did so in 1992, well before the advent of the Morales regime. Unfortunately, this treaty has not led to much investment from China. Bolivia is one of the lowest recipients of Chinese foreign direct investment, receiving just $13 million from 2001-2012 (United Nations Conference on Trade and Development).

Of course, some of these differences in investment can be attributed to the size of the two countries’ economies. Brazil’s GDP per capita is more than double Bolivia’s, and Brazil’s nominal GDP is 9th in the world whereas Bolivia’s is 97th (World Bank). Additionally, it is important to consider that foreign direct investment can fluctuate considerably year-to-year depending on when various
projects start and end. Nevertheless, one would not expect two countries with such similar significant characteristics to have such a massive gap in investment. For context, consider the previously mentioned $13 billion-dollar foreign direct investment by China in Bolivia from 2001-2012. Over that same time period, China invested more than 1.4 trillion dollars in Brazil, or more than 100 times as much (United Nations Conference on Trade and Development). A difference that large indicates a far greater commitment to the Brazil-China economic relationship than its Bolivia-China counterpart. This case study will seek to evaluate whether this difference is due to the presence of a bilateral investment treaty, nuances in relevant factors for Chinese investment, or something else.

In many respects, Bolivia’s relationship with China is still in its incipient phase. The two countries celebrated the 25th anniversary of their diplomatic relations in 2009, but for much of that time period the relationship was merely superficial. Investment in Bolivia until around 2010 was essentially nonexistent, and research has demonstrated that Bolivian individuals still do not demonstrate much interest in China.

With that said, both economic and political relations between the two countries have accelerated in recent years. Since 2014, China has made two massive investment deals in Bolivia, one a $3.5 billion-dollar investment in the country’s oil industry and the other a $450 million-dollar mining venture (Avendano et al. 7). However perhaps the most cogent expression of the growing confidence of the Sino-Bolivia relationship actually comes from the space industry. In 2013, China launched a $300 million-dollar Bolivian satellite. The satellite was co-financed by China’s
development bank and Bolivia’s government and is the first communications satellite in Bolivia’s history (Tiezzi).

The impetus for the increasingly close relationship between China and Bolivia may well have been President Evo Morales. His far-left government (embodied by his political party “Movement Towards Socialism” or “MAS”) represents a fitting ideological partner for China’s communist party. Tellingly, Morales recently said this about China: “We don’t feel alone. China’s presence is felt in the cooperation and investments that the Asian country carries out (in Bolivia)” (“Morales Hails China’s Cooperation”). This language used by Morales suggests a growing camaraderie between the two countries.

In Brazil, relations with China are both deep and wide-ranging. Their diplomatic ties date back to 1974 when both countries established embassies in each other’s capitals. As a result of this relatively early linkage, the countries have entered into a number of agreements on varying subjects including trade and investment, science and technology, and education (Peters 14). The bond strengthened further under former presidents Luiz Lula da Silva and Dilma Rousseff, both of whom made visits to China during their terms in office. The burgeoning relationship was so successful that a study performed by the Friedrich Ebert Foundation labeled China as “Brazil’s most promising business partner and strategic ally” (Barbosa & Mendes 2).

The depth of the relationship has led to a mutual trust and economic interdependence. Today Brazil is the supplier of more than 40% of China’s agricultural goods, making Brazil vital for China’s food security (Horta ii).
Meanwhile, according to an analysis from the Atlantic Council, “The world’s largest power company, the state-owned China State Grid Corp., has bet the house on the Brazilian electricity market. The firm has invested more than $7 billion in Brazil since 2012” (Avendano et al. 11). Naturally, the significant economic engagement between the two countries begs the question: why do they still lack a bilateral investment treaty?

Perhaps the simplest explanation for the lack of a bilateral investment treaty between China and Brazil is that it is simply unnecessary. The two countries are already engaging in unprecedented levels of trade and investment, and the time and transaction costs of formulating a treaty may not generate a significant enough payoff to be worth it. However, research suggests that there are other factors, from both the Chinese and Brazilian perspectives, which contribute to the lack of a bilateral investment treaty between the two countries.

For example, Dr. Kevin Gallagher, an economist and expert on Chinese trade policy in Latin America, has noted, “Brazil... is very concerned about some of the measures that are found in U.S. style bilateral investment treaties.” Historically, Brazil has been averse to signing bilateral investment treaties due to a strong belief among politicians that “bilateral investment treaties (are) neither necessary nor sufficient for attracting FDI” (Campello & Lemos 23).

In contrast to Brazil, Bolivia signed and ratified a bilateral investment treaty with China in the early 1990s, well before the development of their international partnership. While the simple act of signing may have been a formality (Bolivia signed a bevy of bilateral investment treaties in the early 1990s), it has become
clear that Bolivia perceives a few advantages in China’s bilateral investment treaties relative to those of the U.S. or to loans from the I.M.F. Most importantly, Bolivia believes the aid and investment from China comes without conditions attached. As Morales has stated: “If we accommodate I.M.F loans, we would have to submit to privatization policies and lose our national heritage” (“Morales Hails China’s Cooperation”). Here, Morales acknowledges the dominant role that the United States has traditionally played in Latin American politics and economies.

It is vital not to ignore the role of the United States in the both the Sino-Brazil and Sino-Bolivia relationship. Traditionally, the United States has worked to ensure a leading economic and political role in much of Latin America. The instruments for imposing this influence have often been various intergovernmental institutions such as the World Trade Organization and International Monetary Fund, organizations in which the United States holds an outsized influence through increased voting power.

So-called “tied-aid” forced Latin American countries to privatize and open their economies to align with the United States’ capitalist ideology and also ensured that U.S. exports were subsidized and given certain market advantages (Galeano). If Latin American countries did not comply, they did not receive the aid. Thus, the United States gained a hegemonic influence over not only Brazil and Bolivia but also the entirety of Latin America.

Today, the United States no longer maintains the level of control over Latin America’s economy that it once did, but its influence is still unmatched in the region.
In an interesting twist, China’s bilateral investment treaties in Latin America serve as a sort of symbolic rebuff of traditional U.S. hegemony. As we will see in the following analysis, China’s bilateral investment treaties employ certain unique features that hold political and economic importance.

**Ecuador and Colombia- A Tale of Two BITs**

In 2014, political analyst and China expert Amos Irwin made an interesting discovery about China’s bilateral investment treaties in Latin America. He noted that China had made a subtle but significant change to the response mechanisms of its bilateral investment treaties beginning in 1998. Until 1998, China’s bilateral investment treaties had prohibited foreign investors from suing their host governments in international arbitration tribunals. However, according to Irwin, since 1998, “China’s treaty negotiators have abandoned this restriction” (Irwin 1). This change is important because the ability to resolve disputes is key for ensuring treaty compliance. International law professor Andre Guzman emphasizes the utility of dispute resolution, saying it “[increases] the incentive toward compliance because it ... may provide for some formal sanction” (Guzman 585). China’s discontinuance of this restriction may decrease treaty compliance.

Irwin proposes several different arguments for this shift in policy from China. The standard theory is that China is abandoning this restriction as part of a general economic liberalization policy and an increasing willingness to engage in dispute resolution. However, Irwin theorizes that China is in fact still quite reticent to grant access to international tribunals. Instead he argues that allowing access in Latin American countries where there are fewer trade disputes and less money at risk
permits China to “test the risks” of granting these tribunals before signing treaties with European countries and the United States (Irwin 1).

In light of these developments, this case study will examine the bilateral investment treaties of two Latin American countries: Ecuador and Colombia. Ecuador signed its bilateral investment treaty with China in 1994, while Colombia did not sign one until 2008. This time difference allows for examination of the impact of the international tribunal restriction, as Ecuador’s pre-1998 treaty contains the restriction while Colombia’s post-1998 restriction does not. In addition, the examination will probe for other distinctions between the two bilateral investment treaties that could offer clues as to China’s motivations for investment in Latin America.

Before examining the differences in the two Latin American countries’ treaties, it is useful to establish an idea of what constitutes a successful bilateral investment treaty. The goal of bilateral investment treaties is to promote investment, and they accomplish this by establishing an agreed-upon set of terms between the two state actors. Incorporating certain measures strengthens bilateral investment treaties. These measures include clear goals and requirements, dispute resolution, and response mechanisms. In short, “good” bilateral investment treaties promote investment by establishing a clear set of rules as well as punishments for those who break the rules.

The first significant distinction between Ecuador and Colombia’s bilateral investment treaties is in their respective obligations. The objectives of the two treaties are nearly identical. Both treaties aim to promote foreign direct investment
by China in the two countries. However, Colombia’s treaty includes a number of provisions that (theoretically at least) should enhance the likelihood of investment.

The most striking example of this is that Colombia’s treaty includes a national treatment clause while Ecuador’s does not. National treatment is a principle that prohibits the discrimination of foreign goods by a host country. In essence, countries that agree to national treatment must treat foreign goods exactly like domestic goods. According to the Organization for Economic Cooperation and Development, “Clauses on national treatment are part of the standard repertoire of bilateral investment treaties” (“Making the Most of International Investment Agreements”). Thus, the lack of a national treatment clause in the China-Ecuador bilateral investment treaty is conspicuous.

However, the lack of a national treatment clause is far from the only difference in the two countries’ bilateral investment treaties. For instance, the Colombian treaty makes mention of health and environment standards with regards to expropriation, which is noticeably absent in the Ecuador treaty. In short, numerous important treaty elements incorporated into the China-Colombia treaty are nonexistent in the China-Ecuador treaty.

There are a few different possibilities that could explain the absence of these various features. One possibility could simply be the time the treaties were signed. In 1994, when the Ecuador bilateral investment treaty was put in place, national treatment may not have been a universal standard (although other Chinese bilateral investment treaties of the same era contain national treatment clauses). Another reason could be that Colombia’s representatives were more demanding in their
treaty negotiations. Colombia has traditionally displayed a reticence towards bilateral investment treaties, signing just two prior to the 2000s. In contrast, Ecuador had signed more than twenty treaties prior to 2000. It is possible that Colombia required stricter regulations from China while devising the treaty.

While the differences in standards of treatment in the Colombian and Ecuadorian treaties are noteworthy, the most significant difference is in the two treaties’ response mechanisms. The China-Colombia bilateral investment treaty allows for disputes to be settled in the International Center for Settlement of Investment Disputes, an institution associated with the World Bank. The China-Ecuador treaty only allows for disputes to be heard in the domestic courts of the host state. On paper, this is a vital difference. The dispute resolution mechanisms of investment treaties are what give them teeth by prohibiting cheating. Guaranteeing the option to sue in front of an impartial international arbiter would appear to give the Colombia-Ecuador treaty significantly more legitimacy and efficacy.

However, upon closer examination this distinction may not be as vital as it appears. Colombia has only lodged one complaint in an international investment dispute, against Chile. Of course, this could merely indicate that China and other countries are simply abiding by the terms of treaty. Yet the lack of engagement in international tribunals means that China assumes very little risk by including the clause. This finding would appear to lend weight to Irwin’s contention that China’s decision to allow for lawsuits in international tribunals in the Latin American treaties may be motivated by a desire to “test the waters” before agreeing to the same clause with European nations. Nevertheless, there could be unforeseen
consequences of China's policy reversal. In 2017, Ecuador publicized its desire to abandon 27 of its bilateral investment treaties, including the one with China, in an effort to negotiate more favorable agreements (Valencia). It is possible that Ecuador has noticed the dispute and treatment clauses in Colombia’s and other Latin American countries’ bilateral investment treaties with China and now wants a better deal.

Throughout this analysis, it appears that Colombia possesses a superior bilateral investment treaty with China in comparison to the Ecuadorian treaty. Yet, once again, the levels of foreign direct investment by China in the two countries challenge the notion that more and better bilateral investment treaties lead to greater investment. Ecuador, the holder of the “lesser” treaty, received more than $418 million in foreign direct investment from China from 2001-2012, more than seven times that of Colombia. Colombia’s superior standards of treatment and enhanced ability to sue in international tribunals have not resulted in high levels of Chinese investment. In short, it appears as though, at least in Latin America, the relationship between robust bilateral investment treaties and increased investment may not be as strong as has been previously theorized.
CHAPTER 7: CONCLUSION

In conclusion, the central hypotheses put forth at the beginning of this study regarding the motivations for China’s and Latin America’s signing of bilateral investment treaties were proven incorrect by both quantitative and qualitative analyses. The Cox Proportional Hazards model demonstrated that China was not more likely to sign a bilateral investment treaty with a left wing or resource-rich Latin American nation. The comparison of Brazil and Bolivia revealed that China’s signing of bilateral investment treaties may be a symbolic gesture of diplomacy rather than a concrete desire for investment, as Brazil was able to receive large sums of Chinese investment without a treaty while Bolivia’s investment levels did not spike until a decade after the treaty was signed. Finally, the comparison of Ecuador’s and Colombia’s bilateral investment treaties provided insights into China’s motivations for signing the bilateral investment treaties and suggested that the treaties may not be as important as previously theorized.

It is important to note that the scholarly hypotheses regarding China’s motivation for investment in Latin America are not contradicted by these findings. Due to the unavailability of reliable foreign direct investment data, both the quantitative and qualitative analyses focused on bilateral investment treaties, rather than investment itself. Due to the large amount of credible literature on this subject, it is quite likely that China is motivated to invest by factors such as resource extraction and political influence.
While the findings in this paper do not directly contradict the general causal theory regarding the factors that motivate Chinese investment in Latin America, they do offer a twist to the conventional narrative regarding bilateral investment treaties. Large deposits of rare earth minerals and radical left-wing governments may lead to greater Chinese investment, but they do not appear to lead to Chinese investment treaties. This finding is interesting because it questions the efficacy of bilateral investment treaties as a method of increasing investment. In other words, if signing a bilateral investment treaty does not lead to higher levels of investment, then what is the point of doing so?

Of course, this is a question with global applicability. Future researchers may examine the efficacy of bilateral investment treaties between China and the rest of the world (particularly in Africa, where Chinese investment has spurred similar hypotheses regarding natural resource extraction). It would also be worthwhile to analyze whether bilateral investment treaties are more effective in certain regions of the world. It is plausible that bilateral investment treaties are useful tools for Western nations but have limited usefulness for Asian, African and Latin American countries. In short, the research conducted in this paper offers a starting point for greater examination of bilateral investment treaties and their role in shaping the future global economy.
BIBLIOGRAPHY

“A Golden Opportunity.” The Economist, 17 Nov. 2016,


http://www.fgv.br/professor/daniela.campello/files/CampelloLemos-RIPE.pdf


“Morales Hails China’s Cooperation, Investment in Bolivia.” Xinhua. 22 Oct. 2016,


http://www.atlanticcouncil.org/images/publications/AC_CHINA_0916_web_SPANISH.pdf


World Bank. “Total Natural Resources Rents (% of GDP).” Total Natural Resources Rents (% of GDP) | Data, 2016, data.worldbank.org/indicator/NY.GDP.TOTL.RT.ZS.
APPENDIX

Table 4: Schoenfeld Residuals Tests

<table>
<thead>
<tr>
<th>Variables</th>
<th>Rho</th>
<th>Chi²</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left-Right Ideological Score</td>
<td>-.311</td>
<td>0.74</td>
<td>.390</td>
</tr>
<tr>
<td>Natural Resource Wealth</td>
<td>.573</td>
<td>1.53</td>
<td>.216</td>
</tr>
<tr>
<td>Oil</td>
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<td>.124</td>
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<tr>
<td>Mineral</td>
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<td>0.01</td>
<td>.925</td>
</tr>
<tr>
<td>U.S. BIT</td>
<td>.073</td>
<td>0.05</td>
<td>.832</td>
</tr>
</tbody>
</table>

*p-value<0.1; **p-value<0.05; ***p-value<0.01

*A p-value below .10 indicates a violation in the proportionality assumption. Since none of the p-values in this test fell below .10, the proportionality assumption is upheld.

Graph 1: Kaplan-Meier Survival Estimate

*This descriptive graph displays the various points at which a bilateral investment treaty was signed between China and a Latin American country. It indicates that 75% of the Latin American countries included in the analysis signed an investment treaty, with the majority signing in the first 20 years since China’s economic opening.