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Economic Relations and Public Image of China in Latin America: A Cross-Country Time-Series Analysis

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Abstract

This article investigates the impact of Chinese economic activities in Latin America on the national image of China in the region. Using economic and public opinion data from 17 Latin American countries from 2001 to 2016, this work relates variations in cross-national time series

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of China's image in Latin America to changes in the economic ties (trade, FDI, and contracts) between perceiving countries and China. Controlling for the size of the economy and level of development, the statistical analysis indicates that in Latin America, trade surplus against China has a positive effect on the public opinion of China in the region, while Chinese FDI outflows to Latin America lead to a negative effect on the favorable opinion of China. The effects of Chinese contractual projects, imports, and exports tend not to be statistically significant. We also find less developed Latin American countries with low life expectancy and low educational attainment tend to have more a positive view of China than their richer counterparts in the region. Finally, we find Latin American countries under a president of left ideology have a much more positive opinion of China than countries under presidents of other ideological positions. By comparison, diplomatic relations with China and China's soft power influence as indexed by the presence of Confucius Institutes do not exhibit a strong impact on China's national image in Latin America, compared with the dominant political ideology in a Latin American country as reflected in the president's ideology.

1. Introduction

China's economic presence in Latin American has been increasing in recent years. In this context, it is important to evaluate the perceptions of China as a result of China's economic relations in Latin America for several reasons. First, China's economic engagement in Latin America is based on a win-win strategy. If both parties are happy with the economic outcome, then the basis of collaboration will be solid and strong. Second, given the nature of electoral politics in Latin America, public sentiment towards China is telling of the local business

environment and informs China's involvement in the region. Finally, the ideal of sustainable development requires that the economy develop with the long-term well-being of a nation in mind, and more so in the presence of the short-term economic benefits or business profits. Do China's economic relations with Latin America contribute to its sustainable development? Do Chinese companies follow the principle of corporate responsibility and orient their operations towards social inclusion in Latin America? These issues are important for China's presence in Latin America, particularly on a long-term basis.

The types of images of China constructed by Latin Americans are valuable for gaining insights into how these local actors construe interactions with China, a distant yet less and less foreign power with each passing day. Public opinion matters because it is an important benchmark of the effectiveness of China's development strategy as well as its ability to attract and persuade everyday citizens. Due to a lack of historical links and social contact, the language barrier, and cultural differences between the PRC and Latin America, the sources of China's soft power in the region have primarily been economic in nature. There is a clear sense among Latin Americans that China is an influential player in the region, and its influence will continue to grow over the next decade, not only in economic area but also in political realm (Armony & Velásquez, 2016). Regional heterogeneity on this view is minimal, illustrated in Figure 1 using poll data from the 2012 Americas Barometer by the Latin American Public Opinion Project (LAPOP). The poll shows that a quarter of respondents believed that the PRC was already the most influential country in Latin America, and almost a third of them believed that it would be the most influential in 2022 (Americas Barometer, 2012). Although China still ranked below the

U.S. in both categories, Latin Americans seem to expect a substantial shift in the relative influence of these two superpowers in the future.

[Figure 1 about Here]

In contrast, despite the optimism about China's growing influence, most Latin American countries do not consider its development model preferable, illustrated by Figure 2 using the poll data from the same 2012 Americas Barometer. There is greater heterogeneity among Latin American countries over their rate of preference, and China never obtained a majority in any country, averaging at 19.6 percent. Instead, the most preferred development models were those of the U.S. and Japan, the world's economic leaders with liberal democracies and unmistakably capitalist markets (Americas Barometer, 2012).

[Figure 2 about Here]

The gap between China's perceived influence in the region and the lack of popularity of its development model introduces questions about the exact nature and the level of attractiveness of China's economic leverage in the region. As constructivist theorist Alexander Wendt posits: "Interaction produce and reproduce structures of shared knowledge over time" (Wendt, 1995). In the context of relationship between China and Latin America, two least familiar partners, every transaction becomes a window for one side to gain insights into its foreign counterpart and to construct perception of identity and interest of each other. The trend of economic ties is leading to a more direct, day-to-day interaction, between average Chinese and Latin Americans. While

economic factors do not paint the full picture for all the determinants of China's image in Latin America, it is reasonable to assume the instrumental role they have in shaping people's opinion about the Asian economic superpower. In the particular context of Sino-Latin American relations, due to the geographical separation, language barrier, the scarcity of cultural exports, and the lack of social contact (ethnic Chinese people account for less than 1% of Latin America's population), there has been a relative absence of knowledge about the other side. In fact, economic interests have been the driving force behind the development of Sino-Latin American relations. Between 2000 and 2013, the region's trade with China rose 27 percent a year, and by 2016, China stands as Latin America's second largest trading partner, after the U.S. (Shambaugh, 2011).

Latin America is also currently the fastest growing destination for Chinese FDI (2016), which rose sharply in the last few years, from \$3.8 billion in 2012 to \$12.9 billion in 2013 and \$22.1 billion in 2014 (Ministry of Commerce of China, 2016). Given the momentous changes that take place so fast, the time series data can be useful in discerning certain patterns and capturing the dynamics of the development.

There is no doubt that foreign investment and international trade are still crucial instruments for Latin American countries to develop their economies. The key, however, as Dussel (2015) points out, is whether these economic activities will succeed in facilitating inclusive socioeconomic growth, beyond simply serving as conduits for commodity flows. As the commodity boom subsides, the negative aspects of economic ties with China would have become more salient, harbingering a nationalistic surge with anti-Chinese sentiment. Among the main concerns is the prospect of re-primarization of the Latin American economies, which could lead to a critical erosion of the domestic industrial base. Under this scenario, Beijing's pursuit of

"win-win" policies could be turned against itself by doubts expressed by regional leaders for the lack of reciprocal benefits, possibly dubbed as "China wins twice" instead (Dussel, 2015).

Our study focuses on a systematic analysis of the effects of economic relations between China and Latin America on China's public image in the region. The next section presents a literature review on the nexus between national image and transnational economic activities, followed by a section on our theoretical framework in the essay, leading to our statistical model and data analysis. The last section concludes by providing implications of the statistical results in the essay for future economic and political relations between China and Latin America.

2. Literature Review

Before we lay out our research design, we present below some previous research on the links between national image and economic activities. Undeniably, national image is a complex measure reflecting a wide range of factors of bilateral perceptions, including those previously identified such as information flows (e.g. contemporary events, news coverage, and migration) and deep culture origins (history of conflicts, religious and genetic similarities) (Guiso et al., 2009).

Chang and Fujii (2012) conduct an empirical study using data from BBC World Opinion Poll and the U.N. Commodity Trade Statistics Database. Through a gravity framework under the assumption of homogenous trade impacts across sectors, they find that a better country image improves bilateral trade flows at both the aggregate and disaggregate sector levels. Similarly, using the EU as a research case, Guiso, Sapienza and Zingales (2009) find that differences in the bilateral trust level among countries have significant effects on bilateral trade and foreign

investment. Their results suggest that perceptions rooted in culture are important factors of economic exchange. Disdier and Mayer (2007) adopt the EU countries as an example to explore the effect of bilateral affinity on trade flows. Using the percentage of the population in each EU-15 member country in favor of each central and eastern European country to join the EU, their study shows a positive correlation between public opinions toward a country and imports from that country.

Specifically, in the case of China, the work by Eichenauer, Fuches, and Brünckner (2018) is one of the few quantitative analyses that focus on the public opinions of China and economic relations between China and Latin America. Based on the micro-level data of individuals in surveys, the study identifies the negative effects of China's exports, FDI, and aid on the public image of China in Latin America. Though those effects are statistically significant only through Ordinary Least Squares (OLS) estimation, they are not statistically significant in the fixed effects model or two-stage least squares (2SLS) estimation. Examining Chinese economic activities in the Arab countries, Zhang and Liu (2012), in a qualitative study, identify the main factors shaping China's national image as poor product quality (e.g. bad materials used in furniture and counterfeits of well-known brands for electronics), illegal operations of enterprises (e.g. tax evasion and bribery), and difficulties of certain Chinese employees integrating into local life.

Scholars have also researched on other determinants that influence the shaping of China's national image. For instance, Xie and Page (2013) use the 2007 Pew Global Attitudes Survey to investigate macro-level sources of variations across countries regrading public opinion of China. Their results suggest that the only macro-level factor that affects China's image in foreign countries is their level of economic and social development, as measured by the UN Human

Development Index. Publics in poorer countries such as Nigeria and Pakistan are much more likely to have a favorable view of China than publics in developed countries, likely as a result of the exemplary effect the Chinese development model has on developing countries (Xie & Page, 2013).

Rauch and Trindade (2002) find that the presence of ethnic Chinese networks, proxied by the product of ethnic Chinese population share, has a positive effect on bilateral trade flows, especially for differentiated goods. Rauch (2001) argues in his survey that social networks promote international trade mainly via two mechanisms: the enforcement of contracts informally using community sanctions and the contribution of market information, matching, and referral services.

Zhi, Bao, and Luo (2017) focus their study on trade prices, a country's economic development levels, and the distance between China and its trading partners. Their results indicate that the country image and export prices are positively related and that the lower the level of economic development of an export or import country, the stronger the export price effect of the country image. The results also show that as distances between China and its trading partners increase, the elevating effect of a positive country image on export prices becomes weaker.

On a country level, scholars have conducted studies comparing the voting patterns at the U.N. General Assembly between China and Latin American nations. After examining the 1991-2003 UN voting records of several major Latin American countries (Argentina, Brazil, Chile, Mexico, and Venezuela), a 2006 study by the Inter-American Dialogue concluded that the increased Chinese trade with the region in the years examined had no discernable effect on the voting

behavior of these nations (Dominguez *et al.*, 2006). When it comes to country-specific human rights resolutions, however, an area of discord between China and the West, Flores-Macías and Kreps (2013) find a positive correlation between China's increased trade volume and votes by Latin American and African states in a cross-national study of U.N. votes between 1992 and 2006. However, Piccone's analysis of Latin American countries' more recent voting patterns on country-specific human rights resolutions at UNGA (2005 - 2015) shows an increasing alignment with the U.S. rather than with China (Piccone, 2016).

Trends also vary within the region: ideologically aligned states in the ALBA bloc with close economic ties to the PRC, such as Ecuador and Venezuela, consistently voted in the past with Beijing, while countries geographically closer and more integrated with the U.S. tended to align with Washington; some countries, such as Brazil, seemed to swing in between, or generally abstain to avoid taking sides; Argentina and Chile, on the other hand, continued to be strong voices for U.N. action on human rights, despite Beijing's robust economic presence in the countries (Piccone, 2016). The findings of this varied sample indicate the inclination of Latin American countries to calibrate their ties with the two superpowers by leaning toward alignment on certain issues, but not others. Therefore, China's growing economic ties with Latin America may have implications, with a varying degree, to political influence on the region as well.

Furthermore, in the public opinion realm, studies have shown a surge in news coverage on China in recent years following the rapid increase in Latin America's trade with China, though this trend did not necessarily happen in Brazil (e.g., Armony & Velásquez, 2016). Armony and Velásquez (2015) perform an analysis of online discourse through examining comments posted by individual readers on the news content related to China found in leading Spanish-language

newspapers among five major Latin American countries (Argentina, Chile, Colombia, Mexico, and Peru) on their official Facebook profiles. Even with all the important caveats associated with any analysis of social media and netizens, the authors conclude that for the general public in Latin American countries, negative views of China were widespread, driven by language barrier and cultural differences, the poor quality of "Made-in-China" goods, unfair business practices, environmentally unsustainable development policies, and fears of Chinese economic and demographic domination in international relations (Armony & Velásquez, 2015).

3. Analytic Framework

In the context of many opposing views regarding the potential relationships between Chinese economic engagement with Latin American countries and China's national image in the region, this work conducts an empirical analysis by examining the public opinion data and economic statistics. The main difference of our work from most of the previously studies is the use of the cross-country time-series data employing a longer time frame with the unit of analysis as per country per year. In this dynamic study of the annul data, we try to locate the impact of a country's economic relations with China on China's national image on the ground.

To examine China's national image through an empirical lens, this paper opts to use the tool of opinion polls, rather than media studies which typically contain small samples, leading to difficulty in generalizing findings. By contrast, surveys by Latinobarómetro include as many as 17 countries over a time span of 16 years, thus greatly increasing the generalizability of findings. In addition, a perennial problem in public opinion analysis is the framing effect, in which the different wordings of content could prompt different subjective judgments of the reader, thus

causing a cognitive bias. In the particular case of perceptions of China, elite-produced media content may (or may not) work its way into people's thinking depending on a news outlet's ideological leaning, political agenda, and economic interests. While opinion polls are not free of methodological concerns, in a large-N panel survey (cross-national and time-varying) where the same standard question — like the Latinobarómetro favorability question — is asked of respondents in different countries over many years, measurement error or sample selection bias should be considerably reduced.

With the public opinion of China as the dependent variable and similar to Eichenauer, Fuches, and Brünckner (2018), we particularly examine the effects of economic relations with Latin America on China's image in the region on a country base. However, instead of using imports from China only, we also test the impact of exports to China on public opinion, and more importantly, we compose a new variable trade surplus, which as we discuss below, should be a main economic driver of public opinions of China.

Decomposing trade into imports and exports, we maintain that they should have different kinds of impact on China's public image in Latin America. Despite the absence of a theory directly linking imports from a country and that country's image, there are several plausible effects to examine. On one hand, since trade is an important indicator of a country's level of economic openness, a country with a large trade volume demonstrates its positive attitude towards economic cooperation with foreign countries. Currently, trade between Latin America and China is primarily based on a commodity-for-manufactures relationship. Given China's growing demand for Latin America's abundant natural resources and the relatively weak industrial base of the region, some observers, most prominently the Chinese government itself,

praise the fundamental complementarities of the Sino-Latin American economic ties (Ferchen, 2011). In its public diplomacy, Beijing uses the language of "win-win" and "South-South solidarity" to underscore the mutual benefits to China and Latin America for their emerging economic ties. This view is echoed by economists Santiso (2007) and Li (2007), who contend that increased trade with China can act as an engine of growth for Latin American countries and serve as an impetus for economic reform in the region to strengthen the manufacturing industry's ability to compete with Chinese imports (Economic Commission for Latin America and the Caribbean, 2005; Santiso, 2007; Li, 2007).

[Figure 3 about Here]

[Figure 4 about Here]

On the other hand, the 2008 US Congressional study highlights that China's import presence in the developing world makes it difficult for industries to gain a competitive advantage, leading to manufacturing job losses, accompanied by domestic political pressure to intervene (Congressional Research Service Library of Congress, 2008). In Argentina, for example, sectors of Argentine industry have repeatedly, and often successfully, lobbied for anti-dumping measures against the PRC in response to the continued presence of low-cost manufactured goods from China (Stokes, 2013). The fear of competition is particularly salient in Mexico and Central American countries, which see China as a competitor in terms of supplying assembled goods to the U.S. market (Congressional Research Service Library of Congress, 2008). In 2012, in its fourth complaint against China at the WTO, the Mexican government accused China of giving

tax breaks and other favorable deals to its clothing and textile businesses, thus making them cheaper for consumers in the U.S. and creating unfair competition (Miles, 2012). In view of the fierce trade competition, the specter of a flood of Chinese manufactured exports to Latin America has caused concerns about the future viability for the manufacturing sector in the region (Congressional Research Service Library of Congress, 2008).

While the availability of the inexpensive Chinese consumer goods has played a major role in the democratization of consumption across the region, alternatively, there is a generalized negative perception regarding Chinese products even when average Latin Americans buy them in large quantities. Zhang and Liu (2012) find that the prevalence of some fake, low-quality products exported overseas have negatively impacted the image of "Made in China" and caused psychological resistance to Chinese products in foreign markets (Zhang & Liu, 2012). As a result, individuals may frame their overall perception of China on the basis of their critical attitudes toward "Made in China" products. In our statistical analysis, we expect the general impact of imports from China on favorable views of China in Latin America to be mixed, reflecting the benefits and banes of China's imports to Latin America as summarized above.

The second theoretical variable is the value of the individual Latin American country's total exports of goods (excluding services) to China. As another indicator of a country's level of economic openness, large exports may convey a country's positive attitude towards economic cooperation with foreign countries. Latin America is a vast region blessed with rich natural resources. On a global scale, Peru ranks top and third in silver and copper reserves, respectively (United States Geological Survey 2017c, 2017a); Venezuela has the world's largest proved oil reserves (United States Energy Information Administration, 2016); Chile holds one third of the

world's bronze reserves (United States Geological Survey 2017a); Brazil ranks third in reserves of both iron ore and nickel minerals (United States Geological Survey 2017b, 2015). As a fast-developing country, the PRC has an enormous demand for raw materials to fuel its domestic markets. For instance, it imports two fifths of the soybeans, a third of the iron ore and a fifth of the copper sold on world markets, with much of it coming from Latin American countries like Argentina, Brazil and Chile (Barcena, Prado, Rosales, & Perez, 2015; Jenkins, 2012). Answering Beijing's call for raw materials, Latin America's total exports experienced a 17 percent yearly growth from 2004 to 2008, fell off in 2009 during the global economic crisis, and then regained a 25 percent growth in 2010 and 2011 (Barcena, et al., 2015; Jenkins, 2012). Indeed, it was the trade with China that helped save the economy of many Latin American countries from the global recession in 2009. Remarkably, Latin America's exports to the United States and the European Union declined by 26 and 28 percent respectively that year, while exports to China increased by 5 percent (Saiz, 2013).

[Figure 5 about Here]

[Figure 6 about Here]

Despite the increase in the size of total trade, the relationship has turned increasingly imbalanced as China increased its extraction of raw materials in Latin America. For instance, low-value added and low-technology goods dominate exports to China while medium- and high-technology exports barely account for 5 percent of total trade flows in the last decade (versus 30 to 40 percent of total Latin American exports) (Dussel, 2015). Latin America's top-three export categories to China – copper, oil seed, and ores — increased from 50 to 72 percent of total

exports from 2000 to 2014. Meanwhile, its exports to the world in these three categories fell from 42 to 32 percent over the same period (Dussel, 2015).

The progressive concentration in primary products is a challenge to the exporting country. Not only do extractive commodities support fewer jobs than manufactured exports (Latin America's exports to China support about 20% fewer jobs per \$1 million than its overall exports), but also their dominance in regional economy jeopardizes countries' ability to develop the necessary technological innovations for long-term growth (Dussel, 2015). Additionally, the extractive activities are increasingly associated with significant environmental and social conflict. According to the Working Group on Development and Environment in the Americas, Latin American exports to China are twice as carbon intensive and three times as water intensive compared to average economic activity in the region (Ray, Gallagher, Lopez, & Sanborn, 2015). Latin American countries are at risk of de-industrialization, re-primarization, and environmental degradation, if they were to continue their reliance on the export-led model that concentrates in primary products for economic growth.

However, it is not immediately clear how much influence these macro-level attributes of China's exports to the region will have on public opinion. Compared to the imported goods with an unambiguous "Made-in-China" label, production in mining and agricultural sectors may lack visibility in public spaces. For instance, many of the mining companies are located in relatively remote or rural areas, and their operations are scarcely covered in news media and therefore are largely unknown to the public (Armony & Velásquez, 2015). Given the mixed effects and the general lack of knowledge of China's extractive activities in the region, we expect the impact of exports to China on favorable views of China in Latin America to be ambiguous.

To extend the argument on exports to China, we maintain that trade surplus with China should promote a country's positive perception of China. While most economists do not necessarily see trade deficit as money "lost" to other countries, we do find political leaders often making trade deficit a pressing national issue that hinders economic growth. This tendency is epitomized by U.S. President Donald Trump's emphasis on America's widening trade deficit and his decision to slap stiff tariffs on over \$200 billion-worth imports from China. Given the typical aversion to trade deficit for its association with loss of domestic jobs, it is reasonable to expect trade surplus to have a positive effect on favorable views of China in Latin America (Bernstein & Baker, 2016). Therefore, we expect to find a positive effect of trade surplus with China on the public opinion of China in Latin America. Figures 7 and 8 present trade surplus against China and are split into two, based on the size of countries' surplus or deficits for clarity purposes.

[Figure 7 about Here]

[Figure 8 about Here]

The fourth theoretical variable is the value of Chinese FDI inflows received by each Latin American country. China has been a critical source of finance for Latin America – especially for countries such as Argentina, Brazil, Ecuador, and Venezuela, which have had relatively limited access to international capital markets in recent years (Myers & Gallagher, 2018). China's policy banks became the largest annual public creditors to Latin American governments as of 2015. Chinese finance to the region rose sharply in the last few years, from \$3.8 billion in 2012 to \$12.9 billion in 2013 and \$22.1 billion in 2014 (Ray & Gallagher, 2015). Cumulatively, in the

past decade, China's two biggest development banks have pumped in \$125 billion to the region – more than the World Bank and Inter-American Development Bank combined (Goodman, 2016).¹

FDI has traditionally been associated with new construction and upgrades of infrastructure (which consequently creates more employment), bringing in more advanced technology and higher productivity, and incrementing salary levels (Kurtishi-Kastrati, 2013). While in recent years China has considerably expanded both its loans to and investments in Latin America, critics have pointed out that such financial activities have not so much promoted development in the region, as they have contributed to the commercial goals of Chinese companies as well as China's strategic interests in extracting raw materials and securing market access. For instance, some 65% of Chinese investment in the region has been in the mining and petroleum sector, furthering Chinese extraction of the region's commodity resources (Ellis, 2018). And even though Chinese banks still refrain from imposing policy conditions on loan recipients, which is consistent with the "no-strings-attached" principle, finance is often contingent on the use of Chinese construction firms and equipment. Since loans have almost exclusively financed infrastructure projects performed by Chinese companies (often with a heavy component of

¹ Closer scrutiny of China's FDI data for the region, however, shows that the overall level could be significantly overstated. A 2017 study published by the Institute of Latin American Studies at Chinese Academy of Social Sciences reveals that an overwhelming majority of Chinese FDI to Latin America ends up in three British dependencies that are known as tax havens: the Cayman Islands, the British Virgin Islands, and Bermuda (Zhang, Wei, & Zhu, 2017).

workers and management imported from China), these projects have not necessarily contributed to the generation of local employment (Ellis, 2018). In addition, caveats should be given as previous studies have also shown that public opinion on FDI is correlated with skill level and other factors (Pandya, 2010). The public can also form negative attitudes toward FDI out of antiglobalization movements or fear that a foreign country is taking over the domestic economy (Zhang, 2014). Tao and Xie (2013) point out that for reasons of national pride and national security, many ordinary citizens actually oppose the possession of assets by foreign companies in their own country, even when such ownership could generate economic benefits (Xie and Page, 2013). Eichenauer, Fuches, and Brünckner (2018) find a negative effect of China's FDI in a survey of individual data for a shorter period of time than this study. On one hand, Chinese FDI may promote economic growth in the region, increasing the well-being of Latin America, and on the other hand, may generate negative feelings because of the nature of the investment.

Figure 9 shows annual Chinese FDI in the entire region (Avendano, Melguizo, & Miner, 2017).

[Figure 9 about Here]

Our last two theoretical variables are the value of agreed contracted projects and fulfilled contracted projects. FDI and contracts share many common features. A major distinction between the two is that the former not only includes the establishment or purchase of the factory but also the subsequent management and operation, while the latter mainly focuses on the construction process of the project. Chinese contractors form an important link for China's contact and interaction with the international community, and their behavior has direct impact on

the outside world's knowledge and perception of China. Figure 10 shows the trend of Chinese contracts (both agreed and fulfilled contracts) in Latin America from 2005 to 2015. The value of newly-signed contracts and the value of fulfilled contracts grew hand in hand for the most part. A notable spike for newly-signed contracts happened in 2009, likely a result of the financial crisis that debilitated major Western financial institutions. Figures 11 and 12 (separated by newly-signed contracts and fulfilled contracts) list the top 10 fields of Chinese contracts in Latin America in 2015, showing little variation between newly-signed and fulfilled contracts. Electric power engineering, telecommunication, transportation, architecture, and petrochemical engineering constitute some of the most popular fields.

[Figures 10, 11, 12 about Here]

Due to the PRC's government-led developmental model, contracts fulfilled by Chinese companies are distinguishable from those fulfilled by Western companies. China's contractual projects are dominated by the public sector, which controls and owns approximately 50 percent of its GDP, differentiating it from other major economies (Szamosszegi & Kyle, 2011). The omnipresence of the public sector enables China to design short, medium, and long-term development strategies, making it possible for China to offer turnkey projects (a group of products in one package) (Dussel, 2015). As a result, Chinese contractors have the capability to take on large-scale projects, such as the Brazil-Peru interoceanic highway and the Santa Cruz Dam in Argentina. With the ultimate goal of facilitating the production and transportation of Latin America's resources, thereby connecting with China's domestic market, these projects highlight China's state-assisted market-oriented approach in its engagement with the region.

In predicting the impact of negotiated and fulfilled contracts on China's national image, two competing effects are possible. On one hand, a number of large Chinese enterprises have succeeded in carrying out projects in infrastructure, telecommunications, and power plants, which have improved living standards in the host countries. Feng, Jiang and Gao (2018) note that the weak infrastructure has been one of the greatest impediments for economic growth in Latin America and at the same time, China has accumulated much experience in the construction of infrastructure. For instance, 91% of transportation and logistics rely on road in Latin America, but the quality of road is far below international standard, which has substantially reduced logistical efficiency (Wu, 2014). In comparison, China boasts one of the most developed and sophisticated transportation systems in the world, with high-speed rail, underground metros, and Bus Rapid Transit systems spanning across the country. Latin American countries are starting to improve their own transportation systems as well. Notably, Argentina in 2017 signed a \$2.4bn contract with China Railway Construction Corporation for the renovation of 1600km of track on the San Martín Line. Together with the introduction of new rolling stock and locomotives, which are also supplied by Chinese companies, the modernization of railway will increase the capacity of the San Martín Line almost six-fold, from the current 2.3 million tons to more than 13 million tons by 2024 (Barrow, 2017).

On the other hand, Chinese international contracts tend to be resources-driven (Feng, Jiang and Zu, 2015) and concerns about environmental degradation often generate opposition. In addition, in many Latin American countries, legal systems are often modeled after those of the West, which impose more stringent requirements and standards on economic activities, especially with respect to labor and environment. As relatively new players in the region, some

Chinese companies apply their operational experience in domestic construction projects to places with completely different legal and societal frameworks. In order to save costs, some engineering enterprises reportedly resort to bribing the supervisors to lower the construction standards and breach contract specifications. (Zhang & Liu, 2012). Consequently, these enterprises end up violating local regulations and avoiding due social responsibility, which ultimately leads to poor implementation of the project or protests from local civil societies, causing the host countries' dissatisfaction. Because of these mixed and opposing effects, we aim at finding out whether Chinese contractual projects, as in the case of foreign direct investment, are an overall positive or negative driver in China's image in Latin America.

4. Model Specification, Data, and Statistical Analysis

We construct a baseline equation for the determination of China's public image in Latin America:

$$y_{jt} = a_0 + \beta_i X_{ijt-1} + \gamma GDP_{jt-1} + \delta HDI_{jt-1} + \varepsilon_{jt}$$

where j and t represent country and year respectively. X_i is composed of the six theoretical variables, namely, imports, exports, trade surplus, foreign direct investment, agreed contracts, and fulfilled contracts. The size of the economy Gross Domestic Product (GDP) and Human Development Index (HDI) represent the control variables. Finally, ε is the error term. From this baseline model, we adopt the statistical framework of both random-effects and fixed-effects models in the analysis. In addition, all the independent variables are lagged by one year (t-1) so that the endogeneity problems between the dependent variable and the independent variables in our study are reduced.

The control variable *GDP* keeps the scale of the economy constant when we examine the individual effect of our theoretical variable, as a large economy may export and import more than a small economy. The other control variable *HDI* has been identified by Xie and Page (2013) as the most important determinant for China's national image overseas. In a cross-country analysis of 35 countries, they find a salient and negative effect of human development on China's national image. The data on both variables are from the World Bank (2016).

Our dependent variable, China's national image in a particular Latin American country, is the percentage of respondents randomly selected from that country who reported a favorable opinion of China in the Latinobarómetro survey of public opinion from 2001 to 2016 (Latinobarómetro). Latinobarómetro is a non-profit organization that has carried out regular opinion polls, attitudes and values in Latin America since 1995 (Latinobarómetro). The Latinobarómetro surveys include a question that taps respondents' general feelings toward various countries: "I would like to know your opinion about the following countries that I'm going to read. Do you have a very good, good, bad or very bad opinion of [country name]" (Latinobarómetro). In our study, "very good" and "good" are combined into a single "favorable" category. Percentages of respondents with a favorable view of China are calculated after excluding those who did not answer or answered "Don't know" in the polls.

The year 2012 and 2014 are missing from the data because no surveys were conducted in those two years. In total, 17 Spanish and Portuguese-speaking countries on the continental Latin

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² Instead of estimation of the missing values for the two years (2012 and 2014), using the means or a splicing method, we treat the data as they are, as estimation of the missing values here may introduce bias and measurement errors.

America are included in our sample.³ For all of the years, at least 1000 people from each country are interviewed (except for Paraguay prior to 2005, which had around 600 respondents).⁴ The unit of our dependent variable, favorable opinion of China, is percentage points.

Figures 13 and 14 present an overview of China's image perceived by Latin American countries from 2001 to 2016. Countries are alphabetically split into two groups for clarity purposes.

As Figures 13 and 14 show, percentages of the publics with a favorable view of China in the 17 Latin American countries do not display a clear trend in the period investigated. With 237 aggregate observations in total, the mean value is 76.26 with a standard deviation of 7.49. The range for the favorable opinions is from 54.93 to 92.59.

[Figures 13 and 14 about Here]

Among our theoretical variables, *import* is the value of the individual Latin American country's total imports of goods (excluding services) from China, measured in billions of USD in our data, which originated in the UN Comtrade. We use the data reported by China for consistency purposes, covering 17 Latin American countries from 2001 to 2015 (UN Comtrade, 2001-2016). *Export* is exports of goods (excluding services) to China, measured in billions of USD. Data come from the UN Comtrade and we again use the data reported by China for consistency purposes, covering 17 Latin American countries from 2001 to 2016 (UN Comtrade,

⁴ All of the individual questionnaire and methodological reports can be downloaded at Latinobarómetro: http://www.latinobarometro.org/latContents.jsp

³ The countries included are (in alphabetical order): Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, Paraguay, Uruguay, Venezuela. The Dominican Republic is not included due to missing data prior to 2004.

2001-2016). We define trade *surplus* against China as the difference between a country's exports to China and its imports from China, measured in billions of USD and sourced from the UN Comtrade, covering 17 Latin American countries from 2001 to 2015 (UN Comtrade, 2001-2016)⁵.

Chinese FDI inflows received by each Latin American country are measured in millions of USD. Data come from the annual *Statistical Bulletin of China's Outward Foreign Direct Investment* published by China's Ministry of Commerce, covering 17 Latin American countries from 2003 to 2015 based on data availability (Ministry of Commerce of China, 2016). ⁶

Agreed contracted projects and fulfilled contracted projects, measured in hundreds of millions of USD, are obtained from the China Commerce Yearbook and China Statistical Yearbook respectively, covering 17 Latin American countries from 2001 to 2015 based on data availability (Ministry of Commerce of China, 2002-2016; National Bureau of Statistics of China, 2002-2016).

First, we examine the correlations among our variables. Of all the independent variables, the *public opinion* of China is correlated at the highest level with *import*, with a negative sign (-0.355). Its correlation with FDI stands at -0.228; it is weakly and negatively correlated with the size of the economy (*GDP*) at -0.196 and the Human Development Index (*HDI*) at -0.176. *GDP* is positively correlated with *import* (0.715), export (0.762) and *surplus* (0.339), justifying our use of GDP as a control variable in the regression. *Surplus* is much more strongly correlated with *export* (0.654) than *import* (0.002). *Agreed contracts* and *fulfilled contracts* are positively

⁵ Imports and exports were divided by 1,000 for the convenience of demonstrating the parameter estimates.

⁶ FDI was divided by 10,000 for the convenience of demonstrating the parameter estimate.

correlated at 0.636. *FDI* and *fulfilled contracts* are positively correlated at 0.555, higher than the correlation between *FDI* and *agreed contracts* (0.407).

[Table 1 about Here]

Table 2 presents the regression results of the trade variables. Of the three models – *import* from China, *export* to China, and *surplus* with China – the Hausman test that favors the random-effects model over the fixed-effects model in the *import* equation cannot be rejected at the 5% error level (model 1); it clearly favors the random-effects model over the fixed-effects model for both the *export* and trade *surplus* equations (models 3 and 5). Therefore, we discuss our findings on the basis of the random-effects models. In Table 2, because of some ambiguities in the theoretical or anecdotal arguments (for example with respect to imports and exports), as discussed in the preceding section, we use the two-tail error level in our hypothesis testing of the impact of the economic activities on China's image, except in the case of trade surplus for Latin American countries, which we hold to have a positive effect on the public opinion about China in Latin America.

[Table 2 about Here]

Models 1 and 3 of Table 2 indicate that the effects of *import* and of *export* on the public opinion of China are not statistically significant. Model 5 shows that trade surplus against China has a positive and statistically significant effect on the public opinion of China. *GDP* holds a

negative and statistically significant effect in the *export* and *surplus* equations, though it is not statistically significant in the *import* equation (Model 1). By contrast, the effect of the Human Development Index (*HDI*) on China's image is negative and highly statistically significant across all regressions in Table 2. In other words, Latin American countries with lower income and education level and shorter life-expectancies hold China in better image, compared with their wealthier, better-educated, and longer-living counterparts. This result confirms the findings in Xie and Page (2011).

In an expanded model based on Table 2, we enter both *import* and *surplus* in the regression as theoretical variable (Table 1, Models 7-8). In this case, the Hausman test favors the randomeffects model, which indicates that *import* still shows a negative effect on the public opinion, though statistically insignificant, while *surplus* remains positive and statistically significant at the 5% error level in a two-tail test (Model 7, Table 2). We can conclude that in the presence of *import* or *export*, trade *surplus* remains a dominant factor in determining public opinion. Given the same level of *import* and *export*, a trade *surplus* against China will increase the positive image of China. One reason that surplus has a positive effect on the image of China is that trade surplus is a high-profile issue in political campaigns for national office. Trade surplus has been overall lauded as an achievement, as it brings "revenue" to the country. Trading with the world's second largest economy with a surplus can result in euphoric confirmation by the government, mass media, populations, and pueblos, increasing China's popularity in the country. Once again, the sign on *GDP* is negative and statistically significant in the model selected by the Hausman

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⁷ We own this model re-specification to a reviewer's thoughtful comment.

⁸ In a model that replaces *import* with *export*, the parameter estimates in Model 7 will be the same, as *export* minus *import* results in *surplus*.

test (Model 7). Similarly, *HDI* is highly statistically significant and remains negative. China's image is higher in smaller economies and in lower-HDI countries in the Latin American region.

Next, we use China's *FDI* outflows to Latin America and contractual projects in Latin America as the independent variables. In Table 3, the examination of the Hausman test results prescribes the use of random-effects model for all the specifications. The statistics show that Chinese FDI imposes a statistically significant and negative effect on the public image of China, while contracts have no clear impact on the public opinion of China (Model 1, Table 3). The data seem to point to the direction in which more Chinese direct investment in the region makes Latin Americans view China more negatively, controlling for the size of the economy and the human development index. Across Models 1-6, *HDI* clearly indicates a negative effect on China's image, with less developed countries favoring China more than better-developed countries do in Latin America. In the random-effects models, except Model 1, the size of the economy has a negative effect on China's image too, with smaller economies favoring China more than larger economies do in Latin America (Models 3 and 5, Table 3).

[Table 3 about Here]

Next, based on information from Table 2 and Table 3, we combine *surplus* with *FDI* and *contracts*. The results are reported in Table 4. In this set of regressions, the Hausman test is in favor of the fixed-effects models, according to which, *FDI* exhibits a negative and statistically significant effect on China's image. *Surplus* against China still carries a positive sign, though it is statistically significant only in the random-effects model. The size of the economy is not

statistically significant in the fixed-effects model, but is negative and statistically significant in the random-effects models. Finally, *HDI* is statistically significant at the 5% error level across all the models in Table 4.

[Table 4 about Here]

Finally, we take into consideration the non-economic relations between China and Latin America. Xie and Page (2013) investigate the strategic relations between China and thirty-five countries by using the presence of Confucius Institutes in these countries as well as the visits by Chinese leaders to these countries. Their study finds no statistical significant effect on either variable. To study the effects of economic relations on China's image in Latin America, we next employ non-economic relations as control variables. As in Xie and Page (2013), we use the existence of Confucius Institutes as a non-economic variable. The Chinese government has established Confucius Institutes across the world, following other countries' initiatives to promote their language and culture such as the Goethe Institut, Instituto Cervantes, Alliance française, and British Council. The presence of Confucius Institutes is both a source and symbol of China's soft power. We hypothesize that the establishment of the Confucius Institutes increases positive image of China in Latin American countries and construct this variable through a cumulative effect: the value of this variable is the total number of the Confucius Institutes in a given country/year. In our regression, we use the lagged value to reduce the

endogeneity problem. ⁹ The source of the data is from the National Office of the Chinese Language. We expect that the presence of the Confucius Institute leads to a positive image of China.

Another political variable we employ is whether a country has diplomatic relations with China or not. It takes the value one or zero, with one indicating the existence of diplomatic relations with China. The data is from the Ministry of Foreign Affairs of China. We expect that countries with diplomatic relations with China have a more positive image of China than those without.

Finally, we believe that the dominant national ideology in Latin American countries matters with respect to China's national image. Partisan politics in Latin America is intense and political office is contested across a wide spectrum of ideologies. The winning candidate for the presidency, in our opinion, to a significant extent, represents the dominant national ideology. A country of left-wing ideology will likely be at odds with the United States and be in favor of China. In the regression, we create a dummy variable which takes a value of one if the president of the country is identified with left ideology and zero, otherwise. We expect a country under a president of left-wing ideology will favor China more than under presidents of other ideologies.¹⁰

⁹ As a large country warrants more Confucius Institutes than a small country, in the model, the cumulative presence of Confucius Institutes is controlled by GDP, which is highly correlated with population in the data at 0.984.

¹⁰ Ideologies are identified as: Left, Center Left, Center, Center Right and Right. The date are from Murillo, Maria Victoria, V. O. and Vaishnav, M. (2010). *Dataset on political ideology of presidents and parties in Latin America*. Columbia University. Miriam Sierra Aguila helped coding the post-2010, using the criteria in Murillo and Vaishnav (2010).

One inherent methodological issue is that we cannot apply the diplomatic relations variable or the ideology variable in a fixed-effects model, as these two variables are discrete with a value of one or zero. However, we can use them in a random-effects model. Although the best set of the models incorporating the political variables would be the integrative model 3 in Table 4, 11 the Hausman tests indicate that a fixed-effects model is preferred here (see Models 1 and 3, Table 4). By substituting *GDP per capita*, one of the three component of Human Development Index for *HDI* (the correlation between the two being 0.724 in the Latin American data), we find that the random-effects model is preferred, based on the 5% error level in an equivalent equation to Model 3, Table 4 (see Model 1, Table 5). Therefore, using Model 1 in Table 5 as the base, we add the three political variables: *Diplomatic Relations, Confucius Institute*, and *President Ideology*. In Table 5, Models 3 and 4 are the random-effects models using the panel data estimation, and Models 5 and 6 are Ordinary Least Squares estimation applied to the pooled data.

The random-effects model in Table 5 largely confirms the previous results. In Model 3 of Table 5, *surplus* improves China's image and *FDI* worsens China's image. The former is statistically significant at the 5% error level in a one-tail test, as we predicts it to have a positive effect on the public opinion of China, and the latter is very close to be statistically significant at the 5% error level in a two-tail test, with a p-value at 0.053. *GDP per capita*, a substitute for *HDI*, is expectedly negative and is statistically significant at the 5% error level.

Among the political variables, the *President Ideology* is positive and statistically significant at the 0.01 error level. Countries under a left-ideology president are more likely to have positive

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¹ The results of Model 1 and Model 3 in Table 4 are very similar; Model 3 has five more observations than Model 1.

attitude toward China than under other presidents. *Diplomatic Relations* with China and presence of *Confucius Institute* both take the expected positive sign, but are statistically insignificant.

Next, we remove *Diplomatic Relations* and *Confucius Institute* from the random-effects model (Model 4, Table 5). Now, both *surplus* and *FDI* are statistically significant at the 0.05 error level in a two-tail test, and *President Ideology* remains an influential factor in the determination of the public opinion of China. When the country is under a left-ideology president, the nation's aggregate positive China rating stands 12-13% higher than if the country is under a non-left-ideology president (Models 3-4, Table 5). The OLS pooled regression arrives at similar results. In Models 5-6, *surplus* and *FDI* are both statistically significant with the same sign as before; so is *President Ideology. GDP per capita* has a negative effect on China's image at the 0.001 error level in a two-tail test.

[Table 5 about Here]

Finally, to conduct a sensitivity analysis, we add both *HDI* and *GDP per capital* as control variable to Model 3 in Table 5, since *HDI* has been found a major determinant of the positive opinion of China, with less developed countries favoring China more. The findings in Table 6 indicate that the sign on *HDI* remains negative, and it is statistically significant in Models 1 and 2 of Table 6 at the 5% error level in a two-tail test. Meanwhile, *GDP per capita* lost its statistical significance. It should be noted that *GDP per capita* is a component in the construct of *HDI* and in the regression data here, the two variables are correlated at 0.724.

Our theoretical variables *surplus* and *FDI* continue to hold the same signs as before and remain statistically significant: while trade surplus with China contributes to a positive opinion of China, China's outward FDI to Latin America leads to a negative opinion of China. In addition, the countries under a left-ideology president tend to favor China. In Model 2 of Table 6, the presence of Confucius Institutes in the country also is found to have a positive effect on the national image of China in the country.

[Table 6 about Here]

The conclusions based on the information from Tables 5 and 6 are that trade surplus helps Latin American countries grow a positive image of China and at the same time, FDI erodes the positive image of China. Among the political factors, the country's dominant ideology as represented by the president's ideology is the most important source of public opinion of China. Under a left-wing president, the country is more likely to develop a positive opinion of China. Finally, China is favored among less developed countries than their richer counterpart in Latin America.

5 Further Discussions And Implications

While China has undoubtedly emerged as a major player reshaping the landscape in Latin America – in many cases, because of its large-scale construction projects – it is not immediately apparent whether the hosting countries receive the Asian giant with readiness or complete happiness. Hearn (2012) has observed a propensity among the public in Latin America to

associate Chinese products and businesses with "the global ambitions of the Chinese state" (Hearn, 2012). In other words, dispositions toward China will be progressively filtered through people's direct experiences with Chinese products and businesses. From critical opinion, to distrust, and eventually to bias – if China becomes synonymous with "defective goods" or "flawed business practices," a vicious circle may thus begin with the potential to tarnish China's national image and intensify anti-Chinese sentiment.

Patterns of China's trade and investment as well as the behavior and practices of Chinese enterprises overseas have important bearings on the shaping of China's national image. Especially in Latin American countries with a scarce Chinese population, products and business personnel from China are effectively Beijing's goodwill (or lack thereof) ambassadors that provide the outside world with firsthand knowledge and understanding on the rapid development of the PRC. When it comes to goods made in China, there may be two negative sources: the quality of the product made in China and the crowding-out effect of the Chinese goods on domestic goods. These two sources tend to be related in the case of low value added products in which China competes against the local producers. If China upgrades its exports to high-value added products that do not compete directly against local producers, then that strategy may alleviate the two negative sources mentioned above.

In terms of FDI and contracts, it has been a relatively short time since Chinese companies "went out" pursuing the *Go Global* strategy. However, with the initiative of the "Belt and Road," Chinese FDI and contracts are becoming increasingly important components in China's international strategy of building economic and political partnerships. In this process and for many of the Chinese personnel and enterprises, conducting international business is still an

ongoing process of "crossing the river by feeling the stones," the famous saying by Deng Xiaoping that describes the course of moving forward amidst uncertainty by learning as one goes. With neither the in-depth research into the target country's national profile – including its cultural, economic, legal, and political conditions – nor the talent with sufficient experience in cross-cultural communications, these Chinese enterprises can easily hit roadblocks and cause cultural misunderstandings or even legal disputes as they navigate uncharted territories.

As relatively new players in the region of Latin America, it is crucial for these enterprises to build honorable reputations and establish cordial relationships with various sectors from the onset. As many of these large investors or contractors from China are state-owned enterprises, they are identified in Latin America with the Chinese government. However, they are in Latin America for business purposes, which have implications, from the very start, for a number of inherent and fundamental issues associated with market failures, such as moral hazard, adverse selection, information asymmetry, and rent seeking, all of which may result in corruption, lack of transparency, and questionable business practices. It is imperative that the investors and contractors follow the laws of the hosting country to the letter, maintain a high ethical standard, and adhere to transparency. Illegal or questionable activities may boost short-term profits, but in the long run, forfeit the good image and business environment for the Chinese economic interests.

It is also crucial that Chinese investors and contractors understand the political system in the hosting country. The governing party may change as a result of elections, and national economic policy may alter between different political parties (e.g. recently in Argentina, Brazil, Argentina and Mexico) or even between different national leaders of the same party (e.g. in Ecuador). This is a political culture very different from China's own, where the governing party does not change

and long-term policies are set and followed. The Chinese investors and contractors may find the changes and reversals of government policies in Latin America strange or even unthinkable, and lament the loss of economic opportunities in the context of policy change or uncertainty of government transition. They should, however, develop a good strategy that works well in the political processes of the hosting country and maintain mutually beneficial relations with all stakeholders in the country, the government, opposition parties, and interest groups.

Finally, China's investors and contractors should heed the concerns in the host countries about resources and environments. Historically, some developing countries suffer from the experience of extraction of their natural resources at the cost of a robust industrial base, with the collateral damage of the natural environments, resulting in unstable economies and even failing states. It is imperative to orient concerted efforts toward specific clusters of negative views before they become deeply ingrained in society and feed into more serious problems in the future. While money is attractive in nature in the short term, it may lead to negative outcomes in the long run. When the Chinese government or businesses make an investment or take a contract in Latin America, careful attention needs to be given to the sustainable development of the Latin American people, taking the well-being of generation after generation of the host country into consideration. To achieve a true win-win outcome, it is important that Chinese business practice corporate social responsibility overseas, which will bring about positive impact on both sustainable development in Latin America and the long-term bottom line of Chinese enterprises.

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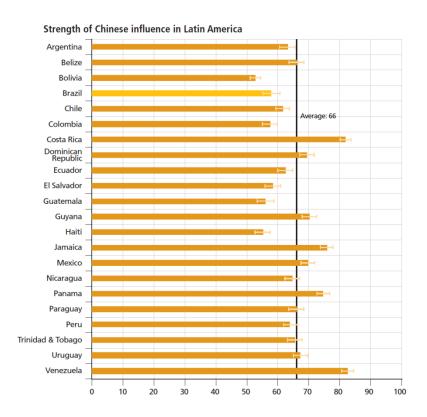
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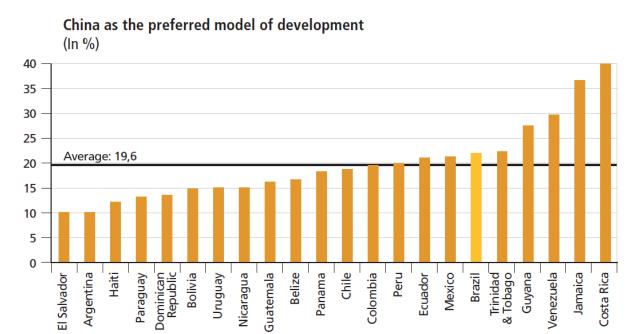
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Figure 1. Strength of Chinese influence in Latin America



Source: Armony, A. C., & Velásquez, N. G. (2016), using data from the 2012 Americas Barometer

Figure 2. China as the Preferred Model of Development



Source: Armony, A. C., & Velásquez, N. G. (2016), using data from the 2012 Americas Barometer

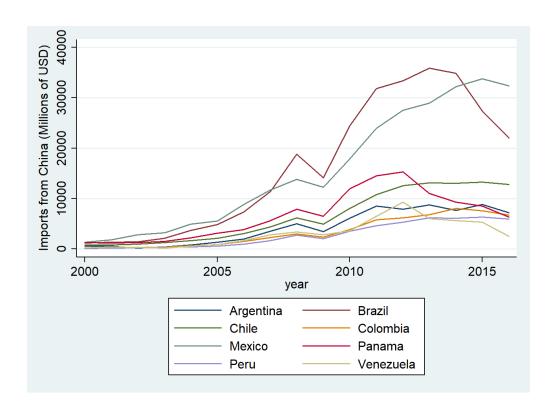


Figure 3. Countries with greater imports from China

October 1000 Costa Rica

Bolivia Costa Rica

Ecuador El Salvador

Guatemala Honduras

Nicaragua Paraguay

Uruguay

Uruguay

Figure 4. Countries with smaller imports from China

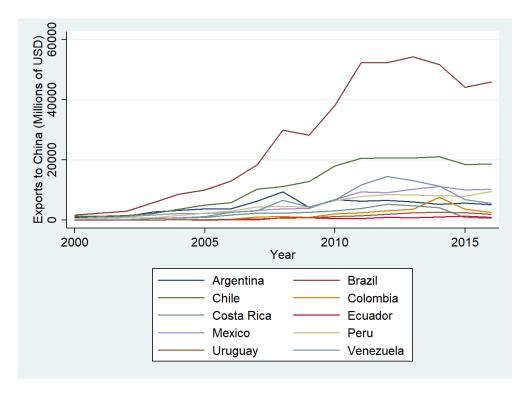


Figure 5. Countries with greater exports to China

Descriptions of USD)

2000

2005

Year

Bolivia

Guatemala

Honduras

Nicaragua

Paraguay

Paraguay

Figure 6. Countries with smaller exports to China

Argentina Bolivia
Brazil Chile
Costa Rica Peru
Uruguay Venezuela

Figure 7. Trade Surplus against China (part 1)

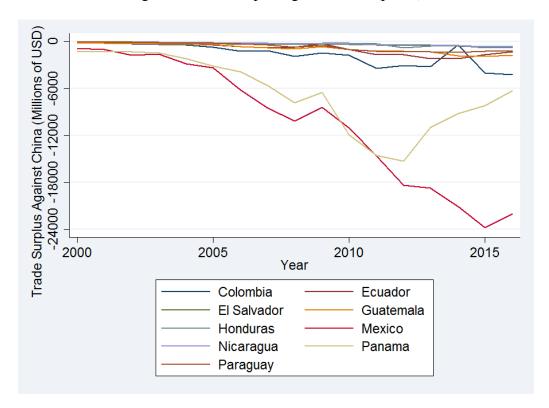
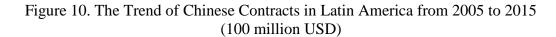


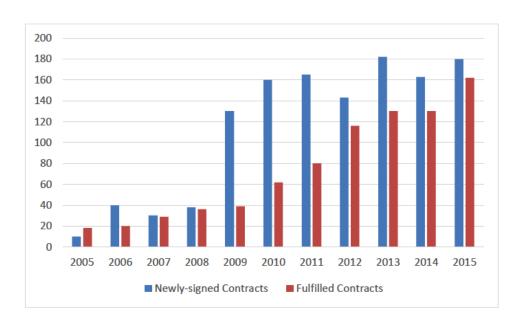
Figure 8. Trade Surplus against China (part 2)

US\$ Billions 25 70 **Amount** 60 # of deals 20 50 15 40 30 10 20 5 10 '03 '05 '15 '16 '07 **'09** '11 '13

Figure 9. Annual Chinese FDI in Latin America

Source: Avendano, R. Melguizo, A. & Miner, S. (2017)





Source: Feng, Y., Gao, ZJ., & Jiang, WJ. (2018), using data from Ministry of Commerce of China (2016)

Water Conservancy **Effluent Treatment** Others 1.11% 0.24% 5.36% Telecommunication 22.24% Manufacturing 2.27% Industrial Construction Architecture **Electric Power** 2.29% 13.97% Engineering Petrochemical 21.56% Engineering Transportation 11.83% 19.13%

Figure 11. The Distribution of Chinese Newly-signed Contracts in Latin America (2015)

Source: China International Contractors Association. (2016)

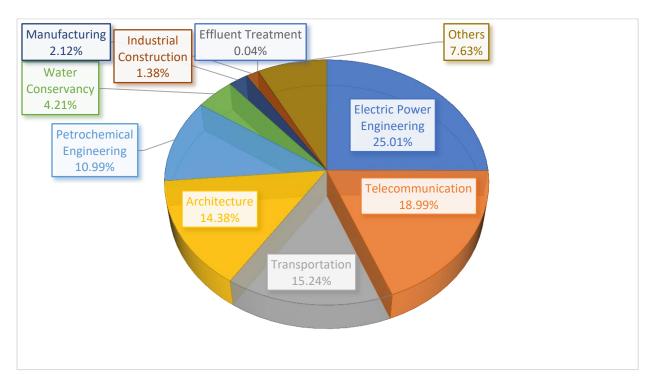


Figure 12. The Distribution of Chinese Fulfilled Contracts in Latin America (2015)

Source: China International Contractors Association. (2016)

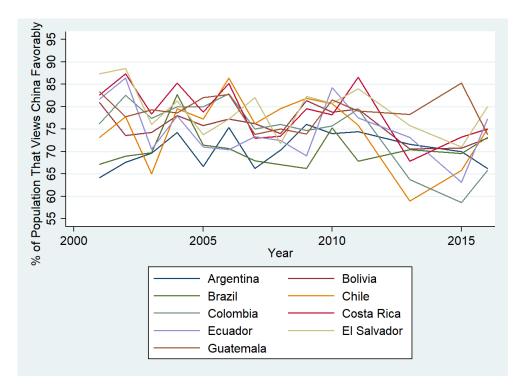


Figure 13. Public Opinion of China (Group 1)

Source: Latinobarómetro

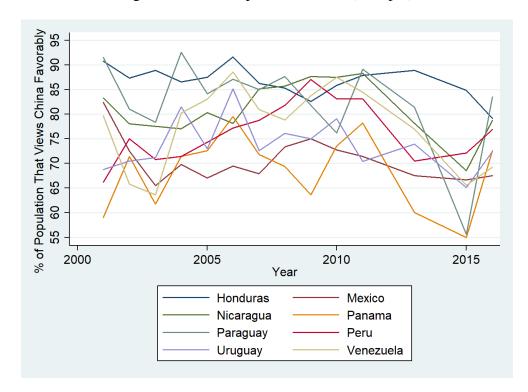


Figure 14. Public Opinion of China (Group 2)

Source: Latinobarómetro

Table 1 Correlations of the Variables in the Models

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Opinion	Import	Export	Surplus	FDI	Contracts	Contract	GDP	HDI
						Agrd	Flfld		
(1) Opinion	1.000								
(2) Import	-0.355	1.000							
(3) Export	-0.159	0.758	1.000						
(4) Surplus	0.167	0.002	0.654	1.000					
(5) FDI	-0.228	0.294	0.357	0.206	1.000				
(6) Contract Agra	0.065	0.279	0.348	0.210	0.407	1.000			
(7) Contract Flfld	-0.078	0.290	0.368	0.227	0.555	0.636	1.000		
(8) GDP	-0.196	0.715	0.762	0.339	0.243	0.285	0.277	1.000	
(9) HDI	-0.176	0.248	0.217	0.045	0.157	0.124	0.140	-0.025	1.000

Table 2 Public Opinion of China: Trade with China

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Theoretical	Random	Fixed	Random	Fixed	Random	Fixed	Random	Fixed
Variables	Effects							
Import	-0.087	-0.400**	-	-	-	-	-0.037	-0.463*
Import	(0.107)	(0.192)					(0.109)	(0.257)
Export	-	-	0.088	-0.115	-	-	-	-
Laport			(0.090)	(0.192)				
Surplus	-	-	-	-	0.0002**	0.0001	0.253**	-0.072
Sur prus					(0.0001)	(0.0001)	(0.121)	(0.192)
Control								
Variables								
GDP	-0.002	0.021**	-0.004**	0.010	-0.004**	0.002	-0.003*	0.025*
_	(0.002)	(0.010)	(0.002)	(0.012)	(0.002)	(0.006)	(0.002)	(0.014)
						-0.101111		
HDI	-44.964***	-53.622***	-50.403***	-63.590***	-46.837***	-60.191***	-45.847***	-53.661***
	(10.283)	(19.377)	(10.270)	(18.921)	(9.473)	(19.176)	(10.238)	(19.416)
Constant	108.452***	109.357***	112.242***	118.264***	109.965***	117.888***	109.275***	108.581***
	(7.105)	(13.453)	(7.121)	(12.864)	(6.553)	(12.692)	(7.079)	(13.639)
Hausman test Chi ²	4.86*		3.10		1.01		3.94	
R ² (within)	0.0484	0.0731	0.0495	0.0561	0.0550	0.0597	0.0554	0.0737
R ² (between)	0.612	0.0275	0.617	0.0174	0.678	0.405	0.680	0.0469
R ² (overall)	0.273	0.00453	0.275	0.0154	0.304	0.195	0.304	0.0108
N	236	236	236	236	236	236	236	236

^{***} p<0.01, ** p<0.05, * p<0.1 in a two-tail test.

Table 3 Public Opinion of China: Chinese FDI/Contracts

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Theoretical Variables	Random Effects	Fixed Effects	Random Effects	Fixed Effects	Random Effects	Fixed Effects
FDI	-0.015** (0.007)	-0.014* (0.007)				
Contracts agreed			0.079 (0.050)	0.078 (0.062)		
Contracts fulfilled					-0.0003 (0.075)	-0.061 (0.092)
Control Variables						
GDP	-0.002 (0.002)	0.005 (0.008)	-0.003** (0.001)	-0.001 (0.006)	-0.003** (0.001)	0.004 (0.006)
HDI	-44.784*** (15.038)	-99.571*** (34.167)	-38.562*** (10.861)	-61.121** (27.864)	-39.476*** (9.655)	-48.542* (25.466)
Constant	108.434*** (10.872)	145.772*** (23.585)	102.936*** (7.719)	118.246*** (19.138)	104.076*** (6.818)	108.384*** (17.474)
Hausman Test Chi ²	3.19		1.55		3.34	
R ² (within)	0.141	0.157	0.0369	0.0403	0.0324	0.0411
R ² (between)	0.319	0.107	0.518	0.416	0.596	0.143
R ² (overall)	0.161	0.0415	0.154	0.112	0.189	0.0324
N	127	127	162	162	177	177

^{***} p<0.01, ** p<0.05, * p<0.1 in a two-tail test.

Table 4 Public Opinion of China: Surplus, FDI and Contracts

	Model 1	Model 2	Model 3	Model 4
Theoretical Variables	Random Effects	Fixed Effects	Random Effects	Fixed Effects
Surplus	0.308*** (0.098)	0.070 (0.181)	0.286** (0.119)	0.065 (0.182)
FDI	-0.021*** (0.007)	-0.015** (0.007)	-0.016** (0.008)	-0.013* (0.008)
Contract Agreed	0.118** (0.050)	0.085 (0.064)	-	-
Contract Fulfilled	-	-	0.011 (0.089)	-0.013 (0.108)
Control Variables				
GDP	-0.003*** (0.001)	0.001 (0.008)	-0.003** (0.001)	0.004 (0.008)
HDI	-26.733** (12.748)	-105.201** (40.194)	-34.904** (14.506)	-94.401** (40.438)
Constant	95.048*** (9.438)	151.098*** (28.067)	101.470*** (10.633)	142.470*** (28.150)
Hausman test Chi ²	16.87***		13.76***	
R ² (within)	0.0959	0.159	0.121	0.155
R ² (between)	0.504	0.0222	0.509	0.167
R ² (overall)	0.215	0.0496	0.196	0.0253
N	116	116	121	121

^{***} p<0.01, ** p<0.05, * p<0.1 in a two-tail test.

Table 5 Public Opinion of China: Economic and Political Relations

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Theoretical Variables	Radom	Fixed	Radom	Radom	OLS	OLS
	Effects	Effects	Effects	Effects		
Surplus	0.269**	0.122	0.239*	0.258**	0.315***	0.316***
	(0.133)	(0.178)	(0.139)	(0.128)	(0.100)	(0.095)
FDI	-0.017**	-0.014*	-0.014*	-0.015**	-0.016**	-0.016**
	(0.008)	(0.008)	(0.007)	(0.007)	(0.007)	(0.007)
Contract fulfilled	-0.042	-0.071	-0.121	-0.113	-0.142	-0.120
	(0.093)	(0.101)	(0.095)	(0.093)	(0.094)	(0.094)
Control Variables						
GDP	-0.002	0.002	-0.002	-0.001	-0.002*	-0.002*
	(0.002)	(0.008)	(0.002)	(0.002)	(0.001)	(0.001)
GDP per capita	-0.193	-1.300**	-0.651**	-0.512	-0.413**	-0.375**
	(0.266)	(0.619)	(0.318)	(0.275)	(0.191)	(0.190)
Diplomatic Relations			1.560		1.505	
			(2.923)		(1.790)	
Confucius Institute			0.335		0.400	
			(0.411)		(0.376)	
President Ideology			13.004***	12.012***	12.080***	12.329***
			(4.481)	(3.810)	(2.610)	(2.500)
Constant	77.329***	84.169***	78.146***	78.547***	76.490***	77.703***
	(2.053)	(4.443)	(2.801)	(2.010)	(1.910)	(1.413)
Hausman Test Chi ²	9.65*					
Adj- R ²					0.2522	0.250
R ² within	0.109	0.147	0.140	0.129		
R ² between	0.245	0.0438	0.492	0.531		
R ² overall	0.136	0.0135	0.286	0.281		
N	121	121	121	121	121	121

^{***} p<0.01, ** p<0.05, * p<0.1 in a two-tail test.

Table 6 A Sensitivity Test Using both HDI and GDP per capita

	Model 5	Model 6	Model 7
Theoretical	Random Effects	Random Effects	Random Effects
Variables			
Cumlus	0.300***	0.327***	0.280**
Surplus	(0.100)	(0.096)	(0.109)
FDI	-0.013*	-0.014*	-0.014*
FDI	(0.008)	(0.008)	(0.008)
Contract	-0.116	-0.117	-0.092
Fulfilled	(0.094)	(0.094)	(0.095)
Control Variables			
GDP	-0.004**	-0.004**	-0.003
GDP	(0.002)	(0.002)	(0.002)
HDI	-50.293*	-48.498*	-38.030
HDI	(28.608)	(28.538)	(30.448)
GDP per capita	0.332	0.324	0.159
GDI per capita	(0.464)	(0.464)	(0.509)
Diplomatic Relations	1.709		
Dipiomatic Retaitons	(1.777)	-	-
CI	0.582	0.656*	
CI	(0.386)	(0.378)	
President Ideology	7.627**	7.998**	7.923*
Trestaem facology	(3.620)	(3.598)	(4.095)
Constant	108.450***	108.529***	102.200***
Constant	(18.278)	(18.272)	(19.490)
R^2 (within)	0.133	0.128	0.126
R ² (between)	0.748	0.769	0.710
R ² (overall)	0.321	0.315	0.296
N	121	121	121

Standard errors in the parentheses.

*** p<0.01, ** p<0.05, * p<0.1 in a two-tail test.