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Exploring the nontraditional foreign investment in Sino-Latin American relations: The Chilean case

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Abstract

At the end of 2016, China and Chile increased their bilateral ties to a comprehensive strategic partnership increasingly involving the development of traditional and nontraditional foreign investments. The former is measured under the usual parameters of economic cooperation that includes horizontal and vertical investments. However, during the last decades, new forms of cooperation have emerged based on the creation of a *HUB* that responds to complex strategies in specific contexts, which implies the willingness of nations to establish sophisticated links in which both countries use their competitive resources in search of a common benefit. Although there is no absolute limit between traditional and nontraditional foreign direct investments, since they are not mutually exclusive, the latter have become fundamental elements in the establishment of Chinese multidimensional relations and are part of the new path of cooperation in the Latin America region. In this context, Chile is one of the countries that has hosted the largest number of hub platforms led by China in South America, which include the Southern Optical Fiber Project, the China-Chile Joint Astronomical Data Center, and the China-South America Transpacific cable. This article explores the dynamics of these initiatives through the case study of China-Chile relations.

Keywords

Nontraditional foreign investment, China investment, China foreign policy, technological investment, Latin America

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Introduction

For the last decade, China—together with its strategic partners—has deployed a series of initiatives that go beyond transactional interests and are related to economic complementarity and the generation of regional platforms that position the image of China as a new sophisticated partner. For example, in the Latin American case, the People's Republic of China (PRC) has established a center of expansion of the Chinese currency, opened research centers overseas, created data centers, developed special economic zones, opened regional headquarters of strategic companies, and so on. The particularity of these initiatives is that they are initially located in countries with a free market affinity (or approach) and that operate their international relations in a standardized manner (Song, Borquez, & Zibetti Wust, 2019). In this regard, the following article moves away from the common approach that establishes that China only transfers influence in Latin America in countries with ideological affinity through aid and loans, and where it is perceived as the new donor in the neighborhood. The following article, however, focuses on a new perspective, arguing that during the last 5 years, China has become increasingly sophisticated in the way it cooperates in the region. China not only focuses on ensuring its material needs but also is establishing initiatives with third nations sharing responsibilities and benefits. Interestingly, it is observed how China seeks to convince other states of the country's benign intentions through concerted commitments, highlighting the search for a balance between the material and the ideational. To demonstrate the above, this article has been structured in two parts. Firstly, two theoretical perspectives of the doctrine of the Chinese peaceful ascent are stressed. On the one hand, it is seen that this rise is an inevitable path to the formation of a bipolar international structure led by China and the United States. The relations of cooperation must be based on the strengthening of the national economies and material security of China and its strategic partners. On the other hand, there is a perspective that the Chinese boom represents a broad win-win opportunity, where the opening of the internal market and the development of comprehensive initiatives constitute an empowering and facilitating leadership for other nations. Secondly, this article contributes to the discussion of these theoretical perspectives with an empirical base. In particular, it preliminary examines if the strategy of generation of nontraditional economic initiatives represents a behavior under the logic of sum zero or—on the contrary—if it incorporates a participatory role based on benign intentions. This examination is realized through a case study of the relations between Chile and China.

Theorizing a "new normal" framework of Chinese foreign investment

During the last decade, it has been observed that China has taken a great step in its policies on investment, technology, and development. In the 13th 5-year plan, these variables were prioritized, establishing a long-term strategy to become an international leader in innovation and technology investments. The Chinese president, Xi Jinping, requested from high officials, ministers, and academics to use innovation as a pivot for the country's development. Xi Jinping stressed under China's "new normal" approach that the country's economic growth had slowed down and that a high-quality scientific and technologic development would give a new impulse to the economy. This approach was addressed for the first time during the president's inspection tour in Central Henan province in May 2014, when he described the need to adapt to a "new normal" and the necessity to maintain continuous improvement. During that same year, at the 2014 Beijing APEC meeting, Xi Jinping also, for the first time, referred in front of the international community to the "new normal" framework. The president described China's

next period of economic growth based on two key features: (a) transforming the development mode into one driven by technology investment and (b) continuing to be an open country that interacts deeply with the world.¹

The Chinese academy tracks the same principles, highlighting that this new normal framework represents a nonzero-sum game. For example, Zhang Jiadong argues that the rise of a nation is not merely a threat, but also an opportunity for other countries' development and social welfare (2012, p. 626). Chen Zhimin is another scholar who stresses the new type of relationship that China is establishing under the new normal framework. He argues that through its domestic market and the development of initiatives such as Belt and Road, China seeks to provide opportunities not only for itself but also for other nations that seek mutual benefit. According to Chen Zhimin, this same logic also applies to capital and technology, which can be used for mutual development among nations (Chen, 2012; Chen, Zhou, & Wang, 2018, pp. 20–21). In the same vein, according to the words of the official Chinese press, "China is creating a new world economic pattern with an open attitude," in which the country multilaterally strives to develop advanced infrastructure and investment links with other regions through the Belt and Road Initiative and the Asian Infrastructure Investment Bank.

China has become the world's leading provider of telecommunications (Huawei). Something similar is also happening with the sale of computers through Lenovo.² Moreover, China is the world's largest e-commerce market, representing more than 40% of worldwide value transactions. The digital economy is making the greatest contributions to the national economy; currently, Chinese Internet companies are among those with the highest global level of capitalization (Baidu and Tencent). Moreover, China has become the main producer of rare earth minerals, which are key components to producing technological goods (europium, erbium, neodymium, etc.) (Aguiar & Trebat, 2017).

However, China is not only strengthening its commercial-technological industry but also increasingly involved in the development and financing of global projects related to these areas (Xiaoyu, 2018). Both the participating as a provider of infrastructure and the providing of technology transfer solutions are part of the actions taken by China as a new technological superpower. Initiatives such as launching a new satellite into orbit (Fengyuan-3D), Antarctic research expeditions (Xuelong icebreaker boat), the development of new radio telescopes (FAST), and astronomical research observatories overseas (South American Astronomy Center of the Chinese Academy of Sciences (CASSACA)) are part of the solutions proposed by China to solving global problems.

This new trend reflects that China has decided to bet not only on economic power as a mechanism of international influence but also on high technology investment. In fact, both mechanisms converge and operate mutually. This is how, for instance, Chinese state-owned banks have played an active role in authorizing loans with flexible interest rates in order to finance different technological and infrastructure projects. For example, according to the Chinese Energy Development Finance Report prepared by Jin and Gallager (2018), in 2017, the

China. New normal in economic development. Source: China Daily (http://www.chinadaily.com.cn/china/19thcpcna-tionalcongress/2017-10/05/content_32869258.htm).

How Huawei went from small-time trader in Shenzhen to world's biggest telecoms equipment supplier. Source: South
China Morning Post (https://www.scmp.com/tech/big-tech/article/2186494/how-huawei-went-small-time-trader-shen
zhen-worlds-biggest-telecoms).

China Development Bank and China Export–Import Bank had lent more money to global projects than the World Bank. The report highlights that, unlike during the past decade, the focus is not only on extractive activities but also on value-added processes such as transmission and distribution systems.

China's nontraditional foreign investment as a core element for a peaceful rise

"The Doctrine of the Peaceful Ascent" (heping jueqi lun), which later came to be called "the doctrine of peaceful development" (heping fazhan), was established by Chinese scholars to provide answers to the "theory of the Chinese threat" developed mainly in the West. This doctrine, which began to spread from 2003, maintains that, as China increases its power, it will behave cooperatively, focusing on generating opportunities and avoiding being a threat (Liebman, 2005). Although in its beginnings this doctrine was related to the propaganda of the Chinese government, highlighting the benefits that could be achieved by its strategic partners; during the last decade, it has become a component of the development of the theory of international relations in China.

This doctrine has formed part of the recent debate about the development of international relations theory in China. While realists assume that it is not viable for any major power to rise peacefully in the international anarchic system, liberals and constructivists support the idea of a peaceful rise that establishes new norms with tangible national and international benefits (Yaqing, 2011, pp. 240–244).

In this context, according to the Chinese perspective, it is assumed that the world has entered a new global era, with new contradictions and motivations, in which China not only seeks to fulfill its national and international objectives in a cost-efficient way but also to exercise a positive influence on the international system (Yaqing, 2011, p. 243). As Yizhou Wang argues, China is experiencing a strategic move from the simple to the complex, in which seeking harmony out of diversity operates as a basic element for a peaceful-rise (Wang, 2009, pp. 99–100).

According to the realist narrative, this search for harmony implies the creation of a framework within which the big powers can coexist in spite of their differences, especially in terms of China-US relations. This can be interpreted as the acceptance that China intends to manage its growing political and economic international power by establishing limits and principles of coexistence. Different authors have argued that the arrival of Xi Jinping to the presidency in 2013 represents a change in the behavior of China at the international level and that thenceforth the PRC had developed a more active international profile (Baviera, 2016; Cook, 2015; Gore, 2015). In this respect, Foot (2006: 85) sustains that in this stage a more proactive Chinese international role is visible. The communist party seeks to increase its influence in the region and creates new institutions that could balance the power of the United States. Yan Xuetong (2014) is another author who stresses this change, by emphasizing that the Chinese foreign policy should serve the need of national rejuvenation and not just its economic development. Coinciding Weissmann (2015) states that neither China is still a country that accepts the world as it is, nor are we to expect China to become a revisionist power aiming to remodel the global order. The author sustains that China works through the logic of striving for achievements and as a responsible reformer. Finally, Lee (2013, p. 504) argues that in Chinese eyes this new assertive behavior is an act of selfstrengthening (ziqiang) and the protection of the nation's "core interests" (hexin liyi).

From a liberal and constructivist point of view, Chinese foreign policy balances between morality and interests. Following this, it can be understood that China assumes that it is still a developing country that seeks—beyond its economic and political growth—to maintain

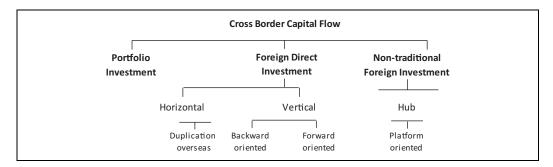


Figure 1. Types of foreign investment. Author compilation from Gitman and Joehnk (2009) and Gordon, Sharpe, and Bailey (2009).

cooperation under the guiding normative principle of mutual gains and mutual benefits. This means that China encourages horizontal cooperation, not only prioritizing the specific interests of one party but also aiming for both nations to achieve development. Thus, it seems that China emerges as an empowering leader rather than hierarchical leader (Chen et al., 2018).

Therefore, independent from the theoretical position, there is a relative consensus that the rise of China in the international system can not only be understood in terms of economic growth but instead also by its foreign policies and the mechanisms of linkage used. In this regard, China's repositioning of itself in the international context is questioning the peaceful-rise concept. On the one hand, it assumes that China seeks international credibility based on strengthening its material security and developing economic benefits for China and its strategic partners; on the other hand, it assumes that China is inclined to integrate the participation of various nations in the new global governance processes, behaving cooperatively based on the generation of opportunities and avoiding being a threat.

Nontraditional foreign investment: Definitions and characteristics

International investment involves the assumption of two sets of logic coming together. On the one hand, investors buy real or financial assets at the present value with the purpose of obtaining a profit in the future. This dynamic acts as a projection of the assets as a source of utility in the form of capital, interest, or dividend. On the other hand, investors assume the mobilization of their assets internationally for productive or capital reproduction purposes. This second dynamic acts as a search for diversification and economic performance in new markets. In both sets of logic, time and risk operate as independent variables, and any changes or controls to them produce potential effects on investments abroad.

Foreign investment can be executed in several ways. Gitman and Joehnk (2009) and Gordon, Sharpe, and Bailey (2009) distinguish between two types of investments: portfolio investment and foreign direct investment (FDI; see Figure 1).

Portfolio investment or indirect investment is the participation in the capital of a company through buying shares. This investment is made through the management of the portfolio of shares or securities, obtaining a right over a fraction of the portfolio of a company. These types of investments are considered passive, since they do not aim to control companies and are carried out mainly through investment funds and pension plans.

FDI is when the investor directly acquires a right over the value of a company in a third country. These investments are mainly made around three assets: stocks, bonds, and financial derivatives. At the operational level, these investments are divided into two categories. On the one hand, there are horizontal FDIs that arise when a company duplicates its activities in a new market. These investments are related to the manufacture of products overseas or the creation of a branch of the parent company. On the other hand, there are vertical FDIs that arise when a multinational company fragments its production processes geographically. In turn, this fragmentation is done in two ways. The first is a backward process, in which companies invest in the extraction of inputs to produce their products in a more competitive way. The second is a forward process, in which investments are channeled into foreign companies that sell the final product.

This study, however, supports the idea of a third way to channel foreign investment, which is denominated as nontraditional foreign investment (NTFI). During the last decade, the multiplication of strategic associations between nations has been observed. This usually entails the generation of platforms together with the objective of bringing together the development and implementation of new products and services. These platforms are financed both publicly and privately and are characterized by requiring a high initial investment. They operate as a hub by bringing together different actors. The returns on investment are in the long term. In the next sections, this article will proceed to explain the implications and logics behind NTFIs in more detail.

Differences and similarities between traditional and nontraditional investments

Traditional foreign investments are measured under the usual parameters of economic cooperation that include the mobilization of long-term capital in a specific market, for the creation of companies, with the purpose of becoming international. Independently of the theoretical economic approach, there is relative consensus that international investments tend to be mobilized based on three main axes: the exploration of new markets, the maximization of profits, and the search for strategic assets (Gitman & Joehnk, 2009; Hosseini, 2005; Paul & Wooster, 2008). In this context, traditional foreign investments are commonly used by countries in their bilateral cooperation and their study in the different disciplines of the social sciences is standardized. However, during the last 5 years, new forms of economic investment have appeared, which this work identifies as "NTFI," and which have been increasing in importance in more globalized economies.

These initiatives have six characteristics: (1) they are integral and interact complimentarily with FDIs; (2) they are highly sophisticated, including cooperation between different parts of the supply chain, transfers of technology, and the development of financial and administrative platforms overseas; (3) they function as a hub/center/platform in which two countries have a bilateral strategic partnership that expands and influences third countries (e.g. the regional currency center); (4) they entail the generation of platforms together with the objective of bringing together the development and implementation of new products and services; (5) they operate according to the win-win logic, where common objectives are achieved through concerted activities; and (6) both parties must incur costs to achieve this cooperative policy.

Following this, NTFI responds to complex strategies in specific contexts, which implies the willingness of nations to establish an integral link in which both countries use their competitive resources in search of a common benefit. Although there is no absolute limit between traditional and nontraditional investments, since they are not mutually exclusive, the latter have become fundamental elements in the establishment of strategic and multidimensional relationships.

The problem with estimating the return on investment of a nontraditional investment

One of the most complex elements for analyzing the impact of nontraditional investments (NTFI) is the estimation of the return on investment (ROI). The nature of these investments makes it difficult to measure the ROI based on a conventional ROI model. This is largely due to the logic behind NTFIs which distance themselves from "the greater the return on investment, the greater the reward" concept (Cohn & Mutai, 2019). Additionally, the lack of data also makes a more objective evaluation of NTFIs much less likely. While NTFIs focus on generating activities that create value and although these activities cannot be reduced to financial considerations alone, financial elements must play an important role in assessing how these initiatives use resources to meet short-term and long-term objectives.

Therefore, the evaluation of time and money invested must necessarily weigh three critical elements of NTFIs. Firstly, it must be considered that one of the main characteristics of nontraditional investments is their function as a development platform so that different actors can articulate processes of value generation. Meaning, that nontraditional investments go beyond the implementation of new technologies or knowledge. Thus, in order to consider an ROI, it is important to take both the life cycle of the platform and the non-tangible benefits for the sector in each phase of implementation into account.

Secondly, considering that an NTFI has the participation of public and private actors, it is necessary to create an ROI model that can balance between the costs of the private sector and the social interests of public actors. It is clear that from the perspective of private companies, research and development expenses are aimed at delivering higher quality products and services at lower costs. Any expense that companies make in the development of platforms is expected to generate a short-term return on quantifiable investments. For the private sector in particular, ROIs have been traditionally translated to "reducing costs." However, in the case of NTFIs, this is only part of the equation. It is further necessary to take the expected benefits for the public sector into account. That is to say, how the investment made is reflected in the development of the specific industry or sector, understanding that this type of investment will generate positive qualitative changes for it. In this sense, NTFIs guarantee investment to the extent that they solve a specific problem that the private sector cannot resolve on its own.

Finally, and using the logic above, NTFIs entail the concerted development of a platform between two nations with two parallel agendas, which makes it difficult to apply the ROI criteria. Therefore, although both countries have a similar general objective at the time of initiating this type of investment, in specific terms, each nation has its own motivations. For example, for a nation like China, these types of platforms can have a geostrategic benefit, so the search for a short-term economic investment return is not as evident. The challenge is to convert these nontraditional benefits into a monetary value or vice versa. Pregler (2018) presents a model of five alternative ways for quantifying nontraditional ROIs: time saving, better data for decision-making and reporting, migration of reactive work to proactive work, and the development of decision-support tools.

Characteristics of China's NTFI

During the last decade, it has been observed that China has taken a big step in its innovation, technology, and development policies. In the 13th 5-year plan of the Chinese Communist Party, these variables were prioritized, establishing a long-term strategy to become an international leader in innovation and development (Mikheev, Lukonin, and Sung Hoon, 2016; Xun, 2017; Yu, 2018).

Chinese President Xi Jinping has asked senior officials, ministers, and academics to use innovation as the central axis of the country's development. He stressed under the "new normal" framework that China's economic growth had slowed and that high-quality scientific and technological development would give a new boost to the economy. This new trend reflects that China has decided to bet not only on economic power as a mechanism of international influence but also on technological development. In fact, both mechanisms converge and operate mutually. This is why, for example, Chinese state banks have played an active role in authorizing loans with flexible rates to finance different technology projects and management platforms (Sanderson & Forsythe, 2013).

China has established two types of regional platforms related to this new vision of leadership, based mainly on the creation of innovation nodes in different areas such as the economy, culture, and science (Chen et al., 2018). Firstly, there are technological marketing platforms, which are deployed in different regions by multinationals of Chinese origin, under market principles. For example, Huawei has 21 international research and development institutes, including centers in other emerging nations such as Mexico, Russia, and India. Another case is that of the Hisense company which has industrial parks and R & D centers in countries such as South Africa and Japan.

Secondly, there are hub platforms whose main objective is to generate intraregional clusters. These platforms have more complex characteristics and are mainly established with countries that have binding agreements, such as free trade agreements. Together with another country, China establishes a space to group institutions, companies, or products that belong to the same sector with the aim of generating innovative solutions to the different needs and problems of a given region. Examples of these nontraditional economic initiatives are the Singapore–Chongqing food logistics center, the regional currency center of the Chinese currency in Switzerland, the China-Pakistan economic corridor, the China-Korea Environmental Cooperation Center, and the Food Protection Center of New Zealand-China. Hence, it can be observed that the NTFIs that China deploys in third world countries are different to those employed by international organizations led by the United States.

To analyze this perspective in more depth, the case of Chile will be examined, as it can be considered a crucial case in Latin America. Among all strategic partners of China in the region, Chile is the country that has attracted the most nontraditional investments, making it an enlightening case study of the new trends in China's investments at the international level (Gachuz, 2012; Heine, 2016). In specific, this article analyzes three NTFI cases that problematize the elements described in the theoretical framework: the China-South America Transpacific cable, the Regional Innovation Center for the Information and Communication Technoloy (ICT) industry, and the South American Center for Astronomy. These main initiatives established between China and Chile are examined in the following section.

NTFI between Chile and China

In Latin America, two waves of Chinese economic assets to the region can be identified. The first wave (from 2001 to 2013) consisted of large investments, loans, and support based on the establishment of strategic partnerships with emerging economies and countries with ideological affinity. This first wave was characterized by a strong concentration on companies linked to the extraction of oil and minerals (Gallagher & Myers, 2016, p. 7). Almost half of the investments within the past 16 years have been made through nine Chinese companies such as SINOCOPEC, CNOOC, and

CNPC, and focused on four countries (Brazil, Argentina, Peru, and Mexico). The same situation occurred with loans that had been granted in the region. China became the most important source of external financing in countries such as Venezuela, Ecuador, Argentina, and Brazil, surpassing international institutions such as the World Bank (ECLAC, 2015).

China initially played a role as donor and investor. These initial forms of cooperation had been prioritized to ensure the supply of raw materials. In 2002, China established a policy called "going abroad" that aimed for state companies to buy natural resources, energy, and minerals, with the aim of strengthening the growth of the Chinese industry. In economic terms, these forms of cooperation have been largely successful; however, criticisms have been raised about the increase in the level of dependence of the region on China and that these forms of cooperation do not provide important improvements in the structural problems of Latin American economies (Ray, Kevin, Andrés, & Cynthia, 2016).

However, in recent years, besides just looking to obtain raw materials, China has also developed more sophisticated forms of investments, which focus on the service sectors, technology, and the establishment of platforms with added value. This new approach, which this piece of research calls NTFI, is related to the current situation in China, called "new normal" by President Xi, and to the objective of balancing and developing the economy based on innovation, green infrastructure, and sustainable development. At the level of international policies, this new approach is supported by two official documents (1 + 3 + 6) cooperation framework and China's second white paper on Latin American policies) that emphasize a new form of cooperation with Latin America focused on industrial development and the diversification of trade and investment (Myers, 2018). Chile has been identified as a crucial case in the development of nontraditional economic cooperation in Latin America, highlighting the multi-dimensionality of these initiatives.

China-South America Transpacific cable

By signing a technical pre-feasibility agreement between the Chilean Undersecretary of Telecommunications and the Chinese technology company Huawei, the first stage for the development of a fiber-optic platform that will link Asia with South America was established. This platform seeks to optimize the transmission and storage of data between both regions through a high-speed submarine cable. The China-South America Transpacific cable comes under the framework of the Action Plan 2017–2019 between both nations, which was signed by the Minister of Science and Technology of China, Wan Gang, and by the president of the Council of the National Commission of Scientific and Technological Research of Chile, promoting joint activities between research institutions, higher education, and industry.

These cables are destined for telecommunications services, which could make Chile the main digital hub in the region. Currently, four fiber-optic cables with international connections pass through Chile: (1) Pan American, established in 1999 by the AT&T, C&W Network, and Entel consortium with a length of 20,000 km; (2) South American Crossing, established in 2000 by the TELECOM Italia and CenturyLink consortium with a length of 20,000 km; (3) South America-1, established in 2001 by Telxius with a 25,000 km route; and (4) Curie, established in 2019 by Google with a length of 10,476 km. This fifth cable would be the first to connect Asia with South America, which marks a new milestone in the connectivity of both regions. This project estimates an investment of US\$500 million and would be 22,000 km in length. The route will start

from the city of Shanghai and incorporates intermediate stops in Australia, New Zealand, and French Polynesia.³

This investment not only seeks to reduce costs and increase transmission speed but it is also a critical element of China's technological positioning abroad. This type of investment tends to be a Public Private Partnership that brings together different agendas. On the one hand, for public actors, this investment should result in better data for decision-making and reporting and the development of decision support tools. On the other hand, from the companies' point of view, this investment looks to achieve a long-term economic return and further to position the company in the region as a competitive player in the telecommunications market.

Regional innovation center for the ICT industry

In November 2016, the Undersecretary of Telecommunications, Rodrigo Ramírez, and the general manager of Huawei Chile, Quin Hua, signed a Memorandum of Cooperation and Technology Transfer. This agreement was signed during the official visit of the President of China, Xi Jinping to Chile, and aims to create a Regional Innovation Center for the ICT industry. Huawei's decision to invest in a regional center in Chile is based on the fact that the country has a high technology and telecommunications penetration rate, which would facilitate the development of this type of platform. According to the Ranking of Connectivity carried out annually by Huawei, in 2018, Chile was the country with the best connectivity in Latin America and came 33rd internationally. In terms of mobile technology, in 2018, the connections to the 4G network exceeded 12 million, which represents 71% of the total mobile Internet accesses. Among the main investment projects are two public infrastructure initiatives: Southern Optical Fiber Project and a Data Center for Astronomy.

Southern Optical Fiber Project. In 2017, Huawei together with the Chilean company of regional telecommunication (CTR) was awarded the development of a submarine fiber-optic cable of 3000 km to connect the southern tip of Chile. This investment, which has a cost of US\$76 million, forms part of the Special Plan for the Development of Extreme Zones in the Los Lagos, Aysen regions of General Carlos Ibáñez del Campo, and Magallanes and the Chilean Antarctic. It has the objective of strengthening regionalization and the development of telecommunications services. However, this cable includes other strategic elements since it is considered a first phase for interconnecting the American continent with the Antarctic. 6

Data Center for Astronomy. Another initiative of a similar nature is the first Data Center for the development of regional astroinformatics, which will have an adequate infrastructure to store, protect, and transmit information quickly through broadband networks. This data center is based on the cooperation agreement signed in 2015 between the Academy of Sciences of China, the Chilean branch of Huawei, and the Technical University Federico Santa María. It consists of a modular

^{3.} The Huawei Plan to link Shanghai and Chile with an underwater cable. Source: http://www.infraestructurapublica.cl/el-plan-huawei-para-unir-shangai-y-chile-con-un-cable-submarino/

Source: Chilean Undersecretary of Telecommunications (https://www.subtel.gob.cl/subsecretario-ramirez-firma-acuerdo-de-entendimiento-con-huawei/).

^{5.} Source: Ministry of Transport and Telecommunications (http://www.mtt.gob.cl/archivos/16933).

^{6.} Source: Chilean Undersecretary of Telecommunications (https://foa.subtel.gob.cl/proyecto-fibra-optica-austral/).

data center which has a capacity of 1 PB.⁷ The creation of new instances of cooperation has positioned the bilateral cooperation between Chile and China as a regional platform for scientific development and telecommunications.

In this type of investment, just like in the case of the Transpacific cable, both governments participate in the initiation and development of Public Private investments. On the one hand, both governments agree on the strategic need to connect South America with the Antarctic with a fiber-optic cable. On the other hand, the technical implementation of this project is carried out by a private company that is positioning its brand in the region.

South American Center for Astronomy

The CASSACA is a platform for collaboration in astronomical research and development of technologies related to the needs of South America. In order to implement this platform, in 2016, Chile and China signed the collaboration agreement between the Chinese Academy of Sciences and the National Commission of Scientific and Technological Research of Chile. Among the principal investment projects that form part of CASSACA are two scientific infrastructure ones: The Astronomical observatory at Ventarrones hill and the opening of the renewable energy observatory.

Astronomical observatory. In July 2018, the astronomical center opened its first office in the region of Antofagasta, through a joint project with *Universidad Catolica del Norte*, with which they plan to build the first astronomical observatory with Chinese technology in Chile on the Ventarrones hill. It will give Chilean researchers exclusive access during 10% of the time. This project includes the installation of a 12-m telescope within the next 10 years, which will be the first financed by Chinese capital outside its territory.

Observatory of renewable energy. In parallel, CASSACA is financing the opening of a renewable energy observatory that allows the development of solar and water technologies that operate under the "circular economy" framework.⁹

Both projects will receive US\$320 million, which will be financed by the National Astronomical Observatory of China. This type of investment applies the logic of complementarity to achieve a common objective. Chile is the country with the greatest solar radiation in the world; hence, it plays a key role in China's plans for developing scientific studies of the stars. At the same time, Chile does not have the economic and technical capacity to carry this type of investment out by itself, so it needs the support and experience of nations like China.

Discussion of case studies

When China signed the Free Trade Agreement (FTA) with Chile, it was its third commercial partner, after the United States and Europe. However, 11 years later, it is Chile's largest trading

Source: official website Universidad Tecnica Federico Santa María (http://www.noticias.usm.cl/2015/09/16/usm-inaugura-el-data-center-astroinformatico-mas-grande-del-pais/).

^{8.} Source: Chinese Academy of Sciences South America Center for Astronomy (http://www.cassaca.org/es/).

^{9.} Source: Chilean Agency InvestChile (http://blog.investchile.gob.cl/bloges/astronom%C3%ADa-china-instalar%C3%A1-megaproyecto-en-chile).

partner representing 32% of Chile's total exports to the world (DIRECON, 2019). Since the signing of the treaty, trade with China has grown at an annual average rate of 17% compared to the 8% growth Chile has seen with the rest of the world (DIRECON, 2015, p. 5). These changes in tendencies are not a coincidence and cannot be explained by the demand of each country only. Behind the signing of this type of agreement is a political will to deepen cooperation in certain strategic aspects (Borquez, 2019).

Both in the first and in the second white paper on policy toward Latin America, the PRC announced the intention to diversify cooperation with the region (The State Council of the People's Republic of China 2008, 2016). As Shixue (2010) states, as high-level exchanges became more frequent, the volume of bilateral trade increased, resulting in cooperation expanding into other fields. Similarly, Niu (2015) argues that China has updated its economic strategy to focus on more diversified investment, based on financial, industrial, and technological cooperation. In this regard, the rapid development of China–Chile relations is an important part of the changing international system, suggesting that political ties serve to create beneficial and sustainable economic relations. This aforementioned predisposition can be seen in the case study.

In 2012, both countries agreed to develop their bilateral relationship toward a strategic partnership. This represented one of the first strategic-level approaches between Chile and an East Asian nation. Four years later, both nations again raised relations to a comprehensive strategic partnership, which is considered the highest diplomatic status that China uses with its strategic partners at an international level. This status positions Chile and China as two complementary countries that not only need the products and services of each other but are also willing to coordinate actions together to generate new value-management platforms that come together with the development of productive centers and of knowledge.

The result of this update is reflected in initiatives such as the Chinese currency hub, the data center project and the creation of a new regional astronomical observatory. These measures can be interpreted as key elements for understanding the next steps of Chinese integration in the Latin American region. It follows from this, that three elements of NTFIs are identified that point toward new forms of South–South cooperation.

Firstly, China encourages Latin American countries to collaborate by taking advantage of the simultaneous dependence (economic complementarity) between itself and its partners through the NTFIs. This allows for working strategically and institutionally toward a common goal, including the effective exchange of resources (via developing regional hub). This format of investment enables China to diversify its forms of cooperation while expanding its influence in new regions. This approach includes more sophisticated initiatives with high levels of linkage.

Secondly, NTFIs allow small economies such as Chile to progress toward development, as they not only aim to trade primary commodities but also aim to give them added value. For example, Chile is one of the countries with the highest solar radiation in the world, a key component for producing solar energy. China, through NTFIs, proposes the exploration of these natural resources in order to generate new products, which in return can be offered to the Latin American market in the long term. The same happened when China proposed developing an astro-data center to position itself as a leader in the region.

Thirdly, NTFIs are related to the emergence of initiatives that go beyond trade interests such as scientific, technological, and financial cooperation. This co-investment is translated into specific initiatives that involve joint work and greater links with the recipient countries. In this context, NTFIs become a fundamental element in the establishment of strategic and multidimensional relations with China. This kind of interaction between NTFIs and strategic partnerships functions

as good practice and a standard for developing more symmetrical and beneficial relations between countries. In this regard, despite the fact that historically China has been characterized by insularity and self-concern, this new scenario in which China is emerging as a new world power with facilitative leadership is the opportunity to apply cooperation methods that include the voices of developing countries and that contribute to solving problems sustainably (Song et al., 2019).

Finally, this analysis of the Chilean case supports the theoretical framework which argues that China is in the midst of a strategic reorientation. Not only does it seek to satisfy its national interest cost-effectively, but it also looks to exercise a positive influence on the world stage. However, in terms of China's relationship with Latin America, it is not clear if it will follow the logic and practices of South–South cooperation, or if it will transition to a North–South relationship.

Neither is it clear if China will develop this type of sophisticated investments exclusively with its strategic partners with the aim of strengthening its networks in an increasingly bipolar world, or if it will use these sophisticated investments to integrate other nations into the new Global Governance processes that it is presiding over.

This final point is significant, because there is no indication that China uses these NTFIs to impose hegemonic policies or a specific model of domestic governance on other countries. However, the escalation of trade war tensions and preoccupations over Chinese investments in technology platforms have increased in recent years, representing a great challenge to China's foreign policy and claims of a peaceful rise.

Conclusion

The rise of China in the international system cannot be understood only in terms of economic growth, but also by its foreign policies and the mechanisms of linkage used. Although, most of the Chinese investments in Latin America are based on the extraction of natural resources, the past 5 years have been marked by a more active China in the international system. The country had used different tools to expand its influence and generate new types of cooperation that depend less on the preestablished international order. The merit of China is its ability to understand that Latin America is not a homogeneous sociopolitical unit. This is why it has been developing cooperation devices based on the different profiles of nations. In this context, nontraditional economic initiatives function as mechanisms of strategic cooperation that go beyond extracting natural resources in developing countries. They allow medium economies that want to participate competitively in the regional supply chain and in the generation of knowledge to enter platforms with China.

This is also the case of China and Chile, where we can observe a deepening of relations, from the mere economic exchange to the search for complex cooperation (Zhang, 2006). China influences Chile to collaborate, taking advantage of the simultaneous dependence (economic complementarity). This has allowed the countries to work strategically and institutionally toward a common goal. In this context, NTFI has emerged as an alternative of cooperation that allows small economies such as Chile to advance on the road to development, paying attention not only to the transaction of primary products but also to the inclusion of long-term initiatives focused on promoting scientific research, the transfer of technologies, and the generation of a culture that is more prone to the generation of added value.

These results are coherent with the theoretical framework, in the sense that the focus of non-traditional economic initiatives is positioned as a cooperative tool of mutual benefit rather than a device of hegemonic balance. The focus of NTFI, based on concerted power and mutual stimulation, deepens the level of cooperation among partner countries, becoming a broad and multilayered

mechanism. These findings are also consistent with the initial hypothesis, that nontraditional initiatives allow for innovation in the Chinese cooperation model, which works as an alternative to the cooperation model based on the extraction of natural resources. In this sense, the incorporation of sophisticated cooperation systems makes it possible to bring together material needs and the search for a peaceful development. Finally, it should be noted that this study is of a preliminary nature, which is why new analyses and cases are needed to establish a theoretical framework to evaluate the behavior of nontraditional economic cooperation.

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