

International Economic Law by Other Means: a three-level matrix of Chinese investments in Brazil's Electric Power Sector^{1♣}

Michelle Ratton Sanchez-Badin & Fabio Morosini

Abstract (250 words):

This paper aims to fill a vacuum in the international economic law literature about the legal tools mobilized by Chinese state-investments in middle-income economies. In order to develop this analysis, we scrutinize the largest operation of Chinese investments in Brazil: the acquisition of CPFL by State Grid, in the electric energy sector. This analysis assesses the impact of such investments at three levels: the bilateral coordination macrolevel, the national regulatory framework mesolevel, and the corporate governance microlevel. The two main questions driving this exercise are: which legal instruments support these economic interactions and can they be qualified as disruptive of the international economic law order. We conclude that, in comparison to large and small economies, Chinese investments have been much less disruptive to a middle-income economy such as Brazil, due to (i) the similar legal tools employed to manage the international economic legal order, (ii) an economic and legal environment previously exposed to foreign direct investments in strategic sectors; and (iii) the inexistence of reported direct interference, also known as “shadow administration”, of the Chinese Communist Party in the daily operations of the corporation.

Keywords (5-6): Brazil. China. International Economic Law. Investment. Electric power sector. Corporate governance.

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I. Introduction: applying the three-level “matrix” methodology to Chinese in investments in Brazil’s electric power sector

This paper aims at contributing to an emerging literature about the legal tools mobilized by Chinese state-investments from the perspective of a middle-income country like Brazil. The role China has played in changing the ecology of international economic law (IEL) has captured the attention of many scholars, including the participants of this Symposium. The debate has involved looking for legal innovations promoted by the Chinese expansion in contrast to previous hegemonies’ experiences by highlighting the importance of both Chinese domestic regulation and its escalation,² and its private contracts or “soft” types of bilateral commitments.³ We contend that these are not necessarily “new” legal tools, as they have been often invoked as part of certain countries’ IEL toolbox. But because such tools are mobilized in the context of small and medium-size economies, they tend to be absent from the dominant IEL literature.⁴ Thus, in this essay, as we have advanced elsewhere,⁵ we argue that a new methodology is necessary in order to understand the evolving nature of IEL, and that it must involve locating the discipline in alternative normative spaces. We label it “IEL by other means,” in contrast to where the dominant literature tends to locate the main legal tools of the discipline.

Our methodology relies on a “matrix” structure of analysis, examining public and private actors and their legal tools, and it is anchored on grounded theory research design, in which we inductively identify a relevant international economic transaction, and then map the

² Chinese legal order have been approached the from a law and development perspective, challenging the liberal international economic law lenses and reflecting on the role played by what some would qualify as non-legal instruments, cf. Matthew Erie, *Chinese Law and Development*, 62 HARVARD INTERNATIONAL LAW JOURNAL (forthcoming), <https://ssrn.com/abstract=3552044>

³ For some, the novelty of China’s interaction with the existing legal order lies in the way that the country, while not abandoning the traditional IEL tools, such as preferential trade agreements and bilateral investment treaties, crafts new spaces to accommodate its interests. See Gregory Shaffer & Henry Gao, *A New Chinese Economic Order?* UC IRVINE SCHOOL OF LAW RESEARCH PAPER No. 2019-21, <https://ssrn.com/abstract=3370452>.

⁴ See generally RECONCEPTUALIZING INTERNATIONAL INVESTMENT LAW FROM THE GLOBAL SOUTH (Fabio Morosini & Michelle Sanchez Badin eds., Cambridge University Press) (2018).

⁵ Michelle Sanchez-Badin & Fabio Morosini, *The Brazilian Approach to Its South-South Trade and Investment Relations: The Case of Angola*, 43 DENV. J. INT’L L & POL’Y, 489 (2015) (arguing that in the case of Brazil and Angola, their increased trade and investment flows are not supported by RTAs or BITs; rather, Brazil and Angola developed a regulatory framework based on a combination of treaties of cooperation, and public-private and private-private contractual arrangements.); Fabio Morosini & Michelle Sanchez-Badin, *Petrobras in Bolivia: Is There a Rule of Law in the Primitive World?*, in GLOBAL PRIVATE INTERNATIONAL LAW: ADJUDICATING WITHOUT FRONTIERS (Horatia Muir Watt & Diego Fernandez Arroyo eds., Elgar Publishers) (2019) (arguing that Brazil (and Petrobras) took an alternative rule of law path in order to more adequately solve the dispute, which included a public-private negotiated process in light of documents as diverse (from a normative perspective) as memorandum of understandings, gentlemen’s agreements, and exchange of diplomatic letters, all the while operating in the shadow of a standard investment treaty and contractual commitments.)

involved actors and the tools mobilized by these actors.⁶ While it may be considered a heterodox legal methodology as it disregards the hierarchies established by the canons of the IEL field,⁷ we, however, conceptualize it as an empirical approach to IEL to deal with unknown or underexplored states and groups of actors, their legal tools, languages, and processes. We then exemplify this methodology in this essay by focusing on the legal tools invoked by the emergence of Chinese investments in Brazil's electric power sector.

In the present case, our analysis is two-fold: 1) we advance our methodology to address IEL in middle-income economies, and 2) in this process, we investigate how disruptive China's IEL tools have been to Brazil's IEL ecology.

This paper scrutinizes the largest transaction of Chinese investments in Brazil: the acquisition of the electric energy group CPFL by State Grid in 2016-2017 (hereinafter, CPFL case). In 2020, Brazil figured as the fourth largest recipient of Chinese investments in the world, with investments amounting to USD 68,56 billion.⁸ CPFL case was the largest takeover in Brazil, considering the value of the operation (USD8,35 billion), the relevance of the company in its sector of activity (energy),⁹ and the strategic relevance of its activities in providing a public service to the most populated and industrialized region of the country.

The transaction, however, took place during a moment of great fragility of the Brazilian economy and political system. Brazil, as a middle-income country, has dealt with the side effects of the 2008 global financial crisis since 2014. In that same year, the world's largest-ever investigation of corruption was initiated– the Car Wash case – involving public authorities in power and relevant private corporate groups.¹⁰ Thereafter, although Brazil had previously

⁶ We borrow the level-language method from the sociology studies, and our methodological matrix was inspired by Gary Gereffi economic sociology work. Gereffi proposes a three-level analysis of the global economy: macro, meso and micro. Whilst the author includes the firms at the meso-level, as institutions, we qualify them, from the legal perspective, as part of a distinct sector mainly governed by private rules in the micro level. See Gary Gereffi. *The global economy: organization, governance, and development*. In: THE HANDBOOK OF ECONOMIC SOCIOLOGY (Neil Smelser and Richard Swedberg ed., Russel Sage Foundation) (2005).

⁷ See generally Federico Ortino and Matteo Ortino, Law of the Global Economy: In Need of a New Methodological Approach?, in INTERNATIONAL ECONOMIC LAW: THE STATE AND FUTURE OF THE DISCIPLINE (Colin B. Picker, Isabella D. Bunn & Douglas W. Arner (2008), 89-106 (arguing that conceptualizing IEL as a branch of international law, with the obvious consequence of focusing on treaties, may obfuscate other normative spaces relevant to IEL).

⁸ American Enterprise Institute and Heritage Foundation, *China Global Investment Tracker*, December 2020 (Spring Final), <https://www.aei.org/china-global-investment-tracker/>

⁹ Due to the CPFL operation and others, Brazil ranks as the leading destiny of Chinese FDI in the energy sector. Brazil accounts for USD50,3 billion of Chinese investments in the sector, followed by Canada (USD 42bi), Pakistan (USD41 bi), Australia (USD37 bi), and Russia (USD30bi). See American Enterprise Institute and Heritage Foundation, *China Global Investment Tracker*, December 2020 (Spring Final), <https://www.aei.org/china-global-investment-tracker/>

¹⁰ See generally Michelle Sanchez-Badin & Arthur Sanchez-Badin, *Anticorruption in Brazil: From Transnational Legal Order to Disorder*, 326 AJIL UNBOUND 113 (for an analysis of the Car Wash operation and its transnational dimension with impacts to Brazilian FDI); and David Trubek, Fabio Morosini & Michelle Sanchez-Badin, *Brazil*

been portrayed as a promising emerging economy in the beginning of the 2000s, these hopes frayed after 2013.¹¹ Chinese investments in the energy sector, and China's acquisition of CPFL make an interesting laboratory for applying our methodology given the magnitude of this transaction and the particularities of that historical moment, exposing the increasing economic asymmetry between China and Brazil. We frame our analysis as a middle-income country perspective, one where actors, institutions and legal tools are not as stable as in developed economies, nor as fragile as in smaller economies. The resiliency that exists within this middle-income country is in tension with the current era of severe economic and political crises in Brazil.

In this essay, our methodology is broken-up into three interconnected levels of analysis. First, we trace the bilateral commitments between Brazil and China, and examine their legal language and instruments. As part of this analysis, we look at specific provisions in selected Memoranda of Understandings (MOUs) and Cooperation Agreements (CAs) and these provisions' roles in facilitating Chinese investments in the CPFL case. We challenge the purely diplomatic features of these agreements and, instead, argue that, in the absence bilateral investment treaties and trade agreements, MOUs and CAs may exert normative functions when tied to other legal tools. We named this locus of analysis the "macro-level legal structures" in the CPFL case.

Secondly, we address the Brazilian domestic regulatory scheme and its role in facilitating State Grid's access to the Brazilian electric power sector. In our methodology, we suggest that foreign direct investment can shape and be shaped by domestic sectorial regulation. We assess the impact of this deal, as well as the impact of Brazil's regulatory tools in governing FDI and the provision of services in this sector. In the CPFL case, we label it as the "meso-level structure of regulation" impacting on the case.

Finally, we move to the last part of our methodology, which involves looking at the regulation of foreign direct investment at the private law level. While we have focused on contract law in previous works,¹² rumors from insiders suggested that in this particular case of the CPFL case possible legal innovation could be taking place at the corporate governance and

in the Shadow of Megaregional Trade and Investment Standards: Beyond the Grand Debate, Pragmatic Responses. In MEGAREGULATION CONTESTED: GLOBAL ECONOMIC ORDERING AFTER TPP (Benedict Kingsbury et al. 2019) (providing a read of the political changes in Brazil, as from 2015, and its impacts in the country's international strategies in Brazil).

¹¹ The Economist depicted these two moments with emblematic coverages. See Leaders, *Brazil Takes Off*, THE ECONOMIST, Nov. 12, 2009; Leaders, *Has Brazil Blown It?*, THE ECONOMIST, Sep. 27, 2013.

¹² Michelle Sanchez-Badin & Fabio Morosini, *The Brazilian Approach to Its South-South Trade and Investment Relations: The Case of Angola*, 43 DENV. J. INT'L L & POL'Y, 489 (2015).

management. Our primary goal here is to understand how private relations were coordinated and legal tools mobilized in this specific case, in contrast to experiences with other companies in the electric power sector and to CPFL past practices. We labelled this analysis the microlevel legal structures.

The study of the CPFL case considered formal and informal documents signed and published by the relevant economic actors with connections to the case. Media and public reports were also helpful in identifying people tied to and rumors swirling about key moments of the case. Interviews and private discussions as part of previous exercises for this research were helpful in understanding the mosaic of collected information. Interviewees will remain anonymous, but the content of these sources are on file with the authors.

The two main questions driving our analysis are: which legal instruments supported the economic interactions in the CPFL case and whether they were disruptive to the Brazilian IEL ecology. We conclude that Chinese investments have been much less disruptive in a middle-income economy like Brazil. Whilst we accept that there may be novelties from the perspective of liberal IEL, our research suggests that China's legal toolbox is not new. Approaching China's legal order from Brazil, we suggest that what may differentiate China in IEL approaches is less the legal tools employed, but the different uses that China makes of these tools and their combinations, and due to China's magnitudes, the much greater impact these tools have on the incumbent order.

II. Macrolevel regulation: Brazil-China interstate commitments

In this section, we study the types of commitments undertaken by Brazil and China at the macrolevel – state-to-state agreements and other arrangements – that could be viewed as instrumental in legally supporting the increasing volume of trade and investments between these two countries. As IEL scholars, we are tempted to look for commonly documented IEL tools, such as preferential trade agreements and bilateral investment treaties. Brazil and China, however, have not resorted to these IEL tools in their bilateral relationship. Surprisingly, this has not stopped China from becoming Brazil's first trading partner and a major investor in several strategic sectors of the Brazilian economy, such as energy, telecommunications, mining and agriculture.

At the diplomatic level, Brazil and China have a long-established tradition, dating back

to the 19th century.¹³ But in 2004, a shift occurred. During presidential visits of President Lula to China, and President Hu Jintao to Brazil, a total of twenty-one agreements were signed. The agreements invoked a “strategic partnership” notion triggered in the 1990s,¹⁴ applying South-South cooperation formula, such as: general principles of friendship, mutual respect and reciprocal benefits; soft legal arrangements, including broad memoranda of understandings and protocols among executive agencies; and, decisions about logistical facilitation, including visa, flights, shipping and so on. In addition to that, the parties also engaged in signing substantive private international law agreements, for civil and criminal judicial cooperation. As part of those initiatives, the High Level Bilateral Committee for Cooperation (“COSBAN”) was created, with COSBAN supposed to be the main forum of planning and proposals for new actions by the parties, Brazil and China.

Some of the MOUs are worth highlighting to elucidate the crafting of spaces for the Chinese investments in green energy projects and the electric power sector in Brazil. The first MOU concerns cooperation in trade and investment matters, signed between the ministries of commerce of the two countries in 2004.¹⁵ Employing language of mutual cooperation, Article 3 states that both countries will provide active support to joint ventures established between China and Brazil. Article 6 details areas for the promotion of bilateral trade and cooperation, even if still focused on joint ventures. There were specified areas for cooperation, including: infrastructure, energy, natural gas, environmental protection, transportation, biotechnology and mining. In line with an already documented Brazilian tradition to rely on trade and investment dispute prevention,¹⁶ the MOU empowers the Joint Trade-Economic Commission, created in

¹³ The diplomatic relations between Brazil and China date back to imperial times. They started at the beginning of the 19th century, but were interrupted by the creation of the People's Republic of China in 1949. In 1974, the diplomatic relations were normalized, by means of a bilateral agreement on the creation and operation of their embassies. Since then, bilateral ties have seen development mainly based on the principles of non-interference, equality and mutual benefit. All bilateral arrangements are publicly available at <https://concordia.itamaraty.gov.br/>.

¹⁴ Brazil adopted a series of strategic partnerships with countries from different regions of the world. If during the 1960-1970, such agreements were spaces for diversification of diplomatic and economic relations, in the beginning of the 2000s they delineated a vision of political and economic projects. See, on this sense, Antonio Carlos Lessa & Henrique Altemani de Oliveira (ed.), *PARCERIAS ESTRATÉGICAS DO BRASIL: OS SIGNIFICADOS E AS EXPERIÊNCIAS TRADICIONAIS*, v. 1 (Fino Traço, 2013); Antonio Carlos Lessa, *Brazil's strategic partnerships: an assessment of the Lula's era (2003-2010)*, 53 *REV. BRAS. POLIT. INT.*, 115-131 (2010); Henrique Altemani de Oliveira, *Brasil-China: trinta anos de uma parceria estratégica*, 47 *REV. BRAS. POLIT. INT.*, 7-30 (2004). The content of the partnerships are available for public consultation at <https://concordia.itamaraty.gov.br/>.

¹⁵ See Memorandum of Understanding between the Federative Republic of Brazil and the People's Republic of China on Cooperation in the Fields of Trade and Investment. *Chin.-Braz.*, Nov. 12, 2004, at <https://concordia.itamaraty.gov.br/>.

¹⁶ See generally Michelle Ratton Sanchez-Badin & Fabio Morosini, *Navigating between Resistance and Conformity with the Global Investment Regime: The New Brazilian Agreements on Cooperation and Facilitation*

1978,¹⁷ to assess the implementation of these commitments.

In foster cooperation in the energy sector, in 2006, Brazil and China signed an MOU about the establishment of a special purpose sub-commission on energy and mineral resources of COSBAN. This agreement was signed by the Ministry of Mining and Energy from Brazil and the National Commission for Development and Reform of the State in China.¹⁸ The sub-commission is in charge, *inter alia*, of promoting cooperation and coordination efforts in energy, geology and mining between Brazil and China. The sub-commission's mandate also includes the exchange of information about public policies, regulation, development strategy and key projects in these areas, and the encouragement of cooperation in the sectors of oil and gas, renewable energies and biofuels, electricity, amongst others.¹⁹ The focus on energy in those agreements anticipated the increase of Chinese investments in Brazil, from 2008 onward (Sections 3 and 4).

Having mapped all bilateral agreements signed between Brazil and China, using the content-analysis software Atlas.ti©, we noticed that there was an increasing density of provisions concerning the energy sector. This is represented below with key agreements signed between China and Brazil:

Figure 1: Atlas.ti© “energy-related” agreements

Document	Energy-related
Joint Declaration (2004)	0
Joint Action Plan (2010-2014)	2
Ten-Years Planning (2012-2021)	30
Joint Action Plan (2015-2021)	19

Source: prepared by the authors.

Starting in 2012, the Brazil-China bilateral arrangements assumed a planning

of Investment (ACFIs), in RECONCEPTUALIZING INTERNATIONAL INVESTMENT LAW FROM THE GLOBAL SOUTH (Fabio Morosini & Michelle Sanchez Badin eds., 2017).

¹⁷ See Article 9 of the Trade Agreement signed between the Federative Republic of Brazil and the People's Republic of China on Cooperation in the Fields of Trade and Investment. Chin.-Braz., January, 7, 1978, at <https://concordia.itamaraty.gov.br/>

¹⁸ See Memorandum of Understanding about the Establishment of the Sub-Commission on Energy and Mineral Resources of the High Level Bilateral Committee for Cooperation between the Ministry of Mining and Energy of the Federative Republic of Brazil and the National Commission for Development and Reform of the State of the Popular Republic of China, June, 5, 2006.

¹⁹ This MOU was complemented, in 2009, by the Protocol between Brazil and China on Cooperation in Energy and Mining, February, 19, 2009.

perspective with the Ten-Years Planning (TYP). The joint plans, as well as the TYP, make reference to (1) the importance of Chinese investments in Brazil, mainly in the oil sector, (2) the financing of such investments, (3) the promotion of ethanol – a biofuel that Brazil is one of the largest producers in the world of – as a global industrial good, and (4) clean energy, and the promotion of trade and investments in these matters.²⁰ The TYP also adds more precision to national agents and economic operators to the elected sectors for cooperation. In this regard, there is a provision about “other energy concerns” that expressly invokes the Brazilian SOE Eletrobras (see Section 3) and the Chinese SOE State Grid (Section 4) to operate relevant bilateral projects of cooperation.²¹

The TYP and the last Joint Action Plan (2015-2021) were signed when the asymmetries between the two economies sharply increased, and the Car Wash corruption scandal started to dominate the Brazilian domestic scenario. Foreign policy in Brazil was largely affected by these concerns. Chinese diplomacy was clever in maintaining its interests in the texts of the bilateral arrangements, in which there is: 1) the identification of priority areas for cooperation in trade and investment matters, including the energy sector; 2) the option to develop bilateral state-led bodies to monitor, prevent and solve any potential differences that may arise out of these agreements, and; 3) the identification of national agencies and state-companies to be mobilized in the sector. By focusing on dispute prevention, China and Brazil trust existing structures, such as the Joint Trade-Economic Commission, or new ones, like COSBAN and its sub-commission on energy and mineral resources.

Given the Brazilian experience to rely on such legal tools and joint governmental bodies to govern their international economic engagements, even beyond what is traditionally expected from these types of agreements, we suspect that we should expect to witness similar occurrences arising from China-Brazil arrangements. In other words, MOUs and CAs for middle-income economies like Brazil are part of the IEL language, often used in combination with other instruments, such as private arrangements.²²

²⁰ As from the 11th Five-Year Planning (FYP) (2006-2011), Chinese government has explicitly announced “green development” as one of China’s medium-term objective. See Hu Angang & Liang Jiaochen. *China’s green era begins*. CHINA DIALOGUE. 8 March, 2011, <https://www.chinadialogue.net/article/show/single/en/4149-China-s-green-era-begins->

²¹ See Ten Year Planning for the Cooperation the Federative Republic of Brazil and the People’s Republic of China, June, 21, 2012.

²² See Michelle Sanchez-Badin & Fabio Morosini, *The Brazilian Approach to Its South-South Trade and Investment Relations: The Case of Angola*, 43 DENV. J. INT’L L & POL’Y, 489 (2015); Fabio Morosini & Michelle Sanchez-Badin, *Petrobras in Bolivia: Is There a Rule of Law in the Primitive World?*, in GLOBAL PRIVATE INTERNATIONAL LAW: ADJUDICATING WITHOUT FRONTIERS (Horatia Muir Watt & Diego Fernandez Arroyo eds., Elgar Publishers) (2019).

This brings us to another point concerning the novelty of relying on MOUs and other seemingly non-legally binding instruments. On a first look, locating IEL governance – or at least part of it - in MOUs and CAs may come as a surprise even to the more experienced IEL scholars and practitioners who too readily dismiss these practices as regular diplomatic language lacking normativity. Our previous work on Brazil’s economic engagement with other developing countries suggests otherwise.²³ In these works, we argued that MOUs and CAs are part of the legal tools employed by Brazil to govern international trade and investment transactions. As such, Brazil-China’s option to govern their bilateral economic engagement by MOUs, CAs or other types of (for some) less traditional IEL tools are part of Brazil’s IEL jargon and should not be seen as disruptive to IEL regulation. It is simply an alternative form of regulating transnational economic transactions. We interpret Brazil and China’s resort to MOUs and CAs as one layer of legal commitments that, in the present case, are further detailed in domestic regulation of the host country and private law tools.

In other words, China’s often invoked novelty to rely on MOUs to govern foreign investment but it does not come as a surprise to a middle-income economy like Brazil that has opted, historically, for similar legal tools to regulate trade and investment flows with other developing countries. What may be surprising for Brazil, therefore, is perhaps the magnitude of Chinese trade and investment flows – unprecedented outside the US/EU axis – and its influence on the capacity of Chinese actors to mobilize such legal tools and the planning structure of the bilateral relations. In the next sections, we assess whether the other levels of coordination intertwine with the macrolevel legal structures and/or destabilize the strategies therein designed for Chinese investments in the electric energy sector in Brazil.

III. Mesolevel regulation: Chinese investments encounters Brazil’s electric power sector law

In this Section we assess how the Brazilian power sector has been restructured to attract and accommodate private investment – domestic and foreigner – before the arrival of Chinese investments in the sector. With the emergence of Chinese investments, the question then turns to identifying if existing sectorial regulation has been able to adequately address the

²³ See *id.* See also Michelle Rattón Sanchez-Badin & Fabio Morosini, *Navigating between Resistance and Conformity with the Global Investment Regime: The New Brazilian Agreements on Cooperation and Facilitation of Investment (ACFIs)*, in RECONCEPTUALIZING INTERNATIONAL INVESTMENT LAW FROM THE GLOBAL SOUTH (Fabio Morosini & Michelle Sanchez Badin eds., 2017).

specificities of the Chinese investors or if it has been reshaped to accommodate the “China factor”.

The energy sector attracted the majority of Chinese FDI in Brazil – 70% out of around 60 billion²⁴ – and 60% of such investments focused in the electric power subsector, where the State Grid/CPFL venture is located. We analyze the interconnection of the Brazilian regulatory system with the electric power subsector within the context of the increasing presence of Chinese investors in the Brazilian economy.

The current regulatory structure of the Brazilian energy sector is a result of landmark reforms passed in the 1990s and a number of other legal adjustments that were put in place since then, that were aimed at attracting FDI and improving the quality and efficiency of services in this market. Under these reforms, the electric energy sector was divided into four main activities, each of them with its own rules and regulations: generation, transmission, distribution and trading of energy. Such reforms were, first, taken at the constitutional level and later by infra-constitutional administrative law converting a state-controlled sector into a market driven sector.²⁵ As a result, private capital participation in the sector has grown significantly.

The energy sector in Brazil has undergone adjustments, with a second major reform in 2004 that resulted in a combination of market competition with state control.²⁶ The 2004 reform encouraged state participation in the sector through the use of public-private partnerships and special-purpose enterprises, slowed down the privatization process, and strengthened sector coordination.²⁷

²⁴ See American Enterprise Institute and Heritage Foundation, *China Global Investment Tracker*, December 2020 (Spring Final), available at <https://www.aei.org/china-global-investment-tracker/>.

²⁵ The framework of the reform was published as *Reforma do Setor Elétrico Brasileiro* (RE-SEB) by President Cardoso government, in 1995. Amendment N. 6 of the 1988 Brazilian Federal Constitution allowed FDI for certain activities in the sector, and Laws No. 8,987 and 9,074 of July 7, 1995. The full implementation of RE-SEB model took five years and was only completed in 2000. See Paul Joskow, *Lessons Learned From Electricity Market Liberalization*, THE ENERGY JOURNAL, SPECIAL ISSUE: THE FUTURE OF ELECTRICITY - PAPERS IN HONOR OF DAVID NEWBERY (2008), <https://www.aeaweb.org/articles?id=10.1257/aer.102.3.381>; and José Goldenberg & Luiz Prado, *Reforma e crise do setor elétrico no período FHC*, 15 TEMPO SOCIAL, 2003, 219-235.

²⁶ See Deborah Werner, *Estado, Capitais Privados e Planejamento no Setor Elétrico Brasileiro após as Reformas Setoriais das Décadas de 1990 e 2000*, 52 PLANEJAMENTO E POLÍTICAS PÚBLICAS, 2019, 225; Renier Lock, *The New Electricity Model in Brazil- An Institutional Framework in Transition*, THE ELECTRICITY JOURNAL, 2005, 51; and João Lizardo de Araújo, *A Questão do Investimento no Setor Elétrico Brasileiro: Reforma e Crise*, 11 REVISTA NOVA ECONOMIA 1, 2009, 77-96

²⁷ As a consequence, the SOE Eletrobras assumed a role of coordination in the sector, and other regulatory bodies were created, such as the Electricity Industry Monitoring Committee (CMSE), established to monitor supply continuity of power and the Energy Research Company (EPE), a research body which may emerge as a major planning entity for MME. See more in Marcos Souto. *Breve apresentação do Novo Marco Regulatório do Setor Elétrico Brasileiro*. In: *Regulação Jurídica do Setor Elétrico* (Elena Landau, ed. 2006), 235-260. Sunil Tankha. *From market to plan: Lessons from Brazilian power reforms on reducing risks in the provision of public services*,

Figure 2: Electric energy sector reforms in Brazil

Former Model (until 1995)	Free Market Model (1995 to 2003)	Current Model (2004-...)
Financing using public funds	Financing using public and private funds	Financing using private and public funds
Verticalized companies	Companies classified by activity: generation, transmission, distribution and commercialization	Companies classified by activity: generation, transmission, distribution, commercialization, imports and exports
Predominantly state-controlled companies.	Opening up of the market; emphasis on privatization of state-companies	Coexistence between state-controlled and private companies.
Monopolies – no competition	Competition in generation and commercialization	Competition in generation and commercialization
Captive consumers	Both free and captive consumers	Both free and captive consumers
Regulated market	Free market	Coexistence between free and regulated markets
Tariffs regulated throughout all sectors	Prices freely negotiated for the generation and commercialization	Free environment: Prices are freely negotiated for the generation and commercialization. Regulated environment: auctions and bids for the least tariffs

Source: Based on Larrea, Sylvia. **Brazilian Electric Power Sector: changes in regulatory framework**. Energy Bar Association Meeting Presentation, 2004. Available at https://www.ebanet.org/assets/1/6/Energy_Bar_Ass_Brazilian_Power_Sector_Chang.pdf. Last access on January 2021.

Brazil’s electric power sector law also involves a sophisticated monitoring system. According to the 2004 reform, the regulatory framework is supervised and coordinated by the following governmental agencies: (1) the National Electric Energy Agency (“ANEEL,” in Portuguese), that writes sectoral policies and guidance; (2) the National Operator of the System (“ONS,” in Portuguese) that dispatches power plants according to their efficiency and energy sources; and (3) the Electric Energy Trading Chamber (“CCEE,” in Portuguese) that accounts

27 POLICY AND SOCIETY, 2008, 151-162. More recently, Bolsonaro’s government attempted to modify parts of such regulation to limit state control, but the following landmarks of reforms still stand. On this sense, Latin American Finance, *Eletrobras puts off privatization plans until 2021*, Apr. 21, 2020, <https://www.latinfinance.com/daily-briefs/2020/4/2/eletrobras-puts-off-privatization-plans-until-2021>.

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for contracted and consumed energy in the national system.²⁸ The Brazilian SOE Eletrobras also issues sector-specific guidelines and promotes coordination of the system.

The Brazilian system has also been a pioneer in developing a series of model contracts and designing types of coordination of the market. First, energy rates would be set by the marginal costs of the highest bid in the undertakings, hence, providing fair electricity rates for end users. By setting strict requirements in auctions and including the contracting of future power generation, the model also ensures that the Ministry of Energy has control over national capacity and investment needs.²⁹ This turns the Brazilian system into “a model of paradigmatic success for energy regulation”, according to a Brazilian expert who worked in the public sector for decades,³⁰ and a stable market that operates almost on the base of a “fixed-income investment”.³¹ Insiders also reported that Chinese FDI considered this safe harbor characteristics to wage the significant investments made.³²

The Brazilian electric energy market can also be characterized as: 1) a large market for production and consumption in a vast territory,³³ 2) supplied by the 8th largest established

²⁸ See Law No. 9,427, of December, 26, 1996; Law No. 9.648, of May, 27, 1998 that created a national Wholesale Power Market (MEA), changing the way energy was bought and sold in Brazil; and Law No. 10,848/2004 that changed the nature and the role of the MEA, created the CCEE, including among its functions the responsibility to conduct public procurement auctions.

²⁹ The regulated market promoted by the 2004 Reform created the obligation for distributors to acquire energy through public procurement auctions that work through a best-offer bid rational. After participating in different undertaking modalities, including “existing” and “new” energy generation, coordinated by CCEE, bid winners, then, sign long-term agreements regulated by ANEEL (the so-called Electric Energy Trading Agreement in the Regulated Environment - CCEAR) of 15-30 years, depending on the investment amortization time needed by the investment. See also Marcos Souto, *Breve apresentação do Novo Marco Regulatório do Setor Elétrico Brasileiro*. REGULAÇÃO JURÍDICA DO SETOR ELÉTRICO, 235-260 (Elena Landau ed., 2006); and Sunil Tankha, *From market to plan: Lessons from Brazilian power reforms on reducing risks in the provision of public services*, 27, POLICY AND SOCIETY, 151-162 (2008).

³⁰ According to Discussant N. 6 at FGV Workshop on November 18, 2020, on file with authors.

³¹ Virtual conference call interview N. 6 as of November 13, 2020, with an executive working on the private sector in the energy market in Brazil, who held executive positions in Chinese companies operating in Brazil. On file with the authors.

³² Virtual Conference call interviews N. 3, 4, 5, and 6, as of October 20, 23, and November 13, 2020, and Discussant N. 6 at FGV Workshop on November 18, 2020. All on file with the authors.

³³ Brazil ranks among the ten-largest electrical energy producers and consumers in the world. See Brazil, Ministério de Minas e Energia, BALANÇO ENERGÉTICO NACIONAL 2019, <http://www.epe.gov.br/sites-pt/publicacoes-dados-abertos/publicacoes/PublicacoesArquivos/publicacao-377/topico-470/Relatório%20Síntese%20BEN%202019%20Ano%20Base%202018.pdf>.

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capacity in the world,³⁴ 3) mostly based on renewable sources,³⁵ and 4) highly internationalized due to the volume of FDI in the sector.³⁶

Since the reform in the 1990s the sector attracted a relevant amount of FDI, mostly from European countries, but other U.S., Canadian, Indian and Colombian companies have also participated. Chinese companies are latecomers to this system, starting to invest in Brazil's electric energy sector in 2010 onward. Nonetheless, they have already invested around USD 26,5 billion in this sector.³⁷ Chinese companies arrived in the Brazilian market when all legal reforms were concluded, and the country's electric energy system was considered a model of regulation and legal certainty. Thus, although there have been alarming statements in the media about potential risks to Brazil arising out of Chinese investments in the electric power sector, experts working in the sector are confident that existing Brazilian law can handle these investments with existing regulations.³⁸

As of 2020, Chinese investments resulted in a share of 8% of the generation activities, 6% of the transmission activities – controlling 15,761 km of transmission lines in the country (about 10% of the installed network) – and 15% of the distribution activities in the electric

³⁴ Brazil has 170 GW of installed capacity (8th in the world, 2018 EST.) Brazil, Ministério de Minas e Energia, ANUÁRIO ESTATÍSTICO DE ENERGIA ELÉTRICA 2018, 29, <http://www.epe.gov.br/sites-pt/publicacoes-dados-abertos/publicacoes/PublicacoesArquivos/publicacao-160/topico-168/Anuario2018vf.pdf>.

³⁵ In Brazil, 66% of its electric market is generated by hydroelectric power plants. Brazil. Ministério de Minas e Energia. BALANÇO ENERGÉTICO NACIONAL 2019, 35, <http://www.epe.gov.br/sites-pt/publicacoes-dados-abertos/publicacoes/PublicacoesArquivos/publicacao-377/topico-470/Relatório%20Síntese%20BEN%202019%20Ano%20Base%202018.pdf>. This is the second established hydroelectric power capacity in the world, being China the first ranked country and Canada the third, cf. Centre for Energy Economics Research and Policy, BP STATISTICAL REVIEW OF WORLD ENERGY (Heriot-Watt University, 2019).

³⁶ FDI is today very much relevant to the energy sector in Brazil, it responds to: 21% of the generation segment, 23% of the transmission segment, and 51% of the distribution segment. See Gesner Oliveira et al. ANÁLISE DO AMBIENTE CONCORRENCIAL DO SETOR ELÉTRICO NO BRASIL (FGV, 2018).

³⁷ According to CGIT, one of the most extensive database about Chinese investments worldwide, should be the baseline to consider the volume of Chinese investments in Brazil. Firstly, because CGIT registers direct investments and acquisitions of companies based in Brazil solely, and not indirect transfer of shares – as it was the case of the acquisition of EDP investments in Portugal and its affiliates in Brazil. Secondly, there are numerous bids that Chinese companies won that were not yet compiled by the CGIT. See e.g. contrasting data of American Enterprise Institute and Heritage Foundation, *China Global Investment Tracker*, December 2020 (Spring Final), available at <https://www.aei.org/china-global-investment-tracker/> and of Laura Urrejola Silveira, LAÇOS E TRACADOS DA CHINA NO BRASIL: IMPLANTAÇÃO DE INFRAESTRUTURA ENERGÉTICA E A COMPONENTE SOCIOAMBIENTAL (UnB Master dissertation, 2018).

³⁸ Ref. to interviews N. 3, 5 and 6, with executives and experts working for the sector. The interviews were made in October and November of 2020; and Discussants N. 2 and 3 at FGV Workshop on November 19, 2020. On file with the authors. On the same sense, see Laura Urrejola Silveira, LAÇOS E TRACADOS DA CHINA NO BRASIL: IMPLANTAÇÃO DE INFRAESTRUTURA ENERGÉTICA E A COMPONENTE SOCIOAMBIENTAL (UnB Master dissertation, 2018); Giorgio Romano Schutte & Victor Debone, *A expansão dos investimentos externos diretos chineses. O caso do setor energético brasileiro*, 8 CONJUNTURA AUSTRAL, 2018, 90-114; and Giorgio Romano Schutte, OÁSIS PARA O CAPITAL SOLO FÉRTIL PARA A CORRIDA DE OURO? A DINÂMICA DOS INVESTIMENTOS PRODUTIVOS CHINESES NO BRASIL (Appris, 2020).

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energy sector controlled by Chinese companies.³⁹ Although Chinese companies became relevant actors in the electric power sector in Brazil, they are not the only players in the market. The market is disputed by other foreign investors as well as national ones, including the state-company Eletrobras.⁴⁰

The material characteristics of the Brazilian electric power sector also captured the attention of Chinese companies. Brazil has the natural and structural conditions for the production of clean energy and a demand for long distance transmission lines to connect generating plants to consumer markets⁴¹ To a certain extent, China and Brazil share the later characteristic, but the Chinese government and companies have strongly invested in technology for long-distance transmission lines, including ultra-high voltage (UHV) transmission lines and smart grids.⁴² Such technologies are associated with the promotion of a clean energy, by Chinese government planning (Section 2). More recently, such plans – first linked to decarbonization and efficiency in the electric energy sector – became part of a more

³⁹ These numbers were collected in the following studies and databases: American Enterprise Institute and Heritage Foundation, *China Global Investment Tracker*, December 2020 (Spring Final), available at <https://www.aei.org/china-global-investment-tracker/>; Gesner Oliveira et al. ANÁLISE DO AMBIENTE CONCORRENCIAL DO SETOR ELÉTRICO NO BRASIL (FGV, 2018); DIEESE. NOTA TÉCNICA 117: PRIVATIZAÇÃO, DESNACIONALIZAÇÃO E TERCEIRIZAÇÃO NO SETOR ELÉTRICO BRASILEIRO (2017), <https://www.dieese.org.br/notatecnica/2017/notaTec173PrivatizacaoSetorEletrico.pdf>.

⁴⁰ Brazilian state investments are highly relevant for the generation and transmission sectors, but not for distribution. Eletrobras, as of 2017, had 32% of the installed capacity, 50% of the transmission lines, and 5% of the energy distribution, cf. DIEESE. NOTA TÉCNICA 117: PRIVATIZAÇÃO, DESNACIONALIZAÇÃO E TERCEIRIZAÇÃO NO SETOR ELÉTRICO BRASILEIRO (2017), <https://www.dieese.org.br/notatecnica/2017/notaTec173PrivatizacaoSetorEletrico.pdf>. These numbers may change in the near future, if efforts in the central government – not without resistance – to privatize most of Eletrobras assets gain force. More about such efforts at Latin American Finance, *Eletrobras puts off privatization plans until 2021*, Apr. 21, 2020, <https://www.latinfinance.com/daily-briefs/2020/4/2/eletrobras-puts-off-privatization-plans-until-2021>.

⁴¹ Laura Urrejola Silveira, LAÇOS E TRACADOS DA CHINA NO BRASIL: IMPLANTAÇÃO DE INFRAESTRUTURA ENERGÉTICA E A COMPONENTE SOCIOAMBIENTAL (UnB Master dissertation, 2018); and Danielly Becard, Antonio Lessa & Laura Silveira, *One Step Closer: The Politics and the Economics of China's Strategy in Brazil and the Case of the Electric Power Sector*. In: INTERNATIONAL POLITICAL ECONOMY SERIES, 72, 55-81, (Bernal-Meza & Xing eds., 2020).

⁴² UHV grid is mainly composed of 1000kV AC (and above) and ± 800 kV, ± 1100 kV DC (and above) transmission systems, bringing significant advantages, including long transmission distance, large capacity, high efficiency, low line loss, less land use and high security. Xu Yi-Chong makes an extensive analysis of State-Grid's involvement with the development of UHV technology and its dissemination in the Chinese electric energy system, see Xu Yi-Chong, *China's Giant State-Owned Enterprises as Policy Advocates: The Case of the State Grid Corporation of China*, 79 THE CHINA JOURNAL, 2017, 21-39. The smart grids concept comprises the process of integrating flexible and adaptable technologies into the storage, transmission, operation, and distribution of energy sectors. According to Becard *et al.* (2020), "State Grid has extensive experience in smart grid projects, having installed more than 300 million digital meters throughout China, and having supported and invested in low carbon technologies, particularly in the areas of renewable energy and mobility energy.", cf. Danielly Becard, Antonio Lessa & Laura Silveira, *One Step Closer: The Politics and the Economics of China's Strategy in Brazil and the Case of the Electric Power Sector*. In: INTERNATIONAL POLITICAL ECONOMY SERIES, 72, 55-81, (Bernal-Meza & Xing eds., 2020).

comprehensive strategy of worldwide connectivity of smart grids, under the Belt and Road and other similar geostrategic initiatives by the Chinese government.⁴³

From 2012 to 2017, 70% of all Chinese FDI in the electric energy sector in Brazil took place. This shock of Chinese investments in a short period of time and the leading position Chinese investors occupied in different segments of the Brazilian energy sector raised concerns about the geopolitical and geoeconomic interests behind such investments, and about their potential to disrupt the competition in the electric power sector in Brazil.

General concerns about the distinctiveness of Chinese FDI in the electric energy sector were raised. The main concerns documented in the literature and in the public debate in Brazil consider the fact that 99% of the investments were made by Chinese SOEs,⁴⁴ and they have taken place in the following terms: (1) favorable financing conditions of the Chinese SOEs due to the structure of a socialist market economy and the aforementioned geostrategic interests by the state; (2) the potential capacity of economic concentration and market control by Chinese FDI and SOEs; and (3) the potential manipulation of the Brazilian energy sector on behalf of Chinese government and companies for the interconnectivity plans.

The financing conditions of the first take-overs by Chinese companies in the electric energy sector were closely monitored by the regulators, the media, and experts in the Brazilian sector. The major concern was about the favorable or non-market conditions of financing benefiting the prices offered either with surplus in cases of bids or acquisitions by price/ offer or reduced prices offered to the services to be rendered in case of bids based on the price of future services. Although there were cases of surplus in offers by Chinese companies and devaluations in prices for the bids, they were not unrealistic to the market.⁴⁵ Analysts often

⁴³ In 2016 China headed the creation of the Global Energy Interconnection Development & Cooperation Organization (GEIDCO). GEIDCO embodies China's BRI objectives and the 2015 Chinese proposal of a global clean energy grid, named Global Energy Interconnection (GEI), connecting national networks through the use of ultra-high voltage transmission lines. This ambitious project seeks to connect national networks into transnational and intercontinental grids Cf. PAUL VAN SON & THOMAS ISENBURG, EMISSION FREE ENERGY FROM THE DESERTS: HOW A CRAZY DESERTIC IDEA HAS BECOME REALITY IN NORTH AFRICA AND THE MIDDLE EAST, 124 (2019); and Jeffrey D. Sachs *La atrevida visión energética de China*, NUEVA SOCIEDAD, (2018).

⁴⁴ It calls the attention that, for some of the Chinese SOEs, their investments in Brazil are a significant part of their FDI outflow worldwide. An example further explored in this paper is the case of State Grid. Brazil became the first investing market of State Grid since its first move in 2010, and it responded in 2020 to 60% of all State Grid's outbound investments. See FORBES. *Brasil representa 60% dos investimentos da State Grid fora da China* (Oct. 17, 2019), <https://forbes.com.br/last/2019/10/brasil-representa-60-dos-investimentos-da-state-grid-fora-da-china/>

⁴⁵ See Laura Urrejola Silveira, *LACOS E TRACADOS DA CHINA NO BRASIL: IMPLANTACÃO DE INFRAESTRUTURA ENERGÉTICA E A COMPONENTE SOCIOAMBIENTAL* (UnB Master dissertation, 2018), 139 on. The acquisition of CPFL, further detailed in Section 4, is an example of a transaction where market conditions prevailed. CPFL shares were negotiated in the stock exchange at the time, State Grid had to make a public offer, and it was the right player at the right time. Interviewed executives by virtual conference calls - Interviews 2, 3, 4, 5 and 6, in April, October and November 2020 - confirmed this to us.

invoke the argument that: 1) Chinese companies had an advantage at that particular historical moment (2012-2016), since traditional investors in the sector based in the Northern countries were recovering from the 2008 financial crises, 2) that the political and economic crises in Brazil constrained national competitors investment appetite, leaving even more room for foreign capital. Additionally, after 2015, restrictive measures against FDI – mostly Chinese FDI – started to pop up in some countries, especially in developed countries, which encouraged China to look for alternative markets.⁴⁶

Market concentration distress increased as Chinese companies became major investors in different segments of the electric power sector.⁴⁷ Chinese investments are second supplier of energy generation, fifth in distribution, and third in transmission. However, China is far from exerting control of the Brazilian market. China Three Gorges holds 5.3% of the generation market, whereas Eletrobras holds 30% and Engie Brasil holds 4,9%; in the transmission sector Eletrobras holds 55% of the market share, and State Grid in the fifth position only 5.9%; and, lastly, in the distribution sector, the largest investment is in CPFL that holds the third position disputing it with other foreign and national investors, including the Italian company Enel that is the leader in this market.

The criticisms over Chinese SOEs curiously was to a certain extent dismissed in Brazil due to the still strong presence of the national SOE Eletrobras, which plays an important role in the electric energy sector. As to FDI in this sector, a significant part of it comes from other foreign SOEs, such as Enel from Italy, Statkraft from Norway, and Iberdola from Spain. Besides that, the regulatory backbone defines that all merger and acquisitions transactions are analyzed by the Brazilian antitrust agency, auctions have their rules and limits of participation previously defined by the national agencies, and the commercialization prices are to a certain extent controlled in the planned market. The operators of the system argue that those mechanisms can safeguard the fair competition in the domestic market.⁴⁸

The concerns about concentration and geostrategic takeovers also lost importance as FDI from China started to diversify to other sectors and the profile of Chinese investors in

⁴⁶ OECD, *Acquisition- and ownership-related policies to safeguard essential security interests*, OECD RESEARCH NOTE, May 2020.

⁴⁷ See American Enterprise Institute and Heritage Foundation, *China Global Investment Tracker*, December 2020 (Spring Final), available at <https://www.aei.org/china-global-investment-tracker/>; and Leaders League, Enel buys 73% stakes in Eletropaulo, June 15, 2018, <https://www.leadersleague.com/en/news/enel-buys-73-eletropaulo-stake>.

⁴⁸ Virtual conference call Interviews N. 1, 3, and 6, in March, October and November 2020. On file with the authors.

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Brazil. Chinese energy companies froze large take overs, and the electric energy sector has also received additional relevant investments from companies of different origins.⁴⁹

The analysis of the mesolevel elucidates the particularities of the electric energy sector in Brazil, a middle-income economy that is highly dependent of FDI and cutting-edge technology, but that has developed a robust regulatory system to coordinate different players in the market. As such, we see important differences in how Brazil has been addressing Chinese investments in the electric power sector in comparison to other countries. While these investments in Brazil may be nonetheless disturbing – and raise multiple concerns –they have not yet been disruptive of the domestic coordination and regulation of the electric power sector. The level of confidence that operators and experts working in this sector in Brazil put in the domestic regulatory framework is so high that several of them have mentioned that if China disrupts the system, “we will need no more than two to three years to reorganize it all”.⁵⁰

IV. Microlevel regulation: State Grid acquisition of CPFL and its corporate and management governance

After assessing the regulatory tools employed by China and Brazil in the macro and meso levels of analysis, this section delves into State Grid’s acquisition of a large Brazilian energy company, CPFL in 2016. At the private law level, rumors in media outlets suggested that Chinese investments presented particular corporate governance features, linking CCP control to Chinese FDI in Brazil.⁵¹

State Grid’s acquisition of CPFL is China’s largest investment in Brazil and the largest worldwide Chinese investment in the electric energy sector, in terms of transaction value.⁵² Additionally, it corresponds to 75% of State Grid’s total investment in Brazil,⁵³ and it

⁴⁹ This was the case of the takeover of Eletropaulo by Enel in 2018, and the lack of offer by Chinese companies.

⁵⁰ Virtual conference call Interviews N. 3, 4, and 6, in October and November 2020. On file with the authors.

⁵¹ See EXAME, *Invasão da China no setor elétrico está só começando* (July 6th, 2016), <https://exame.com/economia/invasao-da-china-no-setor-eletrico-esta-so-comecando/exame>); and EL PAIS, *China aumenta sua influência na América Latina diante da falta de estratégia dos Estados Unidos* (December, 11, 2017), https://brasil.elpais.com/brasil/2017/12/10/internacional/1512934739_361000.html.

⁵² The total amount paid was of 8,35 billion USD, cf. The American Enterprise Institute and The Heritage Foundation, *The China Global Investment Tracker* (spring 2020), - <https://www.aei.org/china-global-investment-tracker/>.

⁵³ The first significant investment of State Grid in Brazil was in 2010, with the acquisition of seven transmission utilities from Plena Transmissoras (Spain). In 2012, State Grid expanded further its investments in transmission, buying lines from the Spanish group Actividades de Construcción y Servicios (ACS). And, beyond M&As, the company has also participated in a series of new public bids enlarging its participation in the energy sector. A detailed analysis is provided by Giorgio Romano Schutte & Victor Debone, *A expansão dos investimentos externos diretos chineses. O caso do setor energético brasileiro*, 8 CONJUNTURA AUSTRAL, 2018, 90-114; and Giorgio Romano Schutte, *OÁSIS PARA O CAPITAL SOLO FÉRTIL PARA A CORRIDA DE OURO? A DINÂMICA DOS INVESTIMENTOS PRODUTIVOS CHINESES NO BRASIL* (Appris, 2020).

represents 60% of all State Grid's outbound investments, confirming its high importance to the Chinese company as well.⁵⁴

CPFL is also an interesting case, as it is one of the few groups providing services in three stages of carrying electricity and by a large share: i) in energy generation, trading energy in both the regulated and in the free market, CPFL is the third largest private group operating in this business (4.3 GW); ii) in the transmission of energy, with seven substations and five grids, CPFL covers more than 12.9 thousand kilometers of transmission lines and 329.4 thousand kilometers of power grid; and iii) in energy distribution, CPFL supplies energy to consumers under regulated conditions in four of the largest states in the country, servicing 9,8 million consumers, which is equivalent to 14% of this market and second only to the Brazilian SOE Eletrobras.⁵⁵ In this scenario, CPFL is not only a relevant investment for the size of the investment, but also for the indirect effects it has in the Brazilian energy sector.

State Grid first showed interest in CPFL's assets in 2011-2012.⁵⁶ At the time, CPFL's main shareholders were a group of domestic investors: Camargo Corrêa, fundos Previ, Fundação Cesp, Sabesprev, Sistel and Petros. Given that CPFL was an publicly-held corporation pre-1990 reforms, during the privatization process, part of its shares (31.9%) was fragmented in minor shareholders that benefited from a shareholder's agreement with a tag-along clause. State Grid postponed its decision to make an offer to CPFL's shares until 2016, when it bought 55% of CPFL's shares through State Grid Brazil Holding, its Brazilian subsidiary; and in 2017, it bought other 54.64%, amounting to 94.75% of the holding company's share capital.⁵⁷ Rumors from the electric power sector indicated that State Grid was the only company in the market able to put an offer to CPFL shares at that moment.⁵⁸

⁵⁴ FORBES. *Brasil representa 60% dos investimentos da State Grid fora da China* (Oct. 17, 2019), <https://forbes.com.br/last/2019/10/brasil-representa-60-dos-investimentos-da-state-grid-fora-da-china/>

⁵⁵ About these data and more information about CPFL, see <https://www.cpfl.com.br> and CPFL, Annual Report 2019, https://www.cpfl.com.br/institucional/relatorio-anual/Documents/CPFL_RelatorioAnual2019.pdf

⁵⁶ Reuters reported these previous efforts by Chinese companies in 2011-2012 for the further acquisition in the electric sector, but it suggests that at the time there was more resistance, either from economic disputes for market share by other competitive companies in Brazil or by political unwillingness. See REUTERS, *Invasão chinesa no setor elétrico do Brasil está só no começo, dizem especialistas* (July 6, 2016), <https://br.reuters.com/article/idBRKCN0ZM28Y>.

⁵⁷ See CPFL official website: <https://www.cpfl.com.br/institucional/quem-somos/nossa-historia/Paginas/default.aspx>.

⁵⁸ According to interviews, State Grid happened to be the right available investor at the right time. State Grid was one of the few investors with the financial capacity to buy CPFL and to put a public offer to all shareholders at a moment where other foreign companies had less leverage and appetite to invest in Brazil in 2016-17 due to Brazil's economic and political crises, added by financial constraints in the international market. Interview N. 5, as of October 23, 2020. See also *See Danielly Ramos Becard, Antonio Carlos Lessa & Laura Urrejola Silveira, One Step Closer: The Politics and Economics of China's Strategy in Brazil and the Case of the Electric Power Sector, in CHINA-LATIN AMERICA RELATIONS IN THE 21ST CENTURY...* See also GIORGIO ROMANO SCHUTTE,

State Grid is one of the largest SOEs in China and ranked amongst China's national champions.⁵⁹ The company was founded in 2002, as a result of a series of strategic reforms of the energy sector and SOEs in China,⁶⁰ covering 88% of China's national territory, providing power to over 1.1bn people in China and its total assets worth about US\$ 3.9t.⁶¹ In 2006, State Grid started its endeavors into international investments in the Philippines, and soon became the 5th largest company in the world (by total assets),⁶² currently present in more than 40 countries.⁶³ In 2017, the State Grid International Development (SGDI) was created as part of the State Grid's group, seeking to more efficiently conduct its international acquisitions.⁶⁴ Created as an investment holding company, SGID invests in overseas electric power project development and operation industries, including CPFL.

State Grid (China) is under the direct supervision of the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) in China and, thereby, subject to the Chinese Communist Party (CCP) guidelines.⁶⁵ The head of State Grid is a ministry-level cadre and drawn out of party cadres.⁶⁶ CCP thus shares decision-making

OASIS PARA O CAPITAL: SOLO FERTIL PARA A "CORRIDA DE OURO" 95 (2020) (stating that the financial crisis in Europe reduced the appetite of European companies, specially state companies, to invest, and that Chinese companies seized this opportunity). See also footnote vi.

⁵⁹ Yi-Chong Xu. *SINEWS OF POWER: THE POLITICS OF THE STATE GRID CORPORATION OF CHINA* 33 (Oxford University Press, 2017).

⁶⁰ The power sector reform in China was a long process started in 1986 that sought to update its organization toward market reform. According to Xu, the Chinese reforms were aligned with worldwide reforms in the 1980-90s aiming at a less-regulated and more market-based structures in the sector. This happened in Europe, the United States, and also Brazil, cf. Yi-Chong Xu. *SINEWS OF POWER: THE POLITICS OF THE STATE GRID CORPORATION OF CHINA* 34 (Oxford University Press, 2017). See also Robert Gee, Songbin Zhu & Xiaolin Li. *China's Power Sector: Global Economic and Environmental Implications*, 28 *ENERGY LAW JOURNAL* (2007), 421-441.

⁶¹ STATE GRID CORPORATION OF CHINA (SGCC). *Corporate Profile* (2020), <http://www.sgcc.com.cn/html/sgcc_main_en/col2017112307/column_2017112307_1.shtml>.

⁶² FORTUNE MAGAZINE. *Fortune Global 500*, <https://fortune.com/global500/search/>.

⁶³ FORTUNE MAGAZINE. *Fortune Global 500*, <https://fortune.com/global500/search/>.
http://www.sgcc.com.cn/html/sgcc_mobile_en/col2017113228/column_2017113228_1.shtml.

⁶⁴ William Pride & Ferrell, *O.C. Marketing* 2014. Mason: Cengage Learning, 2013, p. 300.

⁶⁵ SASAC is an ad-hoc ministerial-level organization subordinated to the Chinese State Council and has the mandate to act as an investor on its behalf and supervise and manage state owned assets of non-financial enterprises under the supervision of the Central Government. Aside from that, it also performs other activities such as regulating and preserving state assets, leading the restructuring of the Chinese enterprise system, appointing board members, determining the remuneration of top executives and monitoring the observance of guiding principles, policies, laws and regulations. Cf. http://en.sasac.gov.cn/2018/07/17/c_7.htm

⁶⁶ Dick Nanto, *CHINA'S DANCE WITH THE FOREIGN DEVILS: FOREIGN COMPANIES AND THE INDUSTRIAL DEVELOPMENT OF CHINA* (IUniverse, 2016). According to Milhaupt, SASAC's role is to function as the investor in the corporate groups under its supervision, representing the Chinese people and state. He also notes that SASAC has peculiar features: it is "part investor, part regulator and consolidated compliance department, part conduit for Party influence and government policy dissemination." See Curtis J. Milhaupt, *Chinese Corporate Capitalism in Comparative Context* 6 (2015)...

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roles with SASAC on the appointment of SOEs' boards.⁶⁷ Authors suggest that this bundling structure between SOEs and the state-party could raise internal disputes among the party and SOEs, since companies like State Grid have been conceived to be market-players, and may be in conflict to make decisions based on corporate interests and industrial policies.⁶⁸

Although there are pressures for reforms, it is yet unclear to what extent such practice can effectively impact China's SOEs regarding their "party-state centrality". There are hopes that SASAC will be able to discipline the state-business sector divide.⁶⁹ However, doubts still remain, since SASAC still combines many roles in controlling SOEs: it is part investor, part regulator and compliance department, and part conduit for CCP influence and industrial policy dissemination.⁷⁰

After the acquisition of CPFL, State Grid promoted a series of reforms at the corporate governance level of the group. The first ones resulted in the concentration of control and the

⁶⁷ Executives at top positions in Chinese SOEs are selected and scrutinized by the Central Organization Department of the CCP. According to Milhaupt and Pargendler, "senior executives of Chinese SOEs are uniformly members of the CCP, and simultaneously hold positions of equivalent rank within the corporation and the party", cf. Curtis Milhaupt & Mariana Pargendler, GOVERNANCE CHALLENGES OF LISTED STATE- OWNED ENTERPRISES AROUND THE WORLD: NATIONAL EXPERIENCES AND A FRAMEWORK FOR REFORM, 46 ECGI Working Paper Series in Law 352/2017. Lin notes that this leads SASAC to act "in the shadow of party control". The author still explains that "In the corporate management system, positions are similar to those commonly found in firms elsewhere and include CEO, Vice-CEO, chief accountant, and if the company has a board of directors, a chairman and independent board members. A leadership team in the party system includes the secretary of the Party Committee, several deputy secretaries, and a secretary of the Discipline Inspection Commission (an anticorruption office), along with other members of the party committee. The personnel of the two systems customarily overlap and correspond to each other. For instance, a chairman is typically the secretary of the Party Committee.", cf. Li-Wen Lin. *A Network Anatomy of Chinese State-Owned Enterprises*. EUI WORKING PAPER RSCAS 2017/07, 4.

⁶⁸ See Chen Gang, POLITICS OF RENEWABLE ENERGY IN CHINA (Edward Elgar Publishing, 2019); Claudio Puty, *A Estratégia de Internacionalização de Estatais Chinesas e o Brasil*, 15 BOLETIM DE ANÁLISE POLÍTICO-INSTITUCIONAL, 2018, 39-50.

⁶⁹ And, as such, become more like the Singaporean model known as "Temasek-ization of SASAC." The model of Singapore also provides for a controlling regulator, however building from a capitalist model context, with a clear separation between the private and public sector. Lin, L., & Milhaupt, C. (2013). We Are the (National) Champions: Understanding the Mechanisms of State Capitalism in China. *Stanford Law Review*, 65(4), 697-759.

⁷⁰ Curtis Milhaupt & Mariana Pargendler, GOVERNANCE CHALLENGES OF LISTED STATE- OWNED ENTERPRISES AROUND THE WORLD: NATIONAL EXPERIENCES AND A FRAMEWORK FOR REFORM, 45 ECGI Working Paper Series in Law 352/2017.

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verticalization of energy operations of CPFL group.⁷¹ Such reforms were, however, taken as a standard operation after the foreign acquisition.

The particularity of Chinese FDI investments confirmed in our interviews came to be the figures of shadow administrators, that rumors in the media suggested it could impact in the management level of the corporation's group.⁷² While it is true that after the acquisition most of the (Brazilian) employees were kept, State Grid replaced former members of the board by Chinese nationals. According to the chairman of Board of Director of CPFL, Wen Bo: "Now in CPFL, we have over 13,000 employees, the majority of the management team are locals. We have about 40 Chinese employees here, but most of them are serving as assistant or consultants of Brazilian managers".⁷³ This statement confirms that State Grid has not operated in Brazil importing the labor force, as Chinese SOEs often do in other invested markets – such as the Belt and Road Initiative's sphere of influence⁷⁴ – but the statement also raises awareness as to what constitutes the role of “assistants or consultants of Brazilian managers”.

Despite concerns in the literature about a potential interference of China's Communist Party in the governance of Chinese SOEs operating abroad, the CPFL case does not confirm it. Although Richard Lapper alerted that “investors in CPFL were sometimes surprised to find that two people – one from Brazil and one from China – were appointed to senior positions in

⁷¹ In December 2019 CPFL depleted its shares in the form of American Depositary Receipts (ADR) from the New York Stock Exchange (NYSE); focusing in the B3 capital market in Brazil. See Official market notice by CPFL, Comunicado ao Mercado - Arquivamento do “Post-Effective Amendment” ao Form F-3 perante a SEC, May 8, 2020, <https://cpfl.riweb.com.br/show.aspx?idMateria=SeJEtKqncsCRj8uuCYpj1w==>; and Canal Energia, CPFL vai pedir deslistagem da Bolsa de Nova York, December 19 2019, <https://www.canalenergia.com.br/noticias/53121674/cpfl-vai-pedir-deslistagem-da-bolsa-de-nova-york>. In September 2019, State Grid made a public offer of the CPFL Renováveis (CPFL-R) shares, closing its capital Cf. CPFL, Comunicação sobre transações entre partes relacionadas (Anexo 30-XXXIII da Instrução CVM 480/09), <https://cpfl.riweb.com.br/ListaGroup.aspx?IdCanalPai=IguLOh/UdchI9S5A+57Dnw==&IdCanal=Hvte39hVxSjIA07BsSDlew==&ano=2019>. See also CPFL, 2019 Annual Report, https://www.cpfl.com.br/institucional/relatorio-anual/Documents/CPFL_RelatorioAnual2019.pdf

⁷² Shadow governance is at the core of what Milhaupt qualifies as the “Party centrality” in the Chinese corporate governance. In his own words: “[t]his refers to the use of party organs and party structures to act as a shadow monitor of corporate actors as well as a personnel office for high-level managerial appointments in Chinese SOEs (and large private firms as well).” See Curtis Milhaupt, *Chinese Corporate Capitalism in Comparative Context*, at 8. As such, corporate structures are shadowed by the Communist Party in the same way as in governmental structures. On the development of corporate governance in China, see generally Nicholas C. Howson & Vikramaditya S. Khanna, *The Development of Modern Corporate Governance in China and India*, In: CHINA, INDIA AND THE INTERNATIONAL ECONOMIC ORDER (M. Sornarajah & J. Wang, eds., 2010), 513-576. Interviews by the authors confirmed this management strategy, cf. virtual conference interviews, N. 2, 5 and 6, in April, October and November 2020; and Discussant N. 12 on December 2020. All on file with the authors.

⁷³ SGCC, *CGTC: Brazilian power firm embraces new technology after Chinese acquisition*, November 12, 2019, http://www.sgcc.com.cn/html/sgcc_mobile_en/col2019102967/2019-11/12/20191112103322925326506_1.shtml

⁷⁴ Mimi Zou, *China and The Belt and Road Initiative: Transnational Labor Law Under State Capitalism 4.0*. 113 AJIL Unbound, 2019, 418-423.

the company after its takeover.”⁷⁵ André Dorf, CPFL's CEO, offered clarifications, assuring that the Chinese executives working in Brazil play an assistant role, with the purpose of better understanding the activities of the company in Brazil.⁷⁶ And, based on our interviews with executives working in the field in Brazil, such feature cannot be qualified as an innovation that disrupts the way businesses are conducted after Chinese acquisition and control.⁷⁷

The presence of shadow governance in the present case sounds almost anecdotal and with limited practical consequences. Under this prism, it appears more likely that the existence of shadow administrators serves as a monitoring system that is being used for the Chinese executives to learn the culture of the local business in a market that is still new to Chinese companies, especially a sector of high complexity and highly regulated like the Brazilian electric power sector. More direct interferences of the CCP in the governance of CPFL after being acquired by State Grid have not been reported nor suggested to us, at least not yet.

Additionally, as for the CPFL case, we suggest that shadow administrators may perform other roles equally important to China's economic development. First, shadow administrators may function as *liaisons* between the foreign branch of the Chinese corporation and the Chinese state. As such, it can both report what is taking place in the field to the Party officials in China, but it can also inform China's development strategy to key corporations such as CPFL, and make sure that they act accordingly. Second, Chinese shadow administrators can perform a more market-oriented role. Under this role, they can prospect business opportunities in the “new” market and channel these opportunities to new Chinese players. In the electric power sector, they can, for example identify industry demand for hardware that can be met by Chinese providers. In other words, it can function as a way to potentialize China's global supply chain policy.

Conclusion

⁷⁵ Richard Lapper. *Bolsonaro Took Aim at China. Then Reality Struck*. AMERICAS QUARTERLY, July 21, 2019, <https://www.americasquarterly.org/content/china-brazil-trade>.

⁷⁶ Renée Pereira, *Sob o comando da chinesa State Grid, CPFL prepara investimento bilionário*, ESTADÃO, January 1, 2018, <https://economia.estadao.com.br/noticias/geral,sob-o-comando-da-chinesa-state-grid-cpfl-prepara-investimento-bilionario,70002134973>

⁷⁷ Virtual conference interviews, N. 2, 5 and 6, in April, October and November 2020. On file. According to interviewee N. 5, “it has come to our attention that the profile of such executives have changed over time. In the beginning, they were composed of party officials without professional training and with limited command of English. Younger generations of Chinese executives, although still connected to the Communist Party, are professionally trained – often times in the US and Europe, and speak English fluently.”(free translation by the authors).

This essay has put forward an alternative methodological approach to international economic law in middle-income economies like Brazil. Coining the label IEL by other means, we sustain that in addition to traditional IEL tools, such as preferential trade agreements and bilateral investment treaties, IEL may be equally located in other interconnected normative spaces, such as MOUs, CAs, domestic sectorial regulation and corporate governance rules.

In this essay, we use the case of Chinese investments in Brazil's electric power sector as our testing ground to advance our three-level matrix of analysis. In this process, we addressed two main questions: 1) which legal tools support Chinese investments in Brazil's electric power sector, and 2) whether these legal tools can be qualified as disruptive of the international economic law order, as practiced in Brazil?

Our first matrix of analysis focused on the bilateral coordination macrolevel, where we unveiled the normativity of instruments traditionally conceived as diplomatic agreements without teeth. Conversely, we suggest that these commitments need to be understood beyond the category of diplomatic agreements with limited or inexistent normativity. We conceive them as part of the overall IEL framework supporting a plethora of economic interactions. They announce areas of cooperation, identify relevant actors and create bilateral governmental bodies to monitor, coordinate relations and solve potential disputes. Such arrangements also foresee the importance of other levels of regulation, and the need for their coordination. As formulated in China-Brazil bilateral agreements, they confirm an existing Brazilian practice for governing IEL.

Moving to our second matrix of analysis – the domestic electric power sector regulatory mesolevel – we conclude that Chinese investments have not disrupted existing domestic laws. In the CPFL case, domestic regulation has a more predominant role – documented in the bilateral coordination agreements. While Chinese investments reverberate in the Brazilian public debate, given the magnitude of these investments and in strategic sectors, the domestic sectorial legal environment had already been designed to deal with FDI after a series of domestic reforms dating back to the 1990s. According to legal experts in this field, the adaptive nature of the Brazilian legal system should be factored in even if we were before a case of disruption of existing domestic laws.

Finally, along similar lines, our third matrix of analysis evidenced that despite concerns identified in the specialized corporate governance literature that the existence of shadow administrators in Chinese SOEs may lead to CCP interference in the functioning of the corporation, our interviews with Brazilian experts do not support these concerns. But it is important to keep it under the radar for future developments.