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#### **Research Report**

Going global: Chinese natural resource policies and their impacts on Latin America

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# **24** BRIEFING PAPER

# **Going Global**

# Chinese natural resource policies and their impacts on Latin America

Karin Küblböck, Bernhard Tröster and Christoph Ambach

Vienna, October 2019





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#### List of Abbreviations

BOL Bolivia
BRA Brazil

BRI China's Belt and Road initiative

CCF China-CELAC forum

CCPIT China Council for the Promotion of International Trade

CDB Chinese Development Bank

CELAC China and the Community of Latin American and Caribbean States

CHL Chile ECU Ecuador

EU European Union

FDI Foreign Direct Investment
GDP Gross Domestic Product

IDB Inter-American Development Bank
IFIs international financial institution
IMF International Monetary Fund

JAM Jamaica

LAC Latin America and the Caribbean

M&A mergers & acquisitions MOFCOM Ministry of Commerce

NAFTA North American Free Trade Agreement

NDRC National Development Reform Commission

O&M ores & metal

ODA Official development assistance

oLAC countries remaining LAC countries (subsequently called oLAC countries)

PER Peru

RoW Rest of the World

SAFE State Administration of Foreign Exchange

SOE state-owned enterprises
SSA Sub-Saharan African

UN United Nations

US USA

USD US Dollar

USMCA United States-Mexico-Canada-Agreement (formerly NAFTA)

#### **Abstract**

China is today the second-largest economy after the US and the world-leading export nation. The economic and political development of China in the past decades has had a big impact on other parts of the world. The Chinese demand for natural resources has dramatically changed trade volumes and structures in many resource-producing countries. Even though China has recently shifted its internal economic focus away from export manufacturing towards a more consumption and service-based economy, securing the supply of primary commodities remains one of China's main priorities. It is today the world's major consumer of iron ore, steel, coal, zinc, lead, tin, nickel, copper and aluminium.

As part of this trend, the relationship between Latin America and the Caribbean (LAC) and China has also intensified over the last two decades. The value of total trade between China and all LAC countries has increased twentyfold since 2000. Taking out Mexico from the LAC dataset reveals that China has become the most important single export market for the remaining LAC countries. Chinese Foreign Direct Investment in LAC has grown significantly since 2000. It has been particularly dynamic from 2010 onwards and is directed primarily towards the raw materials sector. Chinese policy banks have become the largest lender in Latin America in the past two decades, providing more financing to the region than the World Bank and the Inter-American Development Bank (IDB) combined.

This paper looks at the role of China in Latin America with a focus on natural resources, and, in particular, minerals. It first describes the evolving economic and diplomatic relations between China and LAC and depicts the main Chinese actors in this region, before giving an overview of developments in the areas of trade, finance and investments. It concludes that if the relationship with China is to contribute to inclusive development in LAC, the countries in the region have to coordinate their efforts in order to obtain greater benefits from the new economic relations.

Keywords: China, Latin America, Trade, Finance, Foreign Direct Investment, Mining



#### 1. Introduction

Since China officially declared its transition from a planned to a social market economy in 1978, it has experienced average growth rates of over 10% for more than 30 years and is today the second largest economy after the US (UN ECLAC 2018a) and the world-leading export nation. It increased its average per capita GDP from 149 in 1978 to 8,123 US Dollar in 2016 (World Bank 2018). In 2015 Chinas economy was responsible for over 30% of worldwide economic growth (Voß 2018).

The economic and political development of China in the past decades has had a big impact on other parts of the world, including on Latin America and the Caribbean (LAC). The Chinese demand for natural resources has dramatically changed trade volumes and structures in many resource-producing countries. Today China is a global player in the natural resource sector and has become one of the biggest producers while at the same time one of the biggest global importers of natural resources. For instance, China is the world largest car and steel producer (UN ECLAC 2018a) and accounted for 80% of the global increase in demand for metals between 2005-2010 (Küblböck 2017).

From the beginning of its industrialization process until the late 1990s, China mainly used primary commodities from domestic sources. Official development assistance (ODA) from Japan financed infrastructure projects and technology necessary for their extraction (Gransow 2015). Until today, the national natural resource sector is crucial for China, as export restrictions for unprocessed raw materials show. At the end of the 1990s, China actively started to diversify its resource supply by looking for resources outside the country.

Even if recently China shifted its internal economic focus away from export manufacturing towards a more consumption and service-based economy (UN ECLAC 2018a), securing the supply of primary commodities from external sources and domestic extraction remains one of Chinas main priorities. This paper looks at the role of China in Latin America with a focus on natural resources, and, in particular, minerals. It first describes the evolving economic and diplomatic relations between China and LAC and depicts the main Chinese actors in this region, before giving an overview of developments in the areas of trade, finance and investments. It concludes with a discussion of possible effects of the increased demand for natural resources from China in the LAC region.

# 2. China's "Going Global" Strategy and its implications for LAC

China's resource policies in the past two decades have to be seen in a context of broader economic and political developments in China in this period. China's first growth phase (1978-2000) was based on external trade – using low-cost labour for low-cost export production –, on the attraction of FDI and on the accumulation of foreign exchange. In the late 1990s, this development model reached its limits, amongst others due to higher living standards in China and insufficient international demand. As a consequence, the Chinese government adopted a strategic change towards taking on a more prominent global economic and political role, reflected in its "Going Global" strategy. The main goals of the strategy are the acquisition of strategic resources and energy supplies and the increased access to global markets and value chains. Chinese companies were encouraged to invest overseas, supported by the Chinese government via diplomatic relations and finance.

As a result, Chinese companies and financiers have today become major actors across the world, also in LAC. The internationalisation strategy was enabled by large foreign exchange reserves accumulated during the first growth phase and was boosted after 2008, when the



financial crisis led to recession in the US and the European Union. The immediate effects of the global financial crisis on Latin America were muted by Chinese trade and finance flows (Creutzfeld 2015; Mohan/Urban 2019). With China's economy slowing down in the past years, resulting in less domestic demand for industrial outputs, the government has increased efforts to encourage outbound investment of Chinese companies, especially in transport, energy, telecommunications, construction and machinery (China Policy 2017).

In this framework, China's engagement with Latin America and the Caribbean (LAC) has grown significantly since the beginning of the new century, particularly in terms of diplomatic and economic relations<sup>1</sup>. During this period in LAC, growing disenchantment with neoliberal policies led to a boost in support for leftist forces. In the period between 2003-2013, all large economies in LAC, except Colombia and Mexico were governed by centre-left governments. Those governments advocated for a greater role of the state in economic and social policies and aimed at reducing their dependence on traditional international financial institutions (IFIs) (Banik/Bull 2018). Hence, the availability of Chinese capital fit into their strategies. During this period, China signed a large number of bilateral partnership agreements with countries in the region, including "strategic partnerships" with nine countries (Argentina, Brazil, Chile, Costa Rica, Ecuador, Mexico, Peru, Uruguay, Venezuela) and Free Trade Agreements with three countries (Chile, Peru and Costa Rica)<sup>2</sup>. In 2008, a first policy paper for LAC set out broad terms for bilateral cooperation via strengthening ties in the political, economic, cultural-social, and "peace, security and judicial affairs" fields (Creutzfeld 2015).

One important step in the China-LAC relations was the establishment in 2014 of the Forum of China and the Community of Latin American and Caribbean States (CELAC), which includes 33 countries. The forum is led by the Foreign Ministers of the respective countries and acts as the main platform to promote China-LAC overall cooperation (Harris/Arias 2016). The first Ministerial Meeting of the China-CELAC forum (CCF) in 2015 converged in the declaration of the "1+3+6" cooperation framework. It refers to: one common interest between China and LAC, the three main areas of cooperation (trade, investment and finance) and the six priority sectors (energy and resources, infrastructure, agriculture, manufacturing, scientific and technological innovation, and information technology) (Ellis 2018). A China-LAC Cooperation fund was established focussing on those sectors (Yang 2015). Within the CCF, cooperation plans specify priorities and activities. In all cooperation agreements, natural resource extraction and development of energy infrastructure and transportation projects is promoted (CICDHA 2018).

In addition to the increasing economic interconnection, political and social relations are enhanced, as illustrated by an increasing number of dialog forums, mutual research programs, and also rising migration from China to LAC (Armony/Dussel Peters 2015).

In recent years, it became clear that China's Belt and Road initiative (BRI) – even if it was originally designed to create opportunities for Chinese investments in Asian and European countries – will also impact Chinese investments in Latin America. In 2018, Chinese officials began referring to Latin America as a natural extension of the BRI. In the same year, China outlined five proposals for future cooperation that mirror the BRI's strategy in other countries: Policy cooperation, infrastructure development, investment and trade facilitation, financial integration and cultural and social exchange (Myers et al. 2019). Up to the present (July 2019),

<sup>&</sup>lt;sup>2</sup> Furthermore, FTA-negotiations between Panama and China are ongoing, and a TLC with Colombia is envisaged.



China has rejected any diplomatic – but not economic – relation with LAC countries that recognize Taiwan as an independent state. Today nine countries in LAC (out of 16 worldwide) recognize Taiwan, while the remaining 24 countries recognize the PRC. In 2017 and 2018, Panama, the Dominican Republic, and El Salvador switched recognition to China. (Jenkins 2012; Congressional Research Service 2019).

BRI cooperation agreements have been signed with 15 countries in the region<sup>3</sup>), focusing on securing food and energy resources for China, and creating outlets for China's industrial overcapacity via infrastructure development (Abdenur 2017).

#### 2.1. Chinese actors in LAC

Three main categories of Chinese actors in Latin America can be identified: the Chinese government, quasi-governmental organizations, and companies. The Chinese government supports bilateral economic relations, with a policy plan established in 2008, culminating in the above-mentioned creation of the China-CELAC forum in 2014. Quasi-governmental organizations such as the China Development Bank and the Export and Import Bank of China also play an important role in bilateral relations, connecting government and companies. Finally, companies explore markets and give feedback to policy-makers (Dussel Peters 2015).

#### Chinese government

The State Council is the central authority in formulating, financing, regulating, implementing and evaluating strategies for foreign trade and investment. It is the highest executive organ in China's political system and consists of the premier, vice-premiers, state councillors, ministers and the secretary general as well as the National Development Reform Commission (NDRC). In 2008, the first policy paper on Latin America was published, describing trade, investment, finance, agriculture, infrastructure construction, industry, resources and energy as prioritized sectors of cooperation. In addition, NDRC and the Ministry of Commerce (MOFCOM) support enterprises in the investment process. The two government institutions also evaluate and assess planned investments as well as activities for consistency with socio-economic interests before approval. (Dussel Peters 2015).

In 2017 new guidelines for overseas investments were issued, as a reaction to increasing Chinese FDI in Latin America and also to failures of different projects, stipulating that Chinese firms shall comply with regulations of host nations (see section 4). Firms have to carefully evaluate projects before, during and after the investment in order to reduce risk (NDRC et al. 2017). Further, the Chinese government restricts offshore investments in "sensitive" countries and thereby couples macroeconomic policy to diplomacy. Restrictions are also set in sectors outside industries such as in real estate, private equity, or tourism. Investments in these sectors need prior approval of the Chinese investment authority. Also restrictions on projects that do not meet environmental, technical and social standards are introduced (Myers/Barrios 2017; NDRC et al. 2017)

#### Quasi-governmental organizations

The Chinese Development Bank (CDB) is the main Chinese lender for LAC governments and state owned companies in LAC. Between 2005 and 2017 CDB issued 42 loans with a value of 120 billion USD (Gallagher/Myers 2019). CDB is owned by China's central government, which also guarantees its loans. CDB supports China's macroeconomic policies, laid out in the Five Years Plans. The main sectors in its lending portfolio are electric power, roads, railways, petroleum, petrochemicals, coal, ports, and communication. The majority of loans are provided on a commercial basis (Gallagher/Irwin 2015; Gransow 2015).

The Chinese Export Import Bank (EXIM) is the second national policy bank active in LAC. It has the mandate to foster export and import of Chinese manufactured goods, to assist Chinese companies to attract offshore projects and investment and to facilitate economic

Antigua y Barbuda, Barbados, Bolivia, Chile, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador Guayana, Jamaica, Perú, Panamá, Trinidad y Tobago, Uruguay, Venezuela (China en America Latina Info n.d <a href="https://www.chinaenamericalatina.info/acuerdos-de-la-nueva-ruta-de-la-seda/">https://www.chinaenamericalatina.info/acuerdos-de-la-nueva-ruta-de-la-seda/</a>. <a href="https://dialogochino.net/26121-belt-and-road-the-new-face-of-china-in-latin-america/?lang=es">https://dialogochino.net/26121-belt-and-road-the-new-face-of-china-in-latin-america/?lang=es</a>



cooperation and trade (Gallagher/Irwin 2015). Its main instruments are export credits, loans for construction and investment projects. EXIM Banks can issue concessional loans with preferential interest rates even if, in practice, it mostly applies commercial interest rates (ibid.; Gransow 2015). Between 2005-2017 it issued 43 loans worth 30 billion USD (Gallagher/Myers 2019).

The China Council for the Promotion of International Trade (CCPIT) brings together the Chinese government, Chinese enterprises and Latin American enterprises. It provides information and legal assistance, organizes business events and accompanies Chinese leaders on state visits. Further CCPIT organizes an annual summit between LAC and China firms. CCPIT has two permanent offices in LAC and founded the China-Latin American business council, bringing together chambers of commerce of LAC and China (Yang 2015).

#### Chinese enterprises

Chinese enterprises active in LAC can be divided into state-owned enterprises (SOE) and private firms. In 2014, 55% of Chinese overall FDIs came from SOEs, 45% from private companies.

State owned Enterprises (SOEs) are in charge of implementing the Chinese "Go Global" strategy, and are often pioneers in establishing new trade relations. They participate in tenders, purchase assets, enter joint ventures or cooperation agreements. SOEs receive strong support from the Chinese government.

China National Petroleum is an example of a large SOE. It is the world's largest oil and gas producer and worlds major oilfield service provider. It is active in several Latin American Countries, also Ecuador, via purchases of and joint venture with local enterprises (ibid.)<sup>4</sup>.

Chinese private enterprises such as Huawei, are also active in Latin America. They are more flexible than SOEs. Private Chinese companies receive less support from the government, e.g., related to risk assistance or information (ibid.)

#### 2.2. Trade relations between China and LAC

The intensifying relationship between LAC countries and China has transformed bilateral trade flows significantly over the last two decades. The value of total trade (exports + imports) between China and all LAC countries has increased twentyfold since 2000 and summed up to more than USD 257 billion in 2017 (Figure 1). The volume of China-LAC trade flows therefore exceeded the Chinese trade relations with Sub-Saharan African (SSA) countries of USD 141 billion in 2017 by far. Over the last decades, the aggregated trade flows show a trade deficit for the LAC countries.

Other examples: State grid, (acquired Brazilian electricity companies); Three Gorges Corp (CTG) bought Solteira Brazil Energy; Oil Companies: CNOOC, CNPC, Sinopec



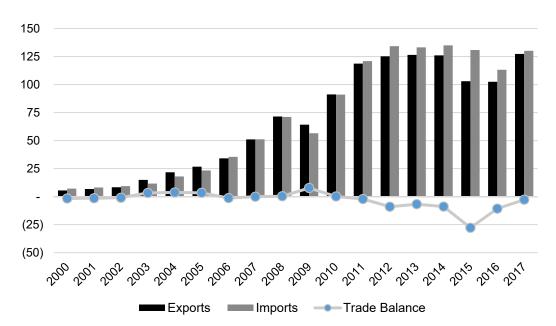


Figure 1: LAC - China Imports and Exports in billion USD

Source: UN Comtrade

Among the LAC countries, Mexico accounts for almost 40% of total trade flows with all countries in 2017. However, Mexico shows significant differences in trade patterns compared to other LAC countries because of its close relation with the USA as a member of the USMCA (formerly NAFTA) and the relatively large share of manufactured goods (UN ECLAC 2018b). Moreover, Mexico runs a substantial trade deficit with China unlike other LAC countries. To avoid such biases, we exclude Mexico from the following trade analysis.

Taking out Mexico from the LAC dataset reveals that China has become the most important single export market for the remaining LAC countries (*subsequently called oLAC countries*) with 19% of total exports (Table 1). On the import side, 17% of all goods flowing to oLAC countries come from China. This large shift in origin and destination of oLAC trade with China comes at the expense of traditional trading partners, in particular the US, EU and the regional trade with other LAC countries. Most importantly, the LAC countries without Mexico report a trade surplus with China over the last two decades.

Table 1: Composition of oLAC Exports and Imports by region

	IMPO	ORTS		EXPORTS			
YEAR	2000 2017		YEAR	2000	2017		
USA	25%	21%	USA	24%	18%		
China	3%	17%	China	2%	19%		
EU	21%	17%	EU	21%	14%		
intra-LAC	28%	24%	intra-LAC	35%	20%		
RoW	23%	22%	RoW	18%	29%		

Note: Mexico included in Rest of the World (RoW)

Source: UN Comtrade



The total exports from oLAC countries are dominated by raw materials, which accounted for 73% of total exports. This share has even increased from 64% in 2000s (Table 2). Beyond Food, including soy beans, ores and metals (O&M) account for more than one-fifth of exports.<sup>5</sup>

Table 2: Decomposition of oLAC Exports and Imports by region

	IMPO	RTS	EXPORTS		
YEAR	2000	2017	2000	2017	
Food (SITC 0+1+22+4)	9%	10%	26%	32%	
Agricultural Raw Materials (SITC 2 less 22, 27 & 28)	1%	1%	4%	4%	
Ores & Metals (SITC 27+28+68+97)	2%	2%	12%	21%	
Fuels (SITC 3)	10%	13%	22%	16%	
Chemicals (SITC 5)	14%	16%	6%	6%	
Machinery & Transport Equipment (SITC 7)	39%	33%	11%	8%	
Other manufactures (SITC 6+8-68)	22%	21%	18%	11%	
Miscellaneous Goods (SITC 9 less 97)	3%	4%	2%	2%	

Source: UN Comtrade

Combining export data by region and sector reveals the differences in trade patterns by region. Ores & Metals dominate trade flows to China with a share of 42% (Figure 2). Together with exports of other raw materials, commodities even account for 97% of exports to China. Thus, China has by far the lowest share in exports of manufactured goods compared to other trading partners of oLAC countries.

Please note, that exports of LAC countries are reported as imports of the destination countries. However, China does not report its imports of gold (SITC 971) and LAC country report only aggregated exports. Thus, the shown data potentially underestimated the share, values and volumes of O&M exports to China.

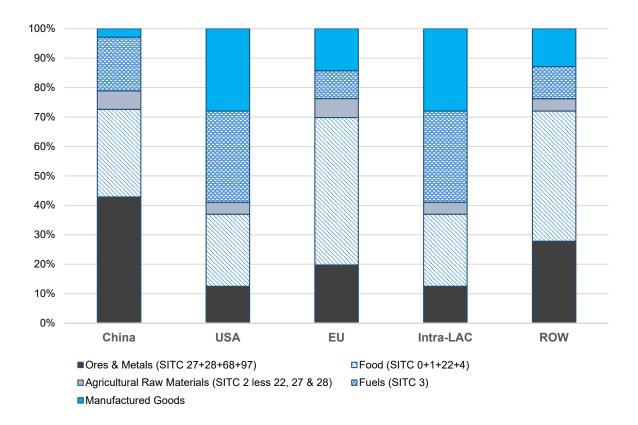


Figure 2: Sectoral Decomposition of Exports of oLAC by Destination

Source: UN Comtrade

Figure 3 highlights the dynamics in exports of Ores & Metals between the major O&M producing countries in oLAC and China over the period from 2000 to 2017.6 First, the exports of O&M have captured a higher share in total exports of oLAC countries to all destinations (X-axes), in particular in the major LAC economies Brazil (BRA), Chile (CHL) and Peru (PER) as well as in Jamaica (JAM). Secondly, the value of metals exports has expanded significantly (bubble size) – proportionally more than other goods' exports. This development is not only linked to higher prices of O&Ms, but also to an expansion in volumes, as shown below. Drivers are intensified mining activities in Chile, Peru and Brazil but also in Bolivia (BOL). Thirdly, a major share of this growing O&M trade goes to China, which captures around 38% of total oLAC mining exports. Beyond the TOP 3 oLAC exports, other countries such as Ecuador (ECU), Guatemala and Colombia (both not included in the chart) export most of their O&Ms production to China. As a whole, this analysis indicates that a large share of the expanded mining production finds its way to China.

Mexico accounts for around 10% of O&M exports from LAC, however, the large majority of these exports go to the US (UN Comtrade data).



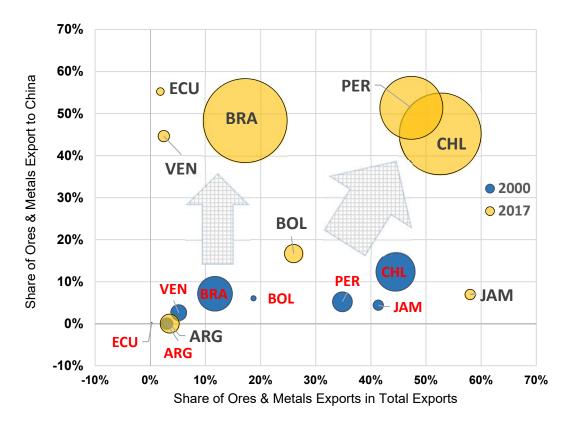


Figure 3: Dynamics in Exports of Ores & Metals to China

Note: Bubble size indicates value of O&M exports

Source: UN Comtrade

These findings of the growing role of China for O&M trade from oLAC countries are supported by the analysis of O&M exports by volume. Iron ore and concentrates (SITC 281) is the major O&M product exported to China with a share of more than 90% of volumes consistently over the period from 2000 to 2017, followed by copper ores and concentrates (SITC 283) with a share of around 4%. While export volumes of iron and copper ores and concentrates from oLAC increased by 166%, the volumes going to China grew by more than 1,400% between 2000 and 2017. Starting from a low level in 2000, China has captured almost half of the growth in these base metals. Nevertheless, the expansion of mining activities finds its outlet to other destinations, including the EU with a share of O&M of 20% of exports from oLAC countries.

Table 3: oLAC Exports of Iron and Copper Ores/Concentrates in million tons

YEAR	2000	2017	Growth	Growth in %
Total export volume	325 mio tons	862 mio tons	537 mio tons	166%
Export volume to China	17 mio tons	264 mio tons	246 mio tons	1,417%
Share of China	5.4%	30.6%	45.8%	

Source: UN Comtrade



#### 2.3. Financial Flows from China to LAC

Until 2016, capital flows from China to the rest of the world were steadily increasing. In the past decade, China has been an important source of finance for Latin America, above all for countries, which had relatively limited access to international capital markets such as Venezuela, Ecuador, and Argentina (Myers/Gallagher 2018). The two main instruments are Foreign Direct Investment (FDI) by private and state-owned companies, and loans from China's two big policy banks, the China Development Bank and Export-Import Bank of China (UN ECLAC 2018a).

Official information about Chinese capital flows are however highly aggregated and do not allow a breakdown of China's flows of investment and loans by destination, by project or by type of instrument. Chinese FDI statistics also show large volumes going to Hong Kong as well as to Caribbean states such as Virgin Islands and Cayman Islands. Moreover, volumes and terms of lending by Chinese policy banks are often not disclosed in detail or easily accessible. Thus, several projects have been set-up that collect statistics on FDI and loan flows to LAC countries systematically (Gallagher/Myers 2019, OFDI China/ALC 2019, AEI/Heritage Foundation 2019). Typically, FDI statistics are derived from announced or realised projects and information released by national banks, Chinese development banks and corporations (Gallagher et al. 2012). The China-Latin America Finance Database documents state-to-state finance in LAC in terms of loans from Chinese policy banks to LAC governments and state-owned enterprises (Gallagher/Myers 2019). In addition, several publications provide detailed estimations on Chinese capital flows to LAC (for instance UN ECLAC 2018a). The reported figures can differ because of the different methodologies applied.

#### 2.3.1. Chinese FDI in LAC

Chinese FDI in LAC has grown significantly since 2000, but has been particularly dynamic from 2010 onwards (Figure 4). Of the total 402 Chinese FDI transactions with a total transaction volume of more than USD 120 billion recorded in the 'OFDI China en ALC' database, 238 were done between 2010 and 2018, amounting to more than USD 100 billion. Thus, Chinese FDI flows obtained a share of approximately 7% of total FDI flows to LAC between 2010 and 2018 (Dussel Peters 2018). The database shows that jobs for more than 325,000 workers in LAC are linked to these investments since 2000.

Total FDI flows to LAC as well as FDI flows from China peaked in 2016 and showed lower figures in the recent two years of records. In 2018, the annual volume amounted to USD 8 billion or 6% of total FDI flows to LAC according to the OFDI China in LAC database (Dussel Peters 2019). Despite this recent downward trend global FDI outflows from China, LAC captures an increasing part in Chinese FDI outflows relative to other destinations. The share of LAC in total Chinese FDI grew from an average of 4% between 2006 and 2009 to a share of 10% in 2016 to 2018 (AEI/Heritage Foundation 2019).

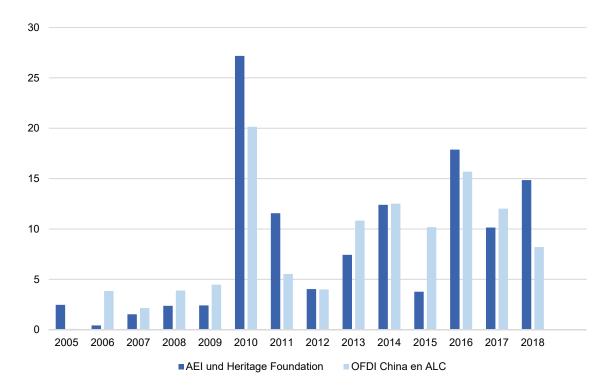


Figure 4: Reported Chinese FDI flows to LAC

Sources: AEI/Heritage Foundation 2019, OFDI China/ALC 2019; own calculations.

The analysed databases consistently report that Brazil is the most important destination for Chinese FDI. According to the OFDI China in LAC database, Brazil received more than 40% of Chinese FDI in LAC in 122 transactions. Other important destinations are Argentina (10%, 27 transactions), Chile (9%, 28) and Peru (5%, 35) (Dussel Peters 2019). Similar to the trade statistics, Mexico shows different patterns as it was the destination for a relatively high number of transactions (81), but a relatively low volume (5%). These diverging patterns are rooted in the composition of FDI by sector.

Chinese FDI flows primarily into the raw materials sector. The OFDI China in LAC database reports that the amounts invested in this sector account for 60% of total FDI since 2000. The amount per transaction is typically higher than in other sectors with around USD 600 million (Dussel Peters 2019). Total employment created in the raw materials sectors is 40% of total jobs, and Chinese FDI in manufacturing and services has become more important in recent years.

The AEI data indicate an even more significant role of energy and metals as a destination of Chinese FDI with a share of 80% of total FDI in LAC since 2010 (Figure 5). As this database records, only investments above a threshold of US 100 million, smaller transactions in manufacturing and services are under-represented.

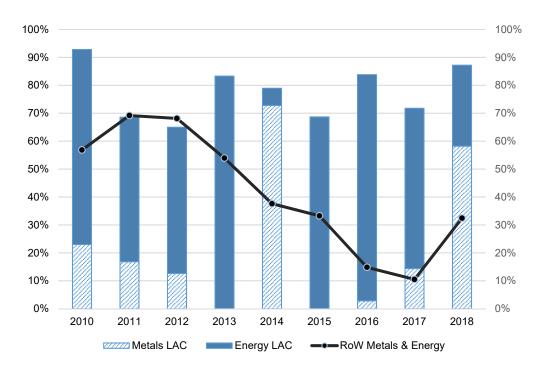


Figure 5: Chinese FDI flows to LAC Energy and Metals sectors

Note: shares of Chinese FDI to Metals and Energy relative to total FDI; RoW combines both sectors Sources: AEI/Heritage Foundation 2019

Nevertheless, the dominance of transactions in energy and metals in LAC is also noticeable by comparing Chinese FDI flows to other regions. Figure 5 shows also the share of Chinese FDI that went into the Metals and Energy sectors in all other parts of the world. While the importance of these commodity sectors has declined significantly in Chinese FDI to the rest of the World, the shares in LAC remained on a high level. Between 2010 and 2018, LAC received around 20% of global Chinese FDI in energy (which is the highest share of all regions) and 25% of global Chinese FDI in metals (only Sub-Saharan Africa received a higher share of 31%).

The focus on Chinese FDI on metals and energy in LAC is still valid, even if FDI in manufacturing and services have gained more importance in recent years (Avendano et al. 2017). The sectoral break-down of Chinese FDI is therefore still in strong contrast to the general trend in FDI flows to LAC. As UN CEPAL (2018) reports, natural resources as a destination for overall FDI in LAC is generally in decline. While 25% of FDI was invested in natural resources in 2011-12, the sector occupied only 10% in 2016/17 (UN CEPAL 2018: 36).

The Chinese FDI projects are consequently more exposed to variations in prices of ores and metals and other commodities, which strongly effects their returns. For instance, the returns on FDI in Peru, where FDI are concentrated in the mining sector, declined from 25% on FDI conducted from 2007 to 2011, to less than 10% on FDI done in 2017 largely due to the decline of metals' prices (UN CEPAL 2018: 35).

Finally, a trend towards Chinese FDI to LAC via mergers & acquisitions (M&A) is notable. While new greenfield investments still account for the majority of transactions (257 out of 402), more than half of FDI since 2010 takes place as M&A. The volume of these transactions has been significantly higher with USD 590 million compared to USD 150 million in greenfield FDI (Dussel Peters 2019). All of the eight FDI transactions into the metal sector from 2016 to 2018



recorded by AEI and Heritage Foundation were done as M&A projects. This can be seen as a response to several experiences where greenfield investments were subject to broad opposition and conflicts, such as in the copper mines Las Bambas or Toromocho in Peru, whereas in M&A, only a change in ownership takes place in an already existing project.

Chinese greenfield investments in Latin America are rather directed to extraction-related infrastructure, such as roads or pipelines, allows to gain experience in the local context and avoids broad contestation. Currently, many countries such as Ecuador, Peru and Boliva experience an infrastructure boom financed by international finance institutions, with an increasing share of Chinese policy banks. Research shows that investment backed by Chinese finance has a smaller emphasis on "green infrastructure", and a more deferential approach to environmental and social standards (relying on host country regulations) and therefore often goes in projects that other international financial institutions assess as socially or environmentally too risky (Ray et al. 2018; Myers et al. 2019).

Joint ventures between Chinese and Latin American companies are quite common in the oil sector, also due to local requirements, and to a lesser extent in mineral extraction. They are often justified with a win-win discourse, e.g., referring to know-how and technology transfer. Examples are a joint venture between China Minmetals Nonferrous Metals Co. and the Chilean national copper company, Codelco, or a joint venture between Tongguan Nonferrous Metals Group Holding and the Ecuadorian government for the rights to the Mirador Copper Mine. However, the win-win discourse is often contradicted by reality, e.g., by high interest payments or the requirement to use mostly Chinese companies or technologies in related projects, such as in the Ecuadorian case, which may hinder efforts to develop local industries linked to extractive projects (Abdenur 2017).

#### 2.3.2. Loans from China to LAC

China's engagement in foreign countries is known for its loans on a state-to-state base. In the case of LAC, the sources of these loans are the Chinese policy banks, namely the CDB and EXIM Bank as well as bilateral and regional development funds administrated by these development banks backed by State Administration of Foreign Exchange (SAFE) capital. Receivers of loans are either LAC states or state-owned enterprises. The large majority of these loans flow into infrastructure and energy projects, however, loans were also used to finance FDI transactions. In addition, private Chinese banks play an increasing role in LAC. Statistics on the transactions of private banks are however not reported systematically.

According to estimates, Chinese loans by the CDB and the EXIM bank to LAC amounted to USD 140 billion between 2005 and 2018. These banks have therefore become the largest lender in Latin America, providing more financing to the region than the World Bank and the Inter-American Development Bank (IDB) combined (Myers/Gallagher 2019). There have been high variations in the volumes of lending per year (Figure 6).

QSO uoillig 20 15 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 # of Projects (RHS) Value

Figure 6: Chinese Loans to LAC by year

Source: Gallagher et al. 2019

Table 4: Loans by CDB and EXIM Bank to LAC, 2005-2018

Country	Amount (billion USD)			
Venezuela	67.2			
Brazil	28.9			
Ecuador	18.4			
Argentina	16.9			
Trinidad and Tobago	2.6			
Bolivia	2.6			
Jamaica	2.1			
Mexico	1.0			
Other countries	1.3			
TOTAL	141.3			

Source: Gallagher/Myers 2019

Loans by Chinese policy banks are typically targeted to large infrastructure and energy projects and concentrated on specific LAC countries. Energy projects amount to roughly two thirds of these state-to-state loans and are geared mainly to the oil sector in Venezuela with a volume of USD 60 billion and oil and coal extraction in Brazil (USD 26.1 billion) (Gallagher et al. 2019). Infrastructure projects account for less than 20% of Chinese state-to-state loans with the largest flows to railway projects in Argentina (USD 13.5 billion). Mining projects in Venezuela and Bolivia have received a minor share of these loans (USD 2.1 billion or 1.5%).



Chinese finance can also be differentiated by type of loan arrangements. In contrast to international financial institutions like the World Bank or the International Monetary Fund (IMF), Chinese banks do not impose policy conditions on loans (Myers/Gallagher 2017). Instead, they issue loans backed with secured access to commodities, equipment purchase or contract requirements, which allows China to enter into risky capital markets (Bräutigam/Gallagher 2014). In particular, the focus countries for loans, Venezuela, Argentina, Ecuador and Bolivia have more restricted access to international capital markets and received loans with relatively low interest rates via these mechanisms. In addition, such arrangements have supported Chinese companies to become global players (Gallagher/Irwin 2015).<sup>7</sup>

The first type of loan arrangements are commodity-backed credits. The first "loan-for-oil" agreement was signed in 2009 between China and Brazil. China provided Brazil's national oil company with a loan, while Brazil agreed to a daily supply of a certain amount of crude oil to China. Today, half of all Chinese loans to LAC are issued via this instrument (UN ECLAC 2018a), largely linked to arrangements with Venezuela (Kaplan/Penfold 2019). Loan-for-oil contracts combine a loan agreement with an oil sale agreement. A Chinese policy bank such as the CDB, extends a loan to a national bank of an oil exporting country. Consequently, a national state owned or private enterprise receives the contract to drill the oil and agrees to deliver a fixed amount of oil to a Chinese oil company that is paid for at the current market price to the national company's CDB bank account (Chimienti/Ray 2017; Gallagher et al. 2012; Gallagher/Irwin 2015).

Another type of loan falls in the category of finance arrangements linked to construction contracts of Chinese companies or to buying Chinese equipment (Gallagher et al. 2012; UN ECLAC 2018a). EXIM bank has the mandate to facilitate the export of Chinese products and services through export or import credits, loans to overseas construction and concessional loans (Gallagher et al. 2012). Further, CDB issues loans under equipment purchase requirements. The database of AEI and Heritage Foundation (2019) lists 105 construction contracts for projects including Chinese contractors in LAC between 2005 and 2018 with a total contract volume of USD 55.5 billion (Figure 7). Most of these contracts concern energy projects, which include hydroelectric plants and infrastructure of crude oil and coal extraction or processing, and increasingly into transport infrastructure projects. Examples for such arrangements are the construction of the hydropower-plant Coca-Codo Sinclair in Ecuador by Chinese state-owned company Sinohydro (Gallagher/Irwin 2015) or the CDB issued loan of 0.5 billion USD to a company that constructed a 3G network in Brazil in exchange for a commitment to use technologies of the Chinese company, Huawei (Kaplan 2016).

In Brazil, Argentina or Mexico, Chinese and Western lenders such as the World Bank and IDB also engage together for infrastructure projects or have set-up cooperation funds (Myers/Gallagher 2019).



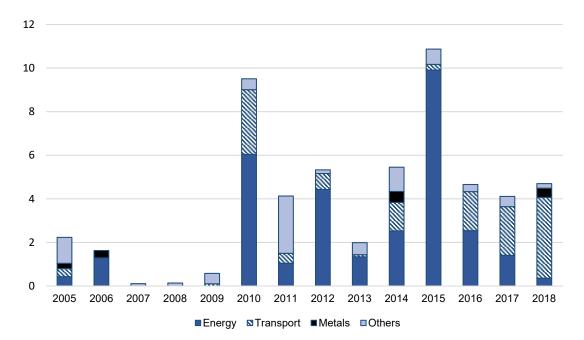


Figure 7: Chinese Construction projects by sector

Source: AEI/Heritage Foundation 2019

Finally, China and LAC countries have set-up various bilateral and regional development funds. These include four regional funds since 2013 administrated by the CDB and the EXIM bank with a total volume USD 62 billion USD.8 The latest bilateral fund is the Brazil-China Cooperation Fund with a volume of USD 20 billion, for which the China-LAC Cooperation Fund (CLAI) contributes USD 15 billion and the Brazilian side USD 5 billion. In particular, loans for projects in Venezuela use bilateral cooperation funds since 2007 to finance investments in the oil and metals sectors.9 Such funds also provided capital for FDI transactions such as the 30-year concession of the three Gorges Corporation to operate two hydroelectric power plants in Brazil. Given the close coordination between China and the LAC partners to select projects, the loans have been fewer and smaller so far (Myers/Gallagher 2019).

Capital for these investment funds is nevertheless largely provided via the Chinese State Administration of Foreign Exchange (SAFE). The increased Chinese capital flows can be seen as an opportunity for Latin American governments, as its long term orientation provides a constant income stream, independent of austerity conditions. This is especially attractive for countries lacking access to international capital markets e.g., Venezuela and Ecuador.

Chinese loans offer possibilities for LAC governments to become more independent of Western lenders and get better loan concessions (Gallagher et al. 2012). At the same time, there is an increasing awareness of an unsustainable debt burden created by Chinese loans, as well as the risk that commodity-backed loans and equipment purchase requirements incentivize the lock in of an economic development model based on extractivism (Kaplan 2016). Finally, the increasing engagement of private Chinese Banks in LAC has not been sufficiently analysed at the moment, which potentially creates more uncertainties and risks of a debt-trap (Myers et al. 2019).

<sup>&</sup>lt;sup>9</sup> These loans via cooperative funds are also listed in the database by Gallagher et al. 2019.



The China Co-Financing Fund for Latin America (2013, USD 2 billion), the China-Latin American Production Capacity Cooperation Investment Fund (CLAI, 2015, USD 30 billion), the China-LAC Cooperation Fund (CLAI, 2016, USD 10 billion) and the Special Loan Programme for China-Latin America Infrastructure Projects (2015, USD 20 billion) (Myers/Gallagher 2019)

#### 2.4. Chinese Mining activities in LAC

China is today the world's major consumer of iron ore, steel, coal, zinc, lead, tin, nickel, copper and aluminum (UN ECLAC 2018a). To satisfy this demand, China relies on imports of these commodities and has become the largest importer of minerals and ores from LAC as shown above. In particular, exports of iron and copper ore and concentrate from Brazil, Peru and Chile dominate the trade flows from LAC to China.

The changes in trade flows and patterns is mirrored in the changes in Chinese investments in LAC as shown above. On the one hand, the Chinese "Go Global" strategy pushed Chinese investors and companies to go overseas to secure and diversify Chinese resource supply. With support of state owned policy banks like CBD and EXIM Bank, Chinese firms went abroad and internationalized resource supply. On the other hand, Chinese actors also profit from political opportunities given by neo-extractivist policies in LAC (Gonzalez-Vicente 2012).

According to estimates in the AEI and the Heritage Foundation database, Chinese companies have invested around USD 35 billion in the Metals & Ores sectors in LAC in 30 projects with an investment volume of more than USD 100 million since 2005. This is equivalent to around one third of total Chinese FDI in LAC. The investments focused particularly on copper mining in Peru. Out of the more than USD 18 billion FDI flows to copper mining, more than USD 14 billion went to Peru. The list of single FDI transactions in the O&M sector in LAC in Table 5 includes the acquisition of Las Bambas copper mine by the largest Chinese copper company Minmetals from Glencore, for a price of 7 billion USD. Las Bambas has been one of the country's largest overseas investments in the sector worldwide<sup>10</sup> (Espinasa et al. 2015). With Chinese companies also owning Peruvian copper mines like Toromocho, Galeno, Pampa del Pongo and Rio Blanco, China controls about one third of the Peruvian mining sector (Espinasa et al. 2015; Ellis 2018). Today, the volume of copper reserves controlled by China in LAC equals 70% of China's own copper reserves (Freitas da Rochas/Bielschowsky 2018).

In general, Chinese mining firms prefer to engage directly with companies via local governments. In recent history, Chinese mining activities were established through acquisitions of projects from other transnational or local mining companies (Gonzalez-Vicente 2012). Over the last years, larger projects are more likely to be started in a consortium among Chinese companies (for instance the Las Bambas project in Peru).

It has been argued that Chinese investors can invest in medium and long-term projects despite reputational risks, as they do not have to rely on stock markets and have easy access to loans from national policy banks. Chinese investors are therefore not pressured by shareholders to divest of projects with bad reputations, e.g., caused by local protests or civil society campaigns (Gonzalez-Vicente 2012). However, out of the 30 single FDI transactions listed below, only 10 were greenfield investments and there is an increasing trend to incorporate local mining companies in projects.

In recent years, Chinese engagement in lithium projects in LAC is notable. The single FDI transaction by Chengdu Tianqi in lithium extraction in Chile in cooperation with Sociedad Quimica y Minera, with a volume of more than USD 4 billion, accounted for more than half of total FDI flows from China to LAC in 2018 (Dussel Peters 2019).

The Las Bambas project in Peru is expected to produce 400,000 metric tons of copper concentrate per year. Estimates are that half of the mine's production will be destined for China (Espinasa et al. 2015).



Table 5: FDI in the ores and metals sector in LAC

Year	Investor	Quantity (Millions)	Share Size	Transaction Party	Subsector	Country
2005	Minmetals	500		Cubapetroleo		Cuba
2005	Minmetals	550	50%	Codelco	Copper	Chile
2007	Zijin Mining, China Nonferrous, Xiamen C&D	190	45%, 35%, 20%	Monterrico	Copper (Rio Blanco)	Peru
2007	Chinalco	790	100%	Peru Copper	Copper	Peru
2007	Golden Dragon	100	100%		Copper	Mexico
2007	Minmetals, Jiangxi Copper	450	100%	Northern Peru Copper	Copper (Galeno)	Peru
2008	Jinchuan Group	210		Tyler Resources		Mexico
2008	Chinalco	2160	100%		Copper (Toromocho)	Peru
2009	Shougang	990			Iron/Steel	Peru
2009	Najinzhao	100	100%	Cardero	Iron/Steel (Pampa de Pongo)	Peru
2009	Wuhan Iron and Steel	400	22%	MMX Mineracao	Iron/Steel	Brazil
2009	CIC	500		CVRD (Vale)	Iron/Steel	Brazil
2010	Minmetals	2500	100%		Copper	Peru
2010	Shunde Rixin and Minmetals	1910	70%		Iron/Steel	Chile
2010	East China Mineral Exploration and Development Bureau (Jiangsu)	1200		Bernardo de Mello Itaminas	Iron/Steel	Brazil
2010	China Railway Construction and China Nonferrous	650	100%	Corriente Resources	Copper	Ecuador
2011	Taiyuan Iron, CITIC, Baosteel	1950	15%	СВММ		Brazil
2012	Bosai	100			Aluminum	Guyana
2012	China Railway Engineering	410		C.V.G. Ferro- minera Orinoco	Steel	Venezuela
2014	Minmetals, Suzhou Guoxin, and CITIC	6990	63, 22, 15%	Glencore	Copper (La Bambas)	Peru
2014	China Railway Construction and China Nonferrous	2040		Mirador	Copper	Ecuador
2016	Jiquan Iron and Steel	300	100%	Alumina Partners		Jamaica
2016	Chengdu Tianqi	210	2%	Sociedad Quimica y Minera		Chile
2017	Shougang	500		Hierro	Iron/Steel	Peru
2017	Shandong Gold	960	50%	Barrick		Argentina
2018	Chengdu Tianqi	4070	24%	Sociedad Quimica y Minera	Lithium	Chile
2018	Chinalco	1300			Copper	Peru
2018	China Railway Construction	920		Mirador	Copper	Ecuador
2018	Zhongrong Xinda	2360		Pampa de Pongo	Iron/Steel	Peru
2019	Jiangxi Ganfeng Lithium	160	13%		Lithium	Argentina
2019	China Communications Construction	220	100%		Iron/Steel	Brazil

Source: AEI/Heritage Foundation 2019



## 3. Conflicts related to Chinese mining investments in LAC

Since 2000, LAC is facing rising conflicts related to mining as well as to infrastructure investment (Pérez-Rincón/Meynen 2018). Even if the absolute number of conflicts related to China was relatively small (7 out of 212 conflicts) the high percentage stands out as high, with every fourth Chinese mining project being subject to conflicts between 1996-2015 (Shapiro et al. 2018). Evidence for such – sometimes violent – conflicts comes from several countries such as Peru (e.g Toromocho, Shougang, Las Bambas), Ecuador (Panantza-San Carlos, Fruta del Norte), Bolivia (Oruro) and Argentina (EJOLT n.d.; Voz América n.d.; Van der Hout 2017).

Table 6: Mining Conflicts in LAC, by country of origin, 2005 to 2015

	Canada	USA	Japan	Australia	UK	Switzer- Iand	China	South Korea	South Africa	TOP Investors	All Investors	All w/o China
Total projects	450	159	107	102	90	64	26	24	13	995	1709	1683
Total conflicts (as main investor)	84	19	1	8	9	7	7	1	1	123	212	205
Conflicts to Projects	19%	12%	1%	8%	10%	21%	27%	7%	8%	12%	12%	12%

Source: Shapiro et al. 2018

In their contribution to the Universal Periodic Review (UPR)<sup>11</sup> of China (CICDHA 2018), civil society organisations from Argentina, Bolivia, Brazil, Ecuador and Peru evaluate the performance of Chinese companies and investors in the mining sector in fulfilling their extraterritorial obligations to protect, respect and fulfil human rights.<sup>12</sup> The report states that the promise of a "South-South and win-win cooperation" between China and Latin America, that differs from the traditional financial model of multilateral banks, has not been fulfilled so far. According to the report, negotiations with China about large scale projects have been opaque, and social participation has been neglected. The findings support the notion that Chinese companies and banks exhibit a lack of responsiveness and openness when confronted with the adverse effects of their investments in human rights. It is further concluded that human rights violations by Chinese companies are not isolated cases but show a recurrent pattern of behaviour. Case studies show that 15 Chinese companies and consortia in the extractive sector, financed by seven Chinese Banks, were associated with violations of human rights, half of them in the mining sector.

See Maastricht Principles on the Extraterritorial Obligations of States in the Area of Economic, Social and Cultural Rights <a href="http://www.etoconsortium.org/nc/en/main-navigation/library/maastricht-principles/?tx\_drblob\_pi1%5BdownloadUid%5D=23">http://www.etoconsortium.org/nc/en/main-navigation/library/maastricht-principles/?tx\_drblob\_pi1%5BdownloadUid%5D=23</a>
The International Covenant on Economic, Social and Cultural Rights (ICESCR) signed by China <a href="http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx">http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx</a>



<sup>11</sup> The UPR is a mechanism of the United Nations Human Right Council (UNHCR) to review states performance in Human Rights. A part of the documentation of country reviews is a summary provided by civil society like NGOs.

The human rights violations referred in particular to:

- Failure of consultation and participation processes outlined in standards like the Convention 169 of the ILO and the UN Declaration on the Rights of Indigenous Peoples and the non-disclosure of Environmental Impact Assessments.
- 2. Violation of the Right to land, territory and adequate housing: Land was purchased without consultation and has led to forced evictions and displacements.
- Violations of the Right to Integrity, Liberty and Security of the Person, and of the Right to Peaceful Assembly and Association: Activists faced arbitrary charges of murder, and face detention.
- 4. Violation of the Right to Live in a Healthy Environment: Mining activities posed threat to food sovereignty, life of local communities and pollution of water.
- 5. Violations of Workers' Rights and the Right of Association: Activities provoked preventable workplace accidents and unlawful dismissal (CICDHA 2018).

## 4. Impacts of Chinese investment in LAC

Interpretations of the surge of Chinese trade and investment activities in Latin America in the past two decades range from defining it as a new form of colonialism to seeing a fruitful new form of South-South Cooperation, with China being a vital source for finance and technology.

On the one hand, critics point out that the fact that China investing mostly in the extraction and extraction-related infrastructure leads to a re-primarization of the economies and an increased dependency on volatile global markets (Koch-Weser 2014). They also refer to the harmful ecological footprint of those investments. For instance, investments in energy in the context of the Belt and Road Initiative have supported mainly coal, oil and hydropower<sup>13</sup> (Creutzfeld 2015; Abdenur 2017; Soutar 2019).

On the other hand, Chinese loans and FDI are defined by others as a chance to diversify sources of finance and therefore to reduce dependence from International Development Banks and from US-and other international investors. Such loans are also seen as a potential for additional finance for key infrastructure in a context of economic slowdown that some economies are facing (e.g., Brazil or Argentina) (Erthal Abendur 2017; Carvalho 2019). In addition, the rising global demand for commodities makes natural resource exploitation is viewed by many Latin-American governments as a promising driver of growth and development (Svampa/Slipak 2015). Hence, they have reacted with incentives to attract FDI in these sectors, such as reducing regulatory constraints or tax rates, but have also paid greater attention to factors such as technology transfer. Some governments (such as Bolivia, Ecuador and Venezuela) have also tried to renegotiate contracts with transnational corporations in order to receive higher benefits (Abdenur 2017).

In terms of international competition for commodities, China's increasing presence in Latin America has indeed challenged the dominant position of Western countries and companies, above all the US, in the region. This is illustrated, for example, by the US National Security Strategy from 2017 stating that, "China seeks to pull the region into its orbit through state-led investments and loans". Secretary of State Mike Pompeo's declarations about China's "predatory economic activity" in LAC, as well as other official documents express concerns e.g., about China's infrastructure investments associated with the Panama Canal (Carvalho 2019; Congressional Research Service 2019).

Out of the USD 97 billion that Chinese Exim Bank and the China and China Development Bank invested in energy projects since 2005, only USD 1.3 billion were directed to solar projects



#### 4.1. Environmental Footprint of Chinese Investment

Due to their higher concentration on raw materials, Chinese investments in and imports from LAC have a higher environmental footprint than investments and exports from/to the rest of the world, in terms of carbon emissions, water use and impacts on biodiversity (Ray et al. 2015). However, increasing conflicts related to Chinese mining and infrastructure investments have also led LAC governments to introduce policy measures to minimize negative impacts. For example, from 2008 on, Brazil enhanced enforcement of its environmental regulations, Ecuador enacted labour protection regulations, and Peru introduced steps to increase transparency, and to improve indigenous rights. At the same time, within the host countries, often significant pressure comes from influential sectors benefitting from and therefore strengthened by the commodity boom (such as ministries of mining or private land owners) not to enact or even to cut back stricter regulations and standards that could in their view possibly hinder new investments (ibid.). Moreover, in recent years, economic crises and changes in governments have reversed the trend and many countries have weakened investment regulations (Myers et al. 2019).

On the other side, the Chinese government itself has also taken measures to improve its performance on environmental standards, formulating guidelines for the social and environmental impacts of its projects overseas. Currently, China has issued more than 60 policy documents regarding overseas development (Myers et al. 2019, see also IDI 2017 for more details). The Ministry of Commerce (MOFCOM) has published guidelines for environmental protection of foreign investment for all Chinese investors, which while being voluntary still carry moral authority for state-owned companies. Guidelines established by the banking authority (CBRC 2012) require all Chinese banks financing investment projects abroad to meet host country and international environmental laws, and CDB and Exim-Bank have safeguard rules for their projects, which even include ex-post environmental impact assessments (Ray et al. 2015). The Guidelines for "Social Responsibility in Chinese Outbound Mining Investment" (2014) require companies to respect free, prior and informed consent of local communities (CCCMC 2014; Myers et al. 2019).

#### 4.2. Performance of Chinese investors compared with other countries

The established regulations set China ahead of other middle-income countries. However, safeguards are still weaker than those from many traditional multilateral lenders (Ray et al. 2015; Soutar 2019), who arguably also have a much longer history of being exposed to pressure from local and international civil society. Currently, guidelines lack amongst others, formal reporting rules and grievance mechanisms (Ray et al. 2015). Moreover, recent research shows that Chinese policy banks often do not apply or enforce their own guidelines (Myers et al. 2019).

Compared to domestic and international companies from other countries, case studies<sup>14</sup> (Ray et al. 2015; Myers et al. 2019) show that Chinese firms do not perform significantly worse, and in some cases they even perform better than competitors, especially when there are sufficient incentives from the government or pressure from civil society. The research further found that the environmental and social performance of the same company varies in different countries. depending on the local regulatory regime. This is due to the fact that while the World Bank and other international financial institutions have developed their own standards to reduce negative impacts, Chinese investors and lenders mainly refer to host country regulations. This allows them to outcompete bidders with higher standards and additional screening of high-risk projects (Myers et al. 2019).

<sup>&</sup>lt;sup>14</sup> In Argentina, Bolivia, Brazil. Chile, Colombia, Ecuador, Mexico, Peru



Chinese investors and representatives of policy banks mainly consider the host government as their counterpart and tend to not engage in dialogue with other actors, including civil society. Therefore, the improvement of practices is mainly driven by requests and regulations from host-country governments, or by reputational risks. Examples nevertheless show that civil society pushing for higher standards can be successful, and that Chinese investors are capable of reaching them (Ray et al. 2015). In this vein, it is worth mentioning that China acknowledged the majority of the human rights pleas raised in the UPR civil society report (CICDHA 2018) mentioned above (Koop/Soutar 2019).

In order to improve the environmental and social performance of Chinese investments, Myers at al. (2019) recommend host that governments introduce measures such as stakeholder consultations and grievance mechanisms, active oversight of subcontractors, and imposition of high quality pre-feasibility assessments.

#### 5. Conclusions

The increased importance of China in Latin America has generated expectations to reduce external financing restrictions and dependence on the US and to increase geopolitical negotiation space and space for industrialisation and diversification of LAC economies. On one side, Chinese involvement in Latin America since the 2000s arguably helped to shift a neoliberal development regime towards a model with increased state presence and more active social and economic policies, in particular in those countries that were governed by centre-left governments. At the same time, Chinese capital has indeed diversified sources of finance for LAC governments and therefore reduced their unilateral dependence on Western countries, in particular the US, and on IFIs, even if it is far from substituting the role of USA or Europe in LAC.

However, Chinese policies in LAC, with their focus on resource extraction and on state-led cooperation LAC, maintained – or even enhanced – the dependence of the region on natural resources and reduced the attention by governments to their manufacturing industries. Chinese policies have also favoured incumbent elites, including the ruling governments and capital fractions related to exploitation of agricultural and mineral resources and their commercialization. This trend represents a continuation of the past trade and investment strategies by Spain, Great Britain and the United States (Bank/Bull 2018). As in the past, the expansion of extractive industries will neither generate sufficient employment nor contribute to socially and environmentally sustainable economic development.

If – instead of reproducing and reinforcing historical patterns of its insertion in the global economy – the new relationship with China is to contribute to inclusive development in LAC, the countries in the region have to coordinate their efforts in order to create greater benefits from the new economic relations. Policy challenges related to China are, amongst others, to diversify the economies via creating local linkages and technology spill-overs, to negotiate better deals in infrastructure and other investment projects, to generate higher tax revenues, and to substantially improve social and environmental standards. The success of those strategies will depend on the political will of governments and political elites, as well as on the strength of civil society to push for those changes.



## References

Abdenur, Adriana Erthal (2017): Skirting or Courting Controversy? Chinese FDI in Latin American Extractive Industries. In: Alternative Pathways to Sustainable Development: Lessons from Latin America, International Development Policy series No.9, 174-1989.

AEI (American Enterprise Institute)/Heritage Foundation (2019): China Global Investment Tracker. <a href="http://www.aei.org/china-global-investment-tracker">http://www.aei.org/china-global-investment-tracker</a> (21.02.2019)

Armony, Ariel C./Dussel Peters, Enrique (Eds.) (2015): Beyond raw Materials. Who are the Actors in the Latin American and Caribbean-China Relationship? Buenos Aires: Friedrich Ebert Stiftung, Red Academica de America Latina y el Caribe sobre China, Center of Latin American Studies/University of Pittsburgh, Fundación Nueva Sociedad.

Arsel, Murat/Hogenboom, Barbara/Pellegrini, Lorenzo (2016): The extractive imperative in Latin America. Extr. Ind. Soc. 3, 880-887.

Avendano, Rolando/Melguizo, Angel/Miner, Sean (2017): Chinese FDI in Latin America. New trend with global implications. Atlantic Cuncil, OECD.

Banik, Dan/Bull, Benedicte (2018): Chinese engagement in Africa and Latin America does it matter of state capacity? Third World Thematics: A TWQ Journal; 3(4), 532-551.

Bloomberg (2018): Empresa Minera D'Cobre S.A.: Private Company Information – Bloomberg.

https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapid=224263854 (25.05.2018)

Bräutigam, Deborah/Gallagher, Kevin P. (2014): Bartering Globalization: China's Commodity-backed Finance in Africa and Latin America. In: Global Policy 5(3), 346-352.

Campanini, Jorge (2017) : Dependencia de los capitales chinos en América latina y Bolivia. CEDIB.

Carvalho, Raquel (2019): China in Latin America: partner or predator? In: South China Morning Post. <a href="https://multimedia.scmp.com/week-asia/article/3011618/beijing-conquest-latin-america/index.html">https://multimedia.scmp.com/week-asia/article/3011618/beijing-conquest-latin-america/index.html</a> (03.06.2019)

CCCMC, China Chamer of Commerce of Metals, Minerals &. Chemicals Importers &. Exporters (2014): Guidelines for Social Repsonsibility in Outbound Mining Investments

Chimienti, Adam/Ray, Rebecca (2017): A line in the equatorial forests: Chinese investment and the environmental and social impacts of extractive industries in Ecuador. In: China and Sustainable Development in Latin America, The Social and Environmental Dimension. Anthem Press, 107-144.

China Policy (2017): China Going Global, Bejing. <a href="https://policycn.com/wp-content/uploads/2017/05/2017-Chinas-going-global-strategy.pdf">https://policycn.com/wp-content/uploads/2017/05/2017-Chinas-going-global-strategy.pdf</a> (03.06.2019)

China-Latin America Finance Database (n.d.): <a href="https://www.thedialogue.org/MapLists/index.html#.WyDghlUzZaQ">https://www.thedialogue.org/MapLists/index.html#.WyDghlUzZaQ</a> (13.06.2018)

Collective on Chinese Finance and Investment, Human Rights and the Environment (CICDHA) (2018): Third Cycle of the Universal Periodic Revision of The People's Republic of China. Contributions of the Civil Society.

Congressional Research Service (2019): China's Engagement with Latin America and the Caribbean. <a href="https://fas.org/sgp/crs/row/IF10982.pdf">https://fas.org/sgp/crs/row/IF10982.pdf</a> (03.06.2019)



Dehart, M. (2012): Remodelling the Global Development Landscape: the China Model and South–South cooperation in Latin America. In: Third World Quarterly 337, 1359-1375.

Dussel Peters, Enrique (2015): The omnipresent role of China's pulbic sector in its relationship with Latin American and the Caribbean. In: Dussel Peters, Enrique/Armony, Ariel C. (Eds.): Beyond Raw Materials. Who Are the Actors in the Latin American and Caribbean-China Relationship? Buenos Aires: Friedrich Eberst Stiftung, Red Academica de America Latina y el Caribe sobre China, Center of Latin American Studies/University of Pittsburgh, Fundación Nueva Sociedad, 50-72.

Dussel Peters, Enrique (2018): Monitor of Chinese OFDI in Latin America and the Caribbean 2018. Mexico: Red ALC-China.

Dussel Peters, Enrique (2019): Monitor of Chinese OFDI in Latin America and the Caribbean 2019. Mexico: Red ALC-China.

EJOLT (n.d.): Las Bambas mining, Perú | EJAtlas. Environmental Justice Atlas. https://ejatlas.org/conflict/las-bambas-peru (04.06.2018)

Ellis, Evan (2014): China on the Ground in Latin America: Challenges for the Chinese and Impacts on the Region. Palgrave Mac Millian.

Ellis, Evan (2018): Hacia una asociación estratégica: Las inversiones de China en América Latina. <a href="http://chinayamericalatina.com/wp-content/uploads/2018/03/WP-N%C2%B03-marzo-2018-REDCAEM.pdf">http://chinayamericalatina.com/wp-content/uploads/2018/03/WP-N%C2%B03-marzo-2018-REDCAEM.pdf</a> (20.06.2018)

Emery, Alex (2017a): Bolivia's mining industry missing out on metals rally. BNamericas. <a href="https://subscriber.bnamericas.com/en/news/bolivia-lining-up-bidders-for-uyuni-lithium-project/?position=711656">https://subscriber.bnamericas.com/en/news/bolivia-lining-up-bidders-for-uyuni-lithium-project/?position=711656</a> (05.06.2018)

Emery, Alex (2017b): Bolivia's mining exports projected to rise 15%. BNamericas. <a href="https://subscriber.bnamericas.com/en/news/miningandmetals/bolivias-mining-exports-projected-to-rise-15">https://subscriber.bnamericas.com/en/news/miningandmetals/bolivias-mining-exports-projected-to-rise-15</a> (05.06.2018)

Emery, Alex (2018): Bolivia's Comibol shuts Vinto tin smelter for repairs. BNamericas. <a href="https://subscriber.bnamericas.com/en/news/miningandmetals/bolivias-comibol-shuts-vinto-tin-smelter-for-repairs">https://subscriber.bnamericas.com/en/news/miningandmetals/bolivias-comibol-shuts-vinto-tin-smelter-for-repairs</a> (05.06.2018)

Freitas de Rocha, Felipe/Bielschowsky Ricardo (2018): La búsqueda de China de recursos naturales en América Latina, en: Revista de la CEPAL N. 126, 9-29.

Gallagher, Kevin (2016): Latin America's China Boom: Taking stock of China's growing economic influence in Latin America—and the reforms Latin American states should pursue to avoid a commodity "bust." NACLA Rep. Am. 48, 265-270.

Gallagher, Kevin/Irwin, Amos (2015): China's Economic Statecraft in Latin America: Evidence from China's Policy Banks. In: Pacific Affairs 88(1), 99-121.

Gallagher, Kevin/Irwin, Amos/Kolesik, Katherine (2012): The New Banks in Town: Chinese Finance in Latin America. Inter-American Dialogue.

Gallagher, Kevin/Myers, Margaret. (2019): China-Latin America Finance Database, Washington: Inter-American Dialogue.

https://www.thedialogue.org/MapLists/index.html#.WyDghlUzZaQ (03.06.2019)

Gonzalez-Vicente, Ruben (2012): Mapping Chinese Mining Investment in Latin America: Politics or Market? In: The China Quarterly 209, 35-58.



Gransow, Bettina (2015): Chinese Investment in Latin American Infrastructure: Strategies, Actors, and Risks. In: Dussel Peters, Enrique/Armony, Ariel C. (Eds.): Beyond Raw Materials. Who Are the Actors in the Latin American and Caribbean-China Relationship? Buenos Aires: Friedrich Ebert Stiftung, Red Academica de America Latina y el Caribe sobre China, Center of Latin American Studies/University of Pittsburgh, Fundación Nueva Sociedad.

Harris, Richard L. (2015): China's Relations with the Latin American and Caribbean Countries. Lat. Am. Perspect. 426, 153-190.

Harris, Richard L./Arias, Armando A. (2016): China's South–South Cooperation with Latin America and the Caribbean. In: Journal of Developing Societies 32(4), 508-556.

Heine, Jorge/Anders, Beal (2018): The Strategy Behind China's Diplomatic Offensive in Latin America. <a href="http://www.americasquarterly.org/content/strategy-behind-chinas-diplomatic-offensive-latin-america">http://www.americasquarterly.org/content/strategy-behind-chinas-diplomatic-offensive-latin-america</a> (19.06.2018)

Inclusive Development International (IDI) (2017): Safeguarding People and the Environment in Chinese Investments. <a href="http://www.inclusivedevelopment.net/wp-content/uploads/2017/03/Safeguarding-People-and-the-Environment-in-Chinese-Investments.pdf">http://www.inclusivedevelopment.net/wp-content/uploads/2017/03/Safeguarding-People-and-the-Environment-in-Chinese-Investments.pdf</a> (19.06.2018)

Jenkins, Rhys (2012): Latin America and China—a new dependency? In: Third World Quarterly 337, 1337-1358.

Jin, Junda/Ma Xinyue/Gallagher, Kevin (2018): China's Global Development Finance: A Guidance Note for Global Development Policy Center Databases. https://www.bu.edu/gdp/files/2018/08/Coding-Manual.pdf (02.06.2019)

Kamal, Rohini/ Gallagher, Kevin (2016): China goes global with development banks. Bretton Woods Project. <a href="http://www.brettonwoodsproject.org/2016/04/20508/">http://www.brettonwoodsproject.org/2016/04/20508/</a> (20.06.2018)

Kaplan Stephen B./ Penfold, Michael (2019): China-Venezuela Economic Relations: Hedging Venezuelan Bets with Chinese Characteristics. Wilson Center, Latin American Program. Kissinger Institute.

Kaplan, Stephen B. (2016): Banking unconditionally: the political economy of Chinese finance in Latin America. In: Review of International Political Economy 23(4), 643-676.

Koch-Weser, Iacob (2014): Chinese Mining Activity in Latin America: A Review of Recent Findings. Washington, D.C.: Inter-American Dialogue.

Koop Fermin/ Soutar, Robert (2019): China acknowledges Latin American human rights pleas <a href="https://dialogochino.net/25431-china-acknowledges-latin-american-human-rights-pleas/">https://dialogochino.net/25431-china-acknowledges-latin-american-human-rights-pleas/</a> (03.06.2019)

Kotschwar, Barbara/Moran, Teodore/Muir, Julia (2011): Do Chinese Mining Companies Exploit More? <a href="http://www.americasquarterly.org/do-chinese-mining-companies-exploit-more">http://www.americasquarterly.org/do-chinese-mining-companies-exploit-more</a> (20.06.2018)

Küblböck, Karin (2017): Internationale Rohstoffpolitik im Spiegel sich wandelnder Kräfteverhältnisse. In: Bayer, Kurt/Giner-Reichl, Irene (Eds.): Entwicklungspolitik 2030: auf dem Weg zur Nachhaltigkeit. Wien: MANZ'sche Verlags- und Universitätsbuchhandlung.

Lafargue, Francois (2006): China's Presence in Latin America. Strategies, Aims and Limits. China Perspect. 2006, 2-11.

López, Alejandra S./Quiroga, Adam R. (2017): An assessment of the environmental and social impacts of chinese trade and FDI in Bolivia. In: China and Sustainable Development in Latin America, The Social and Environmental Dimension. Anthem Press, 147-182.



Miles, Tom/Hughes, Krista (2014): China loses trade dispute over rare earth exports. Reuters.

Mohan, Gil/Urban, Frauke (2019): China and Global Resources. In: The Palgrave Handbook of Contemporary International Political Economy, 245-261.

Myers, Margaret et al. (2019): China and the Amazon. Boston University/Global Development Policy Center. <a href="https://www.thedialogue.org/wp-content/uploads/2019/05/China-and-the-Amazon.pdf">https://www.thedialogue.org/wp-content/uploads/2019/05/China-and-the-Amazon.pdf</a> (03.06.2019)

Myers, Margaret/ Gallagher, Kevin (2019): Chinese Finance to LAC in 2018. Boston University/Global Development Policy Center.

Myers, Margaret/Barrios, Ricardo (2017): What Do China´s New Investment Guidelines Mean for Latin America. The Dialogue. Leadership for the Americas. <a href="https://www.thedialogue.org/blogs/2017/08/what-do-chinas-new-investment-guidelines-mean-for-latin-america/">https://www.thedialogue.org/blogs/2017/08/what-do-chinas-new-investment-guidelines-mean-for-latin-america/</a> (30.05.2018)

Myers, Margaret/Gallagher, Kevin (2017): Chinese Finance to LAC in 2016. Boston University/Global Development Policy Center.

NDRC, National Development and Reform Commission/Ministry of Commerce/People's Bank of China (2017): State Council forwarding National Development and Reform Commission Ministry of Commerce People's Bank of Foreign Affairs on further guidance and regulation of overseas. Advice on investment direction guidance (Nr. 000014349/2017–00159).

OFDI/ALC (2019): Monitor of Chinese OFDI in LAC <a href="http://www.redalc-china.org/monitor/">http://www.redalc-china.org/monitor/</a> (03.06.2019)

Paez, Sergio Martin (2019): El ascenso de China y su impacto en América Latina. <a href="https://www.celag.org/ascenso-china-impacto-america-latina/">https://www.celag.org/ascenso-china-impacto-america-latina/</a> (03.06.2019)

Pérez-Rincón, Mario/Meynen, Nick (2018): Academic research confirms – more mining leads to more fighting. The Ecologist. <a href="https://theecologist.org/2018/jan/09/academic-research-confirms-more-mining-leads-more-fighting">https://theecologist.org/2018/jan/09/academic-research-confirms-more-mining-leads-more-fighting</a> (04.06.2018)

Ray, Rebecca (2018): China-Latin America Economic Bulletin 2018 Edition (Discussion Paper No. 1). Global Development Policy Center Global Economic Governance Initiative, Boston.

Ray, Rebecca/Gallagher, Kevin/Lopez, Andres/Sanborn, Cynthia (2015): China in Latin America: Lessons for South-South Cooperation and Sustainable Development. Boston University, Center for Transformation Research, Research Center of the University of the Pacific, Global Development and Environment Institute.

Ray, Rebecca/Gallagher, Kevin/Lopez, Andres/Sanborn, Cynthia (2018): Standardizing Sustainable Development? <a href="http://www.bu.edu/gdp/files/2018/04/Development-Banks-in-the-Andean-Amazon.pdf">http://www.bu.edu/gdp/files/2018/04/Development-Banks-in-the-Andean-Amazon.pdf</a> (03.06.2019)

Shapiro, Daniel M./Vecino, Carlos/Li, Jing (2018): Exploring China's state-led FDI model: Evidence from the extractive sectors in Latin America. In: Asia Pacific Journal of Management 35(1), 11-37.

Soutar, Robert (2019): China and the Environment: A Struggle for Change in Latin America <a href="https://www.americasquarterly.org/content/china-and-environment-struggle-change">https://www.americasquarterly.org/content/china-and-environment-struggle-change</a> (03.06.2019)



Swampa, Maristela/Slipak, Ariel (2015): China en América Latina: Del Consenso de los Commodities al Consenso de Beijing. Revista Ensambles primavera 2015, año 2, n.3, 34-63 <a href="http://www.revistaensambles.com.ar/ojs-2.4.1/index.php/ensambles/article/download/61/32">http://www.revistaensambles.com.ar/ojs-2.4.1/index.php/ensambles/article/download/61/32</a> (03.06.2019)

Tröster, Bernhard/Küblböck, Karin/Grumiller, Jan (2017): EU's and Chinese raw materials policies in Africa: converging trends? In: Kurswechsel, Neue Weichen für die Weltwirtschaft 3, 69-78.

UN ECLAC (2018a): Exploring New Forms of Cooperation between China and Latin American and the Caribbean. Presented at the Second Ministerial Forum of China and the the Community of Latin American and Caribbean States, Santiago.

UN ECLAC (2018b): Foreign Direct Investment in Latin America and the Caribbean 2018. LC/PUB.2018/13-P), Santiago, 2018.

Van der Hout, Floor (2017): The silent advance of Chinese mining in Bolivia causing water scarcity and environmental pollution. Catapa. <a href="http://catapa.be/en/news/silent-advance-chinese-mining-bolivia-causing-water-scarcity-and-environmental-pollution">http://catapa.be/en/news/silent-advance-chinese-mining-bolivia-causing-water-scarcity-and-environmental-pollution</a> (24.05.2018)

Voß, Tobias (2018): China, Volksrepublik – Wirtschaft. Munzinger Online, Länder/Internationales Handbuch.

Voz de América (n.d.): Ecuador: Conflicto minero enfrenta a indígenas con gobierno. Voz de América. <a href="https://www.voanoticias.com/a/ecuador-concesiones-mineras-ataques-indigenas-shuar-estado-excepcion/3637824.html">https://www.voanoticias.com/a/ecuador-concesiones-mineras-ataques-indigenas-shuar-estado-excepcion/3637824.html</a> (04.06.2018)

Yang, Zhimin (2015): Key Actors in China's Engagement in Latin America and the Caribbean: Government, Enterprises, and Quasi-Governmental Organizations. In: Dussel Peters, Enrique/Armony, Ariel C. (Eds.): Beyond Raw Materials. Who Are the Actors in the Latin American and Caribbean-China Relationship? Buenos Aires: Friedrich Ebert Stiftung, Red Academica de America Latina y el Caribe sobre China, Center of Latin American Studies/University of Pittsburgh, Fundación Nueva Sociedad, 73-86.

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