

Monitor of China's OFDI in Mexico



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Monitor of China's OFDI in LAC

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INTRODUCTION

The growing rise of China in the international arena since 1978 with the starting of opening reforms, and particularly since 2001 when it accessed to the World Trade Organization (WTO), has been manifested in many areas. In the case of Latin America and the Caribbean (LAC) some aspects are highlighted such as the increased international political relations; and the commercial and cultural relations (through the teaching of Mandarin-Chinese and Spanish languages, among other means). Focusing on the strictly economic field, it is noted that after the international crisis of 2007-2008, China has massively exported capital in the form of financing and Overseas Foreign Direct Investment (OFDI onwards). While currently remains a net importer of capital, it is estimated that it will take less than five years for China to export more capital than what it attracts. Since 2012 China is the world's third largest source of OFDI, just below the United States and Japan. In LAC, China has quickly established itself as one of the main sources of foreign direct investment, accumulating on average 10.679 million dollars a year during the period 2010-2013 (ECLAC 2015a).

In this context, the Monitor of China's OFDI in Mexico looks for helping to improve, deepen and socialize knowledge of China's OFDI in LAC and Mexico through the current and synthetic analysis on the performance of the stocks and flows of the Chinese foreign direct investment to Mexico. The analysis is carried out under different levels of disaggregation (macro-, micro- and meso), taking into account recent methodological developments and based on consultation and systematization of national sources of official information (such as Mexico's Central Bank and the Ministry of Economy), international sources (such as ECLAC, UNCTAD, World Bank, IMF, OECD, National Bureau of Statistics of China, MOFCOM), and private data providers (such as Thomson-Reuters, fDi Markets, China Global Investment Tracker, among others), as well as tracking of specialized press. It is important to note that the original sources of information can be viewed and downloaded for free through the China-LAC Network (<http://www.redalc-china.org/monitor>). The document is divided in four sections. The first section contains an examination of the latest global trends in China's OFDI in terms of flows and stocks, rehearsing some explanations of statistical discrepancies observed in the statistics coming from different data sources. The second section addresses the issue of Chinese OFDI in LAC, by country and by sub-sector of destination, highlighting the dynamics of Chinese OFDI in some countries in South America with respect to Mexico. Section three focuses on Mexico, particularly it examines the flows of Chinese OFDI, by type (new investments, reinvestment of profits and intercompany accounts), by sector, branch and State of destination; at the micro level, this section shows the main features of the 900 Mexican companies with Chinese investment up to the second quarter of 2015, and that are registered in the National Registry of Foreign Investment (RNIE). The examination is carried out by destination State and destination subsector, which allows us to establish relations with the amounts of OFDI reported by the same institution. In addition, we examine the behavior of the investments from China to Mexico for major mergers and acquisitions (M&A), and new investments (Greenfield investments) at the company level. The distinction is relevant for the differentiated territorial impacts generated by these types of OFDI (i.e. at the job creation level and for increases of capital stocks). The micro analysis allows us to observe the geographical location, the economic activity destination and Chinese investments really executed and the failed ones as well. An important conclusion from the above analysis points out the weak presence of Chinese OFDI in Mexico. In the fourth section the results of current investigations on the behavior of Chinese OFDI in Mexico are reported; the results cover different themes: trends, determinants, records and structure of Chinese OFDI and economic, social, environmental and territorial impacts. In the same section there are some aspects that we consider crucial to understanding the limited Chinese OFDI addressed to Mexico, particularly since the 2000s. Section five contains conclusions and a set of future lines of investigation.

1. GLOBAL TRENDS OF CHINA'S OFDI

FDI flows. In 2014 global inflows of foreign direct investment (FDI) fell by 16% (see Table 1). This is largely explained by the fragility of the world economy, political uncertainty and high geopolitical risks (UNCTAD 2015). In 2014, FDI flows to developing economies reached their highest level since 1995, to stand at 681 billion dollars. Thus developing economies expanded their advantage in global FDI inflows, while developed economies showed a steep decline of 28.4%.

In the top 10 largest recipients of FDI in the world there are 5 economies classified as developing economies: China, Hong Kong, Singapore, Brazil and India. In this context, China became the world's largest recipient of FDI in 2014, displacing the United States to third place (see Table 1). The relative increase in China was explained by the growth of FDI in services, especially in retail, transportation and finance, while FDI fell in manufacturing, especially in industries that are sensitive to rising labor costs (UNCTAD 2015). The relative decline in the United States is basically explained by the large divestment in Verizon by the British company Vodafone (UNCTAD 2015).

Table 1. FDI flows, top 10 recipient countries according to their relative share in 2014 (1990-2014)

	1990	2000	2010	2011	2012	2013	2014	1990	2000	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
	(Million of dollars)							(Relative share in the world total)							(Annual growth rates)				
World	204,896	1,363,215	1,328,102	1,563,749	1,402,887	1,467,233	1,228,263	100.0	100.0	100.0	100.0	100.0	100.0	100.0	11.9	17.7	-10.3	4.6	-16.3
Developing countries	34,622	232,218	579,891	639,135	639,022	670,790	681,387	16.9	17.0	43.7	40.9	45.6	45.7	55.5	25.1	10.2	0.0	5.0	1.6
Developed countries	170,203	1,125,225	673,199	827,351	678,730	696,854	498,762	83.1	82.5	50.7	52.9	48.4	47.5	40.6	3.2	22.9	-18.0	2.7	-28.4
Top 10/a	118,996	727,925	630,937	764,171	679,165	790,481	696,798	58.1	53.4	47.5	48.9	48.4	53.9	56.7	12.0	21.1	-11.1	16.4	-11.9
China (1)	3,487	40,715	114,734	123,985	121,080	123,911	128,500	1.7	3.0	8.6	7.9	8.6	8.4	10.5	20.8	8.1	-2.3	2.3	3.7
Hong Kong (2)	3,275	54,582	70,541	96,581	70,180	74,294	103,254	1.6	4.0	5.3	6.2	5.0	5.1	8.4	27.0	36.9	-27.3	5.9	39.0
USA (3)	48,422	314,007	198,049	229,862	169,680	230,768	92,397	23.6	23.0	14.9	14.7	12.1	15.7	7.5	37.9	16.1	-26.2	36.0	-60.0
The UK (4)	30,461	121,898	58,954	41,803	59,375	47,675	72,241	14.9	8.9	4.4	2.7	4.2	3.2	5.9	-34.9	-29.1	42.0	-19.7	51.5
Singapore (5)	5,575	15,515	55,076	48,002	56,659	64,793	67,523	2.7	1.1	4.1	3.1	4.0	4.4	5.5	131.2	-12.8	18.0	14.4	4.2
Brazil (6)	989	32,779	48,506	66,660	65,272	63,996	62,495	0.5	2.4	3.7	4.3	4.7	4.4	5.1	86.9	37.4	-2.1	-2.0	-2.3
Canada (7)	7,582	66,795	28,400	39,669	39,266	70,565	53,864	3.7	4.9	2.1	2.5	2.8	4.8	4.4	25.1	39.7	-1.0	79.7	-23.7
Australia (8)	7,904	14,191	36,443	57,050	55,802	54,239	51,854	3.9	1.0	2.7	3.6	4.0	3.7	4.2	15.1	56.5	-2.2	-2.8	-4.4
India (9)	237	3,588	27,417	36,190	24,196	28,199	34,417	0.1	0.3	2.1	2.3	1.7	1.9	2.8	-23.1	32.0	-33.1	16.5	22.0
Netherlands (10)	11,063	63,855	-7,184	24,369	17,655	32,039	30,253	5.4	4.7	-0.5	1.6	1.3	2.2	2.5	-118.5	-439.2	-27.5	81.5	-5.6
Mexico (13)	2,633	18,303	26,083	23,376	18,951	44,627	22,795	1.3	1.3	2.0	1.5	1.4	3.0	1.9	47.5	-10.4	-18.9	135.5	-48.9

Source: Own calculations based on UNCTAD (2015 b).

OFDI flows. Global foreign direct investment outflows (hereinafter OFDI) rose by 3.7% between 2013 and 2014 (see Table 2). Developed countries remain the main exporters of capital, however, in the last three years they have shown negative variation rates, which have significantly reduced their relative share in global OFDI, from 72.8% in 2011 to 60.8% in 2014. By contrast, developing economies have raised by 12 percentage points their relative share of global OFDI; in 2014 they had a growth rate of 23%, the highest in the last three years. Among the top ten exporters of capital in 2014, six developed economies are highlighted (United States ranks first), three developing economies (Hong Kong, China and Singapore) and an economy in transition (Russia). China has distinguished itself by being the only country (in the top 10) that has shown high growth rates in its OFDI between 2010 and 2014, which tells of a relative stability of Chinese investment in the world, vis a vis, capital exports from the remaining nine countries which has been highly fluctuating since 2010, particularly in Germany, France, the Netherlands and Singapore.

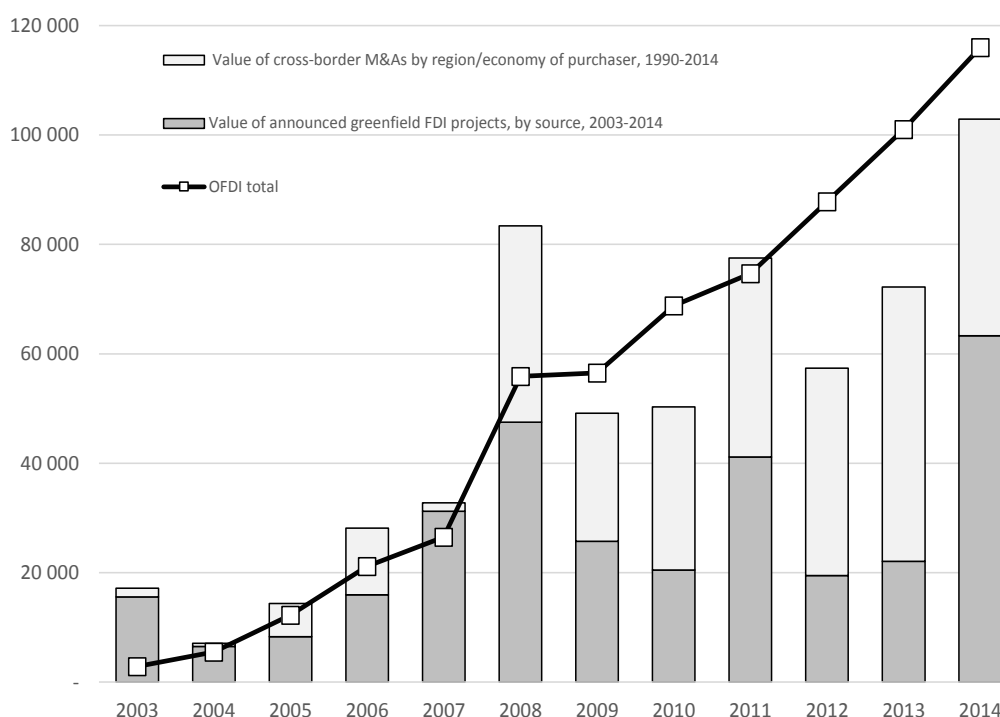
Table 2. OFDI flows, top 10 sending countries according to their relative share in 2014 (1990-2014)

	1990	2000	2010	2011	2012	2013	2014	1990	2000	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
	(Millions of dollars)							(Relative share in the world total)							(Annual growth rates)				
World	243.887	1.166.145	1.366.070	1.587.448	1.283.675	1.305.910	1.354.046	100,0	100,0	100,0	100,0	100,0	100,0	100,0	24,0	16,2	-19,1	1,7	3,7
Developed countries	230.767	1.073.909	963.210	1.156.137	872.861	833.630	822.826	94,6	92,1	70,5	72,8	68,0	63,8	60,8	17,5	20,0	-24,5	-4,5	-1,3
Developing countries	13.120	89.043	340.876	357.570	357.249	380.784	468.148	5,4	7,6	25,0	22,5	27,8	29,2	34,6	45,3	4,9	-0,1	6,6	22,9
Top 10/a	169.214	577.822	851.782	982.785	825.981	923.754	1.054.895	69,4	49,5	62,4	61,9	64,3	70,7	77,9	8,8	15,4	-16,0	11,8	14,2
USA (1)	30.982	142.626	277.779	396.569	311.347	328.343	336.943	12,7	12,2	20,3	25,0	24,3	25,1	24,9	-3,5	42,8	-21,5	5,5	2,6
Hong Kong (2)	2.448	54.079	86.247	96.341	83.411	80.773	142.700	1,0	4,6	6,3	6,1	6,5	6,2	10,5	45,7	11,7	-13,4	-3,2	76,7
China (3)	830	916	68.811	74.654	87.804	101.000	116.000	0,3	0,1	5,0	4,7	6,8	7,7	8,6	21,7	8,5	17,6	15,0	14,9
Japan (4)	50.775	31.557	56.263	107.599	122.549	135.749	113.629	20,8	2,7	4,1	6,8	9,5	10,4	8,4	-24,7	91,2	13,9	10,8	-16,3
Germany (5)	24.235	56.557	125.451	77.930	66.089	30.109	112.227	9,9	4,8	9,2	4,9	5,1	2,3	8,3	83,0	-37,9	-15,2	-54,4	272,7
Russia (6)	0	3.177	52.616	66.851	48.822	86.507	56.438	0,0	0,3	3,9	4,2	3,8	6,6	4,2	21,6	27,1	-27,0	77,2	-34,8
Canada (7)	5.237	44.678	34.723	52.148	53.938	50.536	52.620	2,1	3,8	2,5	3,3	4,2	3,9	3,9	-12,3	50,2	3,4	-6,3	4,1
France (8)	38.302	161.948	48.156	51.415	31.639	24.997	42.869	15,7	13,9	3,5	3,2	2,5	1,9	3,2	-52,3	6,8	-38,5	-21,0	71,5
Netherlands (9)	14.372	75.634	68.358	34.789	5.235	56.926	40.809	5,9	6,5	5,0	2,2	0,4	4,4	3,0	160,2	-49,1	-85,0	987,4	-28,3
Singapore (10)	2.034	6.650	33.377	24.490	15.147	28.814	40.660	0,8	0,6	2,4	1,5	1,2	2,2	3,0	27,2	-26,6	-38,1	90,2	41,1
Mexico (35)	223	363	15.050	12.636	22.470	13.138	5.201	0,1	0,0	1,1	0,8	1,8	1,0	0,4	56,7	-16,0	77,8	-41,5	-60,4

Source: own calculations based on UNCTAD (2015 b).

In 2014 Chinese FDI grew at a rate four times higher than the growth of FDI. The investments for mergers and acquisitions (M&A) have become an increasingly important means for the international expansion of Chinese financial institutions. E.g., between October 2014 and February 2015, Anbang Insurance Group of China executed six cross-border M&A, through which it acquired: i) the Waldorf Astoria hotel in New York at 1,950 million dollars (mdd); ii) FIDEA Assurances (cost undisclosed) and Delta Lloyd Bank in Belgium (219 million euros); iii) Vivant Verzekeringen in the Netherlands at 171 million dollars; iv) Tong Yang Life in Korea for a million dollars; v) an office tower in New York belonging to Blackstone Group (UNCTAD 2015). However, Greenfield projects have been predominantly the most important component of China's OFDI, e.g., between 2013 and 2014 they tripled their value. In addition, in 2014 the destination of Chinese OFDI Greenfield type was mainly the United States with an amount of 9 million dollars, which represented 14% of Chinese OFDI greenfield type (see figure 1) (fDi intelligence 2015).

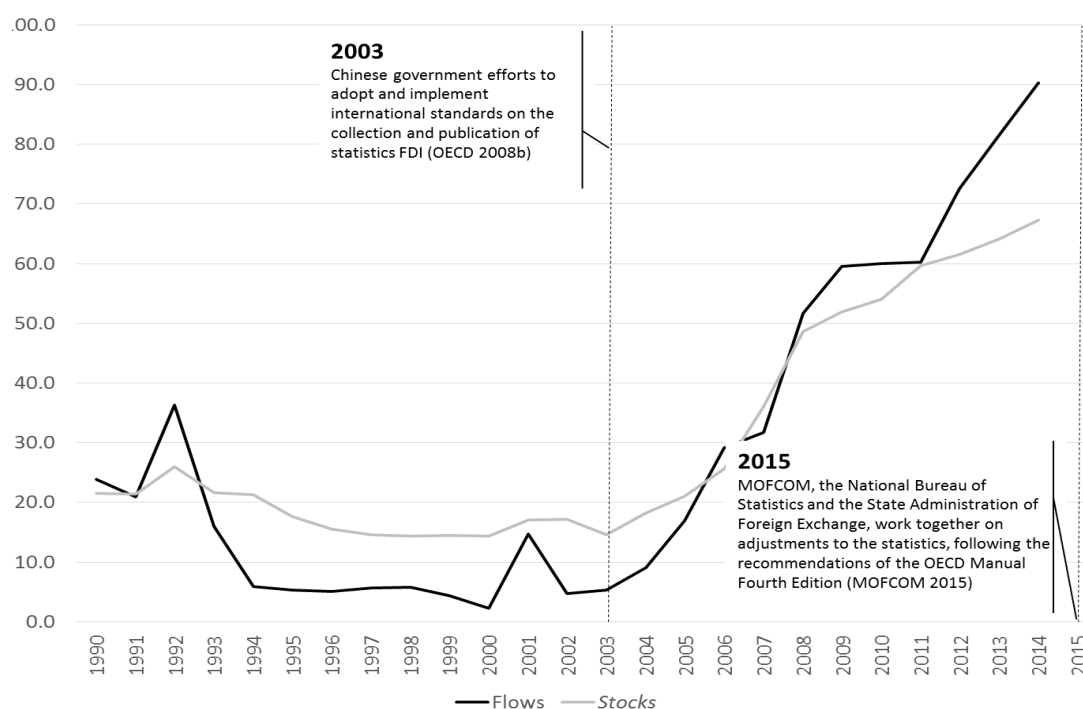
Figure 1. Chinese OFDI by type: M&A and new investments (2003-2014) (millions of dollars)



Source: own calculations based on UNCTAD (2015 b).

OFDI versus FDI. According to UNCTAD (2015), the ratio OFDI/FDI (in terms of flows) has grown from 5.3% in 2003 to over 90% in 2014. In terms of stocks, the ratio increased from 14.5 to 67% in the same years (see figure 2). That is, it seems that China is rapidly transforming into a net exporter of capital since 2003. This statement should be taken with considerable caution for several reasons. First, the very low levels of Chinese OFDI up before 2003 are explained because the methodology used by MOFCOM was incompatible with international standards, thus official statistics seriously underestimate OFDI volumes; the problem apparently persists since 2003 (OECD 2008b)¹. Second, although UNCTAD (in its World Investment Report, 2015), mainly contains statistics based on the directional principle, in the case of China this is not entirely true, since UNCTAD reproduces statistics published by MOFCOM, which as we have seen, are being improved this year (see Chart 1). Third, OECD estimates flows and stocks of OFDI and Chinese FDI following the directional approach since 2006 to 2014; it is interesting to note that contrary to the trend described by UNCTAD, the ratio OFDI/FDI (both, flow and stocks) would have changed from 13% to only 28% during those years (see table 3) (CAITEC, MOFCOM and UNDP 2016). That is, under the directional approach, China remains a net recipient of FDI, so also reflected by the ratio FDI/GDP².

Figure 2. China: OFDI/FDI ratio, flows and stocks (1990-2014)



Source: Own calculations based on UNCTAD (2015 b).

1 Starting in 2015 MOFCOM and other Chinese institutions work together to improve statistics following the recommendations of OECD (4th edition) and the IMF (6th edition).

2 A more detailed discussion can be reviewed at: Ortiz Velasquez (2016b).

Table 3. China: OFDI and FDI, according to two sources of data (2005-2014) (millions of dollars)

	UNCTAD						OECD (Direccional Approach)					
	2005	2010	2011	2012	2013	2014	2005	2010	2011	2012	2013	2014
	(Flows)						(Flows)					
OFDI	12.261	68.811	74.654	87.804	101.000	116.000	13.730	57.954	48.421	64.963	72.971	80.418
FDI	72.406	114.734	123.985	121.080	123.911	128.500	104.109	243.703	280.072	241.214	290.928	289.097
OFDI/FDI	16,9	60,0	60,2	72,5	81,5	90,3	13,2	23,8	17,3	26,9	25,1	27,8
	(Stocks)						(Stocks)					
OFDI	57.206	317.211	424.781	512.585	613.585	729.585	64.493	317.210	424.780	531.900	660.480	744.289
FDI	272.094	587.817	711.802	832.882	956.793	1.085.293	471.549	1.569.604	1.906.908	2.068.000	2.331.238	2.677.901
GDP	2.287.237	5.949.785	7.314.444	8.229.447	9.181.204	10.066.674	2.287.237	5.949.785	7.314.444	8.229.447	9.181.204	10.066.674
OFDI/FDI	21,0	54,0	59,7	61,5	64,1	67,2	13,7	20,2	22,3	25,7	28,3	27,8
OFDI/GDP	2,5	5,3	5,8	6,2	6,7	7,2	2,8	5,3	5,8	6,5	7,2	7,4
FDI/GDP	11,9	9,9	9,7	10,1	10,4	10,8	20,6	26,4	26,1	25,1	25,4	26,6

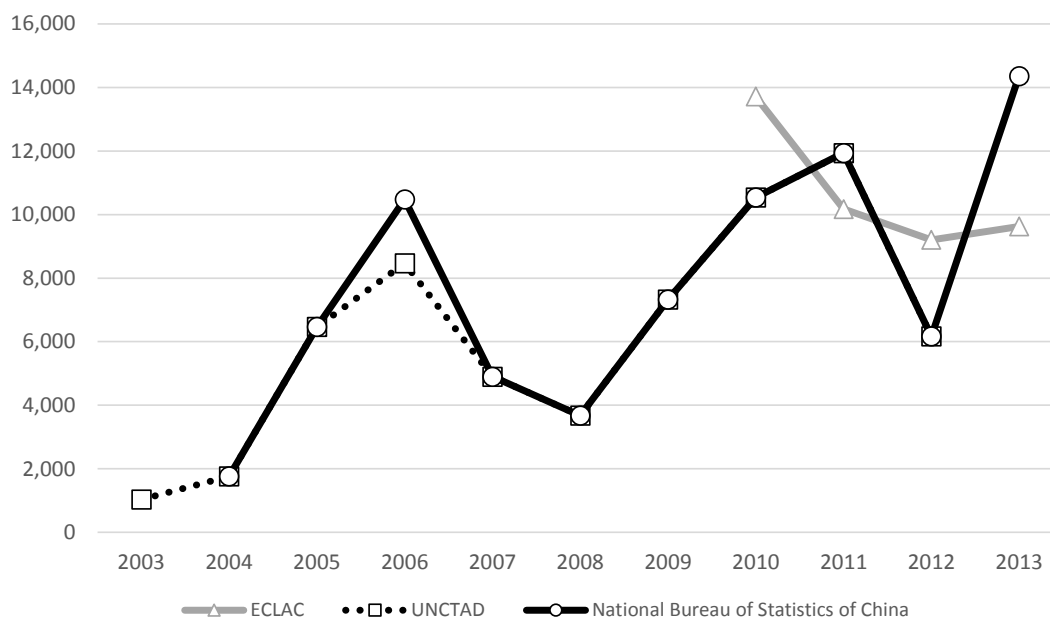
Source: own calculations based on UNCTAD (2015 b) and OECD (2015b)

2. TRENDS OF CHINESE OFDI IN LAC

Chinese OFDI in Latin America and the Caribbean (LAC) was very limited until 2010; from then until 2013 it rose significantly (ECLAC 2015a) (see Chart 3)³. The year 2010 marked a turning point with an estimated close to 14 million dollars flow. However, three-quarters of this total corresponded to two large acquisitions in the oil industry, Sinopec in Brazil and CNOOC in Argentina. ECLAC (2015b) estimates that OFDI from China reached 10,000 million dollars annually between 2010 and 2013. Probably this figure has increased tenuously in 2014 due to some large amount acquisitions, e.g. in Peru, the Chinese company Minmetals bought Las Bambas mine from the Swiss company Glencore-Xstrata for 7 million dollars; CNPC purchased the assets of Petrobras in Peru by 2.6 million dollars. On the other hand, OFDI type Greenfield projects has been particularly important in Peru (with 4 million dollars in 2014, ranking the fifth place as the main destination of Chinese OFDI in capital investment in the world) and Brazil (with a million dollars, ranking eighth place) (fDi Markets 2015).

³ ECLAC considers only 10 LAC countries in the estimate of Chinese OFDI to the region: Argentina, Brazil, Chile, Colombia, Ecuador, Guyana, Mexico, Peru, Trinidad and Tobago, and Venezuela.

Figure 3. Chinese OFDI flows in Latin America and the Caribbean (2003-2013) (millions of dollars)



Source: Own calculations based on ECLAC (2015a); UNCTAD (2015 c); ONECH (2014).

ECLAC (2015a) estimates own statistics for Chinese FDI to LAC, considering that official data (e.g. the National Bureau of Statistics of China), do not capture the true magnitude of China's OFDI (see Chart 4 and table 4), due to several factors:

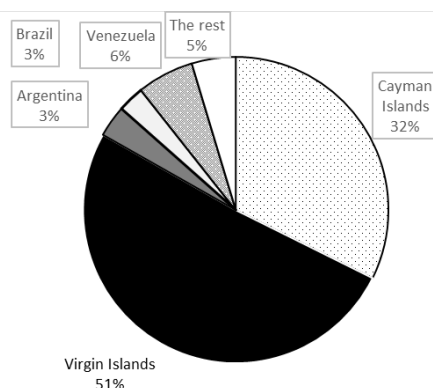
- a. Chinese companies usually channel their OFDI through third countries ⁴.
- b. Some LAC countries do not keep records on the origin of investments, e.g., ECLAC notes that in the top 20 of the largest M&A transactions type in LAC in 2014, three were carried out by Chinese companies, including the largest acquisition recorded during the year ⁵. However, two of those transactions occurred in Peru, where Central Bank does not track the origin of investments.
- c. Chinese OFDI arrives and is distributed to LAC through Special Purposes Entities (SPEs), located in tax havens like the Cayman Islands and Virgin Islands (Dussel Peters 2013), e.g., during the period 2004-2013, 88% of the Chinese OFDI to LAC went to both locations (figure 4A). Hence it is important that China and LAC estimate their FDI based on the directional approach ⁶.

4 E.g., the purchase of 40% of Repsol by Sinopec in Brazil, for 7 million dollars, was recorded as a Luxembourg investment since it was channeled through the Chinese subsidiary in that country (ECLAC 2015a).

5 The top 20 major M&A transactions in 2014 include the following Chinese transactions in LAC (ECLAC 2015a): First Place: MMG Ltd and China partners acquired Las Bambas de Glencore copper deposits in Peru; Switzerland figured as the seller country, and the transaction amount was 7 million. Fifth Place: China National Petroleum Corporation (CNPC) acquired Petrobras Energia Peru in Peru, Brazil figured as the seller country, the amount of this operation was 2.6 million dollars. Twentieth place: China's Construction Bank acquired the Industrial and Commercial Bank (72%) in Peru; Brazil figured as the seller country; the transaction amount was 0.725 million dollars.

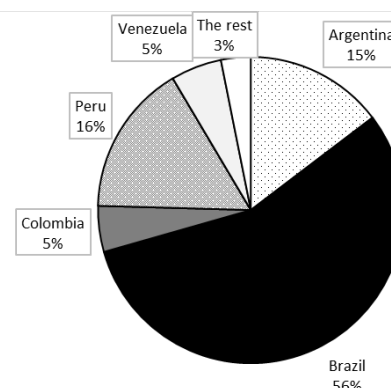
6 Currently OECD reports FDI data calculated under the directional principle for two LAC countries (Chile and Mexico), although data from Mexico generate many doubts on its quality (ECLAC and OECD 2015, OECD 2015b; Ortiz

Figure 4. Chinese FDI flows in LAC, by main destinations (2003-2013) (percentage structure)



4A. National Bureau of Statistics of China (2010-2013)

Source: Own elaboration based on ONECH (2014)



4B. ECLAC (2010-2013)

Source: Own elaboration based on ECLAC (2015a).

Table 4. Ten LAC countries: Estimated flows of Chinese FDI (1990-2013) (Millions of dollars) a/Based on official information, Thomson Reuters, FDI Markets, Heritage Foundation and companies data.

	1990-2009	2010	2011	2012	2013	1990-2009	2010	2011	2012	2013
	(Millions of dollars)					(Percentage share of total)				
Argentina	143	3.100	2.450	600	120	1,9	22,6	24,1	6,5	1,2
Brazil	255	9.563	5.676	6.067	2.580	3,5	69,7	55,8	65,9	26,8
Chile	nd	5	0	76	19	nd	0,0	0,0	0,8	0,2
Colombia	1.677	6	293	996	776	22,8	0,0	2,9	10,8	8,1
Ecuador	1.619	45	59	86	88	22,1	0,3	0,6	0,9	0,9
Guyana	1.000	na	15	na	na	13,6	na	0,1	na	na
Mexico	146	9	2	74	15	2,0	0,1	0,0	0,8	0,2
Peru	2.262	84	829	1.307	4.626	30,8	0,6	8,1	14,2	48,1
Trinidad and Tobago	nd	nd	850	na	na	na	na	8,4	na	na
Venezuela	240	900	na	na	1.400	3,3	6,6	na	na	14,5
LAC (total)	7.342	13.712	10.175	9.206	9.624	100,0	100,0	100,0	100,0	100,0

Source: Taken from ECLAC (2015a: 61).

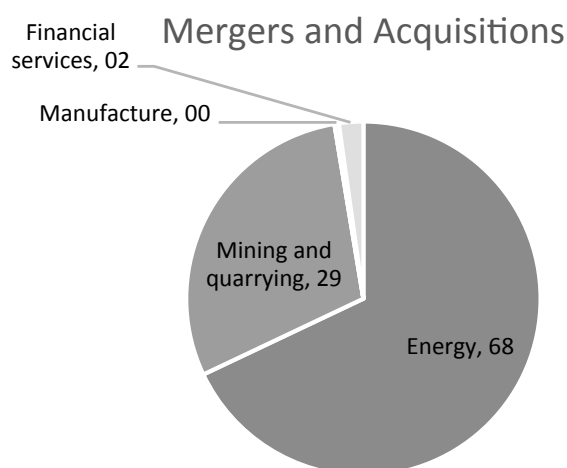
It is estimated that between 2010 and 2013 almost 90% of Chinese OFDI in LAC turned to natural resources, which is relevant considering that this sector absorbed only 25% of the total OFDI addressed to LAC (ECLAC 2015a). Bittencourt (2012) and Dussel Peters (2013) reach to similar conclusions using data on mergers and acquisitions. However, combining data at company level on new investment projects (greenfield investment), and mergers and acquisitions, it is shown that between 2005 and 2014 China's mergers and acquisitions in LAC were allocated in the energy and mining sectors by 97%, while new investments were firstly allocated in the manufacturing activities by 53%, and secondly in the mining activities (see Figures 5 and 6). Thus, it seems that two central determinants of China's OFDI in LAC are the searching for resources (in the case of mergers and acquisitions) and market searching (in

Velasquez 2016a). On the other hand, China has worked since 2015 to improve FDI statistics by incorporating the recent recommendations of the OECD Manual 2008 (MOFCOM 2015).

the case of new investments).

As for oil and gas, China's OFDI is relevant in Argentina, Brazil, Colombia, Ecuador, Peru and Venezuela (ECLAC 2015a). In mining, the flows have been concentrated in Peru and to a lesser extent in Brazil. In infrastructure, the largest investor up to 2015 has been the Stategrid electric transmission company, established in Brazil in 2010 by means of asset acquisition of Spanish companies. Chinese OFDI in agriculture is very limited, but it shows a growing trend ⁷. Chinese OFDI in manufacturing began to grow in 2010, largely through investment announcements yet to be materialized, e.g., some Chinese companies are venturing in Mexico in order to export their products particularly to the US⁸.

Figure 5. LAC: Chinese OFDI for mergers and acquisitions, by destination subsector (2005-2014) (percentage).



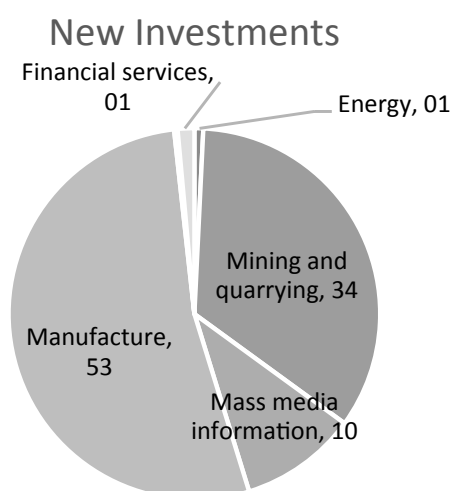
LAC includes: Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru and Venezuela.

Source: Own calculations based on Thomson-Reuters.

⁷ There are two important cases: Chongqing Grain Group (CGG) holding an investment in Brazil to develop a soy processing center and the COFCO company which has bought six fields and wineries from the Bisquertt vineyard to sell Chilean wine in the Chinese market (ECLAC 2015a).

⁸ Large companies such as Lenovo (electronics) and Nexteer (in auto parts) came to Mexico through the purchase of US companies with plants in Mexico.

Figure 6. LAC: Chinese OFDI, new investments type, by destination subsector (2005-2014) (percentage).



LAC includes: Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru and Venezuela.

Source: Own elaboration based on fDi Markets.

3. TRENDS OF CHINESE OFDI IN MEXICO

3.1 MACROECONOMIC TRENDS

3.1.1. Chinese OFDI in Mexico.

Total Chinese OFDI in Mexico: Between 1999 and 2015, the cumulative flow (no stocks) of Chinese OFDI in Mexico was 395.9 million dollars, which accounted for only 0.09% of total OFDI and 0.2% of the United States OFDI, the main country of origin of OFDI addressed to Mexico (see table 5). With this, China ranks 31 as the country of origin of OFDI (in a list of 157 countries) below tax havens like the Cayman Islands, British Virgin Islands and Virgin Islands of the United States, which reveals, among other things, weaknesses in the methodology used to record the Chinese OFDI. In 2015, China's OFDI in Mexico was estimated at 27.1 million dollars, representing 0.1% of total OFDI and thus China ranked 24. Moreover, Chinese OFDI has been highly fluctuating comparatively with American OFDI showing particularly atypical relative peaks for the years 2012 and 2014 (see the evolution of accumulated index in Table 5). The point is significant since high volatility is usually associated with a greater degree of uncertainty and risk of agents who make investment decisions.

Table 5. China's OFDI to Mexico, total (1999-2015) (millions of dollars)

	1999	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	1999-2015
Millions of dollars												
Total	13,941.0	18,312.3	24,890.4	28,937.1	17,889.6	26,369.1	23,746.1	20,305.6	45,725.6	25,629.1	28,382.3	425,690.0
USA	7,560.5	13,194.4	11,830.7	11,670.6	7,443.6	6,999.9	12,184.1	9,558.3	13,652.7	7,671.0	15,078.0	196,262.2
China	5.0	10.7	15.3	13.2	33.8	15.3	27.9	87.9	25.1	57.0	27.1	395.9
(Percentage share of total)												
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
USA	54.23	72.05	47.53	40.33	41.61	26.55	51.31	47.07	29.86	29.93	53.12	46.10
China	0.04	0.06	0.06	0.05	0.19	0.06	0.12	0.43	0.05	0.22	0.10	0.09
(rate 1999=100)												
Total	100.0	131.4	178.5	207.6	128.3	189.1	170.3	145.7	328.0	183.8	203.6	...
USA	100.0	174.5	156.5	154.4	98.5	92.6	161.2	126.4	180.6	101.5	199.4	...
China	100.0	214.9	306.9	263.6	676.5	305.8	559.1	1762.5	503.6	1142.9	543.6	...

Source: Own elaboration based on the Ministry of Economy of Mexico (SE).

Chinese FDI to Mexico by type. Between 1999 and 2015, 67% of the cumulative flow of Chinese OFDI to Mexico was addressed to the new investments category, while intercompany accounts represented 32% (Table 6). In 2015 intercompany accounts was the most important component, accounting for 60% of total Chinese OFDI. In contrast, the total OFDI and the American OFDI have a relatively more balanced percentage structure; reinvestments and intercompany accounts categories represented together over 50% of the respective OFDI. Although at first glance it seems that the Chinese OFDI in Mexico has helped to amplify productive stocks (since they have basically been integrated by new investments) it is important to note that this category includes both new investments (usually called Greenfield) and M&A transactions, all of which may overestimate the new investment category; this will be discussed in detail in subsequent sections.

Table 6. Chinese FDI to Mexico by type (1999-2015/I) (millions of dollars)

	1999	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	1999-2015
(Millions of dollars)												
Total	13,941.0	18,312.3	24,890.4	28,937.1	17,889.6	26,369.1	23,746.1	20,305.6	45,725.6	25,629.1	28,382.3	425,690.0
New Investments	6,416.3	8,614.4	13,107.3	12,328.3	11,246.0	15,281.0	9,277.5	4,424.5	22,110.4	5,429.2	10,564.3	206,685.6
Reinvestment of profits	2,353.1	3,909.0	4,391.2	9,319.1	5,132.4	5,107.6	9,459.8	9,509.4	16,121.3	13,747.2	8,711.4	115,627.7
Intercompany accounts	5,171.6	5,788.8	7,391.8	7,289.8	1,511.2	5,980.4	5,008.9	6,371.8	7,493.9	6,452.6	9,106.6	103,376.7
USA	7,560.5	13,194.4	11,830.7	11,670.6	7,443.6	6,999.9	12,184.1	9,558.3	13,652.7	7,671.0	15,078.0	196,262.2
New Investments	2,691.9	6,017.4	4,053.8	3,138.1	2,866.9	1,881.9	2,680.6	3,397.9	2,682.4	-109.7	5,620.2	71,622.8
Reinvestment of profits	1,681.7	2,652.3	2,447.4	5,222.8	2,873.8	2,891.2	6,067.5	4,090.3	6,811.9	4,961.0	3,948.7	61,951.3
Intercompany accounts	3,187.0	4,524.7	5,329.5	3,309.6	1,702.9	2,226.8	3,436.1	2,070.1	4,158.4	2,819.6	5,509.2	62,688.1
China	5.0	10.7	15.3	13.2	33.8	15.3	27.9	87.9	25.1	57.0	27.1	395.9
New Investments	2.8	9.4	12.5	9.0	26.5	9.8	24.3	69.6	7.6	54.0	12.1	264.5
Reinvestment of profits	0.0	0.0	0.0	0.0	0.0	0.6	5.5	5.1	7.3	-13.0	-1.2	4.3
Intercompany accounts	2.2	1.3	2.8	4.2	7.2	4.9	-1.9	13.2	10.2	16.0	16.3	127.1
(Percentage structure)												
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
New Investments	46.0	47.0	52.7	42.6	62.9	58.0	39.1	21.8	48.4	21.2	37.2	48.6
Reinvestment of profits	16.9	21.3	17.6	32.2	28.7	19.4	39.8	46.8	35.3	53.6	30.7	27.2
Intercompany accounts	37.1	31.6	29.7	25.2	8.4	22.7	21.1	31.4	16.4	25.2	32.1	24.3
China	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
New Investments	56.5	87.9	81.9	68.4	78.6	64.0	87.2	79.2	30.3	94.7	44.5	66.8
Reinvestment of profits	0.0	0.0	0.0	0.0	0.0	3.6	19.6	5.8	29.1	-22.8	-4.5	1.1
Intercompany accounts	43.5	12.1	18.1	31.6	21.4	32.4	-6.7	15.0	40.6	28.1	59.9	32.1
(Percentage share of total)												
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
New Investments	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Reinvestment of profits	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Intercompany accounts	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
China	0.036	0.059	0.062	0.045	0.189	0.058	0.117	0.433	0.055	0.223	0.096	0.093
New Investments	0.044	0.109	0.096	0.073	0.236	0.064	0.262	1.574	0.034	0.995	0.114	0.128
Reinvestment of profits	0.000	0.000	0.000	0.000	0.000	0.011	0.058	0.054	0.045	-0.095	-0.014	0.004
Intercompany accounts	0.042	0.022	0.037	0.057	0.479	0.083	-0.038	0.207	0.136	0.248	0.179	0.123

Source: Own elaboration based on the Ministry of Economy of Mexico (SE).

3.1.2. Chinese OFDI stocks in Mexico

Data of Chinese OFDI stocks are crucial, as they allow for structural analysis of foreign direct investment from the point of view of the host country and from the point of view of the country of origin by introducing different settings, e.g., by exchange rate and by valuation (Ortiz Velasquez 2016a). It is interesting to note that the Central Bank in Mexico publishes statistical information only on foreign investment stocks at the economy level as a whole, but it does not execute the exercise by countries of origin. Table 7 shows the stock of OFDI by country of origin based on international sources such as the OECD and the IMF. Between 2009 and 2013 the stock of Chinese OFDI in Mexico grew at an average annual rate of 22.1%, while the total stock grew at 6.4% and American OFDI stock (the main country of origin) showed a similar level that it had at the end of 2009. These trends are reflected in changes in the percentage structure of OFDI: the relative share of Chinese OFDI grew from 0.09% in 2009 to 0.15% in 2013, while the relative share of the United States is reduced from 58.2 % to 45.3%.

Table 7. Stocks of Chinese FDI in Mexico (2003-2013) (millions of dollars)

	2009	2010	2011	2012	2013	2009-2013
	(Millions of dollars)					(Average annual growth rate)
Total	305.807,9	363.768,6	338.975,0	366.564,5	391.879,1	6,4
USA	177.849,6	205.635,5	186.871,3	192.015,3	177.523,0	0,0
Spain	37.948,2	45.729,1	40.780,6	45.808,0	45.020,8	4,4
Netherlands	29.844,8	40.821,3	35.669,8	37.787,0	41.162,9	8,4
Belgium	1.087,1	1.310,9	1.260,0	1.963,7	31.311,7	131,7
Canada	7.339,0	9.327,8	12.906,6	14.931,1	16.823,8	23,0
China	262,5	256,9	267,3	523,1	583,3	22,1
	(Percentage Structure)					(Average)
Total	100,00	100,00	100,00	100,00	100,00	100,00
USA	58,16	56,53	55,13	52,38	45,30	53,50
Spain	12,41	12,57	12,03	12,50	11,49	12,20
Netherlands	9,76	11,22	10,52	10,31	10,50	10,46
Belgium	0,36	0,36	0,37	0,54	7,99	1,92
Canada	2,40	2,56	3,81	4,07	4,29	3,43
China	0,09	0,07	0,08	0,14	0,15	0,11

Source: Own elaboration. Total amount: Banxico (2015) and OECD (2015 b). Amounts per country: IMF (2015).

3.2 MESOECONOMIC TRENDS

3.2.1. Chinese FDI to Mexico, by destination sector

Chinese OFDI in 2015 was allocated 36.3% to trade sector, followed by the electrical and manufacturing industries with 30% respectively (see Table 8). Between 1999 and 2015 cumulative OFDI flow shows that it has been allocated nearly a quarter to the mining sector, followed by trade (22%); manufacturing (21%) and financial services (13.6%). They represented together more than 80% of the Chinese OFDI addressed to Mexico. This contrasts with the behavior of aggregate FDI, which has concentrated 64% in manufacturing (46.8%) and financial services (17.1%), (Monitor of the Mexican Manufacturing 2015).

On the other hand, Chinese FDI flows directed to the manufacturing industry and trade have been relatively stable compared to mining and financial services, e.g., almost 70% of the cumulative Chinese OFDI flow (1999-2015) directed to financial services was explained by the amount of 37.4 million dollars raised in 2014; two thirds of the OFDI flow directed to mining was explained by the amount of 61.8 million dollars coming to the sector in 2012.

Table 8. Chinese OFDI to Mexico by subsector destination (1999-2015), (millions of dollars)

	1999	2000	2005	2010	2011	2012	2013	2014	2015	1999-2015	1999	2000	2005	2010	2011	2012	2013	2014	2015	1999-2015
	(Millions of dollars)										(As a percentage of total)									
Total	5.0	10.7	15.3	15.3	27.9	87.9	25.1	57.0	27.1	395.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture, farming and animals, forestry, fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mining	0.0	0.0	0.0	5.8	18.4	61.8	1.7	0.0	0.0	97.3	0.0	0.0	0.0	38.3	66.1	70.3	6.8	0.0	0.2	24.6
Electricity, water and gas pipeline	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	8.0	8.1	0.0	0.0	0.0	0.0	0.0	0.3	0.0	29.5	2.0	2.0
Construction	0.0	0.0	-1.0	-0.1	0.0	9.1	0.0	0.0	0.1	20.6	0.0	0.0	-6.7	-0.3	0.0	10.4	0.0	0.0	0.5	5.2
Manufacturing industries	4.1	9.0	12.0	0.9	0.8	7.0	7.4	17.9	8.3	84.3	82.1	83.9	78.1	6.1	3.0	8.0	29.6	31.4	30.7	21.3
Trade	0.7	1.6	2.7	3.3	2.6	4.3	8.9	0.8	9.8	86.7	14.6	15.0	17.8	21.6	9.3	4.8	35.4	1.4	36.3	21.9
Transport, mail and storage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Mass media information	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial Services and insurance	0.0	0.0	0.0	0.8	5.5	5.1	6.2	37.4	-1.2	53.9	0.0	0.0	0.0	5.1	19.9	5.8	24.8	65.6	-4.5	13.6
Real state and rental	0.0	0.0	1.4	1.7	0.0	0.1	0.1	0.0	0.1	6.6	0.1	0.1	9.2	10.9	0.1	0.1	0.6	0.1	0.5	1.7
Professional, scientific and technical services	0.0	0.0	0.0	2.8	0.4	0.0	0.0	0.1	0.0	32.2	0.0	0.0	0.0	18.3	1.6	0.0	0.0	0.2	0.0	8.1
Support services to business and waste	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Educational services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Health and welfare services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cultural and sporting services, recreation, and Temporary accommodation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
services and food and Other services except government activities	0.2	0.1	0.2	0.0	0.0	0.6	0.6	0.6	1.8	5.4	3.0	0.8	1.5	0.1	0.0	0.6	2.5	1.1	6.7	1.4
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0

Source: Own elaboration based on the Minister of Economy of Mexico (SE 2015a).

3.2.2. Chinese OFDI to Mexico, by destination branch

In 2015, 90% of 27.1 million dollars of Chinese OFDI was concentrated in just three branches: wholesale trade of raw materials for industry (with a relative share of 35.4%); generation, transmission and distribution of electricity (29.5%); manufacture of basic chemicals (26.3%). In cumulative terms, between 1999 and 2015, 54% of Chinese OFDI in Mexico focused on five branches, dominated by mining, financial services and trade: mining of non-metallic minerals (18.2%); Commercial banks (12.7%); Wholesale trade of machinery and equipment for services and business activities (11.4%); metal ore mining (7.2%); facilities and equipment in construction (4.4%) (see Table 9). We can highlight a group of aspects:

Table 9. Mexico: China's OFDI by main destination branch (1999-2015) (millions of dollars)

		First five branches					Subtotal	Rest
		3141 Manufacture of carpets, white and similar	3371 Manufacture of furniture except office and shelf	3152 Production of clothing	3261 Manufacture of plastic products	4332 Wholesale of perfumery, cosmetics and jewelry		
1999								
Total (md)	5.0	1.6	0.8	0.6	0.4	0.3	3.8	1.2
Struct. %	100.0	32.4	16.0	12.3	8.6	6.2	75.5	24.5
		First five branches					Subtotal	Rest
		3152 Production of clothing	4332 Wholesale of perfumery, cosmetics and jewelry	4352 Wholesale of machinery and equipment for industry	3261 Manufacture of plastic products	3151 Manufacture of knitted garments		
2000								
Total (md)	10.7	8.4	1.3	0.3	0.2	0.2	10.4	0.3
Struct. %	100.0	78.2	11.7	3.1	2.2	1.9	97.1	2.9
		First five branches					Subtotal	Rest
		4332 Wholesale of perfumery, cosmetics and jewelry	3261 Manufacture of plastic products	4321 Wholesale of textiles and footwear	3152 Production of clothing	3371 Manufacture of furniture except office and shelf		
2001								
Total (md)	2.4	2.2	0.3	0.1	0.1	0.1	2.8	-0.4
Struct. %	100.0	93.7	13.2	5.8	3.7	2.3	118.7	-18.7
		First five branches					Subtotal	Rest
		3353 Manufacture of generation and distribution of electricity	5312 Real estate and realtors	4332 Wholesale of perfumery, cosmetics and jewelry	3369 Manufacture of other transport equipment	5413 Architectural, engineering and related activities services		
2002								
Total (md)	-1.7	1.0	0.8	0.7	0.5	0.4	3.5	-5.2
Struct. %	100.0	-57.7	-46.2	-41.0	-31.5	-25.6	-202.1	302.1
		First five branches					Subtotal	Rest
		5417 Services of scientific research and development	2382 Facilities and Equipment Contractors	3261 Manufacture of plastic products	4332 Wholesale of perfumery, cosmetics and jewelry	4331 Wholesale of pharmaceutical products		
2003								
Total (md)	25.6	10.0	8.4	4.6	1.8	0.2	25.0	0.6
Struct. %	100.0	39.1	32.7	18.1	7.1	0.7	97.7	2.3
		First five branches					Subtotal	Rest
		3261 Manufacture of plastic products	2382 Facilities and Equipment Contractors	5312 Real estate and realtors	4352 Wholesale of machinery and equipment for industry	4332 Wholesale of perfumery, cosmetics and jewelry		
2004								
Total (md)	12.0	6.5	2.2	0.9	0.6	0.2	10.5	1.5
Struct. %	100.0	54.7	18.4	7.7	5.0	2.0	87.9	12.1
		First five branches					Subtotal	Rest
		3254 Pharmaceutical Manufacturing	4352 Wholesale of machinery and equipment for industry	5312 Real estate and realtors	3261 Manufacture of plastic products	4332 Wholesale of perfumery, cosmetics and jewelry		
2005								
Total (md)	15.3	10.5	1.5	1.4	1.2	0.5	15.0	0.3
Struct. %	100.0	68.3	9.7	9.1	7.9	3.1	98.2	1.8
		First five branches					Subtotal	Rest
		4353 Wholesale of machinery and equipment for services and for	5416 Management, scientific and technical consulting services	2382 Facilities and Equipment Contractors	3254 Pharmaceutical Manufacturing	4332 Wholesale of perfumery, cosmetics and jewelry		
2006								
Total (md)	24.3	15.7	3.7	1.3	0.8	0.6	22.2	2.0
Struct. %	100.0	64.7	15.3	5.5	3.4	2.7	91.7	8.3
		First five branches					Subtotal	Rest
		2315 Services related to mining	3254 Pharmaceutical Manufacturing	4352 Wholesale of machinery and equipment for industry	4353 Wholesale of machinery and equipment for services and for commercial	5312 Real estate and realtors		
2007								
Total (md)	14.5	5.4	3.6	2.0	1.5	0.6	13.1	1.4
Struct. %	100.0	37.4	25.0	13.5	10.0	4.3	90.3	9.7

Table 9. End

2008		First five branches					Subtotal	Rest
		5413 Architectural, engineering and related activities services	4331 Wholesale of pharmaceutical products	4332 Wholesale of perfumery, cosmetics and jewelry	4352 Wholesale of machinery and equipment for industry	3152 Production of clothing		
Total (md)	13.2	11.4	2.3	1.2	0.4	0.4	15.8	-2.6
Struct. %	100.0	86.9	17.2	9.4	3.4	3.1	120.0	-20.0
2009		First five branches					Subtotal	Rest
		4353 Wholesale of machinery and equipment for services and for commercial activities	5416 Management, scientific and technical consulting services	2122 Mining of metal ores	3322 Manufacture of non-power hand tools and metal kitchen utensils	2123 Nonmetallic Mineral Mining		
Total (md)	33.8	21.8	3.9	2.7	2.4	1.3	32.1	1.7
Struct. %	100.0	64.5	11.7	8.0	7.2	3.8	95.1	4.9
2010		First five branches					Subtotal	Rest
		2122 Mining of metal ores	5413 Architectural, engineering and related activities services	4353 Wholesale of machinery and equipment for services and for commercial activities	5312 Real estate and realtors	3279 Manufacture of other products made of non-metallic minerals		
Total (md)	15.3	7.2	2.8	2.4	1.6	0.8	14.8	0.5
Struct. %	100.0	47.0	18.3	15.8	10.3	5.4	96.7	3.3
2011		First five branches					Subtotal	Rest
		2123 Nonmetallic Mineral Mining	5224 Other institutions of credit and financial intermediation off-exchange	2122 Mining of metal ores	4353 Wholesale of machinery and equipment for services and for commercial activities	3152 Production of clothing		
Total (md)	27.9	22.1	5.5	3.9	2.4	0.6	34.4	-6.5
Struct. %	100.0	79.2	19.6	14.0	8.6	2.0	123.5	-23.5
2012		First five branches					Subtotal	Rest
		2123 Nonmetallic Mineral Mining	2122 Mining of metal ores	2382 Facilities and Equipment Contractors	5224 Other institutions of credit and financial intermediation off-exchange	3252 Manufacture of resins and synthetic rubbers and chemical fibers		
Total (md)	87.9	47.2	14.6	6.6	5.1	3.5	77.1	10.9
Struct. %	100.0	53.7	16.6	7.5	5.8	4.0	87.6	12.4
2013		First five branches					Subtotal	Rest
		5224 Other institutions of credit and financial intermediation off-exchange	4353 Wholesale of machinery and equipment for services and for commercial activities	3399 Other manufacturing	3342 Manufacture of communication equipment	3332 Manufacture of machinery and equipment for manufacturing industries, except metalworking		
Total (md)	25.1	6.0	4.9	2.7	2.2	2.0	17.9	7.3
Struct. %	100.0	24.0	19.7	10.7	8.8	7.9	71.1	28.9
2014		First five branches					Subtotal	Rest
		5221 Multiple Banking	3329 Manufacture of other metal products	3342 Manufacture of communication equipment	7213 Pensions and guest houses, and apartments and houses furnished with hotel services	4342 Wholesale of raw materials for industry		
Total (md)	57.0	50.4	14.8	2.3	0.6	0.4	68.6	-11.6
Struct. %	100.0	88.4	25.9	4.1	1.1	0.7	120.3	-20.3
2015		First five branches					Subtotal	Rest
		4342 Wholesale of raw materials for industry	2211 Generation, transmission and distribution of electricity	3251 Manufacture of basic chemicals	7213 Pensions and guest houses, and apartments and houses furnished with hotel services	3342 Manufacture of communication equipment		
Total (md)	27.1	9.6	8.0	7.1	1.8	0.5	15.7	11.4
Struct. %	100.0	35.4	29.5	26.2	6.7	1.9	57.9	42.1
Accumulated (1999-2015)		First five branches					Subtotal	Rest
		2123 Nonmetallic Mineral Mining	5221 Multiple Banking	4353 Wholesale of machinery and equipment for services and for commercial activities	2122 Mining of metal ores	2382 Facilities and Equipment Contractors		
Total (md)	395.9	72.2	50.4	45.0	28.4	17.5	213.6	182.3
Struct. %	100.0	18.2	12.7	11.4	7.2	4.4	54.0	46.0

- The boom of Chinese investment in mining since 2009. The 72.2 million dollars of Chinese OFDI in the non-metallic mining branch (between 1999 and 2015), were basically explained by large investments executed in 2011 and 2012. Meanwhile, the cumulative flow of Chinese OFDI in metal ore mining by 28.4 million dollars is explained by investments in 2010 and 2012. In this context, the Chinese company Jinchuan Group is relevant since 2008 when it bought the copper deposit rights in Bahuerachi, Chihuahua from the Canadian company Tyler Resources. Since then, the Chinese company mines copper, gold, silver, molybdenum and zinc and it invests in mining projects as well, e.g. in 2010 it invested about 25 million dollars in exploration projects and in 2012 presented a 234 million dollar project (La red noticias 2012) . Other Chinese companies such as Shaanxi Dongling Group, invested 3.4 million dollars in 2009 in Los Vasitos, Sinaloa mining project, where it produces iron (CNN Expansión 2009).

Up to March, 2015, the Ministry of Economy of Mexico, through the Directorate General of Mining Development had registered a total of 32 Chinese-funded mining projects underway, 18 of which focus on exploration activities. It is important to note that indigenous groups have denounced how some Chinese companies are illegally exploiting natural resources in complicity with organized crime, particularly in the States of Michoacan, Guerrero and Sinaloa (Reporte Indigo 2015).

Table 10 Mining projects with Chinese capital at 02.27.2015

Stage	Number of projects	Company name and destination
Exploration	18	AA Mine Holding (Baja California); China Minerals Resources Group (Coahuila, Jalisco, Michoacán, Sinaloa, Sonora, Zacatecas); Eurofro Mineral Group (Jalisco); Jinchuan Group (Sonora); Rizhao Xingye Import and Export Co / Paradox (Sinaloa); Shaanxi Dong Ling Group (dos en Sinaloa); Tianjin North China Geological Exploration Bureau (five in Sinaloa); Zhong Ning Mining Investment Co (Guerrero).
Development	5	Harbor Mining (Zacatecas); Jinchuan Group / Jinchuan Resources Ltd. (Chihuahua); Ningbo Yinyi Group Co. Ltd. (Guerrero and Michoacán); Tianjin Binhai Harbor Port Int. Trade (Colima and Michoacán).
Production	2	Rizhao Xingye Import and Export Co / Paradox (Sinaloa); Tianjin Binhai Harbor Port Int. Trade (Nayarit);
Postponement	6	Gan-Bo Investment (five in Jalisco); Jdc Minerals (Puebla).

Source: Own elaboration based on Ministry of Economy of Mexico (2015).

- During the third quarter of 2014 a major Chinese investment was recorded in Mexico and went to the commercial banks branch with a total of 50.42 million. At the micro level, this was associated with the arrival of the Industrial and Commercial Bank of China Limited, which asked the SHCP and the CNBV authorization for the establishment of the Industrial and Commercial Bank of China Mexico (ICBC), institution that has indirect participation of the Chinese government in its capital. In addition, it was stated that the amount of capital paid was 664.300 million pesos (Forbes 2014) or about \$ 50.2 million dollars (this, according to our estimates considering a fix exchange rate of 13,476 pesos per dollar).
- Unlike the previous cases, there is a relatively steady flow of Chinese OFDI in wholesale of machinery/ equipment for services and business between 2006 and 2013. However, Chinese investment of 45 million dollars between 1999 and 2015 rested basically on two disbursements, in 2006 for 15.7 million dollars and 21.8 million dollars in 2009.

3.2.3. Chinese OFDI to Mexico, by destination State

In 2015 Chinese OFDI concentrated by 96% in three States: Mexico City (38.2%), Durango (29.4%) and Jalisco (28.2%) (See Table 11).

Table 11. Chinese OFDI to Mexico by State of destination (1999-2015) (millions of dollars)

	1999	2000	2005	2010	2011	2012	2013	2014	2015	1999-2015	1999	2000	2005	2010	2011	2012	2013	2014	2015	1999-2015
	(Millions of dollars)										(Percentage structure)									
Total	5.0	10.7	15.3	15.3	27.9	87.9	25.1	57.0	27.1	395.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Aguascalientes	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.9
Baja California	1.1	0.3	0.0	2.8	0.2	0.2	2.1	0.4	0.1	7.8	21.4	2.8	0.2	18.6	0.7	0.3	8.4	0.7	0.5	2.0
Baja California Sur	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.3
Campeche	0.0	0.0	0.0	0.1	0.1	0.0	0.8	0.0	0.0	3.2	0.0	0.0	0.0	0.8	0.4	0.0	3.1	0.0	0.0	0.8
Chihuahua	2.0	0.2	1.2	0.0	0.0	3.1	0.0	0.0	0.0	11.8	41.0	2.2	7.9	0.0	0.0	3.5	0.0	0.0	0.1	3.0
Ciudad de México	1.0	0.5	3.0	2.4	0.6	26.3	5.6	65.7	10.4	170.7	20.5	4.3	19.9	15.5	2.3	29.9	22.1	115.2	38.2	43.1
Coahuila	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.1
Colima	0.0	0.0	0.0	0.0	15.7	38.3	0.1	0.0	0.0	56.5	0.0	0.0	0.0	0.0	56.3	43.5	0.5	0.1	0.0	14.3
Durango	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.4	2.0
Estado de México	0.1	1.0	9.2	0.9	5.5	5.1	6.1	-12.9	-1.2	15.7	2.1	9.6	60.4	5.8	19.6	5.8	24.3	-22.7	-4.4	4.0
Guanajuato	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	3.2	0.5	0.1	0.0	0.1	0.0	0.0	0.2	0.1	0.0	0.8
Guerrero	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jalisco	0.0	0.3	0.1	-0.3	-0.3	0.1	3.5	2.3	7.7	16.0	0.1	2.9	1.0	-2.0	-1.0	0.1	13.8	4.1	28.2	4.0
Michoacán	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Morelos	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nayarit	0.0	0.0	0.0	0.0	0.0	2.6	1.5	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	1.0
Nuevo León	0.0	0.0	0.0	6.3	3.8	7.3	0.1	0.0	0.1	19.3	0.0	0.1	0.0	41.1	13.5	8.4	0.3	0.0	0.2	4.9
Oaxaca	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Puebla	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.1
Querétaro	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.9	0.0	0.0	0.0	0.3	0.7	0.0	0.4	0.0	0.0	0.2
Quintana Roo	0.0	0.0	0.1	0.0	0.0	0.7	0.3	0.0	1.6	3.1	0.4	0.1	0.4	0.0	0.8	1.3	0.0	6.0	0.8	0.8
San Luis Potosí	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.2
Sinaloa	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Sonora	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0
Tabasco	0.0	0.0	0.0	0.4	0.3	0.0	1.3	0.0	0.0	28.0	0.0	0.1	0.0	2.6	1.2	0.0	5.3	0.0	0.0	7.1
Tamaulipas	0.3	0.3	0.0	0.7	0.5	0.1	1.2	0.0	0.2	12.2	6.0	2.5	0.1	4.8	1.9	0.1	4.9	0.1	0.7	3.1
Tlaxcala	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Veracruz	0.0	0.0	0.0	0.9	0.7	0.0	1.7	0.1	0.0	14.2	0.0	0.0	0.0	5.9	2.4	0.0	6.9	0.3	0.1	3.6
Yucatán	0.4	8.0	1.5	0.2	0.4	0.5	0.3	0.8	0.2	14.6	7.9	75.0	10.1	1.2	1.4	0.6	1.0	1.3	0.8	3.7
Zacatecas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

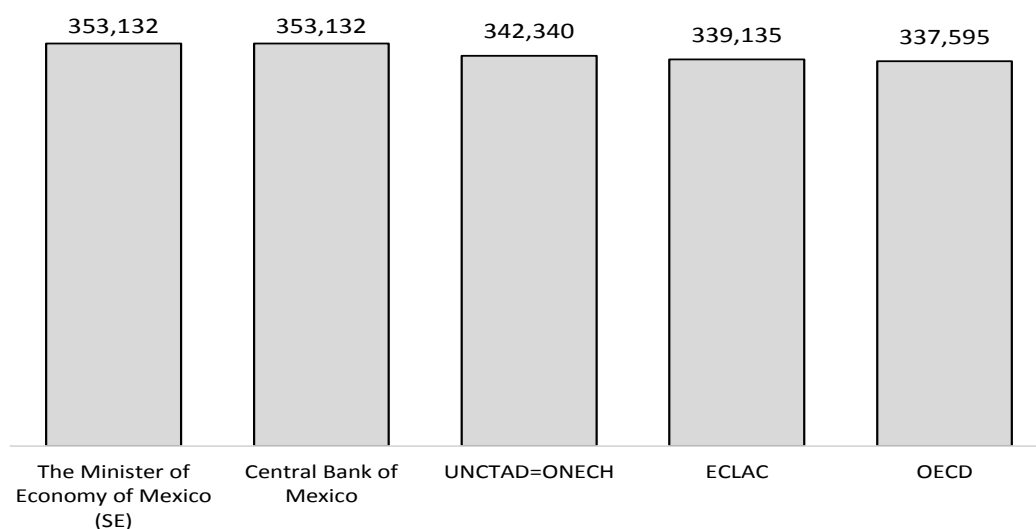
Source: Own elaboration based on the Ministry of Economy of Mexico (2015a).

During the period 1999-2015 accumulated Chinese FDI has concentrated by 73.4% in five states: Mexico City (43.1%); Colima (14.3%); Tabasco (7.1%); Nuevo León (4.9%) and Jalisco (4%). Interestingly, aggregate FDI directed to Mexico has also concentrated predominantly in Mexico City and Nuevo Leon (Monitor of Mexican Manufacturing 2015).

3.3. STATISTICAL DISCREPANCIES

At least six national and foreign institutions record flows of FDI to Mexico: the Ministry of Economy of Mexico (SE), the Central Bank (Banxico), ECLAC, OECD, IMF, UNCTAD (which reproduces the statistics of the China's National Bureau of Statistics, ONECH). Between 2000 and 2013, the cumulative FDI inflows reported by UNCTAD were 3.1% lower than those reported by SE; flows reported by ECLAC were 4% lower and flows reported by OECD were 4.4% lower. During the period 2006-2013, the cumulative flows reported by the IMF were only 2.6% lower than those reported by SE (see Figure 7). That is, there is a high degree of consistency among the data reported by these institutions since they are based on common methodologies, with the exception of the statistics compiled by the ONECH (Ortiz Velasquez 2016a).

Figure 7. Mexico. FDI inflows (Accumulated 2000-2013) (Millions of dollars)



Source: Own calculations based on the Ministry of Economy of Mexico (2015a), the Central Bank in Mexico (2015); UNCTAD (2015c); ECLAC (2015a); OECD (2015b); ONECH (2014).

Beyond the statistical discrepancies between data sources, Chinese OFDI addressed to Mexico has followed a very similar path since 1999: relative stagnation between 2004 and 2010; abrupt growth during the period 2010-2012 and a sharp decline between 2012 and 2013 (Table 12). Thus, high volatility is a characteristic of the Chinese OFDI in Mexico.

Table 12. Chinese FDI flows to Mexico, according to different sources (1999-2014) (millions of dollars)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
	(Millions of dollars)															
Ministry of Economy of Mexico	5	11	2	-2	26	12	15	24	15	13	34	14	22	83	19	70
OECD	5	11	2	-2	...	...	...	20	9	13	34	15	22	83	...	...
National Bureau of Statistics of China	...	...	...	...	...	27	4	-4	17	6	1	27	42	100	50	...
UNCTAD (China Records)	...	...	...	...	...	27	4	-4	17	6	1	27	42	100	...	...
ECLAC	...	...	...	...	...	...	...	...	...	...	...	9	2	74	15	...
UNCTAD	...	...	...	...	...	12	15	24	9	13	34	14	22	83	...	...
	(Index, data from the Ministry of Economy of Mexico = 100)															
Ministry of Economy of Mexico	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
OECD	100.2	102.6	83.5	115.4	...	...	...	83.9	59.1	99.6	99.8	100.1	99.8	100.0	...	...
National Bureau of Statistics of China	...	...	...	...	...	226.6	23.2	-15.3	118.2	42.8	2.4	184.6	185.1	121.2	260.9	...
UNCTAD (China Records)	...	...	...	...	...	226.6	23.2	-15.3	118.2	42.8	2.4	184.6	185.1	121.2	...	...
ECLAC	...	...	...	...	...	...	...	...	...	...	...	62.1	8.9	89.3	78.7	...
UNCTAD	...	...	...	...	...	100.0	100.0	100.0	62.6	99.6	99.9	100.0	100.0	100.0	...	...

OECD SE and the Ministry of Economy of Mexico follow the same methodology for calculating FDI (see Table 3).

The National Bureau of Statistics of China considers outward FDI (OFDI by its acronym in English) as the investment by domestic enterprises and organizations (referred to as domestic investors) to foreign countries and regions of Hong Kong, Macao and Taiwan, in the form of cash, physical investment and intangible assets; and economic activities centered on the operation and management of companies that are under the control of national investors. OFDI includes: basic situation of domestic investors and overseas enterprises, investment, income distribution between national investment firms and abroad, import and export of products through companies abroad, subject to approval of the companies abroad (NBSCH 2015).

ECLAC estimates Chinese FDI flows to Mexico, on the basis of official information, Thomson Reuters, FDI Markets, Heritage Foundation and data of companies.

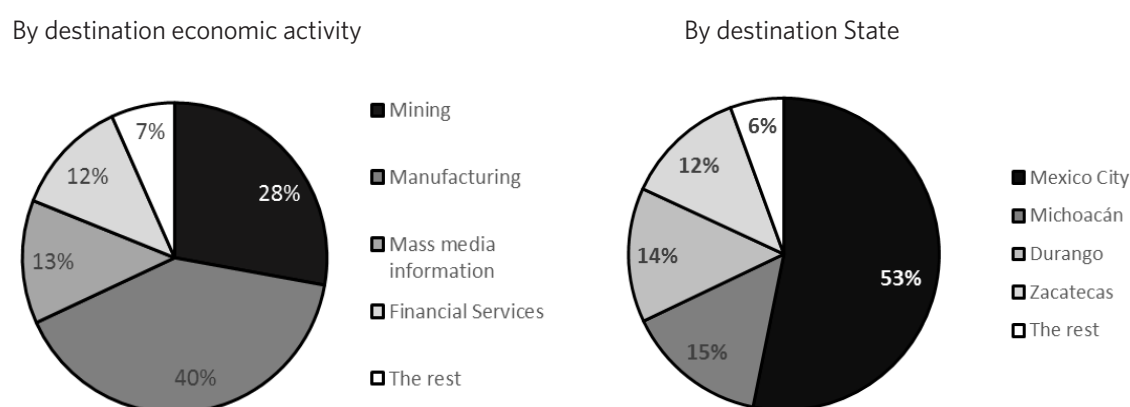
Source: Own elaboration based on SEP (2015); OECD (2004, 2012, 2013 and 2014); NBSCH (several years); ECLAC (2015), UNCTAD (2015).

In Mexico, the official methodology to measure and publicize FDI flows is made jointly by the Ministry of Economy (SE) and the Central Bank through the National Foreign Investment Commission (CNIE), following the recommendations of the IMF (which are contained in its Manual of Balance of Payment -fifth edition) and the OECD Benchmark Definition in its fourth edition (SE 2015). Within the SE, the National Registry of Foreign Investment (RNIE) captures information and generates statistics on FDI (SE 2015). However, up today there are no complete and reliable statistics available on FDI based on the OECD methodology in its fourth edition (Ortiz Velasquez 2016a).

Quarterly CNIE reports contain statistical discrepancies; among the main causes we find the following:

- This is preliminary figures, as some notifications to RNIE tend to have a lag with respect to the dates on which the investments were executed. Thus, the quarterly FDI figures are updated in each quarterly report. The most accurate updates are recorded in the most recent quarters and tend to diminish considerably in the older quarters. The Ministry of Economy of Mexico (2015) stated that the figures could be considered final after being updated for 12 quarters. In 2013 e.g., the statistical discrepancy was 9 million dollars or 25.6%, comparing the reports Jan-Dec 2013 and Jan-Dec 2014; 70.4% of such statistical discrepancy was attributed to Industry, followed by the Services sector 28.6% (see figure 8). Within the Industry, 27.8% was attributed to mining while 40.3% to manufacturing. In terms of State, 53.2% of the discrepancy was attributed to Mexico City with a discrepancy of 4.7 million dollars.

Figure 8. Percentage distribution of statistical discrepancy in the records of FDI flows to Mexico, by destination subsector and by destination State (reports: Jan-Dec 2013 and Jan-December 2014)



Source: Own elaboration based on CNIE, reports Jan-Dec 2013 and Jan-Dec 2014.

- Dussel Peters, Galindo Paliza, Loria Diaz and Mortimore (2007) have pointed out that although the RNIE data bank is potentially relevant, it has certain weaknesses:
 - ✓ There are a large number of establishments unresponsive to the RNIE format despite the mandatory provisions contained in Foreign Investment Law, e.g., between 1994 and 2005 only 52.3% of active companies responded the RNIE format.
 - ✓ A significant number of the companies that responded the RNIE format did it insufficiently, v.gr., a data recapture exercise for 150 selected variables of main companies in Japan, Jalisco and at

national level for the period 2000-2005, showed that the absence of records and of the specific report was significant and represented on average 30% of establishments with some kind of error.

- ✓ Capturing data from the format received by the RNIE fails with an important impact on the quality of information, e.g., records and reports for the 150 companies in the data-recaptured sample, show that in the case of the employment variable the answer is increased by 216.7%, that is, although a significant number of establishments responded to the RNIE format, these responses were not captured.

3. 4. CHINESE OFDI AT COMPANY LEVEL

3.4.1. Mexican companies with Chinese investment, 2015

A few months ago the Ministry of Economy of Mexico (SE) submitted a list of Mexican companies with foreign investment in their capital registered at the RNIE; the list was updated to second quarter of 2015. The information includes: file number; business name; country of origin; destination industry, destination State and destination municipality; address and legal representative. Interestingly the Minister of Economy has registered 900 Mexican companies with Chinese foreign investment in their capital (see Table 13). Several aspects to be highlighted:

1. Nationally, 53% of companies are located in the wholesale trade subsector; secondly listed companies involved in retail trade (with 10.6%) and companies involved in the transportation equipment manufacturing (7.3%)
2. Almost two-thirds (62.1%) of companies with Chinese participation are located in Mexico City, followed by the State of Mexico (6.2%), Jalisco (5.9%) and Baja California (5.4%). That is, almost four-fifths of companies with Chinese participation are concentrated in just four States and particularly in Mexico City. Consistent with the above, to second quarter of 2015, 63.3% of Chinese OFDI in Mexico addressed Mexico City, with Durango ranking second (3.66 million dollars or 22.74%) and third Quintana Roo (10.18%).
3. Mexico City is the main destination for companies with Chinese share, in fact, this City ranks first destination of companies with Chinese share involved in 18 economic subsectors (out of 20). Particularly in the three major sub-sectors of China's OFDI destination in Mexico: wholesale trade (with 72.5% of the companies located in Mexico City), retail (83.2%) and manufacturing of machinery and equipment (39.4%).

Table 13. Mexican companies with Chinese investment en their capital stock, by State and subsector destination, and Chinese OFDI by State destination (to second quarter of 2015)

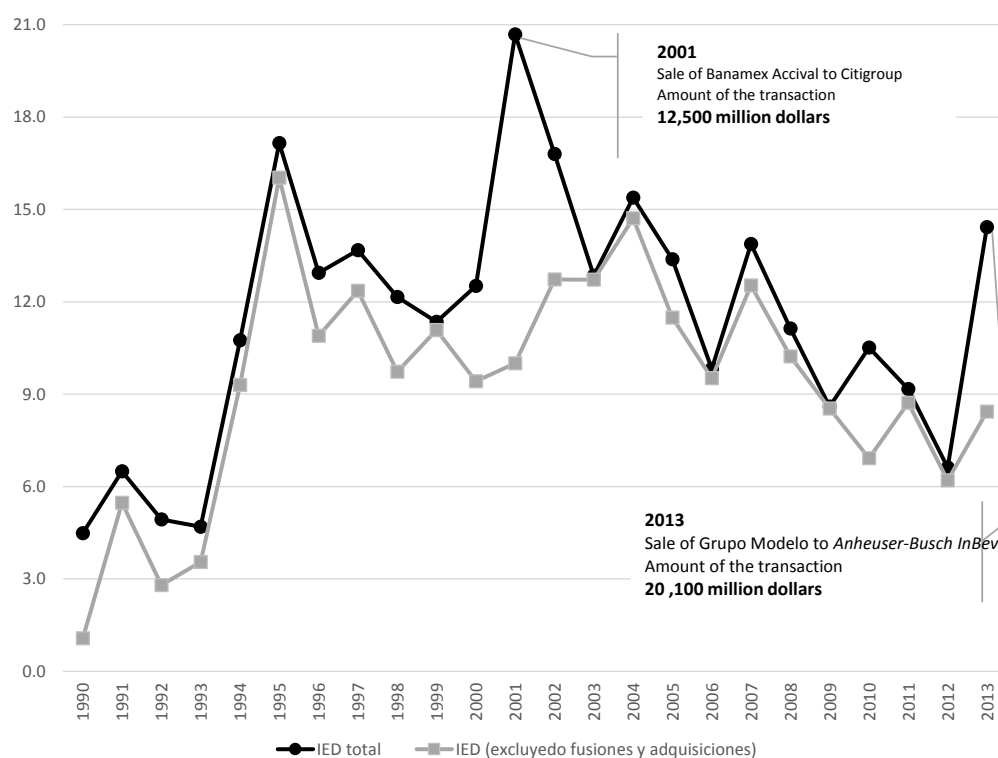
State	Mexican companies with Chinesse investment in their capital stock			OFDI 2015/II	
	Main subsectordestination	Number	Structure %	Value (md)	Structure %
Total national	Wholesale trade (53%); retail trade (10.6%); manufacture of machinery and equipment (7.3%).	900	100	16.11	100
Aguascalientes	Wood, paper, petroleum productos, chemical (33.3%); machinery and equipment (33.3%); Professional, scientific and technical services (33.3%).	3	0.3	0	0
Baja California	Food, tobacco, drinks and textiles (26.4%); wholesale trade (18.4%); temporary accommodation services and food preparation (16.3%).	49	5.4	0.03	0.18
Baja California Sur	Construcction (50%); wholesale trade (25%); retail trade (25%).	4	0.4	0	0
Campeche	Food, tobacco, drinks and textiles (50%); Professional, scientific and technical service(50%).	2	0.2	0	0
Chihuahua	Wholesale trade (46%); machinery and equipment (36%).	11	1.2	0.04	0.22
Coahuila	Manufacturing of machinery and equipment (50%); Professional, scientific and technical services (50%).	2	0.2	0	0
Colima	Mining(54.5%); wholesale trade (31.8%).	22	2.4	0	0
D. Federal	Wholesale trade (62%) and retail trade (14%).	559	62.1	10.2	63.3
Durango	Electricity, water, gas pipeline to the final consumer (100%).	1	0.1	3.66	22.74
Edo. México	Wholesale trade (63%); machinery and equipment (14%).	56	6.2	0	0
Guanajuato	Wholesale trade (64%); food, tobacco, drinks, textiles (18%).	11	1.2	0	0
Guerreo	Mining (100%).	2	0.2	0	0
Hidalgo	Food, tobacco, drinks and textiles (100%).	1	0.1	n.d.	n.d.
Jalisco	Wholesale trade (41.5); machinery and equipment (17%).	53	5.9	0.47	2.92
Michoacán	Mining(40%); manufacture of machinery and equipment (20%); transportation, mail and storage (20%).	5	0.6	0	0
Morelos	Wholesale trade (100%).	2	0.2	0	0
Nayarit	Agriculture, forestry, fishing and hunting (100%).	2	0.2	0	0
Nuevo León	Wholesale trade (52.4%); temporary accommodation services and food preparation/beverages (19%).	21	2.3	0	0
Oaxaca	Wholesale trade (33.3%); food, tobacco, beberages and textiles (33.3%); mining (33.3%).	3	0.3	0	0
Puebla	Wholesale trade (75%) and retail trade (25%).	4	0.4	0	0
Querétaro	Wholesale trade (83.3%); manufacture of machinery and equipment (16.7%).	6	0.7	0	0
Quintana Roo	Wholesale trade (44.4%); temporary accommodation services and food preparation/beverages (33.3%)	18	2	1.64	10.18
San Luís Potosí	Machinery and equipment (50%); wholesale trade (25%); wood, paper, petroleum products and chemical (25%).	4	0.4	0	0
Sinaloa	Mining (50%).	10	1.1	0	0
Sonora	Food, tobacco, beberages, textiles (22%); mining (22%).	9	1	0	0
Tabasco	Wholesale trade (50%); machinery and equipment (50%).	2	0.2	0	0
Tamaulipas	Food, tobacco, beberages and textiles (40%); wholesale trade (20%).	5	0.6	0	0.01
Tlaxcala	Manufacturing of machinery and equipment (66.7%); food, tobacco, beberages and textiles (33.3%).	3	0.3	0	0
Veracruz	Wholesale trade (50%); Professional, scientific and technical services (50%).	2	0.2	0	0
Yucatán	Wholesale trade (35%); food, tobacco, beberages, textiles (15%).	26	2.9	0.07	0.45
Zacatecas	Mining (100%).	2	0.2	0	0

Source: Own elaboration based on the Ministry of Economy of Mexico (2015a y 2015b).

3.4.2. OFDI by type: mergers and acquisitions and new investments

The distinction of foreign direct investment as new investment (Greenfield), and mergers and acquisitions (M&A) is crucial to examine the socioeconomic impact of these investments at territorial level. The first type of investment involves an injection of new capital (which increases the productive stocks) and job creation. The Cross-border M&A account for only (at least in the short term) a change of owners of a company that already existed ⁹. Despite the relevance of this distinction, up to date the Ministry of Economy of Mexico has not reported complementary statistics on foreign investment, and this can distort the examination of the actual effects of OFDI in Mexican socioeconomics. E.g. in terms of attracting FDI in Mexico, the peak years (2001 and 2013) have been associated with M&A transactions. In fact, the relative share of OFDI (excluding M&A) in total gross fixed investment shows a tendency to fall since 1995 (when it reached its highest peak) (Figure 9).

Figure 9. Mexico. Total FDI, out of M&A (1990-2013) (relative share in total Gross Fixed Investment)



Source: Own elaboration based on UNCTAD (2015) and WDI-IMF (2015).

According to the World Investment Report, UNCTAD is apparently the only institution that includes data on M & A transactions and Greenfield projects, and compares these categories with total foreign direct investment. The data on M&A are based on Thomson Reuters while the Greenfield projects data

⁹ In terms of empirical debate about the existence of a complementarity effect (crowding in effect) or displacement effect (crowding out effect) between foreign direct investment and domestic private investment, the distinction of foreign investment, in the form of M & A and Greenfield type, gives us a different look. In principle, by definition foreign direct investment as M & A displaces domestic private investment while Greenfield investments can complement it by helping to raise the investment ratio and by impacting positively on economic growth (see empirical evidence in Harms and Méon 2011).

are based on the Financial Times Markets (UNCTAD 2014b). Transactions that are not strictly speaking qualified as FDI (Ortiz Velasquez 2016a) for both categories are included. This is the first international effort taking into account this classification, by country and by region.

Empirical studies that have examined the relative weight and impact of FDI by type (M&A and new investments) are based on data collected by private companies such as Bloomberg, Thomson-Reuters and fDi Markets (for Mexico see Garrido 2001, for Latin America see Dussel Peters 2013; ECLAC 2015a; Ray Gallagher et.al. 2015; UNCTAD 2015c). However, it is important to note that the methodology used for gathering information from these private providers is very weak (based, for example, on tracking news stories), thus, the information should be taken with caution (Ortiz Velasquez 2016a)¹⁰.

As it has been reviewed above, Chinese FDI in Mexico has been very low in comparison with that in the LAC, e.g., between 1990 and 2009 around 7.342 million dollars entered to the region coming from China; Mexico captured only 146 million dollars from that amount, i.e. 2% (ECLAC 2015a). In 2010 there was a turning point in the performance of China's OFDI in LAC, upon the arrival of an estimated amount of 13,712 million dollars in the region, but Mexico received only 0.1%. The situation was not much different in 2013 with an amount of Chinese OFDI that came to ALC by 9,624 million dollars, of which 48.1% was captured by Peru, 26.8 by Brazil and only 0.2% by Mexico, i.e. 15 million dollars.

Based on an information exchange from different data sources: private providers (particularly Thomson-Reuters, fDi markets, China Global Investment Tracker), Pro Mexico and monitoring of the electronic media, we identified a group of 24 cross-border transactions actually executed by China (including Hong Kong companies) in Mexico between 2000 and 2015 (see table 14). From this, we can highlight a set of conclusions:

- The cumulative amount was 1.065 million dollars, representing an average transaction amount of 44 million dollars. Interestingly, this accumulated amount exceeds 627 million dollars to the accumulated amount of Mainland China and Hong Kong, reported by the Ministry of Economy of Mexico (which was 438 million dollars between 2000 and 2015). Assuming that the Ministry of Economy reports executed investments, an explanation of the discrepancy is that the actually invested amounts (reported by the ME) are, in most cases, below investment announcements of Chinese enterprises; or that this discrepancy is due to the recurring practice of Chinese companies to channel their investments via special purpose entities (tax havens like the Cayman Islands) (ECLAC 2015).
- The Ownership topic is crucial for understanding the behavior of Chinese investment in LAC and Mexico. Table 14 lists 16 companies, of which 10 are public, meaning that during the period 2000-2015 almost three out of four transactions had Chinese state-owned enterprises as their origin. Dussel Peters (2013) notes a similar trend for the LAC region; our author finds that during the period 2001-2011, 87% of Chinese OFDI type M&A came from public companies.
- Transactions type new investments are dominant; 21 transactions were related to processes to increase productive acquis, while only three transactions were mergers and acquisitions. The point is relevant to understanding the potential socioeconomic impacts of Chinese investments in Mexico.
- The Chinese FDI has been mainly directed to transport and communications and manufacturing

10 Bloomberg and Thomson-Reuters record information on M&A at company level and distinguish the current status of each transaction. fDi Markets records announcements of new investments(or Greenfield) and capital increases, but it does not provide information on the final status of the project. The three different sources of information record all transactions, even those that are not classified as FDI by OECD (2008), i.e. they include purchases of less than 10% of the voting power.

sectors, both accounted for 88.2% of Chinese transactions. In communications, the private company Hutchinson Port Holdings, which specializes in ports and port infrastructure (based in Hong Kong), recorded 5 Greenfield transactions, with a cumulative amount of 444 million since 2003 and, according to the company, the accumulated investments in Mexico has risen to 1,200 million dollars (Lazaro Cardenas Terminal Container Port 2014/09). In manufacturing of electrical and electronic there are important investments made by companies such as Johnson Electric (privately-owned and headquartered in Hong Kong) which has invested in Zacatecas about 60 million dollars since 2012; TCL, which invested in Ciudad Juarez and Guadalajara about 63 million dollars in 2005, and a 40 million dollars investment made by Lenovo in Monterrey in 2007.

- Mexico City concentrates the largest Chinese investments, followed by the northern States (Chihuahua, Coahuila and Nuevo Leon), Guadalajara and Aguascalientes.

Table 14. Chinese OFDI in Mexico, at company level (2000-2015)

Year	Investing company	City of origin	Operations in Mexico	Investment type	Destination activity	Territory of destination
2015	Johnson Electric	Hong Kong	With an investment of around 50 million, Johnson Electric opened its Plant II in Zacatecas, where products like micro motors and motion subsystems are manufactured (El Financiero 2015/09). In order to strengthen equipment of the multi-use Ensenada International Terminal (EIT), the company Hutchinson Port Holdings (HPH) invested 10 million dollars in a new crane, which arrived this week to the port area. The crane was manufactured by Shanghai Zhenhua Heavy Industries company in about a year and it has advanced technology in electrical systems, mechanical and electronic control as well (World Port 2015/10). On the other hand, in June 2015 the company invested six million dollars in the acquisition of equipment and infrastructure, three RTG hybrid fuel efficient yard cranes, with capacity for 40 tons (World Port 2015/07).	New Investment	Electrical and electronic	Zacatecas
2015	Hutchinson Port Holdings	Hong Kong	This company opens new corporate offices in Mexico City in May 2015. Since 10 years ago CSCL opened line services from and to the country through operators and freight forwarders. In Mexico, CSCL operates in the ports of Manzanillo and Lazaro Cardenas (Manufacturing 21/05/2015). In 2015 the company was consolidated as the leading Chinese shipping company in Veracruz (Veracruzanos info 22/05/2015).	New Investment	Ports and Infrastructure	Ensenada, Baja California
2015	China Shipping Container Lines (Subsidiary)	Shanghai	International Container Associates of Veracruz SA de C.V. (ICAVE) is a Specialized Container Terminal+D6, which executes loading and unloading of containers by land and sea. ICAVE is a helmsman company operating in the port of Veracruz; in 2001 it was acquired by Hutchison Port Holdings Limited (HPH). In December 2015 it received five new hybrid RTG cranes from ZPMC brand <i>In November</i> ; they have the ability to stow seven containers at maximum height and lift up to 35 tons. This purchase accounted for the 8 million dollar investment (ICAVE 2015/12).	New Investment	Marine Transport	Manzanillo, Lázaro Cárdenas, Veracruz, Mexico City
2015	Hutchinson Port Holdings	Hong Kong	On September 10, 2014, the second phase of the Specialized Container Terminal (TEC) in the-D7 Lazaro Cardenas Port was inaugurated, which consists of 28.3 hectares of yard, 330 linear meters of jetty, seven gantries Super Post Panamax cranes and 18 yard cranes; it required an investment of two thousand 557 million pesos (193 million USD) (LCTPC 2014).	New Investment	Ports and Infrastructure	Veracruz
2014	Hutchinson Port Holdings	Hong Kong	Requested the SHCP and CNBV license to be established as commercial bank. It will operate in Mexico under the name of Industrial and Commercial Bank of China Mexico (ICBC).	New Investment	Ports and Infrastructure	Lázaro Cárdenas, Michoacán
2014	Industrial and Comercial Bank of China Limited	Beijing	Lenovo invested 24 million pesos to open a new office in the city of Guadalajara which will be its hub to enter the information technology services market. The opening of the new office was decided after the acquisition of the x86 servers division from IBM since it requires a center that provides support to customers (Excelsior 20/11/2014).	New Investment	Financial Services	Mexico City
2014	Lenovo Group	Raleigh (North Caroline) and Pekín	The company Minth and the Japanese Tokai Kogyo consolidated the alliance TK- Minth in Aguascalientes; they would have invested 260 million pesos in a new plant to manufacture moldings, packagings and automotive plastic guides (La Jornada de Aguascalientes 10.13.2013). TK would have been the majority shareholder. However, since early 2016 these companies were separated.	New Investment	Support services and Customer support	Guadalajara
2013	Minth	Xiaogang, Ningb		New Investment	Auto parts (plastic injection and various moldings)	Aguascalientes, Ags.
2012	Hutchinson Port Holdings	Hong Kong	Hutchison Port Holding (HPH), the largest global port operator concluded the intermodal and Logistics Terminal in Hidalgo (ILTH), a project in which it invested about 60 million dollars. This infrastructure aims to bring its port terminals to its main market, the metropolitan area of Mexico City (MAMC), destination of 40% of the import goods arriving at its port terminals in Veracruz, Manzanillo and Lazaro Cardenas (TILH 2012).	New Investment	Ports and Infrastructure	Tepexi del Río, Hidalgo

Table 14. Chinese OFDI in Mexico, at company level (2000-2015)

2012	Johnson Electric	Hong Kong	China's first investment in Zacatecas was built on an area of 7.8 hectares and its first warehouse has a land area of seven thousand 400 square meters. The company will manufacture: micro-motors, motion subsystems, actuators and micro switches, equipment for automation of equipment, medical devices, power tools and optical instruments (Zacatecas in image 2012/09).	New Investment	Electrical and electronic	Zacatecas	10	Private
2011	Shanghai Qingshan Mining Co Ltd	Wang Municipality	Shanghai Qingshan Mining Co Ltd of China acquired from Liu Dejun Wag a 40% stake of the company JDC Mexico Mining Co Ltd, a golden mining company, for MXP 11,774 (USD 1,000).	M&A	Metals & Mining	...	1	Private
2010	Jinchuan Group	Jinchuan Province	In 2010 the company invested 25 million dollars in Chihuahua to carry out a project of exploitation. (The reporter:08/20/2015)	New Investment	Mining	Bahuerachi, Chihuahua	25	Public
2010	Foton Motor Co	Beijing	It began operations in 2008 as a distributor of vehicles for agricultural tasks. It has distributors in several states, such as Chiapas, Guanajuato, Jalisco, Michoacan, Nayarit, Nuevo Leon, Veracruz and Zacatecas (Haro and Correa 2012).	New Investment	Tractors	Coatzacoalcos, Ver.	12, 4	Public
2009	Minth	Xiaogang, Ningb	It began operations in 2009 and has had various stages of growth in its plant located in the Industrial Park Gigante de los Arellano. It produces automotive moldings for windows, roof and door frames for its main customers: Ford, Nissan, Chrysler and Hutchinson (La Jornada de Aguascalientes 10.13.2013)).	New Investment	Autoparts	Aguascalientes, Ags.	28	Private
2008	Hengtian Group Co. Ltd	...	It acquired from Shanghai Worldbest Co Ltd all outstanding shares of Sinatex SA de CV, a cotton textile manufacturer, for 586,261 pesos (\$ 56,983 million USD).	M&A	Textiles	Sonora	57	Public
2008	Golden Dragon Precise Copper	Xinxiang, Henan	On 28 October 2009 the plant opened in Monclova, Coahuila. It manufactures high technology copper tube, especially for air conditioning, with a production capacity of 60,000 tons per year.	New Investment	High precision copper pipes	Monclova, Coahuila	50	Private
2008	Jinchuan Group	Jinchuan Province	In 2008, it acquired a copper deposit in Chihuahua from the Canadian Tyler Resources, for \$ 214 million (Haro and Korea 2012).	M&A	Mining	Bahuerachi, Chihuahua	21, 4	Public
2007	Lenovo Group	Raleigh (Carolina del Norte) y Pekín	In 2008 it announced the establishment of a plant to assemble computers and related equipment in Nuevo Leon. It began operations in 2008. The plant was inaugurated on 18/02/2009 (18/02/2009 Lenovo).	New Investment	Computer assembly	Monterrey, Nuevo Leon	40	Private
2006	Huaxi Group	Jiangyin, Jiangsu	It bought the rights to exploit copper mines in 2006.	New Investment	Mining	Sinaloa	25	Public
2005	TCL International Holding	Huizhou, Guangdong	It produces, sells and promotes TV products. Its main office is located in Mexico City and has a factory in Ciudad Juarez. It invested about 60 md in 2005, of which 50 md were used to modernize the Alcatel cell plant in Guadalajara. The remaining 10 md went to create a new production line of TV crystal liquid at its plant in Ciudad Juarez (Rivera Silva 2011).	Capital increase	Electronic	Ciudad Juárez y Guadalajara	63	Public
2004	ZTE Corporation	Shenzhen, Guangdong	It was established in 2002, initiating projects with the most important telecommunications operators nationally and in Central America. It has regional sales offices in Mexico City.	New Investment	Telecommunications	Mexico City	30, 2	Public
2003	Hutchinson Port Holdings	Hong Kong	In 2003, the HPH Group enters into a partial transfer of rights to operate the existing terminal in the port of Lazaro Cardenas, (that terminal had not moved any container since 1995). With this operation the option of building a new specialized container terminal in this port was also contemplated. This new container terminal consists of 3 stages for construction. The first stage contemplated the development of 28.3 hectares of yard, 600 linear meters of quay, 4 dockside cranes (Superpostpanamax) and 12 yard cranes.	New Investment	Ports and Infrastructure	Lázaro Cárdenas, Michoacán	167	Private
2001	Sinatex, Worldbest Group-China	...	It established a textile plant (cotton yarn) in Sonora in 2002. Its production capacity in 2007 was 10,000 spindles yarn, equivalent to 13,000 tons of cotton yarn annually.	New Investment	Textiles	Sonora	96	Public
2000	Huawei	Shenzhen, Guangdong	It was established in 2000 and is currently working with major operators in the telecommunications industry in Mexico: Alestra, America Móvil, Axtel-Avantel, Bestel, Iusacell, Maxcom, Telefonica and Telmex.	New Investment	Telecommunications	Mexico City	20	Private

Source: Own elaboration based on Monitor de la OFDI de China en ALC (2016).

4. RESULTS OF MOST RECENT RESEARCH ON CHINESE OFDI IN MEXICO

In a recent effort, a group of authors was given the task of reviewing the existing literature on the impacts of Chinese OFDI in the world in terms of economic, social and ecological sustainability; the exercise focused on 384 documents: 262 in English, 83 in Chinese and 39 in Spanish (Wang, Zadek, Kelly Yu, Halle, Ortiz Velasquez, Zhang Lin, Wang Hanjie 2016). This document provides a set of conclusions. Firstly, it can be argued that English literature has focused on two themes: i) the impacts of Chinese OFDI in the sustainable development of destination countries, from an empirical and anecdotal/historical perspective; ii) examination of Chinese financial institutions and development policies from a comparative perspective with OECD countries. Secondly, the literature produced in Latin America has focused mainly on two issues: i) the impacts of Chinese FDI in LAC based on case studies; ii) territorial responses and foreign investment regulations. Discussions in China are focused on: i) the importance of including the concept of sustainable development among policies and operations of Chinese companies abroad; ii) the real achievements of corporate social responsibility activities by Chinese companies abroad; iii) the reasons why Chinese companies do not worry enough on sustainable development of OFDI recipient countries.

Focusing on the Mexican case, regarding the subject matter of the behavior of Chinese companies (and their OFDI) in Mexico, we can say in general terms that the interest from the academic, private and public sectors, particularly at the micro, meso and territorial level, is just beginning; this in addition to the weak presence of Chinese foreign direct investment in our country. This is clearly revealed when we compare the limited empirical literature on Chinese OFDI in Mexico at the micro level, meso and territorial, vis a vis, the bulging recent empirical literature on: trade at the macro level (eg, Rosales and Kuwayama 2012; ECLAC 2013), intra industrial trade and Chinese participation in specific segments of global value chains, and impacts on Mexican socioeconomics (ie, Dussel Peters 2009 and 2010 trade; Dussel Peters and Gallagher 2013; Cardenas Castro 2013; Alvarez and Cuadros 2013; Duran and Pellandra 2013; De la Cruz and Veintemilla 2013; Blando Ambriz 2011, etc.).

Focusing attention on the issue of the behavior of Chinese OFDI in Mexico, it is remarkable that aggregate studies predominate (eg, ECLAC 2015b and Bittencourt 2012) as well as other disaggregated at company and investor agent levels; these studies are based on information from private data providers (eg, Dussel Peters 2013) and from Chinese sources as MOFCOM (Yue Lin 2013; Xiaoyu Song 2015).

In contrast, there is a limited set of documents that have examined the behavior of Chinese companies in Mexico, from a micro and territorial perspective. In our view, only the book "China's Foreign direct investment in Latin America: 10 case studies" coordinated by Dussel Peters (2014), can be considered the most punctual study to this day; the book allows to deepen on knowledge of the specific conditions and motivation of Chinese companies in five Latin American countries (Argentina, Uruguay, Brazil, Peru and Mexico). The rest of the documents contain descriptive preliminary analysis based on secondary sources of information. In the following lines provided is a brief summary of the results of the cited documents with focus on the case of Mexico.

Dussel Peters (2014) examines the cases of Huawei and Giant Motors Latin America (GML) in Mexico. The first company operates in the telecommunications sector and the second one in the automotive sector. Consistent with previous sections, both case studies help us to understand the behavior of Chinese OFDI in Mexico, which has focused predominantly on trade and manufacturing sectors (see

Tables 7 and 11 in Section III)¹¹. For both cases, it has been reported about the relatively long adaption and learning process to develop products, processes and suppliers in Mexico. As for Huawei, it is noticeable that the company has become the leading provider of operators in Mexico (and in the world), with 1,600 employees and other 100 employees with Flextronics in Guadalajara. The segment established in Mexico specializes in services and equipment while there is little assembly and manufacture. It has very few productive backward linkages with local suppliers, but also makes increased efforts to initiate learning processes with various institutions of higher education as MSC/Guadalajara, UNAM and ITEMS. GML is a strategic partnership (which does not involve Chinese foreign direct investment) with FAW Trucks (FAW Jiefang Truck China). It is noticeable to note that the company shows a very important process of dialogue and technical training on the ground. It is engaged in the production, assembly, distribution and sale of light commercial vehicles, with very low levels of domestic content in production (about 30 percent), compared to manufacturing as a whole¹².

Jian Hua (2007) analyzes the case of Sinatex for the period 2006-2007, a textile yarn company opened in 2001 with a Chinese investment of over 92 million dollars. Sinatex is highly exporter Company particularly to the United States and Canada. Some of the positive impacts include: generation of more than 2,800 direct jobs, purchases of domestic inputs (particularly cotton, polyester and Mexican lycra) and significant investments in capital goods. Among the main problems the company faces we found overcapacity and fierce competition with foreign and domestic competitors. The company recommends the Mexican government to pay greater attention to the problem of staff turnover (in China it is less than 50% and in Mexico it reaches over 50%) and easing immigration procedures for foreign specialists and technicians. As noted in Table 12, in 2008 Sinatex went through a restructuring process, which culminated in late May 2009 with the acquisition of all the textile company shares by China Hengtian Group (Thomson Reuters and Schatan and Piloyan 2015).

Another group of studies have monitored the behavior of Chinese companies in Mexico based on secondary sources of information (e.g. tracking news). Among which are: Navejas Haro and Lopez Correa (2013), Heredia and Rivera (2013), Rivera Silva (2011) and Levy-Dabbah (2012), among others.

In a recent paper, a group of crucial aspects are tested to understand the low levels of Chinese foreign investment in Mexico (Dussel Peters y Ortiz Velasquez 2015). At least four aspects are highlighted:

1. The weak effort to examine in detail the experiences of Chinese enterprises in Mexico, as we reported in section IV.
2. The will expressed by the Mexican and Chinese leaders during 2013 and 2014, has not tended its counterpart until today in working groups with detailed and timely knowledge of specific projects through instruments and mechanisms.
3. The new tensions among relations between the two countries since the end of 2014, resulting from the cancellation of two specific projects: Dragon Mart Cancun and the Mexico-Queretaro fast train.
4. In the absence of an effective implementation of a “comprehensive strategic partnership”, it seems that the relationship depends on the specific projects actually carried out and their results.

11 In Latin America, Uruguay shows a Chinese OFDI very similar to that in Mexico, meanwhile, in most Latin American countries the Chinese OFDI has focused on raw materials, minerals, gas, oil and agriculture sectors (Dussel Peters 2014).

12 In a recent document it has been estimated that Mexican manufacturing as a whole had a coefficient of average domestic inputs (domestic inputs purchases to gross value added ratio) of 36.8% between 1994 and 2012 (Ortiz Velasquez 2015; see also ECLAC and OECD 2015).

5. CONCLUSIONS

The document contains the behavior of Chinese FDI in the world, in Latin America and the Caribbean, finally landing in the Mexican case. The exercise was conducted based on the review and systematization of different data sources: national and international institutions, as well as some private providers. The document seeks to improve, deepen and socialize knowledge of China's OFDI in LAC and particularly in Mexico. Highlights include a set of relevant conclusions.

In 2014 China became the world's largest recipient of FDI with 128,500 million dollars, displacing the United States to third place. Moreover, China ranked as the third country with the largest flows of OFDI with 116,000 million dollars (UNCTAD 2015). Unlike the US and Japan, between 2010 and 2014 Chinese OFDI had a high growth rate, which shows relative stability of Chinese investment in the world. According to UNCTAD statistics, China rapidly becomes a net exporter of capital, with a growing OFDI/FDI ratio, from 5.3% to over 90% in 2014. However a different look through the directional approach (and beyond problems with the registration of Chinese OFDI by MOFCOM), suggests that China remains a net recipient of capital, with a growing OFDI/FDI ratio from 13% to 28% in the same years of comparison. In terms of structure of OFDI, the Greenfield projects have remarkably been the most important component of China's OFDI.

Chinese FDI in LAC was very limited until 2010; it has since then risen sharply. Indeed, the China's OFDI went from an amount of 7,342 million dollars between 1990 and 2009 to 13,712 million dollars in 2010 and 9,624 million dollars in 2013 (ECLAC 2015a). Peru and Brazil accounted for almost three-fifths of Chinese OFDI in LAC. It is estimated that between 2005 and 2014, the Chinese mergers and acquisitions in LAC were allocated to the mining and energy sectors in 97%, while new investments went to manufacturing activities in 53% and secondly to mining activities (see Figures 5 and 6). Thus, apparently two central determinants of China's OFDI to LAC have been the search for resources (in the case of mergers and acquisitions) and market search (in the case of new investments).

From the China's FDI total flows to LAC in 2013, Mexico only captured 15 million dollars, that is, 0.2%. In 2015, China's OFDI to Mexico was estimated at 27 million, representing 0.10% of total FDI addressed to Mexico; this placed China at 24th country of origin of FDI. In addition to its low levels, Chinese OFDI addressed to Mexico has been highly fluctuating (this contrasts with the global dynamics of Chinese OFDI) showing atypical relative peaks in 2012 and 2014. The fact is significant as high instability is usually associated with a greater degree of uncertainty and risk of agents who make investment decisions. The Chinese OFDI structure in Mexico up to 2015 shows the following: the new investments accounted for 37% of the total; these investments concentrated in the trade and manufacturing sectors with 36.3% and 30%, respectively; and Mexico City ranks as the main destination of Chinese OFDI (with 38.2% of the total).

At branch level, 54% of Chinese investment in Mexico focused on five branches between 1999 and 2015: mining of non-metallic minerals (18.2%, particularly large investments executed in 2011 and 2012); commercial banks with 12.7% and connected with China's largest investment in Mexico since 1999 for the establishment of the Industrial and Commercial Bank of China Mexico; wholesale trade of machinery and equipment for services and business activities (11.4%); metal ore mining (7.2%); facilities and equipment in construction (4.4%).

At the micro level, it is pertinent to note that the Ministry of Economy of Mexico has submitted a list of 900 Mexican companies with Chinese investment (in their capital stock). In line with macro trends, it is important to note that 53% of those companies are in wholesale trade, followed by companies engaged in retail trade (10.6%) and companies engaged in the manufacture of transport equipment

(7.3%). Almost two-thirds (62.1%) of companies with Chinese capital are in Mexico City, followed by the State of Mexico (6.2%), Jalisco (5.9%) and Baja California (5.4%). Mexico City is the main destination for Chinese capital companies, especially in the three major sub-sectors of Chinese FDI destination in Mexico.

On the other hand, between 2000 and 2015 a total of 24 transactions between Chinese companies Mexico were identified. Among the features of those transactions we highlight the following: transactions with Chinese public companies prevail, which is relevant from a Chinese perspective, especially in the context of recent debates on the existence of displacement effect of private investments by the public. Greenfield transactions are dominant. These transactions were mainly addressed to Mexican manufacturing and to communications and transport, that in medium consistency with the statistics of the Ministry of Economy. Mexico City concentrates the largest Chinese investments, followed by the northern states of the country (Chihuahua, Coahuila and Nuevo Leon).

The limited empirical literature of the Chinese FDI behavior in Mexico, particularly at the micro, meso and territorial levels, is little revealed when compared to the bulky and growing empirical research on topics related to trade between the two countries. A review of the recent empirical literature of OFDI in Mexico at micro, meso and territorial levels, suggests that the book coordinated by Dussel Peters (2014), is apparently the most punctual exercise until today which allows to deepen on knowledge of the specific conditions and motivations of Chinese enterprises in LAC according to 10 case studies (some of which are based on interviews) in five Latin American countries (Argentina, Uruguay, Brazil, Peru and Mexico). In the Mexico section, two case studies are reported: Huawei (telecommunications) and Giant Motors Latin America (automotive), which allow us to understand the behavior of Chinese OFDI to Mexico. In both cases it is important to highlight the relatively long process of learning and adaptation they have gone through for developing their products, processes and supply chains in Mexico. The rest of the documents have a more general/journalistic tracing of Chinese company's behavior in Mexico, according to secondary sources of information.

China's weak and unstable investment in Mexico-which has been reflected in the few existing case studies until today, leads to inquire about the causes that have determined China's low investment in Mexico. Recognizing that it is impossible to exhaust all aspects in a few lines, we only enlist a set of those we consider the key ones (Monitor de la Manufactura Mexicana 2015): i) the weak effort by the public, private and academic sectors on examining in detail the experiences of Chinese enterprises in Mexico; ii) at the meso level, we emphasize that the will expressed by the Mexican and Chinese leaders during 2013-2014 has not had its counterpart until today in working groups with detailed and timely knowledge of specific projects through instruments and mechanisms; iii) the new tensions in relations between the two countries since the end of 2014, arising from the cancellation of two specific projects: the Dragon Mart Cancun and the Mexico-Queretaro Fast train; iv) the absence of an effective implementation of a "comprehensive strategic partnership", which makes it seem like the relationship depends on a few specific projects actually carried out and their results. Future research will focus on two areas:

Considering the methodological aspect, a task to be done by the Ministry of Economy of Mexico (the institution responsible for registering FDI) is to improve the registered statistics of foreign investments, in line with recent recommendations contained in the OECD manual (fourth edition), especially by delivering FDI statistics according to two approaches: asset/liability (useful for macro analysis) and directional (useful to know the direction of control or influence of FDI). In addition to presenting OFDI stock by country of origin (key in structural analysis) and making an effort to harmonize FDI statistics by subsector/branch/class with the national accounts statistics, e.g., when estimating the relative share of FDI in fixed gross investment for the classes/branches/manufacturing subsectors, there are huge

statistical discrepancies¹³.

In the empirical aspect, the task to be done is to deepen in further case studies of Chinese companies in Mexico, from a micro, meso and territorial perspective, particularly focusing attention on the causes that explain their presence in our country and territorial effects generated in terms of productive chains, job creation, environmental impacts, etc. In Table 4 there are listed four cases of Chinese companies operating in the Mexican economy, which can be relevant in terms of the object of study, i) First, Lenovo which participates in the segment of computers assembly and related equipment (in Monterrey) and in the support services segment (in Guadalajara); ii) Foton Motor, participating in the segment of vehicles distribution for agriculture and apparently has encountered serious difficulties in establishing a light trucks manufacturing plant (in Veracruz); iii) Minth, involved in the auto parts segment (in Aguascalientes) and which through a strategic alliance with the Japanese Tokay Kogyo (TK) (appearing the last one as majority partner), opened a new plant in the same State in 2013 (TK Minth), specialized in plastic injection and diverse auto parts moldings; finally, iv) the Industrial and Commercial Bank of China Mexico involved in the commercial banking segment has been in Mexico since the end of 2014 and has registered the largest Chinese investment in Mexico according with available statistics.

Finally, the available analyzes emphasize the enormous wealth that the recent experience of the Chinese FID means for Mexican economic policy. The poor performance of Chinese FDI is no coincidence but the result, on the one hand, of the limited preparation of Chinese companies abroad in general and specifically in Mexico: based on their experience in China, many companies abroad expect that the public sector actively support and even develop specific projects. In Mexico there is still no awareness in promotion institutions (like ProMéxico, the Ministry of Economy and at the State level) on how Chinese FDI requires special institutional treatment because of the recency of their activities and of the specific ignorance of Mexico in terms of suppliers, customers, contracts, labor standards, trade regulations, etc. While there are dozens of specific projects (such as those developed by the Center for Studies China-Mexico), Mexico and China have failed, in general, to implement, evaluate and monitor specific projects that can overcome the structural problems described above. The literature previously outlined reflects a very rich vein of economic policy that could well be taken over by the Federal Public sector and by State.

13 A detailed examination is found in Ortiz Velasquez (2015).

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