



Japanese Foreign Direct Investment in Mexico and the Impact of the Global Crisis

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La inversión extranjera directa japonesa en Méjico y el impacto de la Crisis Global
Investimento Directo Estrangeiro Japonês no México e o Impacto da Crise Global

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This paper aims to analyze the evolution and main characteristics of Japanese Foreign Direct Investment in Mexico, since Japan has been the main source of investment in Mexico coming from Asia. Attracted by Mexico's liberalization trade policy since the eighties, Japanese subsidiaries already established in the United States transferred some of their production activities into Mexico, contributing to the leading automotive and electronic exporting sectors. Both the North American Free Trade Agreement and the Japan-Mexico Economic Partnership Agreement have incentivized the location of Japanese plants in Mexico. Given the concentration of Japanese Foreign Direct Investment in the manufacturing exporting sector, it is playing a role in the formation of production networks with connections not only to North America but to Asian countries as well.

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En el presente artículo se pretende analizar la evolución y las características principales de la inversión extranjera directa japonesa en Méjico, dado que Japón ha sido la principal fuente de inversión asiática en Méjico. Atraídas por la política comercial de liberalización de Méjico imperante desde la década de 1980, las filiales japonesas ya establecidas en Estados Unidos transfirieron algunas de sus actividades de producción a Méjico, contribuyendo a los principales sectores de exportación electrónico y de automoción. Tanto el Tratado de Libre Comercio de América del Norte como el Acuerdo de Asociación Económica Japón-Méjico han incentivado la ubicación de las plantas japonesas en Méjico. Dada la concentración de inversión extranjera directa japonesa en el sector de exportación industrial, ésta desempeña un papel importante en la formación de redes de producción con conexiones no sólo con Norteamérica sino también con países asiáticos.

Este estudo visa analisar a evolução e as principais características do Investimento Directo Estrangeiro Japonês no México, desde que o Japão se tornou a principal fonte de investimento no México, proveniente da Ásia. Atraídas pela política de liberalização comercial do México desde os Anos oitenta, as subsidiárias japonesas já estabelecidas nos Estados Unidos transferiram algumas das suas actividades de produção para o México, contribuindo para os sectores automóvel e electrónico, líderes em exportação. Tanto o Acordo de Livre Comércio Norte-Americano como o Acordo de Parceria Económica Japão-México incentivaram a localização de fábricas japonesas no México. Tendo em conta a concentração de Investimento Directo Estrangeiro Japonês no sector da produção para exportação, este está a desempenhar um papel importante na formação de redes de produção, com ligações não só à América do Norte como aos países asiáticos.

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1. Introduction

When Mexico liberalized its economy in the mid-eighties, foreign direct investment (FDI) became the main source for financing development. One decade later, Mexico undertook an active preferential trade policy by signing free trade agreements with many countries, the most important being the North American Free Trade Agreement (NAFTA) of 1994. This policy made the Mexican economy very attractive to foreign investors, especially as a platform to export to the United States (US) market, which was the biggest market in the world at that time.

At the same time, Japanese transnationals (TNs) already had a well-established platform of subsidiaries in the US, which had arrived among other factors to avoid trade barriers and to overcome the negative impact of the appreciation of the yen in 1985. In turn, the Mexican economy had integrated closely with the US economy through NAFTA. US subsidiaries began to transfer their plants to Mexico and thus contribute to the formation of production networks, especially in the automobile and electronic sectors. This factor, and the differentials in costs between the US and Mexico, became an incentive for the Japanese subsidiaries established in the US to also transfer parts of their production to Mexico. Ten years after NAFTA, Mexico signed an Economic Partnership Agreement (EPA) with Japan. This was the first transpacific agreement for both countries, and both were seeking to overcome their loss of competitiveness in the global economy at the turn of the century.

In East Asia¹, Japan has been the main source of investment in Mexico. Although China's investment role has been marginal, as a trade partner this country has recently displaced Japan, establishing a relationship that is marked by a growing trade deficit. In the past few years, China has been exporting not only final but also intermediate goods demanded by production networks established in Mexico. Since Japan has been an important source of inward investment in China, it is likely that Japanese firms in Mexico are sourcing part of their input imports from that country. In this way, China enters the picture with two seemingly opposing roles. On the one hand, it competes with Mexico in attracting flows of FDI from Japan, and on the other, it participates in the consolidation of production networks in Mexico through its role as intermediate goods supplier.

This paper constitutes the first phase of a more comprehensive and pioneering research project to study the role of Japanese TNs in fostering production networks in Mexico by means of arm's length trade and/or intra-firm and inter-firm trade relationships, and with the participation of suppliers not only from the domestic market but also with those from North America and East Asian regions. This research project also aims to get insight on the approach that the Japanese firms have taken to locate their plants in the North American region as compared to the important role they have played in the formation of production networks in Asia.

As a first step to the above project, this paper analyzes the evolution and main characteristics of Japanese FDI in Mexico based at this point on national-level data, leaving for

1. For the purpose of this paper, East Asia includes China, Japan and South Korea.

KEY WORDS
Foreign investment, trade agreements, NAFTA, Mexico-Japan EPA, production networks, Japanese subsidiaries, global crisis

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PALABRAS CLAVE
Inversión extranjera; acuerdos comerciales; NAFTA; AAE Méjico-Japón; redes de producción; filiales japonesas; crisis global

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PALAVRAS-CHAVE
Investimento estrangeiro; acordos comerciais; NAFTA; APE México-Japão; redes de produção; subsidiárias japonesas; crise global

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a second phase of the project the analysis of firm-level data. In order to better understand the reasons why inward investment became an important source of financing investment in Mexico, and also the conditions by which outward investment in Japan became a new strategy for Japanese firms to continue to be competitive in a globalized world in the nineties, the first two sections of the paper summarize the conditions of FDI in both countries. The following three sections analyze the patterns followed by Japanese FDI in Mexico as a response to the signing of both NAFTA and the EPA, and the recent developments of Japanese FDI flows into Mexico in the framework of the current economic crisis. Some conclusions round out the paper.

2. Inward FDI in Mexico

Traditional economic theory claims that capital moves to other geographic locations due to profit differences. Nevertheless, recent research in the area of political economy points out that the present tendencies in technological progress and the fragmentation of production processes have induced TN companies to design their production location plans on the basis of global considerations that do not necessarily have to do with profit differentials among the countries (Ibarra 2005; Gilpin 2001). In this sense, geographic proximity still plays an important role, along with the size of the domestic market and its dynamism, the integration of production networks, a climate of security, the level of training of the labor force, the capacity for absorbing technology and the cost of factors of production (Helpman 2006; Kimura & Ando 2005; Jones, et. al. 2005; Navareti & Venables 2004).

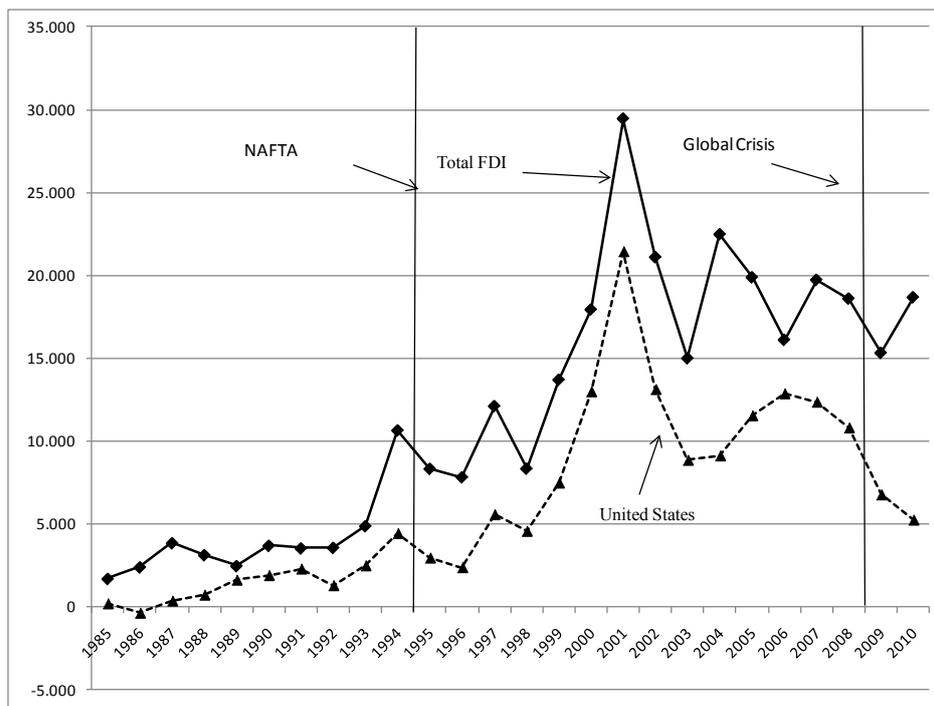
Liberalization of FDI in Mexico started in the mid-eighties, when the sources and the uses of development financing were privatized. In Mexico, the proximity of the US market – the largest in the world – has played a very important role in the location of FDI in this country, especially after the signing of NAFTA in 1994, which among other things implied the partial liberalization (some sensitive sectors were kept protected) of the foreign investment regime and the granting of national treatment to US and Canadian TNs (Dussel Peters 2007). Furthermore, the network of foreign subsidiaries established in the US has favored the flow of investment towards Mexico (see the case of the Japanese subsidiaries further below) as has the difference in the cost of labor among the member countries of NAFTA. Recently, the formation of production clusters at the Mexican-US border in the electronic and automobile sectors has become an important factor for attracting investment not only from American TNs but also European and Asian ones (Carrillo & Barajas 2007).

Thus the inward FDI flows to Mexico increased considerably with the implementation of NAFTA. During the period from 1999 to 2010², the total inward FDI accumulated was 228 billion dollars, which means an average annual flow of 19 billion dollars, well above the average flows that entered the country during the period of Mexico's trade policy of unilateral

2. Even though Post-NAFTA initiates in 1994, I take here 1999 as a starting point since the methodology to calculate the FDI was changed by Bank of Mexico starting that year and therefore data for previous years is not strictly comparable.

liberalization (1985-1993), (Figure 1). Approximately half of this flow targeted the manufacturing sector, and a third the services sector, including financial services. However, depending on their country of origin, TNs have shown different interest in sectors' investment. The financial sector, for instance, is practically in the hands of Spanish and North American enterprises; in the distribution sector, the big North American commercial chains are displacing the local retail distributors; and recently, there have been mergers and acquisitions (M&A) in the alcoholic and beverages sub-sector of the Mexican agro-industrial sector. Japanese investment, on the other hand, is concentrated in the manufacturing sector. The largest FDI proportion has been linked with the Mexican export sector and it has concentrated on the automobile and electronic sectors.

Figure 1. Mexico Inward Foreign Direct Investment 1985-2010*.
Million US dollars



Source: own elaboration with data from National Institute of Statistics and Geography (INEGI), Statistical Information Bank, available at: <http://dgcnesyp.inegi.org.mx/cgi-win/bdcietsi.exe/NIVZ101490#ARBOL> and Mexico's Ministry of Economy (Secretaría de Economía); Foreign Direct Investment General Management Office (DGIE); (<http://www.economia.gob.mx/?P=1228>)

*From 1999 on, the institution in charge of preparing the official statistics of Foreign Direct Investment, the Bank of Mexico, changed the methodology. Therefore, the data for previous years to 1999 is not exactly comparable and it is included in this graph with the only purpose to show previous tendencies.

For their part, the East Asian investment flows have entered the country by two routes: directly from their countries of origin and indirectly from their subsidiaries established in the US. One of the main characteristics of the FDI flows coming from East Asia is that they are closely linked with Mexico's imports from that region. Hence, Mexico's chronic deficit with East Asia has its roots in both its trade policy, which is greatly dependent on the US market for its exports, and in imports caused by the intra-firm, inter-firm and arm's trade relations of Asian companies (mainly Japanese and South Korean) established in Mexico.

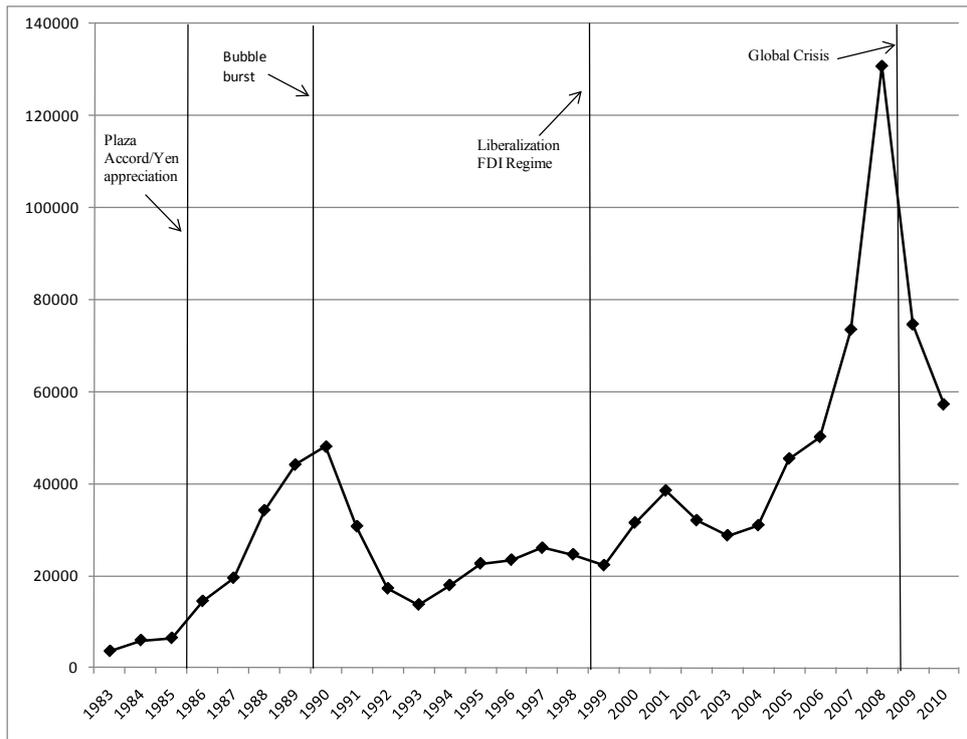
In fact, since NAFTA was signed, exports to the US have increased in relative terms notwithstanding that Mexico has signed FTAs with other major economic powers (the European Union and Japan). And although Mexican exports to Asian countries have increased in absolute terms, they remain low in relative terms, indicating that Mexico has not taken into consideration the great potential offered by the growing and rich Asian markets. However, on the imports side, the US has lost importance in favor of Asia. The main partners of Mexico in that region, Japan, South Korea and China, have increased their share of Mexican imports from 7.9% in 1993 to 20.9% in 2008, a fact that shows the strong link with Asian TNs established in Mexico (Falck Reyes and León-Manríquez, 2010b: 117-119).

Finally, in the first decade of this century, inward investment flows in Mexico have shown less dynamism, signaling the need for deepening the investment liberalization process started in the nineties that has to do with the more protected sectors of energy, oil and telecommunications. Other bottlenecks are found in the need to create more physical infrastructure to support the current high levels of trade volume, to develop human capital and medium and small enterprises and to deepen the penetration of the financial sector in the economy (Urata & Sasuya 2007; OCDE 2007). Notwithstanding these challenges, in the last two decades Mexico has managed to construct a strong trade sector on the basis of foreign direct investment, which has placed the Mexican economy among the top 15 major exporters and importers of the world.

3. Outward FDI from Japan

In the nineties, the Japanese economy slowed its growth rate and faced serious structural problems characterized by a high cost structure that hindered the nation's competitiveness. The traditionally protected sectors, such as agriculture, distribution and financing, began to become a burden for the economy. This was reflected in high food, housing, energy and transportation prices, which caused Japan to have one of the highest costs of living among the industrialized nations. Also during this decade, Japanese outward FDI increased substantially, a pattern that continued during the next decade and made Japan one of the main sources of foreign investment. As [Figure 2](#) shows, Japanese outward FDI presented an increasing pattern, except for the four years following the bursting of the 'bubble' economy in 1989 and the last two years given the effect of the global crisis.

Figure 2. Japan. Evolution of outward Foreign Direct Investment 1983-2010.
Million US dollars



Source: Own elaboration with data from Japan External Trade Organization, JETRO (<http://www.jetro.go.jp/en/reports/statistics/>).

Among the factors that explain the increased outflow of Japanese investment funds are the appreciation of the yen since the mid-eighties, the high costs of production faced by Japanese firms in the domestic market that induced them to look for lower cost locations (Saxonhouse & Stern 2004; Okina, et al. 2001; Bailey 2003), the opening of the foreign investment regime in Japan in the late nineties (Solís 2005) and the development of new technology that allowed firms to fragment their production processes in different locations. In addition to these were Japan's commercial frictions due to its high trade surplus, especially with the US, which stimulated the Japanese TNs to transfer their production in order to dodge these trade barriers during the eighties (Koido 2003).

Therefore, during the eighties, outward Japanese FDI flows were directed mainly towards the US, targeting the domestic market. In the next decade, Asian countries also became main receivers of Japanese investment and China, which barely attracted Japanese FDI in the eighties, has become at present an important receiver. Unlike investment in the US, the Japanese investment that flows towards China and other neighbors in Southeast Asia is concentrated in the exporting sector. In fact, Japanese investment in Asia has been the engine that promoted that region to become the 'factory' of the world. It has fostered production

networks that have intensified trade in intermediate goods under the modalities of arms' length trade and intra-firms and inter-firms relations, developing in the process the sector of local suppliers in less developed countries of the region (Falck Reyes 2011a).

This pattern of development of Japanese FDI since the eighties has had two major effects on Mexico as a host country: on the one hand it benefited from the flow of Japanese FDI to the US, as that flow promoted the formation of production networks in Mexico not only with the US but also with East Asia, and on the other hand, it faced a greater challenge as it increasingly had to compete with Asian countries for Japanese FDI. It must be pointed out, though, that as labor costs in China have risen lately, some foreign firms have considered Mexico as a good alternative to locate their production.

4. Japanese FDI before the signing of the EPA with Mexico

Until the end of the nineties, Mexico's trade relations with Japan were characterized by a very low penetration of Mexican products in the Japanese market, while imports from Japan were closely linked to the Japanese investment established in Mexico. For exports, the absence of a long-term strategy to penetrate the Japanese market kept Mexico from taking advantage of the opportunities emerging in this market in the nineties due to the deregularization and gradual liberalization undertaken by Japan. The NAFTA absorbed all of Mexico's attention. For imports, the absence of an industrial strategy with emphasis on the development of the small and medium-size enterprises (SME) sector as suppliers to the exporting sector reflected the strong dependence on the inputs imported by the Japanese plants and the cross-border plants known as maquiladoras.

As it has been pointed out, the foreign direct investment flows into Mexico increased significantly after the NAFTA was signed in 1994; according to official data from the Ministry of Economy, Japanese FDI represented about 2.5% of total inflows. However, this statistic does not reflect the whole story regarding the Japanese FDI in Mexico, due to the fact that it does not include the investment from Japanese subsidiary companies established in the US. With the information provided by the survey "The Japanese companies in Mexico 2000", carried out by the Japanese embassy in Mexico, JETRO-Mexico and the Japanese Chamber of Commerce and Industry of Mexico, A.C., it has been estimated that the ratio of the FDI coming from the Japanese subsidiaries in the US to that from the companies in Japan is 3.4:1. The same source estimates that the Japanese FDI represents about 20% of the total FDI in Mexico (JETRO-Mexico). These findings coincide with those obtained by academic research on the maquiladora plants in Mexico, published in a book coordinated by Carrillo & Barajas 2007. According to this study, East Asian investment has been gaining particular importance in the states on the border with the US, where the FDI from Japanese TNs showed a participation of 11% in 2002, concentrated on the electronic and automobile parts industries (Almaraz 2007). In the same study, Carrillo and Hualde refer to the transfer of Japanese subsidiaries from the U.S. to the northern city of Tijuana, most of which have concentrated on the manufacturing of TV sets. This sector has contributed to the high participation Mexico enjoys in the US market.

Concerning the flow of Japanese FDI to Mexico, while the maquiladora plant system began attracting Japanese investment to the country from its establishment in 1964, it was during the eighties that the establishment of new companies began to accelerate: 26 in the eighties, 45 in the nineties and 37 between 2000 and 2007 (Table 1). The attraction factors on the part of Mexico and those of impulse on the part of Japan have changed with time. In the eighties, Mexico's crisis in 1982 coincided with the revaluation of the Japanese yen, as discussed above. In the nineties, the signing of the NAFTA in 1994 was a strong incentive for attracting Japanese FDI. On the other hand, at the end of that decade the liberalization of the regime of capital movement control consolidated in Japan. In the present decade, the two countries' needs to improve their competitiveness in the global markets induced them to create synergies: while Mexico has a consolidated exporting basis that has prospered with the gradual formation of production clusters in the electronic and transport sectors integrated with North American activities; Japan has an important basis of establishments in the US that are interested in taking the advantages Mexico has to offer. Thus, the entrance of Japanese FDI into Mexico is explained to a great extent by both countries' economic relation with the US (Falck Reyes 2009c).

Table 1. Flow of Japanese Maquiladora plants into Mexico, Selected Periods.
Flow data by periods and distribution by State. Number of plants

Flow by periods		Geographical Distribution by State				
Period	Number *	Baja California	Chihuahua	Nuevo León	Tamaulipas	Total**
Total	110	42	18	36	8	104
1978-1979	2	1	1	0	0	2
1982-1989	26	12	5	5	1	23
1990-1999	45	23	6	8	7	44
2000-2004	22	4	4	13	0	21
2005-2007	15	2	2	10	0	14

Source: Own elaboration with data from Yamazaki, Benito (2008).

*The source does not report the year of establishment of two maquiladora plants.

**The source does not report the year of establishment of four maquiladora plants.

Of the total number of Japanese companies established in Mexico until the year 2010 (387), 34% was in the manufacturing sector, 26% in trade activities and the remainder in services and other (Table 2); one third of the companies operate under the maquiladora scheme. According to the survey by the Japanese Maquiladora Association, which collected data from 70 companies in 2004, 46% concentrated on services including banking; 43% concentrated on the production of molds and components and the remaining 13% concentrated on the assembly of products³.

3. Japanese Maquiladora Association, "Activity Presentation 2004". <http://www.economia.gob.mx/pics/p/p1776/Sakae.pdf>

Table 2. Japanese firms in Mexico: Establishments and Accumulated Foreign Direct Investment. Distribution by Main Sectors. In percentages.

Sector	Establishments*	Foreign Direct Investment **
Total	100	100
Agricultural	1.1	-6.0
Mining	0.6	0.9
Manufacturing industry	34.2	75.5
Automotive industry	9.2	44.2
Electronic equipment	3.4	10.0
Electricity and water	0.9	0.1
Construction	6.6	5.0
Commerce	25.9	11.7
Transport and communication	0.9	-1.0
Financial services	3.7	0.6
Others	26.1	13.0

Source: Secretaría de Economía (Ministry of Economy), Dirección General de Inversión Extranjera Directa, DGIE; (<http://www.economia.gob.mx/?P=1156>)

*In 2008 there were 348 Japanese companies.

** Data refers to the distribution of accumulated FDI from 1999-2008.

According to the total value invested, one of the main characteristics of the Japanese FDI in Mexico is its concentration in the manufacturing sector (75.5%), with a positive impact on employment, exports and technical training. According to research done by JETRO, the Japanese companies established in Mexico contribute three of every 100 formal jobs in the manufacturing industry (JETRO-México 2004b). Within this sector, the automobile and electric and electronic sub-sectors have received the greatest Japanese investment flows. On the other hand, according to information provided by JETRO and based on data from Customs agencies about the 100 largest exporting companies in Mexico, 13 Japanese companies⁴ have an important role in the exports to the US market, contributing to the surplus that Mexico maintains with the latter country. As a result, Japanese companies have tended to locate their plants in the border states of Baja California and Nuevo León, as well as the center region in the States of Aguascalientes and Morelos where two Nissan plants have attracted more investors (Dussel Peters 2007; Almaraz 2007).

In sum, in the period just before the EPA with Japan, the NAFTA was the spark that triggered the interest of Japanese FDI in Mexico and it coincided with the consolidation of liberalization of the FDI in Japan. The proximity to the US consumer market was a key factor, as was the ability of the Japanese subsidiaries already established in the US to facilitate the integration of Japanese companies in the region, taking advantage of the infrastructure, quality and lower labor costs in Mexico. However, despite the positive impact of Japanese FDI on

4. Nissan Mexicana (11), Matsushita TV (15), Sony Tijuana (24), Alcoa Fujikura (31), Pims (Mitsubishi) (44), Sony de Mexicali (45), Hitachi Consumer Products (61), JVC Industrial (66), Sharp Electronica (67), Sony Nuevo Laredo (74), Honda de México (88), Toshiba Eletromex (96) and Sanyo Energy (100). The number in parenthesis indicates the place occupied by the company (JETRO-México, 2004b).

exports and jobs in the manufacturing sectors, the sum total invested was still low relative to both the FDI received by Mexico and Japan's flows to other countries.

It was in this context that the agreement with Mexico was proposed, and negotiations began in 2001. The complementary nature of the economies, given their respective availability of resources, made the approach more attractive through an EPA. For Mexico, the high potential of the Japanese market, due to the high level of income of its inhabitants, and the high FDI flows that Japan had made since the mid-eighties were powerful incentives to enter through the big gates in Asia. For Japanese firms established in Mexico, 2001 represented a turning point because in that year a certain NAFTA clause took effect, which mandated that companies established in Mexico that had been importing inputs from outside the North American region had to start paying tariffs. Japanese companies started to lose competitiveness in favor of their North American counterparts operating in Mexico. Additionally, Mexico was still an attractive export platform due to the many agreements in which the country participated, and above all due to its proximity to the US market.

5. The Japanese FDI after the EPA with Mexico

What has been achieved five years after the Mexico-Japan EPA was signed? Given the strong link between the Japanese FDI and the trade between the two countries, let's look first to the evolution of trade and then turn to that of FDI.

Total trade between the two countries has accelerated, averaging 17.7 billion dollars a year in the 2005-2010 period, which means that trade more than doubled with respect to the 1993-2004 average. Before the global crisis (2005-2008), exports showed a more accelerated growth (14% a year) as compared to that of imports (7.7%). The global crisis had a negative effect on trade growth in 2009, but the next year it started to recover both for trade with Japan and for trade with the world (Table 3).

Notwithstanding the improved performance of exports after the agreement, exports continue to represent just 23% of the imports, a fact reflected in the deficit in the trade balance, which tripled as an average with respect to the period prior to the agreement. As was already pointed out, this deficit originates in the close relationship between Japanese investment in Mexico and its dependency on the import of inputs, above all parts and components, for the automobile and electronic industries. In this regard, it is important to notice that under the cooperation chapter included in the EPA, JETRO-Mexico and the Ministry of Economy have put in place a program to develop local suppliers for the Japanese automotive industry established in Mexico.

Table 3. Mexico's Trade with Japan and the World, 1993-2010.
Million dollars

	Japan				World			
	Exports*	Imports	Total Trade	Balance of Trade	Exports	Imports	Total Trade	Balance of Trade
1993	1,077	3,929	5,006	-2,852	51,832	65,367	117,199	-13,535
1994	1,343	4,780	6,123	-3,437	60,817	79,346	140,163	-18,529
1995	1,493	3,952	5,445	-2,459	79,541	72,453	151,994	7,088
1996	1,891	4,132	6,023	-2,241	96,004	89,469	185,473	6,535
1997	1,618	4,334	5,951	-2,716	110,237	109,808	220,045	429
1998	1,225	4,537	5,762	-3,312	117,539	125,373	242,912	-7,834
1999	1,653	5,083	6,736	-3,431	136,362	141,975	278,337	-5,613
2000	2,397	6,466	8,863	-4,069	166,121	174,458	340,579	-8,337
2001	2,019	8,086	10,104	-6,067	158,780	168,396	327,176	-9,617
2002	1,785	9,349	11,134	-7,563	161,046	168,679	329,725	-7,633
2003	1,770	7,595	9,365	-5,825	164,766	170,546	335,312	-5,779
2004	2,170	10,583	12,753	-8,414	187,999	196,810	384,808	-8,811
2005	2,552	13,078	15,629	-10,526	214,233	221,820	436,053	-7,587
2006	2,823	15,295	18,118	-12,472	249,925	256,052	505,977	-6,127
2007	3,153	16,360	19,513	-13,207	272,044	283,233	555,278	-11,189
2008	3,783	16,326	20,109	-12,543	292,637	310,132	602,769	-17,496
2009	2,799	11,397	14,196	-8,598	229,620	234,385	464,005	-4,765
2010	3,473	15,015	18,488	-11,542	298,138	301,482	599,620	-3,344
Period's average								
1993-2004	1,703	6,069	7,772	-4,365	124,254	130,223	254,477	-5,970
2005-2008	3,078	15,265	18,343	-12,187	257,210	267,809	525,019	-10,600
2005-2010	3,097	14,579	17,676	-11,481	259,433	267,851	527,284	-8,418
Average annual growth (%)								
1993-2004	6.6	9.4	8.9		12.4	10.5	11.4	
2005-2008	14.0	7.7	8.8		11.0	11.8	11.4	
2005-2010	6.4	2.8	3.4		6.8	6.3	6.6	

Source: Own elaboration with data from Ministry of Economy (Secretaría de Economía): International Trade Statistics; (<http://www.economia.gob.mx/?P=5400>); United Nations Commodity Trade Statistics Database, COMTRADE and Japan External Trade Organization, JETRO (<http://www.jetro.go.jp/en/reports/statistics/>)

*The source for Mexico's exports to Japan is Japan's imports.

In addition, the import flows have been favored by the gradual reduction of duties that used to average 16% before the EPA was signed; the impact of this change has been felt especially in the automobile sector. With the EPA, the Japanese car manufacturers established in the country may import duty-free the equivalent of 5% of the units sold in the Mexican market in the preceding year, and the general duty was lowered from 50% to 20-30% (Japan Ministry of Economy and Trade 2007). Companies such as Isuzu, Hino Motors of the Toyota Group and Mazda have taken advantage of this opportunity and have established a wide network of distributors throughout the country.

Table 4. Participation of Japanese firms in Mexico's automotive industry, 2007-2010.
Units and Percentages

	Automotive industry in Mexico					Japanese automotive industry in Mexico				Japan's participation in the automotive industry					
	National production (Qm)	Domestic market sales (Sm)	Exports (Xm)	Imports (Mm)	Xm/Qm %	Production (Qj)	Domestic market sales (Sj)	Exports (Xj)	Imports (Mj)	Production %	Domestic market sales (Sj) %	Exports %	Xj/Qj %	Mj/Mm %	Mj/Sm %
2007	2,022,241	1,099,866	1,613,313	690,938	80	556,911	375,975	362,273	181,337	28	34	22	65	26	16
2008	2,102,801	1,025,520	1,661,406	584,125	79	550,579	380,260	364,955	194,636	26	37	22	66	33	19
2009	1,507,527	754,918	1,223,333	n/a	81	445,838	287,417	305,251	n/a	30	38	25	68	n/a	n/a
2010	2,260,776	820,406	1,859,185	n/a	82	615,773	323,571	439,645	n/a	27	39	24	71	n/a	n/a
Growth 2008	3.98	-6.76	2.98	-15.46	-0.96	-1.14	1.14	0.74	7.33	-4.92	8.47	-2.18	1.9	26.96	15.12
Growth 2009	-28.31	-26.39	-26.37	n/a	2.71	-19.02	-24.42	-16.36	n/a	13.75	2.90	13.64	3.29	n/a	n/a
Growth 2010	49.97	8.67	51.98	n/a	1.34	38.12	12.58	44.03	n/a	-7.90	3.59	-5.41	4.28	n/a	n/a

Source: Own elaboration with data from Mexico's Ministry of Economy (Secretaría de Economía); Office of Mexico-Japan Economic Partnership Agreement (<http://www.mexicotradeandinvestment.com>); and Mexican Automotive Manufacturers Association, AMIA; (<http://www.amia.com.mx/index.php>)

Note: m=Mexico; j=Japan; Q=National Production; S=Sales; M=imports; X=exports.

At present three Japanese companies – Nissan, Toyota and Honda – have a very important role in the Mexican automobile market, providing more than one fourth of the total production (615,773 units of the total 2.3 million units in 2010). Moreover, these companies export 71% of their total production (439,645 units), which represent 24% of Mexico's total exports in this sector. On the other hand, their share of the domestic market has increased from 34% to 39% from 2007 to 2010. These indicators show the relevance of Japanese FDI in a key sector for Mexico where the country has proven to have comparative advantages (Table 4).

As Japanese FDI is receiving national treatment like its US and European counterparts since the EPA was signed, it has exhibited a strong impulse. According to information obtained from the daily reports by the Mexican Office of the Ministry of Economy in Tokyo, in the post-EPA period (2005-2007) and before the global crisis of 2008, forty Japanese companies announced a total investment of \$3,426 million, which is substantially higher than the \$2,498 million accumulated between 1999 and 2004 (Table 5). Of the investment announced, 45% is for setting up new plants, and the rest for expanding the productive capacity already installed. The bulk of the FDI planned will be destined for the automobile industry (70% of the announcements) and the electronic industry. Of this planned investment, four states in the republic are the largest recipients: Aguascalientes (45%), Guerrero (17%) and Baja California and Nuevo León (10% each)⁵. If these investment plans become a reality (considering the negative impact of the economic crisis), the Japanese FDI oriented to exports will consolidate and show a greater impulse in the formation of productive chains, which will imply less pressure on imports and more jobs.

5. These statistics correspond to the investment announced both by new companies and by Japanese companies already established in México.

Table 5. Japanese companies: Direct Foreign Investment Announcements plans in Mexico after EPA. Thousand US dollars

Period	Announced investment by sector	Value
2005-2007 Post EPA Mexico-Japan	<i>Automotive sector</i>	2,539,600
	<i>Electronic sector</i>	211,300
	<i>Other sectors</i>	675,200
	Total announced in the period	3,426,100
2008-2009 Global Crisis	<i>Automotive sector</i>	94,700
	<i>Electronic sector</i>	66,500
	Total announced in the period	161,200
2010 Post-Crisis	<i>Automotive sector</i>	211,000
	<i>Electronic sector</i>	2,500,000
	Total announced in the period	2,711,000
2005-2010	Total announced in the period	6,298,300

Source: Own elaboration with daily data from Mexico's Ministry of Economy (Secretaría de Economía). Office of Mexico-Japan Economic Partnership Agreement: "Síntesis de información. Acuerdo para el Fortalecimiento de las Asociación Económica México-Japón" and JETRO-México (<http://www.jetro.go.jp/mexico/economicas/inversion/>).

However, the EPA continues to present challenges in terms of investment. In the Committee to Improve the Climate for Business established in the framework of the EPA, which has met four times since it was set up, the priority issues on the Japanese agenda are the development of the support industry in Mexico in order to support the automobile and the electronic sectors, the improvement of the environment of security, the expediting of customs procedures and the participation of Japanese companies in the National Infrastructure Program put in place recently. With the exception of the last point, these issues are relevant to the attraction of FDI in general, and they imply improving the levels of competitiveness of the Mexican economy.

6. The impact of the crisis on FDI in the context of the EPA

The global crisis has had a strong negative impact on global trade and investment flows. In its latest Global Investment Trends Monitor, UNCTAD reported that FDI fell in 2009 by 39%, a decline that was widespread among all major groups of economies (UNCTAD 2010).

Within the group of developed countries, Japan has been one of the countries most affected by the crisis. In spite of the fact that it had exhibited an economic recovery between 2002 and 2007 after the *lost decade* in the nineties, in November 2007 it again entered a recession. The GDP in 2008 decreased 1.2% and in 2009 fell 5.2%, eliminating the gains of the last five years. In the 5-year period ending in 2007, the growth of the Japanese economy was driven by a greater dynamism of exports, which went from 11% to 17% of the GDP. This outcome was in part based on a devaluated yen and a spate of US consumption. The

Japanese companies increased their investments assuming that such conditions would remain (The Economist April 2, 2009; Dewitt & Harris 2009). According to UNCTAD (2010), in 2008 Japan was among a small group of developed countries that increase FDI outward flows by as much as 74% to \$128 billion. This growth was triggered by the TNs' strong increase in cross-border equity investments oriented to domestic as well as foreign markets.

Table 6. Economic Growth for selected countries, 2007-2010 and forecast for 2011.
Annual percentage change

	Japan	United States	Mexico	World
2007	2.3	1.9	3.3	5.1
2008	-1.2	0.4	1.5	3.1
2009	-5.2	-2.5	-6.6	-0.8
2010	2.8	2.7	4.9	3.9
2011*	1.5	2.3	3.9	4.3

Source: International Monetary Fund, World Economic Outlook Database.

*IMF forecast.

As the recession deepened, however, the reevaluation of the yen and the decrease in US consumption has had a strong negative impact on the Japanese economy, especially in the manufacturing sector and in employment. The Japanese government responded with a broad program for the stimulation of the economy, centered on driving domestic demand, improving efficiency in energy and improving the services to the elderly⁶. Considering that exports will hardly be a growth factor in the short run and that the increase in public expenditure is limited by Japan's large public debt, all hopes are set on stimulating domestic consumption. Therefore, in 2009, TNs were affected by tighter credit conditions and rapidly declining sales and profits, both domestic and foreign, affecting their investment expenditures plans.

In the case of the Mexican economy, the GDP in 2008 grew only 1.5% (one half of the previous year) and for 2009 the economy suffered a deep downturn with a GDP drop of 6.6% (Table 6). The recession had a strong impact on the exporting sector due to its high dependence on the US market, whose GDP contracted 2.5% in that same year. This crisis caught Mexico with solid macroeconomic indicators (low inflation and fiscal deficit, high international reserves and a controllable trade deficit), but with an economy that has been losing international competitiveness. On top of that, the Mexican economy was badly affected in 2009 by the impact of the H1N1 influenza. This seriously affected tourism, an important source of foreign currency for Mexico, and also the services sector, especially the activities of restaurants and transportation.

Under this somber outlook, in 2009 trade and investment flows diminished in an important way (Graph 1). Regarding Japanese inward FDI, the director of JETRO in Mexico, Tadashi Minemura, announced that: "the interest of Japanese companies to invest in Mexico is paralyzed", especially because one of the sectors most affected by the crisis in the world

6. Kyodo News, "Aso unveils growth plan to double Asia economy by 2020", 9 April 2009.

is the automobile and automobile parts industries⁷. In fact, the announcement of new investment plans by Japanese companies in Mexico fell to an average of \$80 million in 2008 and 2009 from an annual average of \$1,142 million in the three previous years (Table 5).

According to data gathered by the author, ten Japanese TNs operating in Mexico announced in the first three quarters of 2009 measures that contemplated a downward shift in their investment expenditures as part of their global strategy. Three of them considered postponement of their investment plans, three decided to close some of their plants in Mexico, three more chose to temporarily shut down production, and one sold its TV assembling plant to a Taiwanese company.

However, a less discouraging panorama emerged in 2010. Announcements of new investment plans by Japanese enterprises have shown up again. So far the US rescue plans, especially subsidies to automobile consumption, have had a positive impact on Mexican exports, increasing their volume 52%; Japanese exports of cars from Mexico increased by 44% (Table 4). Of course, continued investment flows will depend on the recovery of the Mexican export sector, which in turn depends on the US economy. This tendency will be reinforced by the impact that the US crisis has on the Japanese FDI in that country, due to the close connection between the Japanese subsidiaries established in the US and the Japanese FDI in Mexico. Moreover, the expected impact of the US rescue plans on the development of automobile products with greater energy efficiency can benefit the Japanese automakers that already have an advantage in these types of products. This could be an opportunity for Mexico, since it already has a competitive automobile sector.

7. Epilogue

The recent events in Japan, triggered by the earthquake and tsunami of March 2011, have pointed out the global relevance of Japanese firms as suppliers of parts and components for global production networks, given the fragmentation of production in different localities. Almost every global enterprise has been impacted by this situation, and in the short run they have responded by adjusting their targets of production. This has been the case with many firms operating in Mexico, especially in the electronic and the automobile industries. In the long run, Mexico can benefit from this situation as Japanese input suppliers located in the Tohoku region, which was the most affected, seek to recuperate their production levels by displacing their plants to other geographic locations. Since Mexico already has a consolidated group of Japanese manufacturers established in the country, they can stimulate some of their partners to move to Mexico.

7. El Universal, "Se 'paralizan' nuevas inversiones de Japón", 12 April 2009.

8. Conclusions

Due to the loss of global competitiveness of the Mexican and Japanese economies at the beginning of the 21st Century, the improvement of the economic relations between the two nations by means of an Economic Partnership Agreement became the most viable option.

The economic relations of both countries with the US have been a key factor for the signing of the EPA. Various factors contributed to the flow of Japanese investment to the US: Japan's well-established platform of subsidiaries that had arrived in the US to avoid trade barriers, the reevaluation of the yen in 1985 and the consolidation of the Japanese investment liberalization control regime in 1998. In turn, the Mexican economy with the NAFTA had integrated closely with the US economy. The US subsidiaries began to transfer their plants to Mexico and thus contributed to the formation of production clusters, especially in the automobile and electronic sectors. This factor and the differentials in costs between the US and Mexico became an incentive for the Japanese subsidiaries in the US to also transfer part of their production plants to Mexico.

In 2001, the impact of NAFTA, particularly the elimination of the fiscal preferences enjoyed by maquiladora plants to import inputs outside the region, was the trigger for Japan to sign the EPA. It coincided with Mexico's need to diversify markets in a region that heretofore had been ignored by the Mexican trade policy. Japan was the natural option due to the relation that already existed between the two countries and due to the regional and global importance of the Japanese economy.

Five years after the agreement was signed, the investment and trade flows have increased more speedily than during the previous period, which shows the advantages of integration. However, in terms of trade, the distribution of the profits has been asymmetric and it has tended to favor Japan more. This is partially the consequence of the strong intra-firm and/or inter-firm relation that supports the Japanese maquiladora plants established in Mexico, which acquire most of their inputs from Japanese or Asian firms. The situation has its origins in turn in the weak relation between the Mexican Small and Medium Enterprises with its exporting counterparts, due to the lack of a long-term vision that would support such a relation. Nevertheless, the EPA is helping in that direction by means of the cooperation chapter. On the other hand, Mexican exports, although they have shown a greater dynamism under the EPA, are still far from taking advantage of the maximum potential of the agreement.

Regarding the attraction of investment, the EPA has had the expected impact in that many Japanese firms have already announced new investment projects in Mexico. How the current global economic crisis will affect these tendencies is an open question. In the short term, the renewal of Japanese FDI into Mexico will depend mainly on the recovery of the US economy, because of the close integration between the Japanese exporting sector in Mexico and the demand from the US. In the long term, two factors seem important: the increase in competitiveness in the Mexican economy that will make the country more attractive to investors (physical infrastructure, quality of education, deregulation, fiscal regime) and the recent changes in global FDI that will pose greater challenges to Mexico in competing with other emerging economies to attract investment.

Finally, the experience of this transpacific relation underscores the importance, in terms of public policy, of the role of the State to be a facilitator of trade and investment flows. In order to potentiate all the benefits from trade and FDI, it is not enough to sign as many free trade agreements as possible, as Mexico has done. In the case of Japanese FDI in Mexico, public policy could be used to facilitate the development of local suppliers to exporters on leading manufacturing sectors where Japanese investment is concentrated.

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