Law and Business Review of the Americas

Volume 16 | Number 4 Article 4

2010

Foreign Direct Investment and Mexican Development - A Look at Recent Trends

Andrea Goldstein

Foreign Direct Investment and Mexican Development–A Look at Recent Trends[1]

Andrea Goldstein[2]

ABSTRACT

Foreign-owned multinational corporations (MNCs) have played a crucial role in Mexico's economic development strategy, especially since 1986. American MNCs, in particular, have been active in many industries, driven by geographical proximity, access to low-cost labor, and preferential access to the U.S. market in the context of the North American Free-Trade Agreement (NAFTA). Drawing on a battery of Mexican and international sources, this paper analyzes recent trends, identifies some concerns, and examines, in some depth, the Mexican strategy of U.S. MNCs. This paper also summarizes the recent emergence of Mexican MNCs and their contribution to the restructuring of the global business landscape. The concluding section draws some policy implications, also on the basis of recent OECD assessments of the Mexican economy.

I. INTRODUCTION

FOREIGN direct investment (FDI) can be one of the principal drivers of economic and social development. Multinational corporations (MNCs) were crucial players in the past waves of globalization and their importance has grown further over the past decade.[3] They have provided a massive infusion of capital, technology, and managerial expertise that, under certain conditions, has played a major role in the process of economic transformation and growth that many less developed and newly industrialized countries from around the world have experienced over the past two decades.[4]

---

1. Presented at the Conference "Challenges and Opportunities in Mexico" hosted by the Tower Center and the Owens Foundation at Southern Methodist University in Dallas on March 25-26, 2010.
2. Andrea Goldstein is with the Organisation for Economic Co-operation and Development (OECD) in Paris. He thanks Enrique Dussel Peters, Taeko Hoshino, Bénédicte Larre, Andy Mold, and Ángel Palerm for comments on an earlier version. The author remains solely responsible for the views expressed in this paper.
3. Geoffry Jones, Multinationals and Global Capitalism: From the Nineteenth to the Twenty-First Century 20 (2005).
4. *See Emerging Multinationals: Who Are They? What do They do? What is at Stake?*, OECD, http://www.oecd.org/document/33/0,3343,en_2649_37467_36223265_1_1_1_37467,00.html (last visited Aug. 3, 2010).

MNCs have also played an important role in the political economy of Mexico in the late 20th and early 21st centuries. Making the country attractive for FDI through appropriate macroeconomic and structural policies—signing free-trade agreements, keeping wage growth in check, and constraining inflation—has been the centerpiece of Mexico's global integration strategy and has made the country the poster boy of globalization. The hope was that FDI would increase the competitiveness of the manufacturing sector, which would in turn stimulate growth and industrial restructuring in the Mexican economy as a whole. Moreover, through the transfer of foreign technology and management skills, Mexico hoped FDI-led growth would improve environmental standards. Closing a virtuous circle, sustainable growth was to remedy the severe poverty that plagues Mexico by providing jobs and by stemming the flow of poor migrants from rural to urban areas and across the border.

FDI inflows, productivity, and manufactured exports all rose in the 1990s, turning Mexico into one of Latin America's and, indeed, the world's most successful countries in attracting FDI. The North American Free-Trade Agreement (NAFTA) alone led to a sixty percent increase in FDI inflows.[5] FDI has been associated with higher wages, although there is no evidence of wage spillovers leading to higher wages for domestic firms.[6] At the state-level, Hanson presents another positive outcome—exposure to FDI and other features of globalization (import and export assembly) is positively associated with growth in labor income.[7] The incidence of wage poverty (the fraction of wage earners whose labor income would not sustain a family of four at above-poverty consumption levels) in low-exposure states also increased relative to high-exposure states by seven percent.[8] There is also positive evidence in the automotive sector:

> where multinational exports of vehicles and parts from Mexico grew from negligible in the 1970s to some $32 billion U.S.D.in 2004, employing one of every eight workers in the Mexican manufacturing sector, at pay levels ($1.76 U.S.D. to $11.42 U.S.D. an hour) second only to the petroleum sector. Foreign-owned assembly and parts plants in Mexico are rated at the highest quality and efficiency by independent rating services.[9]

5. *See* Alfredo Cuevas, Miguel Messmacher, & Alejandro Werner, *Foreign Direct Investment in Mexico Since the Approval of NAFTA*, 19 WORLD BANK ECON REV. 473 (2005).
6. *See generally* Brian Aitken, Ann Harrison, & Robert E. Lipsey, *Wages and Foreign Ownership: A Comparative Study of Mexico, Venezuela and the United States* (Nat'l Bureau of Econ. Research, Working Paper No. 5102, 1997), available at http://www.nber.org/papers/w5102.pdf.
7. Gordon H. Hanson, *Globalization, Labor Income, and Poverty in Mexico*, Nat'l Bureau of Econ. Research, at 28 (2004), *available at* http://cpe.ucsd.edu/assets/022/8788.pdf.
8. *Id.*
9. THEODORE H. MORAN, PARENTAL SUPERVISION: THE NEW PARADIGM FOR FOREIGN DIRECT INVESTMENT AND DEVELOPMENT 11 (2001), *available at www.cgdev.org/doc/books/Moran%20FDI/Chapter%201.pdf.*

This, however, has not been the only reading. Others have questioned the contribution of MNCs to recent Mexican development, to the point of turning FDI into a sort of whipping boy. Gallagher and Zarsky argue that the large growth of the manufacturing sector has generated import-dependence and a persistent and growing trade deficit.[10] Pacheco-López reaches similar results.[11] In addition, FDI-led integration with the regional and global economy has done little to promote sustainable industrial development in Mexico.[12] Lowe and Kenney argue that Mexico's consumer electronics industry declined because of the foreign investment regime, particularly due to the timing of the investment, the geographical locations of local and foreign manufacturers, and the subsequent depth and quality of the relationships between firms.[13] Gallagher and Zarsky find that many local information technology (IT) firms were put out of business by foreign investment and that transfer of environmentally-sound technology was limited.[14] Lax environmental standards (the so-called "pollution haven effect") have been found to be positively correlated with FDI in Mexico, as environmental considerations matter for firms' investment decisions.[15] According to Dussel Peters, foreign firms' innovative contributions have been very limited and need to be better targeted.[16]

Detailed analyses contained in Dussel Peters suggest a middle ground: "FDI is positively associated with GDP, employment, trade opening, private investment, and exports; [and] FDI in Mexico has an enormous positive potential on these socio-economic variables, [but] it was not possible to measure the net effects, for instance employment generation, and to

10. Kevin P. Gallagher & Lyuba Zarsky, *Sustainable Industrial Development?: The Performance of Mexico's FDI-led Integration Strategy*, Global Dev. and Env't. Inst., at 4 (2004), *available at* http://ase.tufts.edu/gdae/pubs/rp/mexicofdireport11-03.pdf.

11. *See* Penélope Pacheco-López, *Foreign Direct Investment: Exports and Imports in Mexico*, 28:8 WORLD ECON. 1157 (2005), *available at* http://www3.interscience.wiley.com/journal/118738359/abstract?CRETRY=1&SRETRY=0.

12. Interestingly enough, during the import substitution industrialization phase (1965-1984) when FDI was more heavily regulated, multinational firms contributed to a geographical diffusion of technology and to productivity level convergence with the United States. *See* Magnus Blomstrom & Edward N. Wolff, *Multinational Corporations and Productivity Convergence in Mexico* (Nat'l Bureau of Econ. Research, Working Paper No. W3141, 1994), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=238454.

13. *See* NICHOLA LOWE & MARTIN KENNEY, *Foreign Investment and the Global Geography of Production: Why the Mexican Consumer Electronics Industry Failed*, 27:8 WORLD DEV. 1427 (1999).

14. KEVIN GALLAGHER & LYUBA ZARSKY, THE ENCLAVE ECONOMY: FOREIGN INVESTMENT AND SUSTAINABLE DEVELOPMENT IN MEXICO'S SILICON VALLEY 140 (2007).

15. *See generally* Andreas Waldkirch & Munisamy Gopinath, *Pollution Haven or Hythe? New Evidence from Mexico*, June 7, 2004, *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=592721.

16. *See* Enrique Dussel Peters, *Don't Expect Apples From a Pear Tree: Foreign Direct Investment and Innovation in Mexico*, Working Group on Dev. and Env't. in the Am., at 1 (2009), *available at* http://www.dusselpeters.com/41.pdf.

also consider intra- and inter-sectoral [sic] effects."[17] A recent OECD report notes that productivity and wages-per-employee are highest in firms with less than fifty percent FDI (as opposed to zero or more than fifty percent foreign capital).[18] And, surprisingly, branches of large manufacturing firms with no FDI show the highest rate of science and technology expenditure–six percent of GDP.[19]

The fast rise of China as a location platform for export-oriented companies, but also as a fast-growing consumption market, has added arguments for the skeptics. Bergin documents that *maquiladora* industries in Mexico that are associated with U.S. off-shoring, experience fluctuations in employment that are twice as volatile as the corresponding industries in the United States.[20] This finding cannot be attributed simply to higher volatility in the overall Mexican economy, or to the smaller size of Mexico's industries compared to U.S. counterparts. Detailed statistical analysis confirms the high degree of similarity in Chinese and Mexican exports to the U.S. market and hence the increasing crowding-out of Mexican exports.[21]

This paper examines recent trends of Mexican FDI flows. The next section presents data on inward flows to place the country's position in the international investment landscape and to show changes in terms of industrial composition, country of origin, and region of destination. Section three presents additional data on the strategy of U.S. MNCs in Mexico. The recent emergence of Mexican companies as MNCs on their own is examined in section four, before concluding with some policy considerations.

II. RECENT PATTERNS AND CHARACTERISTICS

The well-known U.N. Report *Multinational Corporations in World Development* highlights that Mexico has traditionally been one of the most important destinations for FDI, especially among developing economies.[22] In 1967, it held the fourth-largest stock among Development Assistance Committee countries, behind Brazil, Venezuela, and Argentina.[23] Brazil and Argentina had higher GDP per capita levels and therefore

17. *Id.* at 11.
18. Policy Brief, *Regional Innovation in 15 Mexican States*, at 3 (2009), http://www.oecd.org/dataoecd/45/1/42644342.pdf.
19. *Id.*
20. *See generally* Paul R. Bergin, Robert C. Feenstra & Gordon H. Hanson, *Volatility Due to Offshoring: Theory and Evidence* (Univ. of Cal. Working Paper, 2009), *available at* http://www.econ.ucdavis.edu/faculty/bergin/research/Offshoring_and_Volatility_theory_web.pdf.
21. *See* CHINA AND LATIN AMERICA: ECONOMIC RELATIONS IN THE TWENTY-FIRST CENTURY 375-76 (Rhys Jenkins & Enrique Dussel Peters, eds., 2009), *available at* *http://www.isn.ethz.ch/isn/Current-Affairs/Security-Watch/Detail/?q51=Mali&ots591=0c54e3b3-1e9c-be1e-2c24-a6a8c7060233&lng=en&id=111321.*
22. *See generally* U.N. DEP'T OF INT'L ECON. & SOC. AFFAIRS, THE IMPACT OF MULTINATIONAL CORPORATIONS ON DEVELOPMENT AND ON INTERNATIONAL RELATIONS, U.N. Doc. ST/ESA/6, U.N. Sales No. E.74.II.A.5 (1974).
23. *Id.* at 184.

larger internal markets, while Venezuela allowed FDI in the oil industry. As a result, foreign participation has also been very important in the domestic economy—averaging forty-five percent among middle and large-sized firms in 1970 and reaching up to 100 percent in sectors such as rubber products and transportation materials.[24]

In the 1980s, Mexico lost FDI competitiveness, its share in global flows falling from three percent in 1980-84 (the second largest developing country destination after Brazil) to 1.4% in 1988-89 (by then surpassed by China and Singapore, amid a marked contraction in FDI flows to developing regions).[25] Paradoxically, the importance of FDI in gross domestic capital formation increased from 4.3% in 1980-82 to 6.6% in 1985-87, in countertrend to what was happening in the rest of Latin America, from six percent to five percent.[26] These predicaments convinced authorities to implement "changes to increase the attractiveness of investing in Mexico, including reform of the foreign investment regime."[27] Mexico's entry into NAFTA in 1995, and in particular chapter eleven of the agreement, capped the liberalization and bonded Mexico to a number of obligations pertaining to FDI policy.[28]

The results were pretty impressive, with the country again becoming one of the main destinations for private financial flows in developing and transitional economies–6.5% of FDI in 1993-98.[29] In global terms, the peak was recorded in 2002, when 3.77% of all FDI flows went to Mexico, before falling to a rather worrisome 1.29% in 2008–equal to 3.54% of all FDI flows to the developing world and a paltry 15.2% of the FDI flows to developing America (it was 40.51% in 2002).

While China—its rise as "the factory of the world," but also the erosion of Mexico's preferential commercial treatment after 1994—is undoubtedly the first cause of this slowdown, it is not the only one (Table 1). In the 1980s, Mexico was attracting 1.5 times as many FDI flows as China, but in the 1990s, the ratio had already come down to .29, a level that is *grosso modo* equivalent to that prevailing in the most recent period. It is clear that the recent deceleration has other roots when comparing Mex-

24. *Id.* at 20.

25. U.N. Centre on Transnat'l Corp., World Investment Report 1991: The Triad in Foreign Direct Investment at 11, U.N. Doc. ST/CTC/118, U.N. Sales No. E.91.II.A.12 (1991), *available at* http://www.unctad.org/en/docs/wir1991overview_en.pdf.

26. *Id.* at 8.

27. Nora Lustig, Mexico: The Remaking of an Economy 126 (1992).

28. Nonetheless, investment barriers, including those for FDI, remain higher than in most OECD and Latin American countries. *See* Edward M. Graham & Erika Wada, *Domestic Reform, Trade and Investment Liberalization, Financial Crisis, and Foreign Direct Investment into Mexico*, 23:6 World Econ. 777 (2010), *available at* http://www3.interscience.wiley.com/journal/119010846/abstract?CRETRY=1&SRETRY=0.

29. U.N. Conference on Trade and Dev. (UNCTAD), World Investment Report 2000: Cross-border Mergers and Acquisitions and Development at 23, U.N. Sales No. E.00.II.D.20 (2000), *available at* http://www.unctad.org/en/docs/wir2000_en.pdf.

ico with Brazil and Chile. Vis-à-vis the largest Latin American economy, that attracted three times as many flows in the 1970s, Mexico gained ground in the 1980s, lost somewhat in the 1990s (when Brazil was in the middle of a privatization binge), recovered again in the first part of the current decade, and then lost contact again in recent years. Roughly the same has happened with Chile, a much smaller country that has attained global fame for its reformist economic policies: in the 1970s Mexico was receiving almost eight times as many flows and by 2008 the ratio had dwindled to 1.3. The real exchange rate explains some of the fluctuations–in particular, flows to non-tradables surged in periods when the peso appreciated.

TABLE 1: MEXICO AND THE INTERNATIONAL INVESTMENT LANDSCAPE (1970-2008)[30]

YEAR	1970s	1980s	1990s	2000	2001	2002	2003	2004	2005	2006	2007	2008
MX % world	1.87	2.58	2.12	1.30	3.63	3.77	2.92	3.22	2.25	1.32	1.38	1.29
MX % developing world	7.55	11.59	7.20	7.02	13.83	13.48	8.95	8.15	6.66	4.45	5.15	3.54
MX % developing Americas	15.87	36.32	20.27	18.33	36.67	40.51	35.98	24.89	28.44	20.70	21.40	15.20
MX % BR	35.23	138.74	85.75	55.00	132.70	142.99	162.42	130.38	145.50	102.63	78.87	48.71
MX % CN	..	147.55	29.29	44.28	63.57	44.98	30.79	39.02	30.28	26.56	32.66	20.27
MX % CL	757.42	496.33	262.04	370.95	709.60	930.30	382.48	329.85	313.90	264.67	216.88	130.75

The A.T. Kearney *Foreign Direct Investment Confidence Index* tracks the country's recent performance in terms of investor attractiveness and expected profitability.[31] Mexico fell from third place in 2003 to twenty-second place one year later, on account of unsatisfactory progress in telecom, infrastructure, and energy reforms. From then on it climbed the rankings again (16th in 2005, 19th in 2007, 8th in 2010) mostly thanks to greater interest in its natural resources (copper, gold, and silver, in particular) and the incentives provided by recent bilateral economic agreements such as the Japan-Mexico Economic Prosperity Agreement, effective in April 2005.[32] Other similar sources point in the same direction. Out of 120 variables used in *The Global Competitiveness Report 2009-2010*, for example, Mexico is found to have an advantage in twenty and a disadvantage in 100 (for Brazil the split is 33-to-87, although for China it is surprisingly not much better at 24-to-96).[33] The factors that

30. UNCTAD Division on Investment and Enterprise, FDI Statistics, http://www.unctad.org/Templates/Page.asp?intItemID=4979.
31. *See* 7 A.T. KEARNEY, FDI CONFIDENCE INDEX 3 (Oct. 2004), *available at* http://www.ogproject.org/library/14.%20ATKearney%20-%20FDI%20Confidence%20Index.pdf; *see also* 6 A.T. KEARNEY, FDI CONFIDENCE INDEX 2 (Sept. 2003), *available at* http://www.lib.uwo.ca/files/business/hk-fdiconfidence.pdf.
32. 8 A.T. KEARNEY, FDI CONFIDENCE INDEX 2 (2005), *available at* http://www.atkearney.com/images/global/pdf/FDICI_2005.pdf.
33. THE GLOBAL COMPETITIVENESS REPORT 2009-2010, 222 (Klaus Schwab, ed., 2009), *available at* http://www.weforum.org/pdf/GCR09/GCR20092010fullreport.pdf.

explain this unsatisfactory performance are well-known—in particular, poor physical infrastructure and human capital, low productivity, and slow bureaucracy–and largely derive from domestic policy inefficiencies. In fairness, an additional factor is non-tariff barriers, in particular border delays, which reduce the convenience of producing in Mexico for exporting to the U.S. market.[34]

Geographically, there is a high degree of concentration in terms of both the country of origin (Table 2) and the state of destination (Table 3). In the ten years since 1999, the Unites States has represented well over fifty percent of cumulated inward FDI, with Spain and the Netherlands trailing well behind (15.27% and 10.88%, respectively). Even further are Canada (3.49%) and the United Kingdom (3.31%). Each year, American investors have accounted for the bulk of inward FDI. It is important to underscore that sometimes what appears to be an American investment is in fact made by a U.S.-based subsidiary of a third-country company. For tax reasons this has been the case for Japanese companies such as Toyota and Honda.[35]

Spanish MNCs were particularly active at the end of the 1990s and early in the 2000s, when they took part in infrastructure privatization (Endesa, Telefónica, Iberdrola) and bought a number of Mexican banks (Santander-Serfín, BBVA-Bancomer). According to the *Base de Datos Sistemática Sobre las Operaciones Internacionales de las Empresas Españolas* (Icex), Spanish companies concluded 517 operations in Mexico between 1986 and 2007, their first destination of choice.[36]

34. *See generally* Gustavo del Castillo Vera, *Non-Tariff Barriers and Waiting Times and the Northern Mexico Border Crossings*, COMERCIO EXTERIOR, July 2009.

35. Companies and government officials have complained that this practice distorts the picture of the Japanese economic contribution to Mexico and therefore makes it more difficult to negotiate the revision of the Agreement of Mutual Economic Cooperation. Email from Taeko Hoshino, Deputy Director-General, Institute of Developing Economies, JETRO, to Andrea Goldstein, OECD (Feb. 8 2010) (on file with author).

36. Esteban García-Canal, Mauro Guillén, Pablo Sánchez- Lorda & Ana Valdés-Llaneza, *The Expansion of Spanish Businesses into Latin America: An Analysis*, 2:2 GLOBALIZATION, COMPETITIVENESS & GOVERNABILITY 32 (2008), *available at* http://gcg.universia.net/pdfs_revistas/articulo_91_1216827229514.pdf.

TABLE 2. FDI FLOWS BY COUNTRY OF ORIGIN (1999-2009) [MILLIONS OF DOLLARS][37]

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
United States	7,499.8	12,937.6	21,366.5	13,003.3	9,211.1	8,632.2	11,670.7	12,426.4	11,422.9	9,150.9	5,194.7
Japan	1,247.4	442.8	197.2	168.6	128.6	391.2	166.0	-1,424.1	402.9	179.2	93.0
Spain	1,042.2	2,116.5	2,893.5	4,959.9	2,884.9	7,855.5	1,198.3	1,615.3	5,303.2	4,338.2	414.0
The Netherlands	1,086.2	2,697.9	2,652.8	1,607.1	738.2	3,338.5	2,483.6	2,780.5	4,376.2	1,461.3	1,439.1
Germany	774.3	347.8	-108.2	596.3	465.7	408.7	336.6	238.4	539.5	359.4	-212.0
Sweden	690.5	-279.4	-123.8	-38.4	-41.0	188.7	334.1	23.2	24.6	75.3	-4.5
Canada	692.5	670	1,030.7	233.2	303.4	555.2	443.1	539.7	362.3	2522.8	563.4
Denmark	179.0	203.2	250.9	208.4	112.0	115.5	53.8	196.7	89.5	41.7	-4.5
France	168.1	-2,453.4	440.8	355.7	532.0	226.9	363.9	120.8	200.8	112.3	195.7
Switzerland	125.4	147.5	-176.3	461.8	286.9	1156.8	321.3	558.8	602.4	353.8	44.8
Singapore	66.1	80.9	272.7	58.7	-6.0	29.9	12.0	61.1	123.6	105.3	49.8
Italy	35.5	36.5	18.0	38.2	9.6	167.7	33.2	20.5	49.1	99.5	11.5
United Kingdom	-187.5	282.7	138.1	1,255.3	1,073.7	292.3	1,330.4	1,263.3	576.9	1,050.2	425.4
top 13 – total	13,873.4	18,047.1	29,785.4	23,766.5	16,528.2	23,724.3	22,106.4	19,470.3	27,094.5	22,515.9	9,750
top 13—%	96.73	95.48	96.87	96.39	94.98	98.46	84.80	94.61	88.85	88.16	84.21
Total	13419.5	17230.6	28852.9	22908.1	15699.1	23359.1	18,747	18,420.6	24,073.9	19,849.9	8,210.4

37. *Secretaría de Economía, Dirección General de Inversión Extranjera*, at 4, *available at* http://www.economia.gob.mx/swb/work/models/economia/Resource/506/1/images/MarE10.pdf.

TABLE 3. FDI FLOWS BY STATE OF DESTINATION (1999-SEPTEMBER 2009) [MILLIONS OF DOLLARs][38]

	Años										
Estados	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Aguas-calientes	91.2	81.9	103.7	−14.1	33.6	250.5	101.4	112.9	205.3	33.3	−0.9
Baja California	1,169.3	984.2	876	978.9	774.7	963.7	1,105.7	931.4	885.1	1,446.3	365.9
Baja California Sur	99.6	80.9	155.1	242.3	118.5	140.5	296.9	293.3	336	130.4	1.8
Coahuila	233.6	306.9	189.3	204.1	164.6	177.5	147.1	322.8	122.3	1,046.4	73.7
Chiapas	4.3	2.2	−0.5	2.2	1.4	12	1.4	0.6	14.2	0.5	0
Chihuahua	615	1,086.2	765.6	634.8	643.7	694.5	1,484.7	1,495.0	1,517.2	1,121.2	554.1
Distrito Federal	6,298.3	8,983.5	21,951.2	16,536.6	9,976.3	13,864.2	10,720.2	10,016.4	14,314.1	12,085.9	6,644.2
Durango	24.5	38	40.2	80.2	167.2	35.2	19.4	107.5	38.8	578.4	61.7
Guanajuato	144.3	47.7	274.8	161.9	241.5	59.8	306	−83.5	220.2	156.3	37.3
Guerrero	34.2	11.7	19.3	15.8	54.9	24.9	28	31.4	−50.7	0.6	4
Hidalgo	0.7	−5.6	77.5	4.9	1.7	0.6	−3.7	11.5	2.3	40.3	0
Jalisco	539.5	1,195.9	504.9	273.1	338.5	497	1,227.7	638.8	438.5	−50	351.9
Estado de México	1,409.5	496.3	810.9	735.4	680.1	3,514.7	813.4	1,337.7	760.4	819.7	778
Michoacán	6.3	29.1	7.7	11.8	−11.7	−1.5	59.8	36	1,593.8	30.9	20.7
Morelos	148	67.4	43.1	94.4	28.2	241.9	−48.2	311	444.4	132.1	−42.7
Nayarit	28.1	44.8	40.2	19.9	90.7	66.9	104.4	151.1	70.9	22.9	−0.9
Nuevo León	1,560.4	2,392.0	2,070.3	2,178.6	1,420.8	1,228.5	4,971.0	1,797.0	3,233.0	1,207.6	328.2
Oaxaca	1.1	−0.5	−1.6	4.5	0.9	3	8.2	10.5	10.3	14.8	0.9
Puebla	204.5	549.1	461.5	480.9	954.9	740.8	−558.1	430	274.8	206	103.5
Querétaro	140.4	179.2	204.8	258	49.7	132.2	70.2	183.5	122.6	137.8	65.4
Quintana Roo	98.9	98.9	126.4	13.1	72.4	80.7	152.8	220.9	348.2	42.4	20.2
San Luis Potosí	208.1	290	198.6	10.1	78.4	55.8	127.9	27.3	164.6	77.3	−68.6
Sinaloa	41.4	12.1	63	22.9	22.2	54.9	22.2	42.9	54.2	41.4	8
Sonora	224.2	416.2	180	194.8	123.6	266.8	254.1	309.2	563	1,289.9	211.6
Tabasco	52.9	38.9	8.6	75.7	25.2	150.9	34.9	45.1	0.9	35.2	4.7
Tamaulipas	462.1	502.6	360.4	311	336.6	233.3	379.3	525.1	467.2	359.8	118.4
Tlaxcala	44.8	4.4	13.2	−17.2	28.6	136.5	65.3	9.4	15.5	10.4	−0.9
Veracruz	−73.1	24.6	120.8	165.8	44.2	18.2	191.4	40	45.2	2.6	112.5
Yucatán	41.3	55.5	132.9	13.8	30.9	21	4.1	26.4	46.7	22.6	−8.4
Zacatecas	11.1	12.5	5.5	4.8	0.1	5.1	3.7	15.4	794.8	1,490.3	3.7
Total	13,773.3	17,944.7	29,699.7	23,713.1	16,458.8	23,419.6	21,989.8	19,283.7	26,848.5	22,500	9,748.9

In terms of interstate localization, one single unit, the Federal District, has attracted almost sixty percent of the total (58.3%). The four next units–namely Nuevo León (9.93%), Estado de México (5.39%), Chihuahua (4.71%), and Baja California (4.65%)–account for almost twenty-five percent. Among the other states, only Jalisco in the earlier period, as well as Sonora and Zacatecas in 2008, ever made the Top Five listing. It must be highlighted that this is not activity data and that this results in an over-

38. *Id.* at 5.

estimate of the weight of the state where corporate headquarters are located, i.e. the Federal District.

Against the background of the rise in FDI since the 1990s, it is hardly surprising that MNCs have gained ground in the ranking of Mexico's largest companies–from twelve percent to thirty percent of the total sales of the top 500 companies between 1992 and 2002.[39] By 2008, there were thirty-eight foreign-owned companies in the top 100 ranking, accounting for over one-third of sales (Table 4). U.S. MNCs dominated the listing, followed by Spanish and German ones (with these European-owned companies being on average much larger than their U.S. peers).

TABLE 4. THE LARGEST FIRMS IN MEXICO IN 2008[40]

Ownership	Number of firms	Total sales	Percentage of sales	Average sales per company
Mexican	62	3,903,053	64.65	62,952
Private	56	2,497,824	41.37	44,604
State	6	1,405,229	23.27	234,205
Foreign	38	2,134,464	35.35	56,170
US	21	1,182,345	19.58	56,302
ES	6	522,484	8.65	87,081
DE	3	210,522	3.49	70,174
UK	2	78,406	1.30	39,203
CA	2	43,986	0.73	21,993
NL	2	38,071	0.63	19,036
CH	1	30,249	0.50	30,249
AR	1	28,400	0.47	28,400
TOTAL	100	6,037,517.10	100	60,375

Note: The ranking includes both holding companies and operating companies and therefore the classification is only illustrative. Inward FDI flows have concentrated in export-oriented manufacturing (43.54%) and non-tradable financial services (25.22%).[41] In manufacturing, the machinery and equipment sub-sector has attracted 19.25% of the ten-year total, although the peak was registered in 1999-2000. A comparison of flows in the 1999-2003 and 2004-08 sub-periods shows the decreasing importance of labor-intensive sub-sectors such as textiles, clothing and footwear (that had received a boost from the 1994 devaluation of the *peso*) and wood and furniture.[42] Nonetheless, *maquiladoras* transna-

39. María de los Ángeles Pozas, Estructura y Dinámica de la Gran Empresa en México: Cinco Estudios Sobre su Realidad Reciente 81 (2006).

40. The ranking includes both holding companies and operating companies and therefore the classification is only illustrative. *See Expansion 500: Las Empresas Mas Importantes de Mexico* (2009), http://www.cnnexpansion.com/XPA5002009/?uid=11 (last visited Aug. 3, 2010).

41. *See* Table 5.

42. According to the most recent International Comparisons of Hourly Compensation Costs in Manufacturing by the Bureau of Labor Statistics, covering 2007, in Mexico a production worker earns twelve percent of a US equivalent, but three times as much as in the Philippines and six times as much as in Sri Lanka. China is not

tional companies have remained in Mexico despite a higher cost structure "because it allows them to meet the needs of demanding North American customers that are willing to pay a higher price for non-standardized products."[43] In banking, foreign participation in the Mexican system went from roughly six percent in 1995 (compared to ten percent in Brazil, slightly less than twenty percent in Argentina, and thirty percent in Chile) to almost seventy-five percent in 2002, way above the levels recorded in these other countries.[44]

TABLE 5. FDI FLOWS BY SECTOR (1999-2009) [MILLIONS OF DOLLARS][45]

Sectors	Years										
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Agriculture etc.	82.6	91.6	63.8	93	11.8	21.9	10.2	22.1	132.4	32.5	7.3
Mining & petroleum	246	170.2	12	260.5	139	210	223.8	393.4	1,762.50	4,296.80	236.7
Manufacturing industries	9,177.10	9,990.20	5,897.00	8,796.70	7,752.70	13,232.80	11,123.90	9,953.50	12,027.20	6,941.30	3,796.30
Food etc.	1,118.20	1,495.90	288.9	2,312.50	2,095.90	3,779.80	2,458.50	1,892.40	1,301.10	1,387.00	744
Textiles, clothing and footwear	414.4	398.3	225.8	357.8	233.8	226.3	246.4	327	44.5	178.6	45.8
Wood and furniture	19.9	46.2	38.5	25	30.2	11.8	22.9	17.8	26.7	12.9	4.9
Paper	97.8	249.8	172.9	422.2	224.7	305.2	114.6	43.2	200.3	195.2	53.5
Chemicals	986.4	1,496.20	592.6	1,557.91	813.9	1,956.10	776.5	2,414.50	1,960.40	1,484.10	296.2
Non-metalic minerals	248.7	154.8	109.2	–64.4	78.6	1,378.90	112.3	183.1	–10.5	84.3	29.8
Basic metals	259.8	257.8	465	314.4	36.9	-127.4	2,752.51	286.1	3,721.00	192.9	-23.7
Machinery & equipment	5,457.20	4,578.20	3,463.80	3,363.40	3,847.61	5,197.50	4,066.40	4,150.60	4,335.90	2,927.81	2,236.10
Other manufacturing industries	574.7	1,313.10	540.4	507.8	391.1	504.7	573.7	638.8	447.8	478.5	409.6
Electricity and water	150.3	134	333.4	446.7	325.5	202.4	201.5	–87	166.3	414.1	5.6
Construction	109.6	171.1	112.3	359.8	84.7	389	298	389.6	1,874.10	804.3	185.2
Commerce	1,439.60	2,464.50	2,351.20	1,798.30	1,509.81	1,274.00	2,837.40	565.2	1,449.30	1,613.10	1,582.30
Transports & communications	295.5	-1,932.60	2,925.80	3,949.90	2,198.30	1,657.50	2,869.50	637.1	825.3	809.7	121.2
Financial services	776.3	4,860.20	16,459.30	6,755.80	2,904.90	5,730.90	1,642.20	4,753.20	6,746.30	4,295.50	2,231.70
Other services	1,596.50	2,098.20	1,630.40	1,306.10	1,601.60	1,006.10	2,900.00	2,843.40	2,111.50	3,309.10	1,583.70
Total	13,873.50	18,047.40	29,785.20	23,766.80	16,528.30	23,724.60	22,106.50	19,470.50	27,094.90	22,516.40	9,750.00

included in the study. *See* Press Release, *International Comparisons of Hourly Compensation Costs in Manufacturing, 2007*, http://www.bls.gov/news.release/ichcc.nr0.htm (last visited Jan. 28 2010).

43. John Sargent & Linda Matthews, *What Happens When Relative Costs Increase in Export Processing Zones? Technology, Regional Production Networks, and Mexico's Maquiladores*, 32 WORLD DEV. 2015 (2004).

44. ALEJANDRO MICCO & UGO PANIZZA, UNLOCKING CREDIT: THE QUEST FOR DEEP AND STABLE BANK LENDING 131 (fig.10.4) (2005).

45. Secretaria de Economia, *supra* note 37, at 2.

Finally, liberalization and the global consolidation of particular industries have driven the big jump in cross-border mergers and acquisitions (M&A) activity over the past fifteen years. In 1998, the number of newly acquired affiliates of U.S. MNCs (276) around the world had already surpassed that of established affiliates (201).[46] M&A activity in Mexico accelerated in 2005-07, before experiencing a marked decline in both value and volume of deals during 2008-09 due to the global financial and economic crisis (Table 6). Foreign buyers have accounted for a growing share of completed deals' volume (from 51.4% in 2005 to 70.3% in 2008) and value (from 66.3% in 2005 to 71.9% in 2008). Each year, bar 2006, the average deal size has been larger for foreign than for Mexican buyers (Table 6). Over the twenty-four transactions over $300 million U.S.D. concluded in 2006-08, the foreign-domestic split is 50:50; but foreign bidders were responsible for seven out of eight mega-deals (worth more than $1 billion U.S.D.).[47]

TABLE 6. ANNOUNCED TRANSACTIONS INVOLVING MEXICAN TARGETS [MILLIONS OF US DOLLARS][48]

	2005	2006	2007	2008
Total deal value	6,518	8,328	10,135	7,798
Deal value: Mexican acquirer	2,198	4,124	3,296	2,188
Deal value: foreign acquirer	4,320	4,204	6,839	5,610
Total deal volume	35	50	44	37
Deal volume: Mexican acquirer	17	21	19	11
Deal volume: foreign acquirer	18	29	25	26
Average deal size	186	167	230	211
Average deal size: Mexican buyers	129	196	173	199
Average deal size: foreign buyers	240	145	274	216
Share of volume: foreign buyers	51.4%	58.0%	56.8%	70.3%
Share of value: foreign buyers	66.3%	50.5%	67.5%	71.9%

Mexican M&A activity started with a bang in 2010, when Heineken acquired FEMSA Cerveza for $7.3 billion U.S.D. in return for a twenty percent stake in the Dutch brewer.[49] The deal was important not only because it signaled that investing in emerging markets is seen positively again by financial markets, but also insofar as it sparked a controversy in

46. Raymond J. Mataloni, Jr., *U.S. Multinational Companies: Operations in 1998*, 80 SURVEY OF CURRENT BUS. 26, 33 (2000).
47. The largest deals of the period were Criteria Caixa's purchase of a twenty percent stake in Grupo Financiero Inbursa for approximately US$2.1 billion and the takeover of Grupo IMSA by Ternium (an Argentinean-Italian company incorporated in Luxembourg) for US$1.85 billion. PriceWaterhouseCoopers, *M&A Insights: Mexico*, at 8 (2009), *available at* http://www.pwc.com/es_MX/mx/publicaciones/archivo/ma_insights_09.pdf.
48. *Id.*
49. Julio Serrano, *La Extranjerizacion de la Industria Cervecera Mexicana*, MILENIO ONLINE, Jan. 13, 2010, http://impreso.milenio.com/node/8702391.

Mexico concerning the denationalization of the economy.[50] Some feared the consequences of transferring from Monterrey to Amsterdam the center of corporate decisions of a firm that is not only emblematic but also directly or indirectly employs thousands of Mexicans.[51] Others, on the other hand, saw opportunities opening up for the global distribution of iconic Mexican brands, such as Dos Equis, Tecate, and Sol.[52] Time will say where, between two extreme views, reality will place itself.

III. THE CASE OF U.S. INVESTORS

U.S. MNCs have traditionally considered Mexico as one of their premier markets for international expansion. Initially limited also exclusively to natural resources (the Guggenheim brothers built two smelters in the late 19th century, Standard had more than $32 million U.S.D. invested in exploration and production by 1922), this drive later extended to consumer goods (Coca-Cola in 1927, for instance), durable goods (Ford Motors in 1925, General Motors in 1937), and also supporting services such as advertisement.[53] Founded in 1917, the American Chamber of Commerce of Mexico is the oldest and largest of its kind around the world.

In the mid-1960s, sales of United States enterprises were estimated to represent seventeen percent of the gross value of industrial production.[54] The gross product of majority-owned Mexican affiliates of U.S. MNCs as a percentage of GDP rose from 2.4% in 1989 to 3.4% 1998.[55] The U.S. direct investment position in Mexico grew by a factor of nineteen in 1982-2008, well above the growth rate recorded for all foreign countries, but still (and as expected, also on account of the low level in 1982) much more slowly than for China (Table 7). By 2008, Mexico was the eleventh largest destination of U.S. FDI, and the largest developing economy.[56]

50. *Id.*; Carlos Mota *Femsa, Heineken y nuestros prejuicios*, MILENIO ONLINE, Jan. 13, 2010, http://impreso.milenio.com/node/8702316.
51. Serrano, *supra* note 49.
52. Mota, *supra* note 50.
53. Julio E. Moreno, *J. Walter Thompson, the Good Neighbor Policy, and Lessons in Mexican Business Culture, 1920-1950*, 5:2 ENTERPRISE SOC. 254 (2004).
54. THE IMPACT OF MULTINATIONAL CORPORATIONS ON DEVELOPMENT AND ON INTERNATIONAL RELATIONS, *supra* note 22.
55. U.S. Bureau of Economic Analysis, *Survey of Current Business*, July 2000 and previous issues, http://www.bea.gov/scb/date_guide.asp.
56. Not considering the United Kingdom Islands in the Caribbean (4.4%). U.S. Bureau of Economic Analysis, *Survey of Current Business*, July 2009, http://www.bea.gov/scb/toc/0709cont.htm.

TABLE 7. U.S. DIRECT INVESTMENT POSITION ABROAD ON A HISTORICAL-COST BASIS, 1982–2008[57]

	1982	1987	1992	1997	2002	2008
Mexico	5,019	5,434	13,730	24,050	56,303	95,618
Argentina	2,864	2,818	3,327	10,980	11,288	15,195
Brazil	9,290	11,128	16,313	35,778	27,598	45,500
Chile	311	617	2,544	9,148	8,928	12,613
South America	19,243	21,372	28,124	68,327	63,226	108,231
Latin America	28,161	50,147	91,307	180,818	289,413	563,809
China	49	240	563	5,150	10,570	45,695
India	360	407	484	1,563	4,232	16,104
Indonesia	2,295	3,252	4,384	6,729	(D)	17,909
Malaysia	1,221	962	1,596	6,530	7,101	13,291
Singapore	1,720	2,722	6,715	18,026	50,955	106,529
Thailand	780	1,349	2,594	4,332	7,774	9,128
All Countries	207,752	326,253	502,063	871,316	1,616,548	3,162,021

In terms of sectoral composition, there has been a marked shift from manufacturing to services and mining.[58] In particular, while only 0.19% of the U.S. stock of mining FDI in 1999 was held in Mexico, the percentage has grown to 3.2% over the decade (Table 8). On the other hand, Mexico has seen its share of U.S. manufacturing FDI fall from 5.93% in 1999 to 4.26%in 2008 (Table 8). Although data issues make it impossible to further dissect these trends, it is clear that U.S. MNCs in the food and beverages industry have redirected their investment flows away from Mexico. Mexico has obviously lost ground to China in this period as far as U.S. FDI is concerned, especially in manufacturing. Interestingly, transport equipment is an industry where Mexico appears to have held its own. In 2003, the initial quality level of vehicles produced at plants in Mexico and exported to the United States had already surpassed that of vehicles manufactured at U.S. plants, according to the J.D. Power and Associates 2003 Initial Quality Study.[59] Aerospace is also developing relatively fast, while Boeing, General Electric, Goodrich, and Bombardier Aerospace are lured by location and talent to set up supply shops in Quéretaro and elsewhere.[60]

57. Bureau of Economic Analysis, *International Economic Accounts*, http://www.bea.gov/international/di1usdbal.htm (last visited Aug. 17, 2010).
58. *See* Table 8.
59. *J.D. Power and Associates Reports: Mexico Automotive Plants Outperform U.S. Assembly Plants in Initial Vehicle Quality*, Bus.Wire, May 8, 2003, http://findarticles.com/p/articles/mi_m0EIN/is_2003_May_8/ai_101429682/?tag=content;col1.
60. *See e.g.*, *Mexico Bets on Aerospace*, Wall St. J., Nov. 27, 2007; *Smooth Take-off for a Growing Industry*, Fin. Times, Nov. 18, 2008. Safran of France is the largest firm in this industry in Mexico, employing 3,000 people (out of 55,000 worldwide) in eight factories. *Les Productions Sophistiquées Doivent Rester Sur le Sol National*, Le Monde, Mar. 17, 2010.

TABLE 8. U.S. DIRECT INVESTMENT POSITION BY SECTOR, 1999 AND 2008 [MILLIONS OF DOLLARS][61]

	Mexico		China		World		Mexico/ World		Mexico/China	
	1999	2008	1999	2008	1999	2008	1999	2008	1999	2008
All industries	34,265	95,618	7,766	45,695	1,132,622	3,162,021	3.03	3.02	441.22	209.25
Mining	188	4,865	991	3,014	99,925	151,859	0.19	3.20	18.97	161.41
Manufacturing	18,861	21,821	4,789	21,428	318,121	512,293	5.93	4.26	393.84	101.83
Of which:										
Food	5,257	2,482	150	730	36,126	41,802	14.55	5.94	3504.67	340.00
Chemicals	3,037	4,306	259	4,614	82,794	108,049	3.67	3.99	1172.59	93.32
Primary and fabricated metals	511	(D)[62]	203	609	18,803	24,038	2.72	. .	251.72	. .
Machinery	(D)	(D)	946	1,534	37,833	36,807	. .	. .	. .	. .
Computers and electronic products	. . . .	(D)	. . . .	8,142	. . . .	76,453	. .	. .	. .	. .
Electrical equipment, appliances, and components	(D)	1,221	2,343	701	38,449	24,095	. .	5.07	. .	174.18
Transportation equipment	4,278	5,030	123	2,146	36,013	51,774	11.88	9.72	3478.05	234.39
Other manufacturing	4,198	9,209	765	2,951	68,103	149,275	6.16	6.17	548.76	312.06
Wholesale trade	1,167	2,361	201	3,219	80148	178,213	1.46	1.32	580.60	73.35
Information	. .	2,758	. .	223	. .	121,864	. .	2.26	. .	1236.77
Depository institutions	1,182	(D)	69	(D)	39,937	141,557	2.96	. .	1713.04	
Finance (except depository institutions)), real estate, and insurance	6,308	15,736	784	1,895	436,024	634,046	1.45	2.48	804.59	830.40
Professional, scientific, and technical services	1,303	460	260	773	68,763	81,242	1.89	0.57	501.15	59.51
Holding companies (nonbank)	(D)	16,865	. .	1,556	. .	1,128,538	. .	1.49	. .	1083.87
Other industries	5,257	(D)	673	(D)	89,705	212,409	5.86	. .	781.13	. .

Data on the operations of U.S. manufacturing MNCs in Mexico since 1998 further confirm some of the main trends described elsewhere.[63] Turnover had more than doubled over the period, but the incidence of Mexico in the global sales of U.S. manufacturing MNCs has increased only slightly compared to the much faster growth experienced in China and other emerging economies in Asia and elsewhere.[64] A stark contrast also emerges between the importance of Mexico in terms of employment (twelve percent in 2006), and research and development expenditures (probably lower than one percent by 2006), which, when combined with the decline in terms of value added, highlights the country's difficulty in surfing on the innovation of off-shoring waves. An additional cause of concern is that, notwithstanding geographical proximity, NAFTA and other preferential trade agreements, Mexico's share in the global exports of US manufacturing MNCs has collapsed from 23.3% in 2002 to 16.1% four years later.[65]

61. *E.g.*, Sylvia E. Bargas, *Direct Investment Positions for 1999: Country and Industry Detail*, 80 SURVEY OF CURRENT BUS. 58 (2000); Marilyn Ibarra & Jennifer Koncz, *Direct Investment Positions for 2008: Country and Industry Detail*, 89 SURVEY OF CURRENT BUS. 20 (2009).
62. (D) means suppressed to avoid disclosure of data of individual companies.
63. *See* Table 9.
64. *Id.*
65. *Id.*

TABLE 9. OPERATIONS OF U.S. MANUFACTURING MNCS IN MEXICO, 1998-2006 [BILLIONS $U.S.][66]

	Mexico					Mexico as a percentage of all countries				
	1998	2000	2002	2004	2006	1998	2000	2002	2004	2006
Turnover	60.8[a][67]	73.9	81.5	76.8	132.0[a]	3.7[a]	6.3	6.9	5.0	4.0[a]
Number of employees	530.4	641.9	619.8	526.1	545.0	13.3	14.6	14.4	12.2	12.0
Value added	11.4	15.1	16.2	14.7	16.9	4.6	4.8	5.2	3.8	3.7
R&D expenditure	191[b]	231	181	..	(D)	1.3[b]	1.3	1.0	..	(D)
Exports from Mexico	26.0[b]	39.0	40.6	39.7	45.3	14.6[b]	21.3	24.3	21.7	16.1
Exports as a share of turnover	42.9	52.8	49.8	51.7	34.3	..	..	..	..	..
Imports into Mexico	23.8[b]	29.6	27.5	25.2	36.5	11.3[b]	21.1	23.3	20.1	16.1
Net trade balance	2.3[b]	8.4	13.1	13.5	8.8	..	..	..	..	..
Intra-firm exports	..	26.1	24.2	20.2	..	..	22.1	24.6	19.7	..
Intra-firm imports	..	36.2	36.6	36.0	..	..	22.8	25.3	22.9	..
Gross operating surplus	2.2	2.9	2.5	2.3	..	4.30	4.45	4.90	3.21	..

The listing of the ten largest U.S. companies in Mexico (including Mabe, which *strictu sensu* is not a foreign-owned company although GE is the largest shareholder confirms the relevance of the transport equipment industry.[68] The Detroit "Big Three," in particular, are among the four largest American firms in Mexico and also the biggest car-makers. The reasons are relatively easy to identify: relatively low wages, geographic proximity and preferential access to the North American automotive market, and potential domestic demand prospects. While large investments by already-present German manufacturers and by new Asian manufacturers means that the Big Three's share in total Mexican car production has decreased from 57.3% in 2000 to 50% in 2008, Mexico now accounts for one percentage more of the total global production of U.S. auto-makers.[69]

66. *E.g.*, Mataloni, *supra* note 46, at 26-47; Raymond J. Mataloni, Jr., *U.S. Multinational Companies: Operations in 2006*, 88 SURVEY OF CURRENT BUS. 26 (2008); *Measuring Globalisation: Activities of Multinationals, Volume I: Manufacturing*, 2000-04, OECD (2008).

67. (a) refers to sales of goods; (b) refers to all US MNCs.

68. *See* Federico Bonaglia et al., *Accelerated Internationalization by Emerging Multinationals: The Case of White Goods*, 42(4) J. OF WORLD BUS. 369 (2007).

69. *See* Table 11.

TABLE 10. THE LARGEST US MNCS IN MEXICO[70]

RK	RK MX	Name Company	Sector	Sales 2008	Sales 2007	Change (2007/08)	Profits 2008	EBITDA 2008	Payroll 2008	Exports % sales 2008
1	6	WAL-MART	Retail	17,705.9	20,610.3	-14.1	1,060,8	1,726.9	170,014	
2	9	GENERAL MOTORS	Automotive	12,027.0	11,216.1	7.2	N.D.	N.D.	12,669	
3	12	CHRYSLER	Automotive	9,120.0	9,753.3	-6.5	N.D.	N.D.	11,100	63.2
4	21	FORD	Automotive	5,885.4	7,303.0	-19.4	N.D.	N.D.	5,300	
5	23	HEWLETT-PACKARD	Electronics	5,704.8	5,052.1	12.9	N.D.	N.D.	5,750	
6	33	MABE	Electronics	3,950.0	3,858.5	2.4	N.D.	N.D.	22,350	74.1
7	41	GRUPO PEPSICO	Beverages	3,300.0	3,498.0	-5.7	N.D.	N.D.		
8	44	DELPHI	Automotive	3,093.5	5,236.4	-40.9	N.D.	N.D.	61,000	
9	47	SANMINA-SCI	Electronics	3,030.0	2,900.8	4.5	N.D.	N.D.	15,000	
10	56	GENERAL ELECTRIC	Electronics	2,569.0	2,388.0	7.6	N.D.	N.D.	11,686	

TABLE 11. MEXICO IN THE GLOBAL STRATEGY OF U.S. AUTO-MAKERS, 2000–2008[71]

	2000 (units)	2003 (units)	2008 (units)	2000 (%)	2003 (%)	2008 (%)
GENERAL MOTORS						
United States	4,223,012	3,996,629	2,356,576	..	..	..
Mexico	443,368	471,619	509,033	5.45	5.81	6.15
All Countries	8,133,375	8,112,039	8,282,803	..	..	..
FORD						
United States	3,799,857	3,201,946	1,602,011	..	..	..
Mexico	264,436	144,647	307,034	3.61	2.22	5.68
All Countries	7,322,951	6,526,171	5,407,000	..	..	..
CHRYSLER						
United States	1,792,379	1,725,779	1,106,028	..	..	..
Mexico	401,193	308,530	279,787	13.51	12.24	14.78
All Countries	2,970,415	2,520,513	1,893,068	..	..	..
Mexico All manufacturers	1,935,527	1,575,447	2,191,230	..	..	..
All US in Mexico	1,108,997	924,796	1,095,854	..	..	..
US in all MX	..	..	..	57.30	58.70	50.01
MX in all US	..	..	..	6.02	5.39	7.03

In 2008 the Big Three were already producing fewer cars in Mexico than in 2000 (although more than in 2003). The economic crisis is further affecting the automobile industry in Mexico–slightly over 1.5 million vehicles were produced in 2009, a 28.3% contraction that was equally attrib-

70. *500 Maiores Empresas da America Latina*, AMERICA ECONOMIA, July 2009.
71. Organisation Internationale des Constructeurs d'Automobiles (OICA), *OICA Correspondents Survey* (World Motor Vehicle Production); *see* OICA Production Statistics 2009, http://oica.net/category/production-statistics/ (last visited Aug. 18, 2010).

utable to the slowdown in the domestic and export markets.[72] Some U.S.-owned companies have introduced technical stoppages while others are carrying out deep restructuring. Ford, for example, inaugurated a new $838 million plant in Chihuahua in November 2009 to produce truck diesel engines for exports to the United States and the United Kingdom.[73] Other investments are being planned in Cuautitlán, Estado de México, to produce the Fiesta model and in Guanajuato to manufacture transmissions. Following the takeover by Fiat, Chrysler announced plans to build the Cinquecento at the Toluca assembly plant where the PT Cruiser is currently produced.[74] Total annual volume will exceed 100,000 vehicles divided between North America and Latin America.[75] GM Mexico, on the other hand, slashed jobs as it reeled from a sharp decline in U.S. and Mexican demand.[76]

Returning to Table 10 above, Wal-Mart de México (WALMEX) is not only the largest U.S. owned company in Mexico (and in fact also the country's largest private employer) but is also the Mexican subsidiary of a U.S. MNC that occupies the most important position in the mother-company global strategy. In 2008, WALMEX sales were equal to 4.44% of Wal-Mart's worldwide sales.[77] It operated 1,197 stores in Mexico (out of 7,873 worldwide)[78] and employed more than 168,000 people (2.1 million worldwide).

In 1991, Wal-Mart's joint venture with Cifra, the leading chain of self-service stores, and the opening of a Sam's Club in Mexico City marked the birth of Wal-Mart's International division. According to Javorcik, the most fundamental motivation was Mexico's NAFTA and GATT membership.[79] In 1997, Wal-Mart acquired a majority position in Cifra, and in February 2000 the name changed to WALMEX. In November 2006, WALMEX received a license from Mexico's Finance Ministry to organize and operate a bank in the country.[80] In November 2007, Wal-Mart bank began operations with sixteen branches in five states of Mexico.[81]

72. Asociacion Mexicana de la Industria Automotriz (AAAIA), July 2010 Bulletin, http://www.amia.com.mx/bdeautos.php (last visited Aug. 18, 2010).
73. *Ford Opens Second Chihuahua Engine Plant*, Chihuahuan Frontier, Nov. 17, 2009, http://www.chihuahuanfrontier.com/companies/businessnews/108-fordplant.html.
74. *See Chrysler to Make Fiat in Mexico*, Wall St. J., Aug. 17, 2009.
75. *Abarth Variant Will Roll Out Beside Fiat 500*, WardsAuto.com, Dec. 17, 2009, http://subscribers.wardsauto.com/ar/abarth_variant_fiat_091217/wall.html?return=http://subscribers.wardsauto.com/ar/abarth_variant_fiat_091217/.
76. Geely, China's largest auto-maker, showed interest in building a factory in Mexico in 2008. In March 2009, on account of the crisis, it pulled back and concentrated on attempts to take over Volvo or Saab.
77. WALMEX sales were US$17,828.7 at the average exchange rate of 11.11937301.
78. As of November 30, 2009, total units had risen to 1,391.
79. Beata Javorcik et al., *Openness & Indus. Response in a Wal-Mart World: A Case Study of Mex. Soaps, Detergents & Sufactant Producers*, World Econ., 1558 (2008), *available at* http://www.economics.ox.ac.uk/members/beata.javorcik/JavorciketalWE.pdf.
80. *Wal-Mart Corporate: International: Mexico,* http://walmartstores.com/AboutUs/277.aspx (last visited Aug. 1, 2010).
81. *Id.*

Size, omnipresence, and visibility often make Wal-Mart the scourge of anti-globalization pundits and WALMEX is obviously not immune from these concerns.[82] In a careful examination of this case, Tilly observes that by introducing several innovations perfected in the United States (in pricing and management of inventory, labor, and suppliers), WALMEX has spurred the rapid modernization of a portion of the Mexican retail sector.[83] Javorcik similarly finds that WALMEX forced suppliers to cut their profit margins and/or innovate and that, partly in response to its presence, many Mexican producers of soaps, detergents, and surfactants logged impressive efficiency gains.[84] In addition, WALMEX pays wages slightly above the Mexican retail industry average, offers pay and benefits comparable to its competitors (though with some notable differences), and is relatively open to union representation.

In sum, if there are reasons to fear that Wal-Mart's explosive growth in Mexico may have negative implications, in particular in the governance of the supply chain for horticulture products, those reasons appear to apply with equal force to the rest of the retail sector. Applying a dynamic industry model in which firms decide whether to sell their products through WALMEX or use traditional retailers, Iacovone's "model predicts that the associated market share reallocations, adjustments in innovative effort, and exit patterns increase productivity and the rate of innovation."[85] Interestingly, although Mexican detergent exports captured an increasing share of the U.S. detergent market over the past decade, Mexican sales in the U.S. were inhibited by a combination of excessive shipping delays at the border and artificially high input prices (due to Mexican protection of domestic caustic soda suppliers).

IV. THE EMERGENCE OF MEXICAN MULTINATIONALS

While the focus of this paper so far has been on the presence of foreign companies in the Mexican economy, the past decade has also witnessed the fast rise of a new phenomenon in the international investment landscape, *i.e.* the growth of MNCs based in emerging economies. Corporate Mexico has fully participated in these dynamics. According to Hoshino, eleven of the twenty largest business groups have large-scale overseas direct investment.[86] In 2007-08, Mexican buyers made twenty-seven outbound acquisitions worth $20.6 billion U.S.D. In 2007 the total deal value was driven by Cemex's purchase of Australia's Rinker for $15.5 billion U.S.D., while Bimbo's $2.5 billion U.S.D. acquisition of US bakery busi-

82. *See* Simon Head, *Inside the Leviathan*, N.Y. REV. OF BOOKS, Dec. 16, 2004, http://www.nybooks.com/articles/archives/2004/dec/16/inside-the-leviathan-2/.
83. Chris Tilly, *Wal-Mart & Its Workers: NOT the Same All Over the World*, 39 CONN. L. REV. 1805 (2007).
84. Javorcik, *supra* note 79, at 1577.
85. Leonardo Iacovone et al., *Walmart in Mexico: The Impact of FDI on Innovation & Indus. Productivity* (Jan. 2009), at 1 (unpublished manuscript on file with the Univ. of Colo.), *available at* http://spot.colorado.edu/~kellerw/IJKT_012609.pdf.
86. *See* Table 1.

ness Weston Foods boosted overall deal value in 2008.[87]

The geographical reach of Mexican MNCs is ample. While some began in the North, to cater to the large Mexican *diaspora* there, others (in particular in construction) first invested in Central America, where market conditions were less demanding. In recent years South America has attracted a lot of attention. In Argentina, for instance, Mexican FDI surpassed $300 million U.S.D. in 2007, in sectors as diverse as petrochemicals, appliances, car parts, media and communication, banks, and tourism. Even Buenos Aires' first Starbucks is Mexican![88]

The two iconic Mexican MNCs are very different. Cemex is one of the world's three largest cement producers, where it vies for global leadership with two European companies (Fuentes-Berain 2007). Based in Monterrey and almost solely active in this business, "Cemex is a prototypical 'global consolidator', expanding by acquisition and competing on operational excellence in a mature industry in both emerging and developed economies."[89] The initial drive for its overseas expansion was the threat posed by the entry of a European rival in the domestic market, which led first to forays into the rest of Latin America and then to an investment in Spain to challenge its French and Swiss competitors in their natural market. Cemex later built size across emerging markets, mainly thanks to prowess in logistics and information technology, and eventually made two big-ticket acquisitions in the U.K. and Australia to further diversify away from its home market.

América Móvil, in turn, operates regionally in telecom services and belongs to the diversified Grupo Carso that also includes the Sanborns department store chain in several countries, along with CompUSA in the United States. The company, which belongs to Carlos Slim who also owns Telmex, has been long shielded from competition in the domestic market and took advantage of this situation to invest internationally. In fact, Telmex and Telefónica, its larger Spanish rival, have basically a duopoly across Latin America and as of September 2009 they were the sixth and the fifth largest operators worldwide in terms of accesses (after three Chinese companies and Vodafone).[90] Interestingly, their dominancy in Central America is being challenged by Millicom, which has established itself as the clear leader in the three largest markets (Guatemala, Honduras, and El Salvador).

87. *Id.*
88. *Con la Llegada de Inversiones al País, se Consolida la Avanzada Mexicana*, LA NACIÓN, Sept. 23, 2007.
89. Donald R. Lessard & Rafael Lucea, *Mexican Multinationals: Insights from CEMEX*, at 3, *available at* http://gemseminar.scripts.mit.edu/docs/santos2.pdf.
90. *See* Table 12.

TABLE 12. AMÉRICA MÓVIL AND TELEFÓNICA MÓVILES OPERATIONS IN 2005 AND 2008/09 [MARKET SHARE IN PERCENTAGE][91]

	América Móvil		Telefónica Móviles		AMX+TMX	
	2005	2009	2005	2008	2005	2008/09
South America						
Argentina	31	32	38	34	69	66
Brazil[a92]	22	26	34	30	56	56
Chile	17	19	47	43	64	62
Colombia	63	62	27	25	90	97
Ecuador	65	71	31	27	96	98
Paraguay	10	32	0	0	10	32
Peru	35	40	60	63	95	103
Uruguay	14	32	36	n.a.	50	n.a.
Venezuela	0	0	44	38	44	38
Central America						
El Salvador	37	32	23	n.a.	60	n.a.
Guatemala	47	32	25	n.a.	72	n.a.
Honduras	34	32	0	0	34	32
Nicaragua	67	32	33	n.a.	100	n.a.
Panama	0	62	53	n.a.	53	n.a.
Caribbean						
Dominican Republic	0	42	0	0	0	42
Jamaica	0	42	0	0	0	42
Puerto Rico	0	42	0	0	0	42
Home markets						
Mexico	77	72	14	20	91	92
Spain	0	0		44		

Two more strategic approaches can be identified. Bimbo is an example of a Mexican firm that became the main supplier of a foreign company in the domestic market, in this case of McDonald's for hamburger buns, and then globalized to serve this key customer. Similar experiences can also be found in the auto parts business. Dr. Ahorro and Dr. Simi are two pharmacy chains that focused on the so-called "bottom of the pyramid" and specialized in the distribution and sale of generic drugs, first in Mexico and then elsewhere in Latin America.[93]

91. Judith Mariscal, *Market Structure in the Latin American Mobile Sector* (Sept. 2008) *available at* http://www.conectarimporta.org/telecom/wp-content/uploads/2010/06/market_structure_penetration.pdf.
92. (a) Telefónica Móviles Networks (Brasilcel and Vivo) is jointly owned with Portugal Telecom.
93. *See, e.g.*, *En la Guerra de Farmacias Mexicanas, Dr. Ahorro se Impone a Dr. Simi*, LA NACIÓN, Apr. 23 2007 (on their strategies in Argentina).

A final typology, the Mexican subsidiary of an international company that becomes the vehicle for international expansion, is represented by WALMEX. In late 2009 WALMEX signed a final agreement to acquire Wal-Mart Centroamerica, the leading retailer in the region, operating supermarkets, discount stores, and hypermarkets in Guatemala, El Salvador, Honduras, Nicaragua, and Costa Rica. Wal-Mart Stores, Inc. held a fifty-one percent equity position in Wal-Mart Centroamerica, with the remaining forty-nine percent in the hands of minority shareholders in the region.

V. CONCLUSIONS AND POLICY IMPLICATIONS

As the WTO observed in its 2008 *Trade Policy Review*, "Mexico considers foreign investment promotion as a key force for economic development and more active participation by the country in the international economy, as well as a necessary complement to trade liberalization."[94] *Prima facie*, the results achieved over the past two decades have been quite impressive and Mexico has turned proximity to the US, preferential access to this and other markets and the low cost of labor into convincing arguments vis-à-vis foreign investors.

Over the past few years, however, a number of issues have arisen that raise concerns. First and foremost is the fact that the large amounts of FDI that still flow into the country are largely the same quality as ten or fifteen years ago; while there has been some progress in attracting FDI in the transport equipment industry, not only in motor vehicles but also in aerospace, for the rest Mexico remains scarcely visible in the race for higher-quality FDI. Globalization has brought in its wake an accelerated process of internationalization of R&D. Market (demand), availability of researchers, and technology related factors such as good IPR protection are most frequently cited as the determining location factors for this particular FDI typology. Unfortunately, on most such factors Mexico trails behind competitors in other emerging economies.

Second, more and more countries have entered the competition globally for FDI, offering labor as cheap as in Mexico, or even lower, but also better framework conditions such as physical and institutional infrastructure, personal safety, and good governance. China is obviously the main factor here because in addition to all such factors it has a much bigger market that grows much faster than Mexico's and produces cohorts after cohorts of well-educated workers and managers. Thus, the competitive position of Mexico in attracting FDI has been eroded because it competes with basically the same comparative advantages in a much harder competitive environment.

The third cause of concern is that foreign MNCs have produced few linkages with the domestic economy and this limits the potential to turn

94. Press Release, World Trade Organization, *Trade Policy Review: Mexico* (Feb. 11, 2008), *available at* http://www.wto.org/english/tratop_e/tpr_e/tp295_e.htm.

FDI into a catalyst for higher productivity and stronger corporate capabilities. There are various issues here. First, relying heavily on cheap labor and imports for productive inputs, the foreign manufacturing sector remains largely disconnected from the domestic Mexican economy. Second, the sort of low-end assembly activities that MNCs moved to Mexico may have a low potential for productivity growth. Third, Mexico has not upgraded its education system (which suffers from serious quality problems, as indicated by poor PISA scores) to match its FDI-led development goals, limiting its absorptive capacity for knowledge spillovers.

Governance is a fourth sour point. On the one hand, despite the presence of foreign companies and the race to attract FDI, environmental and governance improvements did not materialize. On the other hand, preexisting problems in domestic governance persist and may have even worsened in recent years, in particular crime and the rule of law, thus acting as a deterrent to FDI. Another concern is the impossibility of separating the impact of FDI from other factors such as the growing polarization between regions, the industrialized North, and the underdeveloped South. At a minimum, regional disparities in human and infrastructure capital appear to determine both the geographical distribution of FDI inflows and the persistence of socio-economic differences.

A bright spot in this landscape is the growing visibility of Mexican MNCs in global markets, and particularly within regional markets. This phenomenon is one of the distinguishing features of the current redrawing of the geography of world business, and in fact, caution must be observed before drawing excessively optimistic generalizations from the successes of Cemex, Bimbo and a handful of other companies (especially as some of them enjoy strong dominance in the domestic market). Nonetheless, that Mexican firms have become leading investors across a range of sectors, establishing a significant and highly diversified footprint in the Americas, testifies to the relevant potential of Mexico's business.

Authorities are aware of these problems and actions are being launched. "A number of policy initiatives have been developed to accelerate the transition toward an innovation-fuelled growth path."[95] Other reforms to "promote competition and transparency in the financial sector" and, to a lesser extent in telecommunications, will stimulate the dynamism of the economy. Still other actions have been taken to increase enrolment in lower secondary education and improve the quality of teaching.[96] The one-stop shop tuempresa.gob.mx was introduced to simplify administrative procedures to start-up a business in Mexico and to facilitate better interaction between individuals and the government.

95. *OECD Reviews of Innovation Policy: Mex.*, OECD, Oct. 2009, http://www.oecd.org/document/27/0,3343,en_2649_34273_43822619_1_1_1_1,00&&en-USS_01DBC.html.

96. Cyrille Schwellnus, *Achieving Higher Performance: Enhancing Spending Efficiency in Health & Educ. in Mexico* (OECD Working Paper No. 732, 2009).

No matter how welcome and necessary, so far all such measures have had a rather limited impact. It is important to maintain the reformist momentum in areas such as competition, especially in network industries, the foreign investment and trade regimes, health and education coverage and trade-related infrastructure. In addition, it is time to rethink the role of industrial policy in supporting the creation of competitive linkages between local suppliers, foreign firms, and global production chains.