

# The Oxford Handbook of OFFSHORING AND GLOBAL EMPLOYMENT

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University of California, Davis

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—Lori G. Kletzer, Vice President for Academic Affairs and Dean of Faculty,  
Professor of Economics, Colby College

**Bardhan  
Jaffee  
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The Oxford Handbook of  
OFFSHORING AND  
GLOBAL EMPLOYMENT

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## CHAPTER 22

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# ARE NAFTA AND EXPORT-ORIENTED INDUSTRIALIZATION PASSÉ FOR MEXICO'S ECONOMY? GLOBAL LESSONS

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ENRIQUE DUSSEL PETERS

LIKE few other socioeconomies in the last thirty years, Mexico has engaged in a rapid and profound process of export-oriented industrialization (EOI) since the late 1980s. Until the beginning of this millenium, Mexico was considered to be one of the most successful socioeconomic cases for globalization: as the result of a coherent group of macroeconomic and regional policies—including the North American Free Trade Agreement (NAFTA)—Mexico was a symbol for most of Latin America, other parts of the world, and regional and multilateral institutions such as the Bank for Interamerican Development (IADB), the International Monetary Fund (IMF), and the World Trade Organization (WTO), among many others. Macroeconomic structural reform and macroeconomic stability, in addition to “horizontal” policies in other fields of Mexico’s socioeconomy, were the main catchwords for the public sector since then and until 2011. Mexico’s experience—if compared with its own performance and from an international perspective—has, however, been twofold. While experiencing some success in several macroeconomic variables, as well as positive results in export specialization, productivity, employment, and wage improvements in these sectors, the same sectors display few linkages with the rest of Mexico’s economy. Since 2000, in addition, even these sectors have been deeply questioned by other countries, particularly Asia and China. Thus, the “King of Free Trade Agreements” (FTAs) for the first time explicitly cancelled the option to sign one with China, at least in the short and medium run.

Based on the analysis of GDP, employment, wage, and trade, this chapter will be divided into four sections. The first examines the theoretical and policy proposal of the current EOI developed in Mexico since the late 1980s, also relevant for the implementation of NAFTA in January of 1994. The second part analyzes the general trends in the mentioned variables since the EOI strategies took place, and particularly for its most export-oriented sector, manufacturing. In this general context the third section discusses the structural changes of a specific sector, the yarn–textile–garment (YTG) commodity chain, in order to understand the conditions and challenges of a concrete sector. This chain will also be useful to understand the specificities of EOI to the United States and the characteristics of Mexican exports in terms of linkages, inputs, and learning processes. The last section outlines conclusions and proposals for Mexico’s socioeconomy in the current context of an open and globalized economy.

## 1 MEXICO'S CURRENT DEVELOPMENT MODEL: EXPORT-ORIENTED INDUSTRIALIZATION AND NAFTA

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Over the course of the 1980s, the new orthodoxy of export-oriented industrialization was widely adopted by policy makers in Latin America. The lessons of the East Asian miracle, famously summarized by the World Bank in its 1993 report, combined with influential analyses of the “rent-seeking” pathologies associated with earlier import-substituting industrialization (ISI) regimes in Latin America (Krueger 1978, 1997), led to a categorical rejection of development strategies throughout much of the region and an embrace of export-oriented policies as the key to growth and development. Convinced that creating a market-friendly environment was the best way to generate foreign direct investment (FDI), policy makers eschewed targeted industrial policy in favor of a neutral or horizontal approach,<sup>1</sup> and macroeconomic stabilization became the highest priority of governments that attached great importance to the task of getting the macroeconomic fundamentals right.

The argument in favor of EOI builds on the positive association between exports and economic growth or development. Contrary to ISI, EOI stresses that the global economy, through exports, is the point of reference for any economic unit (firm, region, nation, group of nations, etc.). Exports, in general, reflect efficiency; that is nonexporting economic units are not efficient from this perspective. It emphasizes neutral or export-oriented production of manufactures to maximize the efficient allocation of factors of production and specialization among nations according to their respective comparative cost advantages (Balassa 1981). Moreover, it underlines the central role of manufacturing in economies of the periphery, even though the theoretical justification for doing so has not been sufficiently developed to date. Contrary to structural

restrictions or bottlenecks imposed by industrialization—as stressed by some ISI authors—this “intuitive Darwinian rationale for free trade” (Bhagwati 1991: 17) argues that the degree and the structure of protection in the periphery under ISI had a significant negative impact on the allocation of resources, and subsequently on exports and overall economic structure.

Probably the strongest argument of EOI supporters against ISI's infant-industry protection and the overall policy of state interventions is the rent-seeking behavior it generates. As a result of market intervention under ISI—such as import licenses, tariffs, but in general any form of market intervention—economic units in general, including firms and countries, generate perverse (or nonmarket-conforming) results in this environment: excess capacity to obtain rents provided by the state, overutilization of promotional instruments, and, in general, an economic structure aimed at reaping the incentives provided by the state. In parallel, these mechanisms generate perverse social incentives and structures, as in most of the cases incentives are not taken by the initially expected groups (potential modern or industrial groups), but rather by rent-seeking and corrupt groups, which do not have an incentive to modernize or industrialize. The ubiquitousness of rent-seeking from this perspective, is one of the most significant obstacles for development (Krueger 1997).

The proposed alternative to interventionist economic management, from this perspective, is for the government to place the establishment of the appropriate macroeconomic conditions for development—or the generation of a market-friendly environment—at the center of economic policy. Opening the economy by abolishing tariff and nontariff barriers to trade and investment and combating inflation by means of restrictive monetary and fiscal policies are the main macroeconomic goals of EOI. In this approach the state is minimalist, while the private sector is conceived as the motor for future development and industrialization.

It is in this international and national economic context that the major pillars and guidelines of liberalization strategy in Mexico since the 1980s, in contrast to import-substitution industrialization, have developed as follows (Aspe Armella 1993; Dussel Peters 2000; Salinas de Gortari 2000, 2004; Sojo Garza-Aldape 2005):

1. Macroeconomic stabilization was to “induce” the process of microeconomic and sectoral growth and development, that is, all sectorial subsidies and specific policies were to be abolished in favor of neutral or horizontal policies.
2. As an extension of point 1, the main priority of the government was to stabilize the macroeconomy. Since 1988, the government has viewed controlling inflation rates (or relative prices) and the fiscal deficit, as well as attracting foreign investments, as the main financing source of the new strategy, since oil revenues and massive foreign credits were not available and/or sufficient to be the main priorities of the new development strategy. The macroeconomic priorities of the liberalization strategy were backed by restrictive money and the credit policies of the Mexican central bank.

3. The nominal and real exchange rates are a result of the control of the inflation rate (the nominal exchange rate as an anti-inflationary anchor), that is, since the control of the inflation rate is the macroeconomic priority of the liberalization strategy, the government will not allow for devaluation, the latter resulting in increasing inflation rates because of imported inputs (Ibarra 1999). Additionally, a stable and overvalued real exchange rate will also incentivize foreign direct investments, particularly those in the financial sector.
4. Supported by the reprivatization of the banking system beginning in the mid-1980s and the massive privatization of state-owned industries, the Mexican private sector was to lead Mexico's economy out of the “lost decade” of the 1980s through exports. The massive import liberalization process, initiated at the end of 1985, was supposed to support the private manufacturing sector in order to orient it toward exports, as a result of cheaper international imports.
5. Finally, government policies toward labor unions were of utmost significance. As reflected in the respective *Pactos Económicos* (or economic pacts between the public and private sectors, as well as with trade unions) since 1987, only a few (government-friendly) labor unions were deemed acceptable to negotiate inside firms and with the government, while the rest were declared illegal. This process, which has included violent disruptions of independent labor unions, has made national wage negotiations possible in Mexico within the framework of the respective economic pacts and with the objective to control real wage growth.

Up to 2011, the Mexican government has continued, with few exceptions, with a consistent liberalization strategy (PND 2007). NAFTA's implementation in 1994 is of fundamental relevance for the liberalization strategy. In a best-case scenario, and allowing for a significant structural change towards exports in the Mexican economy, the Mexican economy required an outlet and welcoming market for the commodities and products resulting from Mexico's structural change. This outlet was to be Mexico's main trading partner, the United States. Otherwise, let us try to imagine a successful export orientation without a market in which to sell these commodities.<sup>2</sup>

The latter issues are relevant for understanding Mexico's macroeconomic and policy perspective in 2011. Additionally, and to understand the coherence and dogmatism of macroeconomic policies until today, at least two policies stand out. On the one hand, and even in the international and domestic crisis since 2008, the Mexican government explicitly rejected any kind of anticyclical policies, and ran contrary to massive fiscal and sectorial programs in countries such as China, Japan, the United States, and the European Union (Banxico 2010). On the other hand, the secretary of the economy continued even in December of 2008 with his unilateral liberalization of tariffs for the manufacturing sector, in the middle of the worst crisis since the 1990s.<sup>3</sup>

## 2 GENERAL GDP, EMPLOYMENT, AND TRADE CONDITIONS AND TRENDS FOR 1993–2010

What has been Mexico's socioeconomic performance since EOI and specifically regarding its manufacturing sector?

Two general issues stand out for Mexico's economy. First, Table 22.1 reflects that Mexico's GDP per capita growth—as well as its GDP growth—for the period between 1980 and 1990 has been far below levels since 1960. In addition, GDP per capita growth for 1990–2009 has been five times lower if compared to other countries such as China and below the Latin American average. When comparing the period 1980–2009, China's GDP growth per capita was fifteen times higher than Mexico's.

Second, Table 22.2 shows that labour productivity growth in Mexico has been very low during 1995–2010 and even below the average of OECD countries. Rather surprisingly, even in the period after NAFTA (1995–2000), labour productivity growth in Mexico was only 1.9 percent and below the performance of the United States, France, Germany, and Japan, among others. Thus, the historical productivity growth gap (Moreno-Brid and Ros 2009) has not closed, but widened.

In order to understand the former tendencies and the causes for such a disappointing performance since EOI, several additional domestic economic issues have to be analyzed in depth.<sup>4</sup>

First, and from a macroeconomic perspective, at least two issues stand out. First, there has been the systematic and continuous overvaluation of the real exchange rate, coherent with the liberalization strategy to control inflation (“the real exchange rate as an anchor for the control of inflation”), that is, the inflation rate has been below two-digit levels since the 1990s—with the exception of the effects of the 1994–1995 crisis—also as a result of this exchange-rate policy. This constant overvaluation of the exchange rate (see Figure 22.1) also incentivizes cheaper imports—with positive effects on the control

Table 22.1 GDP per capita: Mexico and several other countries  
(annual average growth rate, constant 2000 \$US)

	1960–1980	1980–2009	1990–2000	1990–2009
Argentina	1.8	0.9	3.2	3.0
Brazil	4.6	0.8	1.0	1.5
East Asia	4.9	2.5	1.9	2.3
China	2.9	8.9	9.3	9.5
Latin America	2.9	0.8	1.7	1.7
Mexico	3.5	0.6	1.8	1.1
United States	2.4	1.7	2.0	1.4
OECD	3.4	1.8	1.9	1.4

Source: own elaboration based on WB (2011).

Table 22.2 Labour productivity growth in the total economy:  
Mexico and several other countries (1995–2010)

	1995–2000	2001–2007	2007–2009	2009–2010
France	2	1.4	-1.1	0.8
Germany	2	1.4	-1.2	1
Italy	0.9	0	-1.4	1.7
Japan	2.1	2.1	-0.9	3.2
Korea	5.5	4.6	2.8	6.6
Mexico	1.9	0.9	-2.4	1.9
Spain	0.2	0.9	1.7	1.6
United States	2.4	2	2	2.9
OECD Total	—	1.9	0.1	2.1

Source: Author's elaboration based on OECD (2011).

of the inflation rate—and disincentivizes exports, since income in US\$ obtains fewer Mexican pesos.

In addition, another significant characteristic of Mexico's development model since EOI has been the lack of financing to the economy and particularly to its productive and private sector. In spite of Mexico's profound privatization and internationalization process since the late 1980s (Avalos and Hernández Trillo 2006)—as a result, today more than 90 percent of the banking capital is property of foreign banks—the performance in terms of credits has been very disappointing: Figure 22.2 reflects not only that the levels of domestic credit to the private sector over GDP have remained relatively stable throughout 1960–2009, never achieving levels above 35 percent, but also accounts for a fall of the variable since EOI at the end of the 1980s. Additionally, credit levels compared with other countries such as China and Latin America's average were six and two times lower respectively.

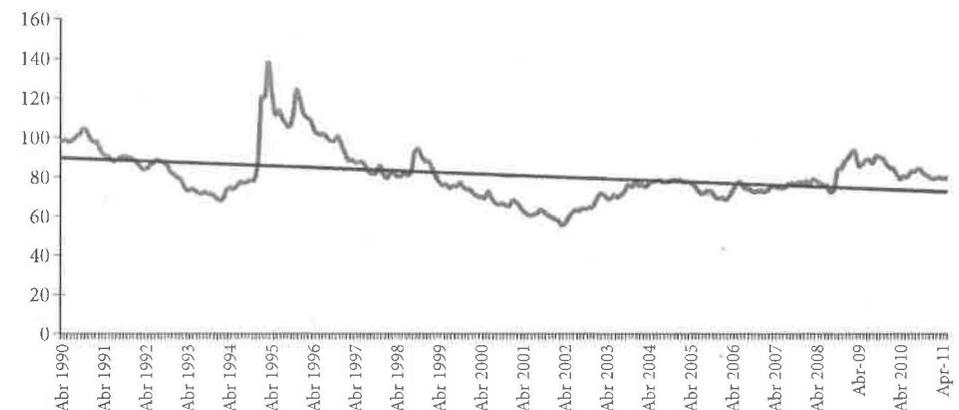


FIGURE 22.1 Mexico: real exchange rate (1990–2011/05) (1990 = 100).

Source: Author's elaboration based on Banxico (2011).

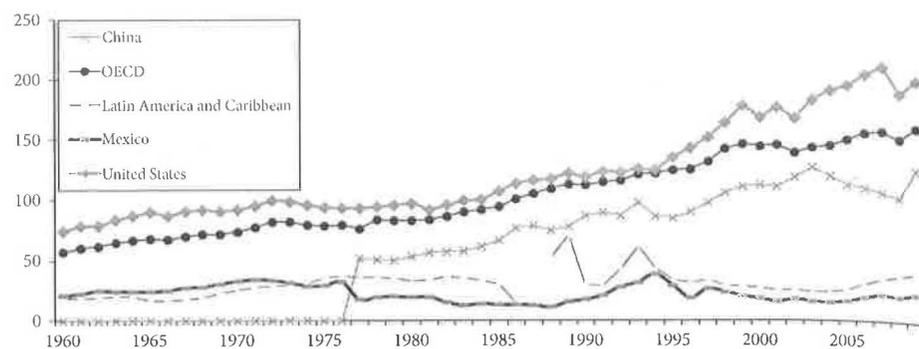


FIGURE 22.2 Domestic credit to private sector (as a percentage of GDP) (1960–2009).

Source: Author's elaboration based on WB (2011).

Both macroeconomic variables are very significant in understanding Mexico's socio-economic performance since EOI, as the strategy generated important incentives against the productive sector.

Analyzing in more depth Mexico's EOI and the structural changes of Mexico's socio-economy, four topics have to be looked at in detail: Mexico's overall and manufacturing trade, total and manufacturing employment, real wages, and GDP performance. These structures elucidate Mexico's EOI and its contradictions.

As a result of EOI, Mexico's export performance has been successful in increasing substantially over total GDP, from levels below 20 percent of GDP at the end of the 1980s to more than 30 percent since then. Table 22.3 shows the main structures of Mexico's trade and respective shifts in the last two decades: a period of strong growth, until 2000, with an AAGR for 1993–2000 of 18.1 percent, and a second period of higher global uncertainty, strong competition in the US market, a loss of market share in the United States mainly against Asia and China, as well as the increasing disintegration of NAFTA.<sup>5</sup> In addition, Mexico's overall trade since 2000 has shifted increasingly towards Asia and particularly China against the United States: in particular, imports from the United States fell dramatically—from levels above 75 percent in the 1990s to below 50 percent since 2007—and total trade with the United States fell from 81.03 percent of total trade in 1999 to 63.95 percent in 2010. These general trends are related to the increasing trade with Asia and China, and specifically their exports to Mexico: the share of China over Mexico's imports and total trade increased during 1993–2010 by more than twenty-six and twenty-three times respectively. These trade tendencies also account for an additional characteristic of Mexico's trade: the United States is Mexico's main, and practically only, source of trade surplus, accounting for more than \$85 billion in 2010, while Asia and particularly China are the main sources of Mexico's increasing trade deficit: in 2010 the import–export relationship with China was 11:1.

Mexico trade presents three important additional features to understand its overall socioeconomic performance.

Table 22.3 Mexico: main trade structures (1993–2010)

	exports						imports						GROWTH RATE
	TOTAL	UNITED STATES	EUROPEAN UNION	ASIA	CHINA	OTHER	TOTAL	UNITED STATES	EUROPEAN UNION	ASIA	CHINA	OTHER	
1993	51,886	42,912	2,704	1,348	45	4,923	65,367	45,295	7,908	7,373	386	4,791	
1994	60,882	51,619	2,875	1,544	42	4,844	79,346	54,834	9,199	9,464	500	5,848	
1995	79,542	66,274	3,372	2,044	37	7,852	72,453	53,902	6,830	7,699	521	4,022	
1996	96,000	80,570	3,570	2,601	38	9,258	89,469	67,536	7,874	8,998	760	5,061	
1997	110,431	94,377	4,072	2,392	46	9,590	109,808	82,002	10,156	11,315	1,247	6,334	
1998	117,539	103,002	4,018	2,201	106	8,318	125,373	93,258	11,994	12,840	1,617	7,280	
1999	136,362	120,262	5,484	2,124	126	8,492	141,975	105,267	13,180	15,129	1,921	8,399	
2000	166,121	147,400	5,743	2,158	204	10,819	174,458	127,534	15,329	20,271	2,880	11,323	
2001	158,780	140,564	5,419	2,223	282	10,574	168,396	113,767	16,841	25,345	4,027	12,444	
2002	161,046	141,898	5,630	3,310	654	10,209	168,679	106,557	17,136	31,360	6,274	13,626	
2003	164,766	144,293	6,216	3,683	974	10,574	170,546	105,361	18,645	31,854	9,401	14,687	
2004	187,999	164,522	6,825	3,942	986	12,710	196,810	110,827	21,793	44,400	14,374	19,790	
2005	214,233	183,563	9,144	4,779	1,136	16,747	221,820	118,547	25,982	53,654	17,696	23,636	
2006	249,925	211,799	11,009	6,386	1,688	20,731	256,058	130,311	29,012	68,893	24,438	27,842	
2007	271,875	223,133	14,554	7,613	1,895	26,575	281,949	139,473	33,822	79,451	29,744	29,203	
2008	291,343	233,523	17,288	8,626	2,045	31,906	308,603	151,335	39,183	86,211	34,690	31,874	
2009	229,783	185,181	11,626	7,561	2,208	25,416	234,385	112,434	27,226	72,158	32,529	22,568	
2010	298,473	238,684	14,432	10,704	4,183	34,653	301,482	145,007	32,497	95,918	45,608	28,059	
1993													
1994	17.3	20.3	6.3	14.6	-5.8	-1.6	21.4	21.1	16.3	28.4	29.3	22.1	
1995	30.6	28.4	17.3	32.3	-12.2	62.1	-8.7	-1.7	-25.8	-18.7	4.2	-31.2	

(Continued)

Table 22.3 (Continued)

	exports						imports					
	TOTAL	UNITED STATES	EUROPEAN UNION	ASIA	CHINA	OTHER	TOTAL	UNITED STATES	EUROPEAN UNION	ASIA	CHINA	OTHER
1996	20.7	21.6	5.9	27.3	3.4	17.9	23.5	25.3	15.3	16.9	45.9	25.8
1997	15.0	17.1	14.0	-8.0	19.9	3.6	22.7	21.4	29.0	25.8	64.2	25.2
1998	6.4	9.1	-1.3	-8.0	131.0	-13.3	14.2	13.7	18.1	13.5	29.6	14.9
1999	16.0	16.8	36.5	-3.5	19.2	2.1	13.2	12.9	9.9	17.8	18.8	15.4
2000	21.8	22.6	4.7	1.6	61.1	27.4	22.9	21.2	16.3	34.0	49.9	34.8
2001	-4.4	-4.6	-5.6	3.0	38.4	-2.3	-3.5	-10.8	9.9	25.0	39.9	9.9
2002	1.4	0.9	3.9	48.9	132.1	-3.5	0.2	-6.3	1.8	23.7	55.8	9.5
2003	2.3	1.7	10.4	11.3	49.0	3.6	1.1	-1.1	8.8	1.6	49.8	7.8
2004	14.1	14.0	9.8	7.0	1.2	20.2	15.4	5.2	16.9	39.4	52.9	34.7
2005	14.0	11.6	34.0	21.2	15.1	31.8	12.7	7.0	19.2	20.8	23.1	19.4
2006	16.7	15.4	20.4	33.6	48.7	23.8	15.4	9.9	11.7	28.4	38.1	17.8
2007	8.8	5.4	32.2	19.2	12.3	28.2	10.1	7.0	16.6	15.3	21.7	4.9
2008	7.2	4.7	18.8	13.3	7.9	20.1	9.5	8.5	15.9	8.5	16.6	9.1
2009	-21.1	-20.7	-32.8	-12.3	8.0	-20.3	-24.0	-25.7	-30.5	-16.3	-6.2	-29.2
2010	29.9	28.9	24.1	41.6	89.5	36.3	28.6	29.0	19.4	32.9	40.2	24.3
1993-2000	18.1	19.3	11.4	7.0	24.2	11.9	15.1	15.9	9.9	15.5	33.2	13.1
2000-2010	6.0	4.9	9.7	17.4	35.3	12.3	5.6	1.3	7.8	16.8	31.8	9.5
					SHARE OVER TOTAL							
					(percentage)							
1993	100.00	82.70	5.21	2.60	0.09	9.49	100.00	69.29	12.10	11.28	0.59	7.33
1994	100.00	84.78	4.72	2.54	0.07	7.96	100.00	69.11	11.59	11.93	0.63	7.37
1995	100.00	83.32	4.24	2.57	0.05	9.87	100.00	74.40	9.43	10.63	0.72	5.55
1996	100.00	83.93	3.72	2.71	0.04	9.64	100.00	75.49	8.80	10.06	0.85	5.66
1997	100.00	85.46	3.69	2.17	0.04	8.68	100.00	74.68	9.25	10.30	1.14	5.77
1998	100.00	87.63	3.42	1.87	0.09	7.08	100.00	74.38	9.57	10.24	1.29	5.81
1999	100.00	88.19	4.02	1.56	0.09	6.23	100.00	74.15	9.28	10.66	1.35	5.92
2000	100.00	88.73	3.46	1.30	0.12	6.51	100.00	73.10	8.79	11.62	1.65	6.49
2001	100.00	88.53	3.41	1.40	0.18	6.66	100.00	67.56	10.00	15.05	2.39	7.39
2002	100.00	88.11	3.50	2.06	0.41	6.34	100.00	63.17	10.16	18.59	3.72	8.08
2003	100.00	87.57	3.77	2.24	0.59	6.42	100.00	61.78	10.93	18.68	5.51	8.61
2004	100.00	87.51	3.63	2.10	0.52	6.76	100.00	56.31	11.07	22.56	7.30	10.06
2005	100.00	85.68	4.27	2.23	0.53	7.82	100.00	53.44	11.71	24.19	7.98	10.66
2006	100.00	84.75	4.40	2.55	0.68	8.30	100.00	50.89	11.33	26.91	9.54	10.87
2007	100.00	82.07	5.35	2.80	0.70	9.77	100.00	49.47	12.00	28.18	10.55	10.36
2008	100.00	80.15	5.93	2.96	0.70	10.95	100.00	49.04	12.70	27.94	11.24	10.33
2009	100.00	80.59	5.06	3.29	0.96	11.06	100.00	47.97	11.62	30.79	13.88	9.63
2010	100.00	79.97	4.84	3.59	1.40	11.61	100.00	48.10	10.78	31.82	15.13	9.31
			TRADE BALANCE						SHARE OVER TOTAL TRADE			
1993	-13,481	-2,383	-5,204	-6,025	-342	132	100.00	75.23	9.05	7.44	0.37	8.28
1994	-18,464	-3,216	-6,324	-7,920	-457	-1,005	100.00	75.91	8.61	7.85	0.39	7.62
1995	7,088	12,371	-3,458	-5,655	-484	3,830	100.00	79.07	6.71	6.41	0.37	7.81
1996	6,531	13,034	-4,303	-6,397	-721	4,197	100.00	79.86	6.17	6.25	0.43	7.72
1997	623	12,375	-6,084	-8,923	-1,201	3,256	100.00	80.09	6.46	6.22	0.59	7.23
1998	-7,834	9,743	-7,976	-10,639	-1,511	1,037	100.00	80.79	6.59	6.19	0.71	6.42
1999	-5,613	14,995	-7,696	-13,005	-1,795	94	100.00	81.03	6.71	6.20	0.74	6.07
2000	-8,337	19,865	-9,586	-18,113	-2,676	-504	100.00	80.73	6.19	6.59	0.91	6.50
2001	-9,617	26,798	-11,423	-23,122	-3,745	-1,870	100.00	77.74	6.80	8.43	1.32	7.04
2002	-7,633	35,341	-11,506	-28,050	-5,620	-3,418	100.00	75.35	6.90	10.51	2.10	7.23
2003	-5,779	38,933	-12,428	-28,171	-8,426	-4,113	100.00	74.45	7.41	10.60	3.09	7.53
2004	-8,811	53,695	-14,968	-40,459	-13,388	-7,079	100.00	71.55	7.44	12.56	3.99	8.45
2005	-7,587	65,016	-16,838	-48,875	-16,561	-6,889	100.00	69.28	8.06	13.40	4.32	9.26
2006	-6,133	81,488	-18,003	-62,508	-22,750	-7,110	100.00	67.61	7.91	14.88	5.16	9.60

(Continued)

Table 22.3 (Continued)

	exports						imports					
	TOTAL	UNITED STATES	EUROPEAN UNION	ASIA	CHINA	OTHER	TOTAL	UNITED STATES	EUROPEAN UNION	ASIA	CHINA	OTHER
2007	-10,074	83,660	-19,268	-71,838	-27,848	-2,628	100.00	65.47	8.73	15.72	5.71	10.07
2008	-17,261	82,188	-21,895	-77,586	-32,646	32	100.00	64.15	9.41	15.81	6.12	10.63
2009	-4,602	72,747	-15,600	-64,596	-30,321	2,848	100.00	64.12	8.37	17.17	7.48	10.34
2010	-2,902	85,911	-16,636	-78,310	-38,027	6,133	100.00	63.95	7.82	17.77	8.30	10.45

Source: Author's elaboration based on Banxico (2011).

First, the successful shift in the composition of Mexico's exports towards manufacturing. That is, while at the beginning of the 1980s oil accounted for more than 80 percent of Mexico's exports, since the 1990s manufacturing's share—and particularly autoparts and automobiles, electronics and the yarn-textile-garments—was above 85 percent of Mexico's exports. This shift was according to the EOI strategy and the increasing integration of Mexico's trade with the United States and through NAFTA.

Second, and allowing for an analysis of processes versus products, Mexican exports since the late 1980s increasingly depended on temporary imports to be exported (TIE), with important incentives from EOI in terms of value-added and income taxes, as well as tariffs; that is, the main incentives are to import parts and components to allow for fast transformation processes in Mexico and its export (mainly to the United States).<sup>6</sup> Figure 22.3 shows this composition of Mexico's exports by process for 1993–2010, highlighting that exports are highly dependent on TIE and oil, accounting for almost 85 percent of total exports during the period.<sup>7</sup>

As a result of the former trends, EOI has incentivized a highly dynamic and export-oriented manufacturing sector, based on TIE and ever-increasing trade deficits. As shown in Figure 22.4, the coefficient of the trade deficit against GDP reflects that particularly in periods of growth the coefficient increases and falls but is constant in periods of crisis, such as during the 1994–1995 crisis. From this perspective, one of the most relevant results of the EOI strategy has been the creation of an industrial-organization

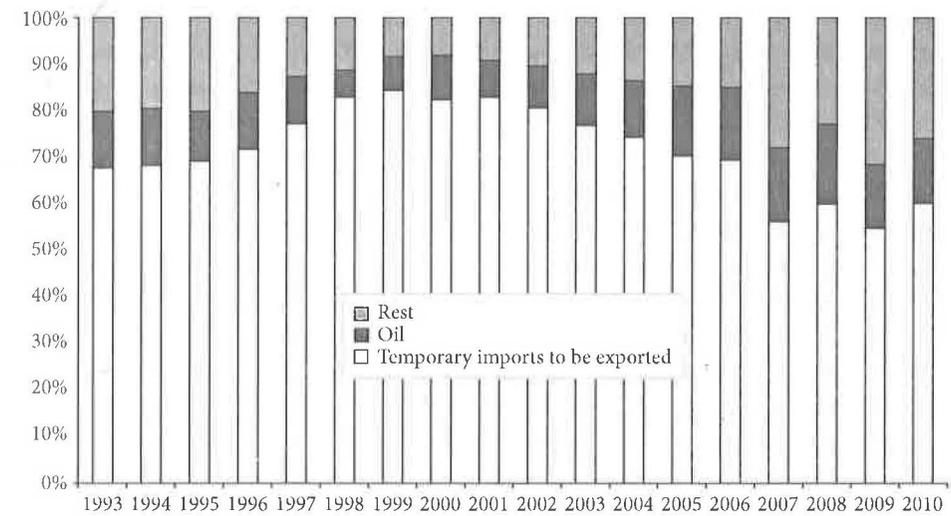


FIGURE 22.3 Mexico: export structure by type of process (percentage over total trade) (1993–2010).

Source: Author's elaboration based on INEGI (2011).

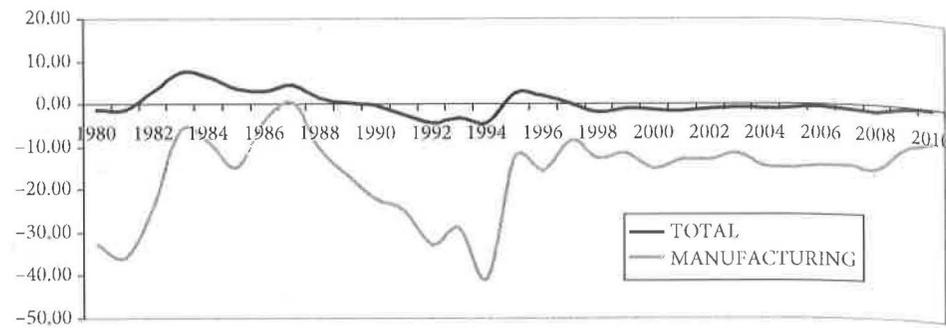


FIGURE 22.4 Trade balance/GDP (1980–2010) (percentage).

Source: Author's elaboration based on INEGI (2011).

structure that specializes in exports but requires ever-increasing imports in order to keep up with this dynamism. This industrial organization could also be defined as an “import-oriented industrialization” (Dussel Peters 2000), and contrary to EOI's premises.

To finalize the analysis of Mexico EOI, Mexico's manufacturing sector presents two additional features:

1. There has been a profound process of crisis between the end of the 1990s and beginning of the 2010s, both in terms of GDP growth and massive loss of employment. In terms of GDP, manufacturing—the engine of growth of Mexico's economy and the sector which was supposed to close gaps in terms of productivity, GDP, employment and real wages in the integration process of NAFTA—lost 5 percent in its share of the GDP of Mexico's economy during 1988–2010 (Figure 22.5). This process of deindustrialization in the process of export specialization was even deeper in terms of employment: as with GDP, employment in manufacturing increased its share over the total economy until the end of 1990s and lost more than 10 percent until 2010; in absolute values between October 2000 and January 2010 manufacturing lost 1.04 million jobs, or 24.5 percent.
2. Since the implementation of NAFTA in 1994, real wages have also presented difficulties for workers: real minimum wages have declined by more than 20 percent in these sixteen years, while real manufacturing wages fell after the crisis of 1994–1995 and have recovered slightly since then, but are still practically at the same level as sixteen years ago. This is one of the main reasons for the lack of growth of the domestic market: a lack of employment generation and, in the case of new jobs, with little growth in real wages.

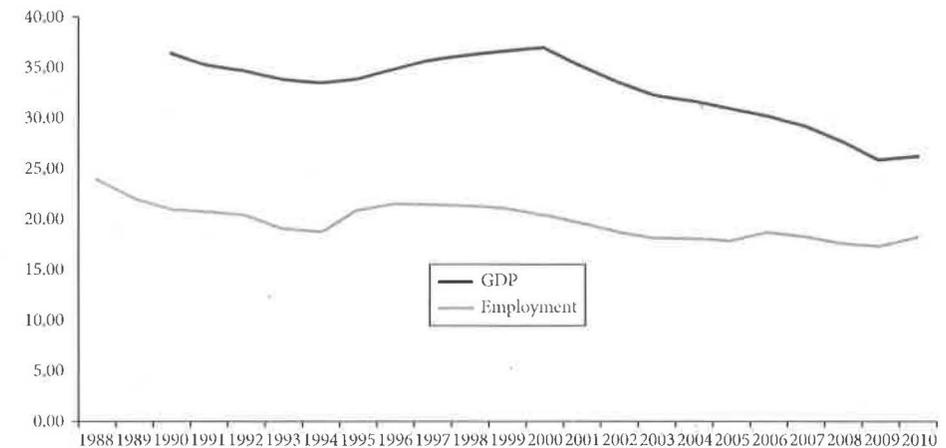


FIGURE 22.5 Manufacturing: share over total GDP and employment (1988–2011).

Source: Author's elaboration based on INEGI (2011).

### 3 THE CASE OF THE YARN-TEXTILE-GARMENT VALUE-ADDED CHAIN

The yarn–textile–garment value-added chain (YTG) has been historically and globally one of the fastest changing in the last decades. In the last decade the increasing saturation of garments in developed countries, the deepening of full packaging processes in which suppliers are increasingly responsible for costs in manufacturing (from buying all required inputs to financing these inputs), but also in the service sector (such as transportation, customs, logistics, and the coordination and distribution of goods in the final consumer market), the increasing product differentiation (including those with ethical and ecological standards), the growing significance and control of the chain by retailers, as well as dramatic shortening of production and delivery time and impressive global competition affecting prices, are some of the characteristics of current YTG. As a result, the existence and strengthening of a local supplier system is critical for facing these challenges (Dussel Peters 2010). At the beginning of the twenty-first century, the chain, which is controlled by its buyers and clients, seems to find itself in a more liberal period compared with recent decades, considering the end of the Multifiber Agreement (MFA) in 2005 (Gelb 2003), the strong reduction of measures of public intervention—in terms of tariff, nontariff barriers and government subsidy—and the concentration of support instruments in the textile and accessories industry, and to a lesser degree in the clothing industry (Frederick and Gereffi 2009).

In addition to these trends, there has been a rapid “reorientation” of the YTG chain. While China, India, Bangladesh, and Pakistan, among other countries, have substantially increased their share in global production and trade in the first decade of the

twenty-first century, developed countries have witnessed a continuous fall in production and trade since the 1980s. In the case of the United States, for example, textiles and apparel still accounted for 1.1 million jobs in 2000, fell by more than half in 2008 and are expected to fall by 22.6 percent until 2016 (BLS 2009).

In Mexico the YTG chain is one of the symbols for global and NAFTA integration and of EOI as discussed in the first part of this document. Based on the last input-output Matrix of Mexico's economy for 2003 (Dussel Peters 2010), the YTG shows several features. On the one hand, the chain shows marked differences between the segments that make use of the inbond or maquiladora industry and the rest. The chain accounts for imported input/total input levels above those of the rest of manufacturing; these are 33.1 percent for the full YTG chain and 38.2 percent for the textile segment; in 2003 foreign trade accounted for 51 percent of production and 60 percent for the full YTG chain and the apparel segment respectively. Despite the high level of integration into the world market, the chain shows a profound structural weakness: its high component of net imports. In the case of the maquiladora industry, the domestic content for the entire economy, manufacturing, the YTG chain and the textile segment was 0.3 percent, 3.1 percent, 4.7 percent and 15.7 percent respectively. This structure is the result of a complex structure of incentives linked to TIE (see section 2). On the other hand, the YTG chain stands out for paying taxes—in relation to production—that are 45 percent higher than the entire Mexican economy (in apparel, taxes were 63 percent higher), for payments per employee 23 percent lower than the total economy with the exception of the textile segment, and for being particularly sensitive in the generation of employment as a result of import substitution: if final demand increased 10 percent via import substitution, the YTG chain would generate 17,000 jobs, particularly in the garment segment. Out of seventy-five activities of Mexico's economy in 2003, only five in the entire economy would generate more employment than the YTG chain.

Considering the YTG chain's growing orientation toward foreign trade, what are its main features in terms of production, employment, trade, and integration?

First, the YTG chain accounted for 0.9 percent and 5 percent of Mexico's total and manufacturing's gross value-added in 2009. Table 22.4 reflects the strong cyclical movement of the chain for the first NAFTA period until 2000 and the fall of gross domestic product (GDP) and employment indicators since then. In terms of GDP, while manufacturing has only slowly recovered since 2005 (in ten years its GDP grew by only 7 percent), the YTG GDP level is lower than prior to NAFTA and has lost more than a quarter in 2010 compared to 2000. This performance—also as a result of productivity growth and new forms of industrial organization—is more profound for employment: while Mexico's manufacturing sector as a whole has lost almost a million jobs during 2000–2010 (or a quarter of manufacturing employment), the YTG chain has lost almost half of its employment since 2000, contrary to initial gains for the period 1994–2000. These losses have been particularly profound in the garment segment and are also the result of competition in the domestic market and in foreign markets with Asian and Chinese producers.<sup>8</sup> The full chain still accounted for more than half a million jobs in 2009 (INEGI 2010).

Table 22.4 Mexico: GDP and employment trends in manufacturing and YTG (1994–2010)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
GDP (2000 = 100)	72.77	68.77	75.94	83.90	89.93	93.90	100.00	96.13	95.10	93.75	97.44	100.91	106.89	108.74	107.95	97.38	107.03
Manufacturing																	
YTG	76.42	71.51	82.33	89.44	92.54	96.63	100.00	90.15	84.46	78.58	79.68	77.61	78.07	75.10	73.83	69.11	74.04
Employment (2000 = 100)																	
Manufacturing	71.84	70.07	74.97	83.48	88.54	93.95	100.00	95.99	90.84	87.20	86.86	87.24	88.60	88.83	85.88	77.30	80.70
YTG	94.34	85.38	90.99	96.38	98.26	98.85	100.00	90.91	83.65	77.27	71.67	68.65	66.52	64.52	60.11	54.86	55.47
Garment	91.34	81.02	86.98	92.05	100.30	101.45	100.00	91.74	83.56	77.60	71.97	67.15	66.07	63.74	58.68	53.27	52.75

Source: Author's calculations based on INEGI, EIM and SCN (2011).

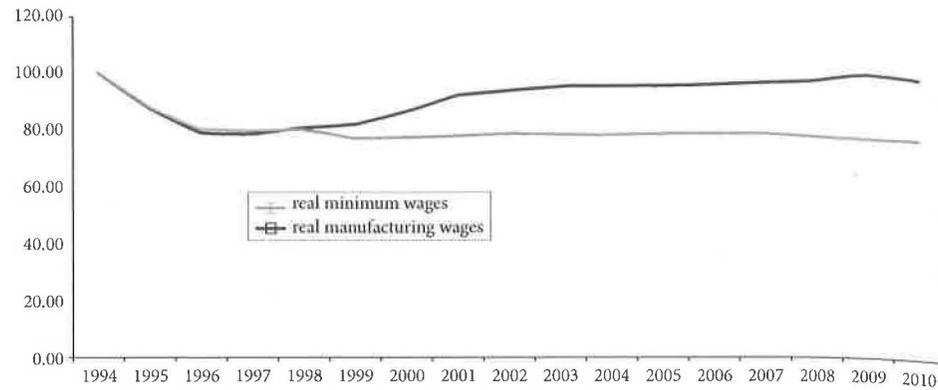


FIGURE 22.6 Mexico: real minimum and manufacturing wages (1994 = 100) (1994–2010).

Source: Author's elaboration based on INEGI (2011).

Second, during 1995–2008, 74.79 percent of Mexican exports from the YTG chain were in the apparel segment, followed by textiles (11.36 percent), yarn (5.49 percent), and other accessories (8.41 percent). Figure 22.7 reflects Mexico's differentiated dynamics of YTG before and after 2000, with an average annual growth rate (AAGR) of exports of 23.7 percent and –5.6 percent for 1995–2000 and 2000–2009 respectively. For the period 1995–2009 the United States covered 90.76 percent of Mexico's YTG chain exports. This differentiated performance is particularly profound for the garment segment (Figure 22.7). Rather surprisingly, Mexico's

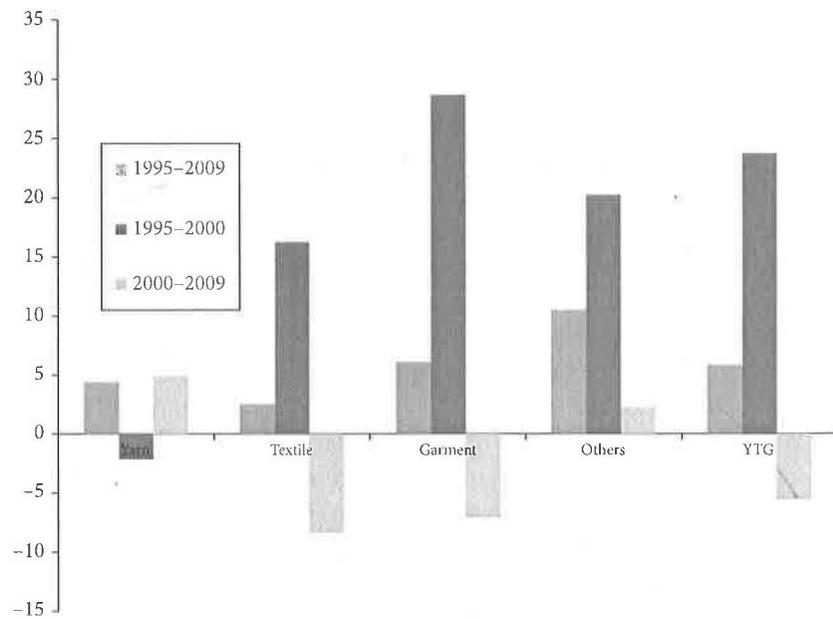


FIGURE 22.7 Mexico: YTG exports by segment (1995–2009) (average annual growth rate).

Source: Author's calculations based on USITC (2010).

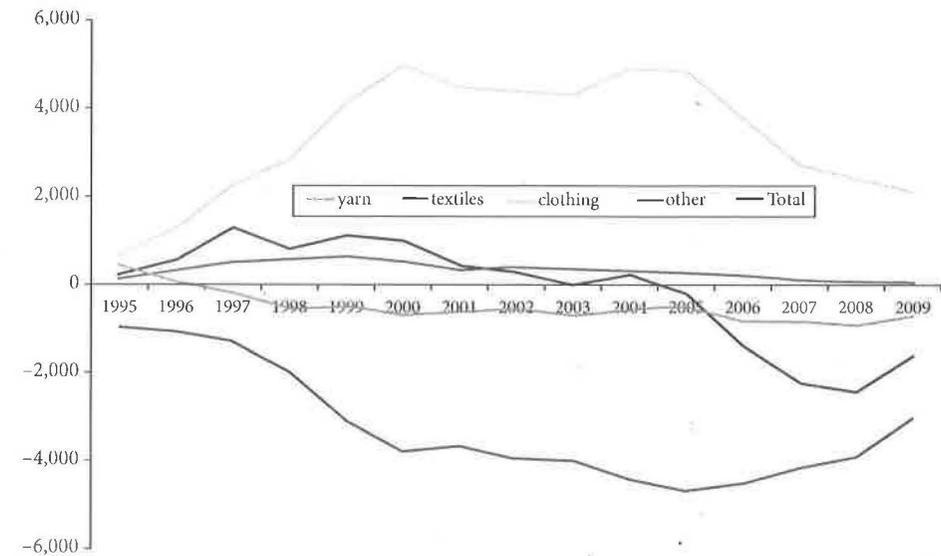


FIGURE 22.8 Mexico: trade balance of the YTG chain by segment (1995–2009) (\$US million).

Source: Author's calculations based on USITC (2010).

trade balance in the YTG chain turned negative in 2006 (Figure 22.8) as a result of a drop in apparel exports since 2001 and the increasing import of the chains inputs.

Third, considering the high concentration of Mexican YTG chain exports to the United States, several issues highlight the increasing disintegration of the YTG industrial organization in the NAFTA region. Table 22.5 shows that Mexico's YTG exports to the United States increased substantially during 1990–2000 and declined again since then, with an AAGR of 30.7 percent and –8.8 percent for 1990–2000 and 2000–2009 respectively. Mexico accounted for its highest share over total US imports of the YTG chain in 1999 with 13.27 percent and it fell continuously up to 5.14 percent in 2009, while China's share increased from 12.41 percent to 40.41 percent. Two other aspects are important: a. the import/export coefficient of the United States –a proxy also for measuring the US content in US imports reflects that Mexico and Central America are major consumers of the US YTG chain, in contrast with the rest of the world and China; that is, Mexico is not only a major exporter to the United States, but also the country with the highest US value-added in its exports, which reflects an important degree of regional integration. Also as a result of NAFTA, Mexico still benefits from massive tariff incentives, paying in 2000–2009 only 4.99 percent of tariffs paid by all US YTG imports; tariffs in this chain are important and still account for 11.19 percent in 2009.

Finally, and in qualitative terms, business organizations (Dussel Peters 2010) in Mexico have outspokenly demanded the modernization of NAFTA, since after more than seventeen years NAFTA's regional integration framework is outdated. NAFTA was developed at the beginning of the 1990s and was based on an industrial organization of the late 1980s that does not exist today, since most of the textile and accessories

Table 22.5 United States: imports of the YTG chain (1990–2009)

	1990	2000	2009	1990–2000	2000–2009
	Share over total imports				
China	11.44	12.02	40.41	13.07	25.47
Vietnam	0.00	0.06	6.25	0.04	3.11
México	2.98	13.22	5.14	9.34	8.67
India	3.17	3.85	5.44	3.77	4.71
Indonesia	2.64	3.11	4.73	2.97	3.55
Total imports	100.00	100.00	100.00	100.00	100.00
	Import/export coefficient				
China	54.98	205.18	360.08	196.93	100.70
Vietnam	—	60.93	1219.33	774.10	30.43
México	3.09	7.54	6.22	7.03	6.74
India	103.98	254.42	282.49	220.41	143.23
Indonesia	160.05	282.43	823.74	285.10	177.29
Total imports	12.89	17.74	32.80	19.97	15.13
	Tariffs for imports (total = 100)				
China	92.66	105.24	118.18	99.23	112.76
Vietnam	—	371.40	152.72	99.23	161.22
México	85.76	3.38	18.68	14.26	4.99
India	86.12	109.69	101.52	101.99	108.92
Indonesia	124.88	159.46	144.33	147.27	168.94
Total imports	100.00	100.00	100.00	100.00	100.00

Source: Author's elaboration based on USITC (2010).

producers have left the region and Asia has become the main global producer. In addition, the United States has granted significant benefits to other FTA-signing countries that go further than NAFTA. Thus, from this business perspective, the rules of origin and other legal requirements are increasingly useless and impossible to fulfill in the NAFTA region—including in the United States—and the United States has developed a number of annual instruments to overcome these regional burdens. However, the current NAFTA framework and these annual incentives to ease and endure rules of origin of products that would otherwise fail to comply with these rules have weakened the regional and Mexican YTG chain, since firms cannot depend on monthly and annual decision making for long-term business and strategies.<sup>9</sup>

#### 4 CONCLUSIONS AND PROPOSALS

What are the reasons for Mexico's disappointing socioeconomic performance and particularly of its export-oriented sectors and regions and what are the implications of these results?

On the one hand, it is relevant to stress that Mexico's EOI strategy, while of academic and policy interest in the 1980s and the first part of the 1990s, has become increasingly dogmatic and primitive at least since the last decade. Particularly in the light of several Asian countries and China—with a much better performance in terms of growth and other socioeconomic indicators, as discussed section 1—Mexico's EOI strategy has become academically, and from a policy perspective, outdated. Debates since the 1980s on endogenous growth and market imperfections, analysis, and policy proposals by authors such as Paul Krugman, Joseph Stiglitz, and particularly Dani Rodrik, show however that, in the best of the cases, EOI proposals are too superficial and simplistic in light of these academic and policy experiences. Export performance should also be evaluated in terms of its structure and dynamism in terms of technology, financing, employment and wages, among other variables.

Mexico's experience since the late 1980s is also relevant from several perspectives. First, and in spite of Mexico's overall and profound deregulation and opening—in terms of trade and respective import tariffs, foreign direct investment, labor and an overall decreasing presence of the public sector—since the end of the 1980s Mexico has generated important monopolistic structures, in sectors such as telecommunications and the financial sector, that have not allowed for a convergence with other industrialized countries (World Bank 2006). This topic has not been discussed at all in the EOI literature or by policy makers. Second, Mexico's GDP and GDP per capita growth performance have been below its historical and potential levels as a result of low investment growth: Mexico's exports have not allowed for increasing investments and particularly in terms of technological development, productivity spillovers and human capital formation, that is, a process of technological upgrading, climbing up the value-added chain, has occurred only in a very limited scale. Large income disparities have deepened this problem (Moreno-Brid and Ros 2009). Third, Mexico's growth motor since the end of the 1980s—Mexico's export-oriented manufacturing sector—has been the cause of its increasing polarization process and the lack of linkages and growth: growth has been limited to an extremely small group of firms, households, branches, sectors, and territories in Mexico and has lacked an overall “learning process” for the rest of the socioeconomy (Dussel Peters 2000). Rather surprisingly, EOI has resulted in an ever-increasing dependence on imports as a result of the incentives offered by Mexico's federal government and executive. In times of growth of the economy and of exports, imports surge, since these processes lack any kind of “territorial endogeneity” but generate current account and balance of payment difficulties. Additionally, the levels of employment and linked real wages have also been disappointing and, since 2000, there has been a massive loss of employment in Mexico's export-oriented firms and sectors. The lack of incentives to integrate to the rest of the economy shows that this is the main structural problem of Mexico's economy and the reason for such poor results of Mexico's EOI in the last decades.

In general terms the Mexican experience of EOI since the late 1980s shows that the country's process of polarization accounts for increasing weaknesses in its socioeconomy: as a result of few linkages, the quality of employment does not improve, and

neither do wages and the relevance of the domestic market. Additionally, the learning processes between export-oriented specialization and the rest of the economy are very limited and it cannot be expected that upgrading and innovation will occur under these conditions. Mexico's manufacturing sector accounts for most of these structural weaknesses: highly dynamic in terms of exports, but very weak in terms of high levels of imports and an expulsion of labor power. And while Mexico's manufacturing sector was able to deeply integrate to NAFTA during 1994–2000, since then it has not been able to stop its disintegration. The yarn–textile–garment value-added chain is a good example of the limitations of this form of EOI. Primitive EOI based on the assembly of imported goods had a positive performance only until 2000 and has not been able to compete either with Asian or with Central American firms. Mexico's EOI strategy since 2000, from this perspective, is not an attractive policy to follow vis-à-vis other global competitors.

Mexico's performance is however particularly disappointing from a policy perspective. The Mexican case is a "good bad case" where macroeconomists have been responsible for overall economic policy, and with little experience beyond macroeconomic development. Macroeconomic stability and export-specialization, from this perspective, is not only not sufficient from an economic policy stance, but neither are "horizontal" industrial policies and the dismantling of trade, R&D and financing instruments, among others. When comparing, however, the simplicity and primitiveness of macroeconomic stability and its assumed effects at the micro and meso levels with the complexity of public and private policies for a group of sectors and territories in the short, medium, and long terms in countries such as China (Jenkins and Dussel Peters 2009), Mexico's EOI policies reflect, as with NAFTA, that they require modernization and updating in the current process of globalization and competition, since the times of deep ideological debates—for free trade, liberalization, and against any kind of regulation of the market—are *passé*, and economic policies require much more precise goals and instruments that are not fulfilled by this initial and primitive version of EOI.

In addition, the export-oriented sectors in Mexico have been challenged in NAFTA since 2001 by Asia and in particular by China in terms of market share and a much more dynamic upgrading process in high-tech value-added chains such as autoparts, automobiles, and electronics, among others. That is, these developments since 2000 additionally challenge Mexico's EOI in terms of results, domestically and in terms of exports, and do not allow Mexico, or other Latin American countries, to continue with the initial and primitive version of EOI.

This set of results and contradictions shows that countries such as Mexico require, for a start, a new conceptual development framework beyond EOI. This process, however, would also require a political process of self-criticism, responsibility for the last two decades, and the need for socioeconomic and political change. Finally, Mexico would require a much better understanding of its socioeconomic challenges—at the micro, meso, and macro levels—and beyond a strict and dogmatic macroeconomic perspective to allow for a learning process at these different levels of analysis and with other countries and regions. So far, these processes have not started.

## NOTES

1. Neutral or horizontal policies—concepts that are well known in Latin America and particularly in Mexico for the last two decades—refer to a set of policies that attempt to affect firms, sectors and regions, for example, without any particular distinction and contrary to ISI-policies that prioritized firms, sector and specific regions under criteria such as import-substitution, value-added and/or innovation and technology, among others.
2. At the end of the 1980s, this was not merely a hypothetical possibility. Politicians such as Ross Perot and Patrick J. Buchanan in the United States presented strong criticisms of imports from Mexico. Stepped-up protectionism would have acted against an export orientation in Mexico and EOI in general.
3. By decree on December 25, 2008, the executive sector in Mexico liberalized unilaterally more than 8,000 items (Dussel Peters 2009). As a result, the average tariff fell from 11.5 percent in 2008 to 6.9 percent in 2010 (PEF 2010: 208).
4. Some authors (IMF 2006; WB 2006) have stated that Mexico's mediocre productivity and growth performance has also been a result of private and public monopolies, a topic that was not considered in the liberalization strategy by the same institutions that twenty years earlier proposed implemented these policies in Latin America and Mexico.
5. For a full discussion on this topic, also with an analysis of intraindustrial trade and an examination of specific value-added chains between China, Mexico and the United States, see: Cárdenas Castro and Dussel Peters (2011).
6. For a full discussion, see: Dussel Peters (2003) and Katz and Dussel Peters (2006).
7. TIE, for example, include typically processes in which parts and components—from electronics to automobiles and agriculture—are temporarily imported to be exported, oil is not a TIE since it does not require temporary imports. While there are no specific statistics on the value-added of TIE, in general, domestic inputs/total inputs have been between 2 and 4 percent until 2011.
8. Particularly in the mid- to late-1990s several US firms invested in a strategy to integrate regionally the YTG chain. Firms such as Parkdale Mills, Dan River, Guilford Mills, and Burlington Industries, among many others, saw Mexico as an ideal place for expanding capacity. However, most of these new plants were closed again in the beginning of the 2000s, abandoning the effort to offer full-package services and filing for Chapter 11 protection and failing to offer a competitive strategy vis-à-vis Asian and Chinese competitors (Bair and Dussel Peters 2006).
9. For a full discussion on the issue of NAFTA and proposals for its modernization from a regional perspective, see Gallagher and Wise (2009).

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