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THE SEMI-PERIPHERY

Mexico in Transition

Neoliberal Globalism, the State and Civil Society

EDITED BY Gerardo Otero

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Gerardo Otero

EDITOR

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My greatest debt is to the final contributors, for their great intellects, their contribution to the project, and their commitment to detailing the effects of neoliberal globalism on the state and civil society of Mexico. In addition I appreciate the time that each of them took to revise his or her paper following reviewers' and my own comments, often under a tight schedule. The beauty of this project is that it gathers the collective effort of various people who had been working on their own, but with very similar substantive concerns about the impacts, challenges and alternatives to neoliberal globalism.

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Two chapters were translated from Spanish by people other than their authors. I thank the highly professional work of Laura Carlsen for translating Armando Bartra's chapter, and Haydn Rawlinson who translated Raúl Delgado Wise's chapter.

into productivity bonuses. The second attempt to combine neoliberalism with corporatism turned out to be weaker than the first. It is the agreement for a New Labour Culture, which in spite of its limited results established the principles of the Fox administration. In the exceptional situation of having a PAN federal government, there is a new attempt at corporatist restoration, first of all providing the trade unions with a doctrine. (The 1910 revolutionary doctrine of social justice, as well as Salinas's incipient doctrine of Social Liberalism and New Unionism, have become history.) Now is the moment for the Church's social doctrine in its corporate version. What is missing, however, are the institutions that support the practice of these actors, since it cannot be sustained on ideology alone. In the old corporatism, the figure of the President, with his highly concentrated power, was the main institution. Under current conditions, however, the presidency appears to be weak and corporatism survives thanks to the networks woven in the past between trade union leaders, government officials and entrepreneurs at both micro- and macro-level. Corporatism also survives thanks to at least two factors: (i) the conviction of most entrepreneurs that corporatism has played a historical role useful for controlling workers' demands and eradicating dissidents, and (ii) that opening trade union democracy under conditions of low wages and the workers' lack of identity with the employers can be a risky venture. The experience of the PAN governments in the states proves that it is possible to continue with the labour and trade union *modus vivendi* between a party that is not meant to be a corporate party and the old PRI corporations. In other words, trade union corporatism can coexist with economic neoliberalism under certain conditions and in states with a strong interventionist tradition in the labour sphere. A political party change-over is not enough to seal its destiny.

All this will happen unless the workers are determined to take another path. For a long time, low wages and bad working conditions have prevailed for most workers in Mexico. Determination for change requires several conditions, however. Workers would need to have organizations and activists that, as in the 1970s, help to provide union-oriented training, to link discontented workers with Non-Governmental Organizations (NGOs) and trade unions, and to create resistance networks to avoid protesters being laid off immediately. Recent cases, like the Kwon Dong *maquiladora*, in the state of Puebla, show that workers can break away from labour control by creating broad national and international support fronts. These strategies would have to move away from state corporatism and be firmly rooted in civil society.

8 | Who reaps the productivity growth in Mexico? Convergence or polarization in manufacturing real wages, 1988–99

ENRIQUE DUSSEL PETERS

§ SINCE the 1990s, Mexico's economic liberalization strategy has become a model to follow for many institutions and schools of thought. From their perspective, Mexico's development since then has been a success in terms of macroeconomic stabilization, integration to the world market and export-orientation, mainly since 1994, after the North American Free Trade Agreement (NAFTA) came into effect. Free trade agreements' preferential trade access until 2002 with thirty-two countries and unilateral import openness are part of this new development strategy.

This chapter goes beyond these issues to analyse the effects of Mexico's new development strategy, since 1988, on productivity performance. In addition, it examines the distribution of productivity increments in real wages, emphasizing the periods before and after 1994, although, in some cases, analysis begins at the end of the 1980s and covers the years up to 1999 or 2002, depending on data availability. The chapter is divided into three sections. The first presents conceptual issues regarding the distribution of productivity growth and examines the pillars of liberalization strategy in Mexico since 1988, providing an overview of a number of indicators of the Mexican economy. Going into more detail, the section also presents some of the main variables and tendencies for productivity growth and employment, and compares Mexico's data with those of other countries. The second section analyses the main features of the most successful branches of Mexico's manufacturing sector for 1988–99 regarding labour productivity, real wages, trade and production, among others. Labour productivity is understood as the relationship between value-added or Gross Domestic Product (GDP) and employment. This relationship is measured at various levels of aggregation: the economy as a whole, manufacturing and/or a group of specific branches. The final section summarizes the main findings of this chapter.

Concepts and overall tendencies in Mexico's labour market and productivity

Assuming a relatively elastic supply of labour, neoclassical economic theory – as well as most multilateral agencies in the context of the

'second generation of reforms' since the mid-1990s (Edwards and Burki 1995) – expects that countries that supply and demand labour will reach a full equilibrium regarding employment and wages (Dornbusch and Fischer 1978; Kerr and Staudohar 1994; Layard et al. 1991). That is to say, real wages will fall whenever there is an excess supply of labour and will rise whenever there is an excess of demand. As a result, most of the discussion related to neoclassical economic theory has focused on the flexibility of labour markets, particularly on the supply side, i.e. unions, wage inefficiencies and minimum wages, social institutions, and laws and labour market inefficiencies generated by public institutions that allow for slow or no adjustment in the respective markets.

Other authors have posited productivity as the key for industrial and economic development, particularly by favouring export-oriented industrialization (EOI), since the latter generates greater capacity utilization and learning-by-doing effects and results in internationally competitive prices and higher quality of products (Krueger 1978, 1983). In the EOI view, policies have to be envisioned within an overall liberalization process and free development of market forces, based on macroeconomic stability, and including goods and labour markets (Balassa 1988; Bhagwati 1991).

Several schools of thought have been critical of this perspective of socioeconomic development and the functioning of labour markets (Dussel Peters 2000). For the purposes of this chapter, however, the view of the French regulation school is useful. Contrary to ahistorical automatisms, as developed by neoclassical economic theory, Glyn, Hughers, Lipietz and Singh stress that some of the main institutions generated during the 'Golden Age of Capitalism' in OECD (Organization for Economic Cooperation and Development) countries (1950–70) referred to social security and labour markets (Glyn et al. 1989). That is to say, the socioeconomic and political sustainability of Fordism during this period was validated by sharing the growth of productivity and profits through increases in real wages. This 'Fordist Equation' – i.e. a stable relationship between productivity growth and real-wage growth – allowed for an endogenous growth process and virtuous cycle in growth, employment, investments, capital intensity, profits and real wages (Boyer 1990; Michl 1988). From this perspective, a positive relationship between real wages and productivity growth reflects an institutional strategy of sharing the growth in productivity. Without this virtuous cycle, the regime of capital accumulation would become socially and economically unsustainable in the medium and long run and it would add to growing income and territorial-distribution disparities.

The liberalization strategy in Mexico: 1988–

Along the theoretical guidelines of EOI, the respective governments in Mexico since 1988 have consistently followed a new development strategy: economic liberalization. As a result of the crisis of Keynesianism internationally, as well as of import-substitution industrialization (ISI) in Mexico since the end of the 1960s, a new breed of politicians, mainly economists, departed radically from prior decades of social and economic policy-making related to ISI. The period prior to the implementation of liberalization strategy, 1982–87, was one of profound socioeconomic instability: the political system was in general disarray, the Mexican government was under enormous pressure to service an external debt of more than 70 per cent of GDP (Gross Domestic Product), while inflation rates and the fiscal deficit, as a percentage of GDP, accounted for levels above 160 per cent and 16 per cent, respectively (Villarreal 2000).

Since December 1987, when the first Pacto de Solidaridad Económica (Economic Solidarity Pact, PSE) was implemented, liberalization strategy has proposed the following core macroeconomic goals:

1. To transform Mexico's productive sector from import-substitution to export-orientation. The private manufacturing export-oriented sector should become the motor of socioeconomic development.
2. Public economic policy should focus on macroeconomic stability, i.e. to bring inflation rates and the fiscal deficit under control, and to attract foreign investment, the latter as the main source to finance the new development strategy.
3. A 'minimalist state' was to reduce investments and market distortions substantially. This represents a sharp contrast with the mixed economy that had prevailed since the 1940s, in which the state had played an active role in promoting the private sector, infrastructure and the social sector, among many other functions.

As a result of this strategy, the fiscal deficit was substantially reduced, and a surplus was achieved for several years. The overall retreat of the public sector, however, had significant effects; for example, in institutions such as development banks and in price guarantees and sectoral programmes in the agricultural and manufacturing sectors. To facilitate macroeconomic stability, the government has used the exchange rate as an 'anti-inflationary anchor', i.e. it will not allow devaluation of the peso, since this would have a negative impact on inflation as a result of imported inputs. The guarantee of cheap labour power to both domestic and foreign investors has been one of the main priorities of the respective PSE since 1987. Annual negotiations on minimum wages between corporatist unions and the government resulted, in most cases, in wage

increases *below* inflation rates. Cheapening wages, in fact, was one of the main objectives of several PSEs (Aspe Armella 1993; J. Córdova 1991; Dussel Peters 2001; Salinas de Gortari 2001).

Strictly in its own terms, then, the liberalization strategy has been relatively successful. Inflation rates have decreased substantially since the end of the 1980s to reach single figures during the second part of the 1990s. The fiscal deficit has been controlled and in several years during the 1990s a surplus was achieved. Furthermore, Mexico was one of the most successful of the developing countries in attracting foreign investments during the 1990s: in terms of gross capital formation, foreign direct investment increased from levels below 6 per cent to more than 20 per cent during the 1990s, while, as a percentage of GDP, it more than doubled its share, to almost 3 per cent by the end of the 1990s. Finally, one of the most profound changes in Mexico's productive sector has been the increasing share of exports: from levels below 10 per cent of GDP at the beginning of the 1980s to more than 30 per cent by the end of the 1990s (Dussel Peters et al. 2003). As discussed in what follows, the percentage of GDP of total economy for exports is significantly lower than for manufacturing.

Several economic results stand out strictly as a result of the liberalization strategy. Independently of a worsening of income distribution, in 2000, minimum and manufacturing real wages represented 29.4 per cent and 76.4 per cent, respectively, of what they were in 1980 (CEPAL 2001). Another key result is a 'lean and anaemic' state, in which the public sector has withdrawn significantly from educational, institutional, social and territorial programmes, among others, in order to reduce the fiscal deficit. On the one hand, there has been an increasing overvaluation of the exchange rate, which has reached levels of around 40 per cent at the end of 2001, even by official estimates (PEF 2001: 244). The latter is substantial, since imports are significantly cheaper and exporting firms get significantly fewer pesos for exporting their products and services. On the other hand, financing of the commercial banking system to the non-financial sector, as a percentage of GDP, declined substantially in 1994–2001. In 2001, this financing represented less than 20 per cent of what it was in 1994.

These two outcomes of liberalization strategy added to a rapid tariff reduction for imports during 1985–87 and again in 1994 as a result of NAFTA have affected Mexico's manufacturing sector substantially. These outcomes represent the broad framework with which manufacturing established in Mexico is confronted: overvaluation, practically no availability of credit, and increasing competition from cheap imports as a result of tariff liberalization.

Additionally, the annual average growth rate of GDP was 3.3 per cent

for 1988–2001, which is significantly lower than the 6.6 per cent achieved during the import substitution industrialization period of 1940–80. On the other hand, gross capital formation and total savings, both as a percentage of GDP, did not increase for 1988–2001. Total external debt, in contrast, has increased substantially. Private debt increased from $9.04 billion in 1990 to more than $54 billion in 2001, while total debt service more than doubled to $34.693 billion in 2000. As a result, liberalization strategy has been able to control a few macroeconomic variables, but has achieved limited performance in other macroeconomic aspects.

Real wages, productivity and employment: international comparisons and national performance

The average annual growth rate in monthly wages, measured in US dollars, shows that manufacturing wages in Mexico have outperformed other nations such as Chile and France. For the period December 1993 to December 2001 (INEGI 2002), wages observed an average annual growth rate (AAGR) of 2.4 per cent, 2.9 per cent, 0.3 per cent and 1.3 per cent respectively for Mexico, United States, France and Chile (see Figure 8.1).

Table 8.1 shows that Mexico's performance in terms of productivity growth for 1993–2001 has also been outstanding internationally. In fact, by the beginning of 2002, the manufacturing sector showed an increase of 51.7 per cent for 1993–2002. Only Korea's performance was higher (see Table 8.1).

Finally, with regard to the labour market, the open unemployment rate – measured as all those persons twelve years of age and older who

Table 8.1 Productivity in selected countries (hours worked per person in manufacturing, December of each year), 1993–2002 (1993=100)*

	Mexico	USA	Canada	Japan	Korea	Germany	UK
1993	107.2	101.5	105.5	99.6	106.5	115.3	101.3
1994	116.1	106	115.8	105.9	117.7	132	105.1
1995	126.3	111.3	110.6	109.8	127.4	140	101.6
1996	134.7	116.8	109.4	115.7	140.2	158.8	102.6
1997	138.1	123.4	114.2	115.7	147.1	168.5	102.6
1998	141.9	130.8	117.2	112.3	179.5	162.6	103.3
1999	143.3	139.3	121.2	120.4	204.8	169.7	108.6
2000	147.2	145.7	117.3	126.1	213.2	189.1	115.1
2001	149.3	147.7	113.5	116.9	222.8	196.9	112.3
2002†	151.7	149	113.5	118.5	230.5	–	–

* Index of hours per worker. † Refers to the January of 2002 for all countries, with the exception of Mexico (February 2002).

Source: Author's calculations based on INEGI (2002).

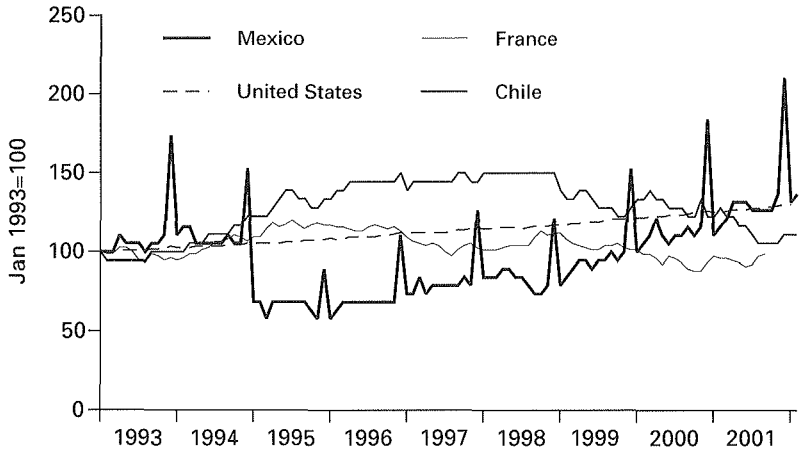

Figure 8.1 Manufacturing: wages per hour in US$, 1993–2002 (1993=100)
Source: Author's calculations based on INEGI (2002) <http://www.inegi.gob.mx>.

were looking for a job during the period of the poll and who worked for less than an hour a week – was, with few exceptions, the lowest among seven countries of the OECD during the second half of the 1990s, and even earlier, with the exception of Japan (see Figure 8.2).

These international trends reflect, on the one hand, that Mexico's performance in these variables has apparently been outstanding. On the other hand, and as discussed above, some of these comparisons and results are significantly distorted by the high overvaluation of the exchange rate in Mexico, which reached levels of about 40 per cent by 2001. So, independently of these international trends, what are the basic conditions of Mexico's employment, real wages and productivity?

The economically active population (EAP) increased during the 1990s by 1.3 million persons annually, while the general population increased by 1.9 million (see Table 8.2).

These are the latest estimates according to official sources. Other estimates have calculated an annual increase of the EAP between 1.2 and 1.5 million people annually (Dussel Peters 2000). This is the basis for understanding Mexico's labour market, because at least 1.3 million persons attempted to enter the formal labour market during the 1990s annually. For 1990–2000, however, only 600,000 jobs were generated annually on average, and less than 450,000 jobs were insured annually on average. That is to say, around 850,000 persons annually had to search for a job in the informal market.

The labour market in Mexico is highly segmented. The most formal segment, which is insured and registered at the Social Security Institute

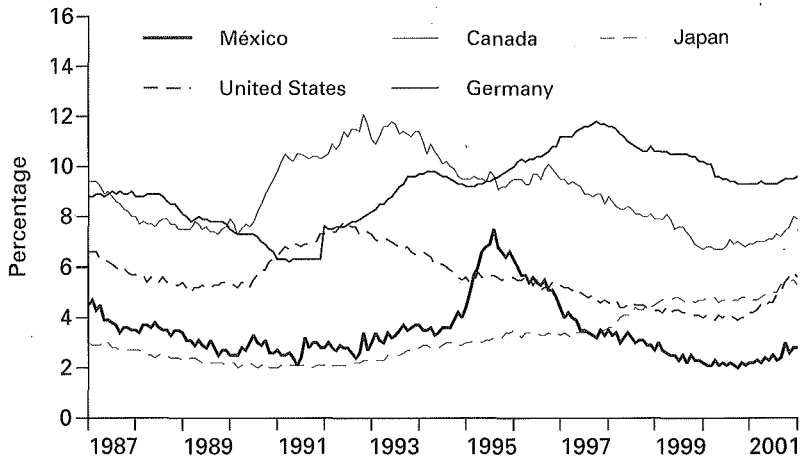

Figure 8.2 Open unemployment rate in selected countries, 1987–2002

(Instituto Mexicano del Seguro Social, IMSS), represented 35.2 per cent of the EAP in 2000. From this perspective, the challenge for generating employment lies in the informal labour market. Clearly, this is not reflected in the open unemployment rate, which is by definition not significant in Mexico, given that Mexico has no social or public safety-net that allows for unemployment. In fact, in this context, it is quite surprising that the open unemployment rate has reached such high levels as those reflected in Figure 8.3: for 1990–2001 the non-insured segment of the labour market represented 66.76 per cent of EAP in 2001 and has fallen for the period. That is to say, the formal labour market segment has not been able to absorb the increasing EAP. Thus, Mexico's labour market is segmented into three main components: (i) the economically active population (EAP); (ii) a formal and insured employed sector (of around one-third of EAP); and (iii) the rest of the EAP, which is employed, given that Mexico has no unemployment benefits, but not insured. This latter segment explains the large size of the so-called informal sector and contains a huge potential for migration, particularly to the United States.

Added to these structural limitations of Mexico's labour market, the recent recession in the US economy, as well as domestic difficulties, have led to a deep crisis in Mexico's labour market: permanent insured employment has fallen significantly, particularly for manufacturing, accounting for an annual growth rate since October 2001 and until March 2002 of minus 10 per cent. That is to say, more than 400,000 jobs were lost, the worst decline since data exist for insured employment.

Furthermore, real wages and productivity for manufacturing and

Table 8.2 Mexico: general information on population and employment, 1990–2000 (in thousands)

	1980	1985	1990	1995	1996	1997	1998	1999	2000	2001*	2005*
Total population	66,847	74,048	81,250	91,158	93,571	95,127	96,648	98,132	100,300	101,500	106,306
Economically active population (EAP)	21,996	25,853	30,164	36,637	37,541	39,422	40,770	42,057	43,299	44,507	49,149
Official employment	–	–	–	33,578	35,006	37,043	38,363	38,939	38,785	–	–
Insured†	6,368	8,149	10,764	10,932	11,895	12,714	13,611	14,560	15,240	15,131	–
Employed**	20,282	21,956	25,958	27,347	28,270	29,347	30,635	31,407	32,000	31,000	–
Open unemployment rate (%)	–	–	2.6	6.2	5.5	3.7	3.2	2.5	2.2	2.8	–
Insured/EAP (%)	29.0	31.5	35.7	29.8	31.7	32.3	33.4	34.6	35.2	34.0	–
Employed/EAP (%)	92.2	84.9	86.1	74.6	75.3	74.4	75.1	74.7	73.9	69.7	

* Estimates
† Total insured employed population according to Instituto Mexicano Seguro Social (IMSS), December of each year.
** Employed population according to INEGI (2002). Sistema de Cuentas Nacionales.
Source: Author's calculations based on CELADE (2001a, 2001b); CONAPO (1999); INEGI (2002) and Partida Bush (1999).

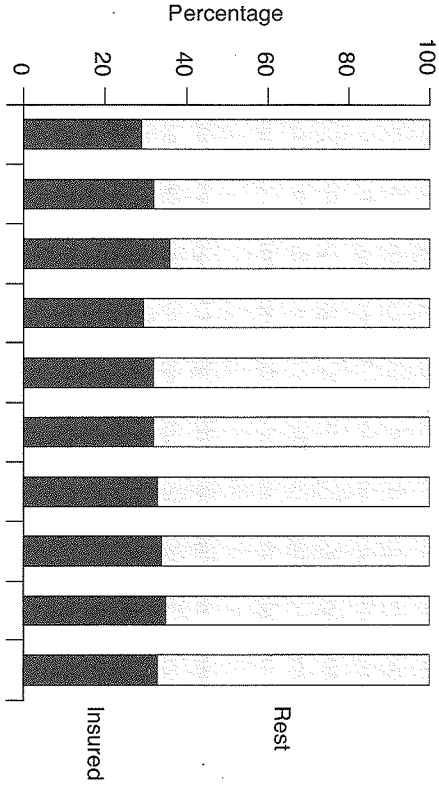

Figure 8.3 Labour market conditions, 1980–2001 (as a percentage of economically active population) *Source*: Author's calculations based on Table 8.2.

the total economy in Mexico reflect various performances for 1988–99. On the one hand, real wages for the total economy and manufacturing declined significantly during 1994–99, by 8.41 per cent and 12.61 per cent respectively. Such decline is a result of the fall in real wages during 1995–96, but it also contrasts with an improvement in real wages during 1988–94. On the other hand, and this is contrary to what would be expected by neoclassical economics, productivity for

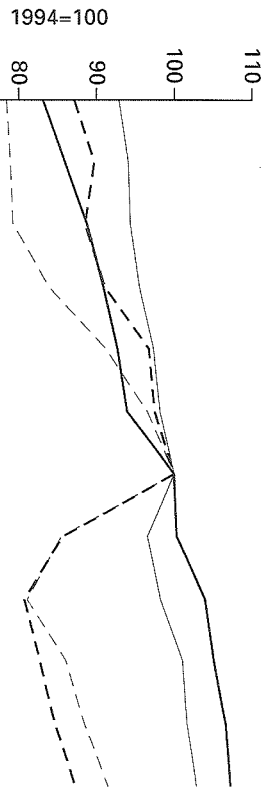

Figure 8.4 Real wages and labour productivity, 1988–99 (1994=100) *Source*: Author's calculations based on INEGI (2002).

1994–99 increased, particularly in manufacturing. The resulting gap between productivity growth and real-wages growth for total economy and manufacturing accounted for 11.37 per cent and 19.90 per cent for 1994–99 (see Figure 8.4). These respective gaps, particularly for the most dynamic sector of Mexico's economy since 1988, manufacturing, reflect a lack of an endogenous source of development, as discussed above.

Performance of branches with highest labour productivity

This section analyses the characteristics of those branches of Mexico's manufacturing sector that have reflected the most dynamic performance in terms of labour productivity growth during 1994–99. The objective is to understand the performance of these branches since 1994 – with the implementation of NAFTA – and their specificities in terms of GDP, employment, real wages and trade, among other variables, and in the conceptual context of our previous section.

Mexico's National Accounting System of INEGI consists of nine large divisions, one of which is manufacturing (*Gran División* 3). Moreover, the economy is divided into seventy-three branches, of which manufacturing includes branches 11–59, or forty-nine branches. Given the higher disaggregation of data, by the beginning of 2002 information was available only for 1988–99. As a result, I have divided the forty-nine manufacturing branches into three groups. Group 1 includes all those branches that displayed a labour productivity growth rate of 30 per cent *above* that of manufacturing during 1994–99, while Group 2 includes all those branches with a labour productivity growth rate of 30 per cent *below* manufacturing, but above the labour productivity growth rate for the total economy. Finally, Group 3 includes those branches with a labour productivity growth rate below that of the total economy's performance during 1994–99 (see Table 8.3).

Based on this typology at the level of branches, what are the main characteristics of the created groups, and particularly those branches in Group 1, with the highest labour productivity?

In summary, the main results presented in Table 8.4 are as follows: first, the surprises. Group 1 branches include some 'old industries' from the ISI period such as cement, steel and iron, sugar, tobacco and basic inorganic chemicals. Previous analyses (Dussel Peters 2000; Hernández Laos 2000) would have expected Group 1 to be comprised of other branches such as electronic equipment, glass and products, non-electrical machinery, electrical equipment and motors and autoparts, among others, in addition to automobiles and machinery and electric equipment, which belong in Groups 2 and 3. Also surprisingly, petroleum refining and basic petrochemicals are both in Group 3 and show some of the worst productivity performances for 1994–99. These surprises

Table 8.3 Typology of Mexico's manufacturing branches by growth rate of labour productivity, 1994–99 (1994 = 100)

	Total economy	102.96	32	Printing	114.89
	Manufacturing	107.29	41	Rubber products	113.04
	Group 1		17	Fats and oils	110.46
44	Cement	156.91	24	Cotton, wool, synthetic textiles	110.31
46	Steel and Iron	147.32	29	Lumber, plywood	110.28
16	Sugar	147.22	28	Leather and footwear	109.38
37	Plastic resins, synthetic fibre	141.27	42	Plastic products	108.91
56	Automobiles	140.61	36	Pesticides and fertilizers	108.80
52	Machinery and electrical equipment	139.61	53	Household appliances	108.42
23	Tobacco	138.99	51	Non-electrical machinery	107.52
35	Basic inorganic chemicals	135.79		*Group 3*	
	Group 2		48	Metal furniture	106.59
40	Other chemicals	129.30	14	Corn milling	103.93
39	Cleaning and toilet prep.	128.12	26	Other textile industries	103.60
38	Medicinal products	127.01	15	Coffee	103.33
58	Other transportation equipment	124.70	11	Meat and milk products	103.21
19	Other food products	124.27	13	Wheat milling	103.02
49	Structural metal products	124.22	57	Motors and autoparts	101.33
50	Other metal products	122.47	30	Other wood products	100.65
45	Ceramics	120.23	18	Food for animals	99.61
54	Electronic equipment	120.04	55	Electrical equipment	98.51
47	Non-ferrous metals	119.68	59	Other manufacturing industries	97.98
12	Fruits and vegetables	119.44	25	Jute, rough textiles	92.68
22	Soft drinks and flavourings	118.97	20	Alcoholic beverages	91.66
21	Beer and malt	118.46	33	Petroleum refining	90.48
31	Paper and paperboard	117.53	27	Apparel	76.89
43	Glass and products	115.23	34	Basic petrochemicals	74.13

Source: Author's calculations based on INEGI (2002).

can also be a result of the definition of labour productivity and its shortcomings. As defined earlier, labour productivity is the coefficient of GDP and employment. Although a growth in productivity is generally assumed to be positive, it can be the result of several tendencies, even a 'perverse' growth in which both variables decrease, but employment decreases even more than GDP.

Second, as expected by the definition of the typology, Group 1 presents the highest growth of labour productivity during 1988–99: it increased by 33.93 per cent during 1994–99, as compared to growth of 14.92 per cent and –25.08 per cent for Groups 2 and 4, respectively. Even manufacturing's productivity as a whole increased by only 7.29 per cent for the period.

Table 8.4 Results of typology of Mexico's manufacturing branches selected by productivity growth, 1994–99 (1988–99)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Exports (1994=100)	61.22	63.12	67.55	72.55	75.67	83.19	100.00	148.48	179.30	194.49	207.59
Group 1	45.91	48.88	55.17	64.94	72.08	83.72	100.00	151.52	199.66	211.66	214.32
Group 2	67.88	74.56	76.02	78.39	75.63	82.24	100.00	169.22	190.28	208.74	230.46
Group 3	72.49	68.30	73.56	75.60	79.94	83.54	100.00	123.81	144.14	159.75	176.41
Exports (% over manufacturing)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Group 1	27.58	28.21	30.51	35.60	36.79	37.15	36.96	40.16	43.00	41.31	39.91
Group 2	36.94	38.73	34.81	33.68	32.56	31.43	31.17	33.49	30.51	31.29	32.28
Group 3	35.49	33.07	34.68	30.72	30.65	31.42	31.87	26.35	26.49	27.39	27.81
Imports (1994=100)	35.79	43.77	54.54	67.01	82.84	83.14	100.00	72.26	89.69	114.88	133.24
Group 1	37.91	46.31	61.45	69.22	82.15	76.55	100.00	71.94	92.93	117.53	143.54
Group 2	35.23	41.02	51.62	65.08	82.22	82.12	100.00	71.37	91.85	120.54	141.67
Group 3	35.78	46.36	55.89	68.67	83.83	86.59	100.00	73.47	85.93	106.96	119.35
Imports (% over manufacturing)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Group 1	13.10	13.26	14.39	13.33	12.37	11.83	13.08	13.01	13.37	13.19	13.86
Group 2	47.49	46.00	45.75	46.80	48.10	47.73	48.62	48.67	50.78	51.82	52.72
Group 3	39.41	40.75	39.87	39.87	39.53	40.43	38.30	38.32	35.84	34.99	33.43
Exports/GDP (%)	31.63	30.43	30.84	28.66	26.28	29.56	34.49	66.30	69.05	66.07	65.97
Group 1	49.08	50.30	54.77	56.57	55.94	64.50	75.34	138.19	144.14	136.63	133.12
Group 2	23.96	23.49	21.73	20.25	18.12	19.10	21.86	46.03	45.01	43.85	44.65
Group 3	33.55	30.70	32.00	25.67	22.71	27.04	32.44	53.76	56.13	55.07	56.42
Imports/GDP (%)	47.04	54.12	61.00	63.50	69.98	68.80	79.39	79.98	86.75	92.49	99.61
Group 1	34.67	42.05	51.07	46.93	50.06	47.82	61.38	54.02	56.31	61.06	69.78
Group 2	45.80	49.62	56.50	62.34	71.27	67.54	78.47	80.69	94.11	101.64	110.78
Group 3	55.40	67.30	72.76	73.83	77.97	80.97	89.73	94.32	95.42	98.48	102.37
Trade balance/GDP (%)	-15.40	-23.70	-30.16	-34.84	-43.70	-39.24	-44.90	-13.69	-17.20	-26.42	-33.64
Group 1	14.42	8.25	3.70	9.64	5.87	16.68	13.96	84.17	87.83	75.57	63.34
Group 2	-21.84	-26.13	-34.76	-42.09	-53.15	-48.43	-56.61	-34.66	-49.10	-57.79	-65.45
Group 3	-21.85	-36.60	-40.75	-48.27	-55.27	-53.93	-57.29	-40.56	-39.29	-43.40	-45.95
Gross formation of capital (1994=100)	52.91	59.60	71.76	85.66	99.54	91.18	100.00	63.80	78.47	105.03	122.76
Group 1	59.22	73.55	88.49	113.75	128.73	106.90	100.00	43.15	54.79	86.87	107.35
Group 2	49.40	52.77	65.11	75.73	90.62	86.14	100.00	68.63	80.78	110.10	128.54
Group 3	54.58	61.13	70.00	79.84	90.22	86.72	100.00	73.81	97.50	111.92	125.17
Gross formation of capital (% over manufacturing)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Group 1	24.70	26.53	35.92	30.29	29.97	27.71	23.92	14.13	14.73	18.74	19.69
Group 2	54.13	51.91	53.40	49.63	49.84	50.48	53.61	60.04	57.34	57.09	57.08
Group 3	21.17	21.56	20.68	20.08	20.19	21.81	22.47	25.82	27.93	24.17	23.23
Gross formation of capital/GDP (%)	39.50	43.00	46.61	50.08	53.88	48.95	51.35	40.17	45.37	51.42	56.80
Group 1	55.01	65.31	70.30	84.10	93.44	79.69	72.58	29.46	32.45	48.25	56.55
Group 2	43.94	43.45	50.40	52.14	56.85	50.81	55.95	50.00	55.57	62.25	67.98
Group 3	25.05	27.63	28.84	29.33	30.66	31.08	34.05	31.92	38.89	37.82	40.57
Employment (1994=100)	93.69	97.81	101.12	102.11	104.35	102.19	100.00	94.68	101.22	110.10	116.50
Group 1	123.52	122.00	118.59	116.57	113.44	106.77	100.00	92.35	95.78	102.15	107.79
Group 2	94.16	97.69	101.50	103.88	103.81	101.97	100.00	93.31	98.06	105.71	110.36
Group 3	86.80	92.90	96.93	96.65	103.17	101.53	100.00	97.04	106.65	117.73	126.66

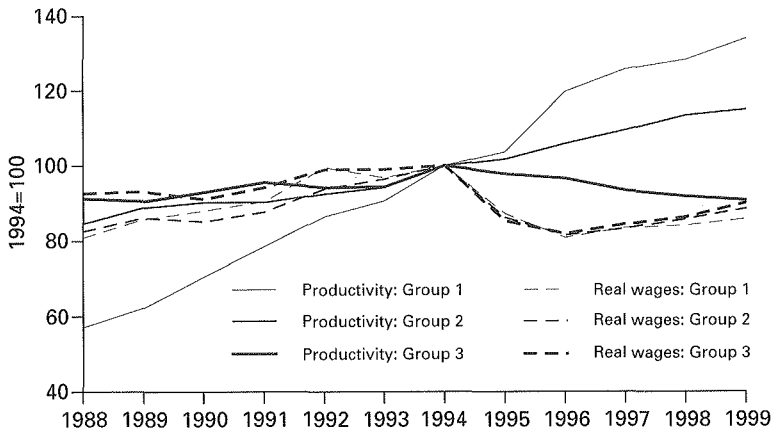

Figure 8.5 Typology of manufacturing branches: real wages and productivity, 1988–99 (1994=100) *Sources*: Author's calculations based on Table 8.4.

Third, the share of Group 1 over manufacturing's GDP has remained relatively constant during 1988–99, at 17.77 per cent in 1988 and 18.96 per cent in 1999. Particularly in 1994–95, its share increased substantially, but has fallen since then. Groups 2 and 3 accounted for more than 80 per cent of manufacturing's GDP during 1988–99.

Fourth, in terms of gross-capital formation (GCF), the performance of Group 1 has underperformed branches in Groups 2 and 3, both in terms of growth rates during 1994–99, as well as in terms of GDP. Regarding the latter, for example, GCF represented 57.70 per cent for Group 1 and 69.50 per cent for Group 2. As a result, Group 1's share of GCF over manufacturing has fallen from 24.70 per cent in 1988 to 23.92 per cent in 1994 and to 19.08 per cent in 1999.

Fifth, branches in Group 1, particularly automobiles, have been very dynamic in terms of trade. Exports increased by more than 135 per cent during 1994–99, although less than export growth in branches of Group 2; their share over manufacturing's exports increased from 27.58 per cent in 1988 to 39.35 per cent in 1999. Significantly, much of this growth took place before 1994. Most impressively, however, the exports/GDP coefficient has been higher than 100 per cent since 1995, and it almost tripled for 1988–99. This surge in the exports/GDP coefficient in automobiles reflects a significant structural change in the production and specialization pattern. The rest of the manufacturing sector and its groups display coefficients below 65 per cent. The imports/GDP coefficient is lower than the rest of the manufacturing sector. As a result, branches in Group 1 account for an increasing trade surplus, from 14.42 per cent

of GDP in 1988 to 13.96 per cent in 1994 and 64.23 per cent in 1999. This performance is outstanding, since the rest of the Groups, and total manufacturing, reflect increasing trade deficits, from −15.40 per cent of GDP in 1988 to −34.16 per cent in 1999 for total manufacturing.

Sixth, and contrary to expectations, employment in the most dynamic branches in terms of productivity has continuously fallen for the analysed period until, in 1999, it reached 1988 levels. As a result, the employment share of Group 1 over manufacturing represented only 7.31 per cent in 1999. This result indicates that the most dynamic branches in terms of productivity have achieved these results by increasing GDP since 1988, and by reducing employment.

Seventh, one of the most striking features of the most dynamic branches in terms of productivity is that they have widened their gap between productivity growth and real-wages growth substantially. Therefore, while the gap has shortened for Groups 2 and 3, as well as for manufacturing as a whole, this gap accounted for almost 50 per cent for Group 1, as a consequence of increasing productivity and falling real wages. Although branches in Group 1 account for the highest wages in absolute terms, 66.01 per cent higher than manufacturing's average in 1999, its performance in terms of growth has been the worst: wages in Group 1 branches experienced the most significant decrease during 1994–99 of all groups, by 14.25 per cent (see Figure 8.5). Branches such as automobiles account for a gap of more than 60 per cent as a result of real wages declining by 20.4 per cent and productivity increasing by 40.61 per cent.

The typology is relevant from several perspectives. On the one hand, it shows that activities related to the highest productivity growth in Mexico's manufacturing sector have underperformed other branches in terms of gross capital formation, GDP and employment. The latter is particularly significant because, in terms of the conceptual discussion above, productivity growth has not been positively associated with employment growth, but rather by its fall in the most dynamic branches. On the other hand, branches that outperformed the rest of the manufacturing branches in terms of productivity reflect a high dynamism in foreign trade, particularly in exports. As a result, branches in Group 1, as a whole, are the only ones that have generated a trade surplus, in contrast to Groups 2 and 3 and manufacturing as a whole. The positive association between productivity growth and export growth is relevant for manufacturing as a whole, considering that its trade deficit has become one of the main sources of macroeconomic and balance of payments instability since 1988. A final and fundamental point for understanding the growth strategy since 1988 is that activities associated with high labour productivity have been the weakest in terms of real-wages

growth: the gap between both variables has widened substantially for 1988–99 and also since 1994. As a result, the gap accounted for almost 70 per cent for 1988–1999, i.e. labour productivity increased by 71.1 per cent, while real wages only by 3.4 per cent.

Conclusions

Who reaps the benefits and fruits of productivity growth in Mexico? This article has shown in detail that, thus far, real wages have not been the main beneficiaries, particularly since the implementation of NAFTA in 1994. Although the Mexican economy has achieved substantial productivity increases since 1988 and 1994 – also in comparison to other countries – real wages have continued to fall. This increasing gap since the start of the liberalization strategy is relevant in terms of the sustainability of the economy, as well as in social and political terms, because the increasing gap affects both income distribution and the political sustainability of Mexico in the short, medium and long term.

Changes in the exchange rate, such as the devaluation in 1995–96, have no doubt had a negative impact on real wages. A deeper analysis would be required in the future to distinguish and weight the effects of devaluations, among other variables, on real minimum wages, real wages in manufacturing and the total economy. As discussed above, however, wages have in general declined continually since the start of the liberalization strategy in the 1980s, with no significant recoveries.

The resulting socioeconomic polarization has been analysed at the branch level of the manufacturing sector. In this case, branches that have achieved the highest productivity growth have also resulted in the highest gap between productivity and real-wage growth. Cortéz (2001) has identified similar results. Rather surprisingly, branches in Group 1 – those with the highest productivity growth – have also achieved the lowest performance in terms of employment, gross-capital formation and real-wage growth since 1994. Nevertheless, branches in Group 1 have been very dynamic in foreign trade, particularly regarding exports, i.e. these branches have been able to account for an increasing trade surplus, in contrast to the rest of Mexico's manufacturing sector and the economy as a whole.

These findings are relevant from several perspectives. On the one hand, they show some of the contradictions of the liberalization strategy and export-oriented industrialization followed in Mexico since 1988 (Dussel Peters 1996). The liberalization strategy has not been able to generate competitive conditions for the productive sector in Mexico, particularly with regard to financing and the overvaluation of the exchange rate. Although exports are positively associated with branches with high productivity growth, they are far from resolving some of the

main challenges of Mexico's economy, particularly those of employment generation and improving real wages. As a result, by the end of the 1990s, high-growth branches in terms of productivity have not been able to establish links to the rest of the economy to overcome one of its weakest conditions: its increasing dependence on imports to produce exports and to grow in terms of GDP, as reflected in the trade-balance/GDP coefficient. On the other hand, the liberalization strategy and NAFTA have been far away from achieving positive effects on employment and real-wage growth, particularly in those branches that have increased productivity. Furthermore, these branches have deepened the socioeconomic polarization in Mexico.

These issues are relevant economically for Mexico as well as for the United States and Canada, in terms of the sustainability of the liberalization strategy. Socially and politically, the model has contributed to an increase in overall polarization. Several authors and business chambers have proposed to link productivity to real-wage growth in Mexico. In the context of the Mexican discussion of the 'New Labour Culture' and the reform of the Labour Law since the beginning of the 1990s, the Confederation of Mexican Workers, closely linked to the government, and the Employers' Confederation of the Mexican Republic (Confederación Patronal de la República Mexicana, COPARMEX) proposed linking real wages to productivity, among other variables. Will employers really be able and willing to increase real wages by more than 60 per cent to close the gap between both variables, only for the period 1994–99?