Constraints on Labour-Intensive Export Industries in Mexico

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NOW THAT THE first United Nations Development Decade has come and gone, it is being realised with increasing anxiety that " even relatively high rates of increase in over-all production have not always yielded an adequate rate of expansion in employment; and that, partly as a corollary to this, the process of growth has sometimes accentuated inequalities in the distribution of income ".[2] The promotion of labour-intensive export industries is often regarded as a powerful antidote to this condition, a view that experience in the Far East has appeared to endorse.[3] However, the success obtained by countries in this region remains " exceptional ", in that developed countries' imports of labour-intensive manufactures from developing countries have been largely confined to them.[4] The generalised system of preferences for the developing countries has not done much to change the situation.[5] Why should

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[2] United Nations, Department of Economic and Social Affairs: *The International Development Strategy. First over-all review and appraisal of issues and policies. Report of the Secretary-General* (New York, 1973; Sales No. E.73.II.A.6), p. 1. A warning regarding this problem was already sounded in 1965 by W. A. Lewis (" A review of economic development ", in *American Economic Review* (Menasha (Wisconsin)), May 1965, Supplement, pp. 12-15).

[3] See Bela Balassa in *Weltwirtschaftliches Archiv* (Kiel), No. 1, 1971, pp. 55-77, particularly pp. 64-65; and Susumu Watanabe: " Exports and employment: the case of the Republic of Korea ", in *International Labour Review*, Dec. 1972, pp. 495-526.

[4] Hal B. Lary: *Imports of manufactures from less developed countries* (New York and London, Columbia University Press, 1968), p. 16; United Nations: *Handbook of international trade and development statistics: supplement 1970* (New York, 1970), p. 65; idem: *Review of international trade and development 1970* (New York, 1970), p. 16, footnote 19; and idem: *Trade in manufactures of developing countries: 1970 review* (New York, 1971), p. 20.

[5] Tracy Murray: " How helpful is the generalised system of preferences to developing countries? ", in *Economic Journal* (London), June 1973, p. 454.

TABLE 1. GROWTH OF GDP IN MEXICO BY SECTOR, 1960-70

(in million pesos at 1960 prices)

Sector	1960		1970		Annual growth rate, 1960-70	Contribution to growth of GDP, 1960-70
	Amount	%	Amount	%	%	%
Gross domestic product	**150 511**	**100.0**	**296 000**	**100.0**	**7.0**	**100.0**
Agriculture, forestry and fisheries	23 970	15.9	34 535	11.7	3.7	7.2
Mining and petroleum	7 434	4.9	15 534	5.2	7.6	5.6
Manufacturing	28 892	19.2	67 680	22.8	8.9	26.6
Light industries [1]	19 025	12.6	37 682	12.7	7.1	12.8
Heavy industries [2]	9 867	6.6	29 998	10.1	11.8	13.8
Construction	6 105	4.1	13 583	4.6	8.3	5.1
Services	84 110	55.9	165 268	55.7	7.0	55.5

[1] Includes industries producing foodstuffs, beverages, textiles, garments, leather, wood and paper products, as well as products classified as " other ".
[2] Includes industries producing chemical and non-metal mineral products, basic metals, metal products, electrical and non-electrical equipment and transportation equipment.

Sources: Basic data are from Nacional Financiera: *La economía mexicana en cifras 1970* (Mexico City, 1972), and Banco de México: *Informe anual 1971* (Mexico City, 1972).

TABLE 2. GROWTH OF LABOUR FORCE IN MEXICO BY SECTOR, 1960-70

Sector	1960		1970		Annual growth rate, 1960-70	Contribution to growth of labour force, 1960-70
	'000 persons	%	'000 persons	%	%	%
Total labour force	**11 332**	**100.0**	**15 501**	**100.0**	**3.2**	**100.0**
Agriculture, forestry and fisheries	6 143	54.2	7 778	50.2	2.4	39.2
Mining and petroleum	142	1.3	208	1.3	3.9	1.6
Manufacturing	1 556	13.7	2 200	14.2	3.5	15.5
Construction	408	3.6	773	5.0	6.6	8.8
Services	3 083	27.2	4 542	29.3	3.9	34.9

Source: Basic data are from Saúl Trejo Reyes: " Desempleo y subocupación en México ", in *Comercio Exterior* (Mexico City, Banco Nacional de Comercio Exterior), May 1972, p. 415.

this be so? Why do the Far Eastern countries remain " exceptions " and why do other developing countries not succeed in following their example? Although it is fashionable to advocate the development of labour-intensive export industries, there has been little investigation of these pertinent questions. Below I shall attempt to make good this deficiency with reference to Mexico.

During the 1960s the Mexican economy grew at an average compound rate of 7 per cent a year. This is the second best record (after Panama) achieved by non-mineral-exporting developing countries outside the Far East.[1] Unlike the Far East, however, Mexico's economic growth has not eased the country's unemployment problem. The pattern of the economy has not changed much (table 1), nor has the structure of the labour force (table 2).

The reported amount of open unemployment in Mexico is not large. The 1960 population census found that only 181,000 persons (1.6 per cent of the labour force) were unemployed. The 1970 population census recorded 485,000 (3.7 per cent of the labour force reported by the census [2]) as unoccupied, and 1,143,000 (8.8 per cent) as jobseekers. These figures, however, understate the unemployment problem considerably. People were considered to be occupied when they had been engaged in a paid job for at least an hour, or in an unpaid job for at least 15 hours, during the week preceding the census, and they were recorded as jobseekers only when they had taken positive steps to find a job, e.g. visiting an employment exchange office during the said week.

Regarding underemployment, 12.5 per cent of the total labour force were employed for fewer than six months in 1969, and about one-half of the labour force earned less than 500 pesos ($40) a month.[3] One study estimates that there were 2.2 million man-years of open unemployment in 1970, and that, at current rates of growth of employment, population, economic development and labour productivity, another 1.8 million man-years will be added to this figure by 1980.[4] Adopting the criterion of earnings, 53.2 per cent of the labour force were considered to be underemployed in 1970.[5]

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[1] United Nations Conference on Trade and Development: *The mobilization of domestic resources. Mobilization of resources for development 1960-1970* (doc. TD/B/C.3/95, 4 Oct. 1971; mimeographed), p. 11.

[2] The census statistics in Mexico are generally believed to be on the low side. The economically active population in 1970 was 12,994,540 according to the census, but the real figure is believed to have been about 15 million.

[3] Secretaría de Industria y Comercio, Dirección General de Estadística: *IX Censo general de población, 1970* (Mexico City, 1972).

[4] Víctor Ramírez Izquierdo: " Algunos aspectos de la problemática de la tecnología y el empleo ", in *Revista Mexicana del Trabajo* (Mexico City), Jan.-Mar. 1972, p. 22.

[5] Trejo Reyes, op. cit. Dr. Trejo divides each economic sector into " modern " and " traditional " parts according to earnings, and classifies the labour force in the traditional part as " underemployed ". A similar approach, leading to similar findings, was adopted by Andrés Caso in his " El empleo como objetivo del desarrollo ", in *Trimestre Económico* (Mexico City), Apr.-June 1971, pp. 263-264.

Mexico is thus a good example of many of today's developing countries where fairly rapid economic growth has so far failed to solve the unemployment problem. It also suffers from another serious problem common among developing countries: between 1960 and 1970 its balance of trade deficit tripled from $300 million to $900 million.[1]

It is in an endeavour to overcome or at least alleviate these two problems that the Mexican Government is now making considerable efforts to promote exports of labour-intensive products, as will be seen below.

In the present article I shall first examine the contribution made by Mexican exports of manufactures and semi-manufactures to employment creation during the last decade. I must be content with an estimate of the direct effects only and neglect linkage and multiplier effects because of the lack of necessary statistics. Next, an attempt will be made to explain the limited employment effect of this country's exports, and finally, I shall discuss the Government's export promotion measures and the role of foreign investment, before considering some implications of Mexico's experience for other developing countries.

In order to illustrate my argument, and for purposes of comparison, I shall make fairly frequent reference to certain Far Eastern countries and particularly to the Republic of Korea whose case has already been examined in these pages.

I. Exports and employment in Mexican manufacturing

During the 1960s Mexican merchandise exports grew at an average rate of 6.4 per cent a year, i.e. about 0.6 per cent slower than the gross domestic product, and a good way below the rate achieved by Korea (42 per cent a year during 1962-70) and many other developing countries.[2] The rate of expansion of exports dropped from 9.6 per cent during the first half of the decade to 3.2 per cent during the second half before " revaluation " [3] and from 8.6 per cent to 4.2 per cent after revaluation. (There are signs of an improvement since 1970 owing to a number of incentive schemes introduced or extended by the Government, which will be discussed later.)

[1] *La economía mexicana en cifras 1970*, op. cit., p. 283, and *Informe anual 1971*, op. cit., p. 86.

[2] The growth rate of exports from Korea was the second fastest of all the developing countries during the first half of the last decade and the fastest in the latter half, while that of Mexico occupied the 34th and 32nd positions respectively (cf. United Nations Conference on Trade and Development, op. cit., p. 13).

[3] Consignment values on custom-house bills sometimes do not correspond to actual market values, since exports are often undervalued. The Bank of Mexico therefore revalues some export items on the basis of prices quoted for Mexican merchandise on international markets—mainly unprocessed food and raw materials. In 1970 the revaluation amounted to 2,459 million pesos (14.3 per cent of total exports), the most important items being tomatoes (36.9 per cent), cattle (24.5 per cent), cotton (21.3 per cent) and zinc (11.6 per cent): see Secretaría de Industria y Comercio, Dirección General de Estadística: *Anuario estadístico del comercio exterior de los Estados Unidos Mexicanos 1971* (Mexico City, 1972), table 29.

Until around 1965 the pattern of Mexican exports changed little; agriculture and fisheries, and mining and petroleum accounting for approximately 55 and 20 per cent of total exports respectively. Since 1965, however, the relative importance of manufactured goods has increased remarkably (table 3). The decline in the growth rates of the agricultural and mining sectors may be explained partly by the Mexican Government's discouragement of exports of unprocessed raw materials [1] as well as by changes in international market conditions.[2]

Characteristic of the recent development of Mexican manufactured exports is the predominance of heavier industrial products: chemical and metal products, electrical and other machinery as well as transportation equipment. This forms a striking contrast with Korea, where nearly 70 per cent of the increment in exports during 1962-70 was accounted for by labour-intensive light industry products such as textiles, garments, footwear and wigs.

The Mexican export trend corresponds to the development pattern of its manufacturing sector. As has often been pointed out, the Mexican industrialisation process is biased towards heavier industries (table 1): during the 1960s, machinery (both electrical and other) and transportation equipment manufacturing grew about twice as fast (approximately 15 per cent a year) as labour-intensive light industries such as those processing foodstuffs and producing textiles, clothing, leather and wooden products, which expanded at a rate of between 6 and 8 per cent per year.[3] Consequently, the manufacturing labour force grew by an average of only 3.5 per cent a year during the period and the proportion of manufacturing in the total labour force rose only marginally from 13.7 to 14.2 per cent (table 2). In contrast, employment in Korean manufacturing grew at a rate of 10.4 per cent a year and its weight in total employment rose from 8 to 13.2 per cent between 1963 and 1970. While nearly 40 per cent of all new jobs were created in this sector in Korea, Mexican manufacturing absorbed only 15 per cent of the total increment of labour force. If we compare the relative growth rates of output and employment of this sector in the two countries, it is obvious that the incremental employment/output ratio has been much lower in Mexico.

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[1] Gerardo Bueno: "The structure of protection in Mexico", in Bela Balassa and associates: *The structure of protection in developing countries* (Baltimore and London, Johns Hopkins Press, 1971), pp. 177-178.

[2] The following have been cited as main factors in the stagnation of exports of food and beverages and raw materials from Latin America as a whole: loss of competitiveness vis-à-vis other sources of supply (e.g. coffee from Africa), shifts in patterns of demand in importing advanced countries (e.g. mineral raw materials for industrial use), and displacement of natural by synthetic materials (e.g. man-made fibres for cotton, wool and sisal—including henequen); see Alfred Maizels: "Recent trends in Latin America's exports to the industrialised countries", in Victor L. Urquidi and Rosemary Thorp (eds.): *Latin America in the international economy* (London and Basingstoke, Macmillan, 1973), pp. 44-48.

[3] *La economía mexicana en cifras 1970*, op. cit., p. 29, and *Informe anual 1971*, op. cit., pp. 66-68.

TABLE 3. STRUCTURE AND GROWTH OF MEXICAN MERCHANDISE EXPORTS BY SECTOR, 1960-70

(in $ million [1])

Sector	1960		1965		1970		Annual growth rate	
	Amount	%	Amount	%	Amount	%	1960-65	1965-70
Total exports	**738.7**	**100.0**	**1 113.9**	**100.0**	**1 373.0**	**100.0**	**8.6**	**4.2**
Agriculture, forestry and fisheries	402.7	54.5	619.3	55.6	609.4	44.4	9.0	−0.3
Cotton	157.9	21.4	212.1	19.0	123.7	9.0	6.0	−11.7
Coffee	71.7	9.7	73.1	6.6	86.1	6.3	0.4	3.4
Tomatoes	25.5	3.5	35.1	3.2	107.7	7.8	6.7	25.1
Meat and cattle	43.6	5.9	56.5	5.1	125.6	9.1	5.4	17.3
Fish	36.5	4.9	46.0	4.1	68.0	5.0	4.7	8.2
Other	67.5	9.1	196.5	17.6	98.3	7.2	23.9	−14.8
Mining and petroleum	162.9	22.1	222.2	19.9	219.0	16.0	6.3	−0.2
Metals	88.0	11.9	78.3	7.0	91.5	6.7	−2.3	3.2
Non-metal minerals	38.1	5.2	76.2	6.8	50.1	3.6	14.9	8.7
Petroleum	19.8	2.7	39.6	3.6	37.9	2.8	14.9	−0.8
Other	17.0	2.3	28.1	2.5	39.5	2.9	10.5	7.1
Manufacturing	171.8	23.3	265.2	23.8	544.6	39.6	9.0	15.4
Sugar and molasses	58.0	7.9	73.1	6.6	97.4	7.1	4.7	5.9
Processed fruits and vegetables	11.1	1.5	20.9	1.9	35.9	2.6	13.5	11.5
Henequen yarns and fabrics	18.5	2.5	18.5	1.7	12.0	0.9	—	−9.0
Cotton yarns and fabrics	7.2	1.0	3.6	0.3	11.5	0.8	−14.9	26.1
Glass and similar products	2.0	0.3	4.8	0.4	8.6	0.6	19.1	12.4
Books and other printed goods	3.1	0.4	5.7	0.5	17.4	1.3	12.9	25.2
Chemical products	—	—	—	—	18.6	1.4	.	[2]
Iron and steel products	4.5	0.6	25.4	2.3	39.0	2.8	42.0	9.0
Lead	3.2	0.4	9.2	0.8	13.0	0.9	23.6	7.1
Automobile parts	—	—	—	—	26.4	1.9	.	[2]
TV and radio sets	—	—	—	—	16.9	1.2	.	[2]
Other	64.2	8.7	104.0	9.3	247.9	18.1	10.1	18.9
Unclassified products	1.3	0.1	7.2	0.7	—	—	41.0	.

[1] Takes account of " revaluations " (see earlier footnote). [2] Denotes a change from a negligible amount to a substantial one.

Source: Banco de México: *Manual de estadísticas de exportación de mercancías 1960-1971*, p. 1.

Table 4 attempts a rough estimate of employment directly involved in the production of Mexican manufactured exports in 1970. " Processed " export items in the trade statistics were regrouped according to the industrial classification. Different sources give different export figures for individual items, although the aggregate figure is the same. My own regrouping inevitably involves a certain degree of error also. For all these reasons there is approximately a 7 per cent discrepancy between the total of manufactured exports shown in table 4 and the Bank of Mexico figure given in table 3—in round figures $580 million compared with $545 million. As the trade statistics are those after " revaluation " by the Bank and as Mexican industrialists are not enthusiastic enough about exporting to resort to dumping (this point will be discussed later), there seems to be little price difference between home and export markets. So it may be fairly safe to use the employment/gross output ratios given in the industrial census [1] for estimating the direct employment effect of these exports. From the table, it appears that Mexican exports of manufactures in 1970 provided jobs for about 68,000 workers. Taking into consideration the gap between my figure for total exports and the Bank of Mexico's figure, as well as all the various limitations to which the data used are subject, the actual amount of employment involved in export manufacturing must have been somewhere between 60,000 and 70,000 (say 65,000).

This corresponds to about 4 per cent of the total employment recorded by the industrial census [2], and we may therefore conclude that the employment effect of Mexico's manufactured exports is very small, particularly compared with Korea where exports are estimated to have directly provided jobs for some 27 per cent of the sector's workers in 1969.[3]

This limited employment effect is the result of two factors: the small proportion of exports in total manufacturing production and the relatively low labour intensity (in terms of employment/output ratios) of Mexico's exports.

The weight of exports in the total production of Mexican manufacturing has been falling since 1950.[4] The 1970 figure of $545 (580) million corresponds to only 3.3 (3.6) per cent of the sector's gross output

[1] Secretaría de Industria y Comercio, Dirección General de Estadística: *IX Censo industrial, 1971: datos básicos preliminares* (Mexico City, 1972). The data in the census report refer to 1970.

[2] The total employment in this sector at the end of 1970 was 1,640,000, according to the preliminary report of the census. This figure is considerably smaller than the estimated manufacturing labour force shown in table 2 (2,200,000). The industrial census seems to underestimate the sector's production, too, since it gives its total value added as 79,267 million pesos, compared with the national accounts figure of 94,679 million pesos. Ignoring smuggling, which is said to be substantial, the real contribution of exports to production and employment in this sector may therefore be smaller than is suggested in the text.

[3] Watanabe, op. cit., pp. 514-515.

[4] Nacional Financiera and Comisión Económica para América Latina: *La política industrial en el desarrollo económico de México* (Mexico City, 1971), p. 83.

TABLE 4. DIRECT EMPLOYMENT CREATED BY EXPORTS OF MANUFACTURES AND SEMI-MANUFACTURES FROM MEXICO, 1970

Product	(1) Exports ($'000)	(2) Employment/ gross output ratio (workers per $'000 at 1970 market prices)	(3) Direct employment created by exports (1)×(2)
All manufacturing	**580 563**	**0.117**	**68 159**
Food (processed)	139 587	0.148	20 716
Sugar and molasses	97 466	0.140	13 645
Fruits and vegetables	31 766	0.191	6 067
Other	10 355	0.097	1 004
Beverages	4 243	0.074	314
Tobacco (processed)	310	0.038	12
Textiles (yarns and fabrics)	31 396	0.235	7 392
Henequen	12 033	0.407	4 897
Cotton	10 160	0.128	1 300
Other	9 203	0.130	1 195
Clothing (inc. footwear and headgear)	14 057	0.236	3 323
Wooden products (exc. furniture)	5 978	0.280	1 674
Wooden furniture	5 939	0.276	1 639
Paper and related products	3 016	0.066	199
Printing	18 194	0.170	3 093
Leather and related products	4 405	0.155	683
Rubber products	1 628	0.060	98
Chemical products	73 427	0.053	3 927
Basic industrial products	44 243	0.056	2 478
Fertilisers and insecticides	9 301	0.037	344
Synthetic resins	7 070	0.033	233
Other	12 813	0.068	872
Petroleum (lubricants)	111	0.023	3
Non-metal mineral products	19 834	0.156	3 085
Glass and related products	8 255	0.125	1 032
Tiles and earthenware	4 819	0.201	969
Other	6 760	0.160	1 084
Basic metals	97 980	0.034	3 349
Lead, zinc and other	59 394	0.031	1 841
Iron and steel	29 250	0.041	1 199
Copper	9 336	0.033	309
Metal products	14 067	0.135	1 899
Non-electrical machinery and parts	40 923	0.127	5 197
Electrical equipment and parts	54 479	0.090	4 883
TV and radio sets and parts	24 088	0.069	1 662
Other	30 391	0.106	3 221
Transportation equipment and parts	28 923	0.058	1 686
Automobiles and parts	27 019	0.054	1 459
Other	1 904	0.119	227
Miscellaneous	22 066	0.226	4 987
Jewellery and accessories	4 826	0.194	936
Musical instruments and parts	3 419	0.385	1 316
Other	13 821	0.198	2 735

Source: I regrouped the export figures for products listed under the heading " elaborados " (processed goods) in Banco Nacional de Comercio Exterior: *Comercio exterior de México 1969-1970* (Mexico City, 1972) according to the industrial classification used in *IX Censo industrial, 1971* . . ., op. cit. A certain degree of error is inevitable. The employment/gross output ratios were calculated using employment and gross output data in the industrial census and applying the exchange rate $1 = 12.5 pesos. Wherever possible, I made separate calculations for individual products whose export value exceeded $1 million, and aggregated them for the purposes of the table. The ratio shown for each industry group is therefore weighted and differs from the ratio that is directly obtainable from the census data.

recorded in the census. (Korean manufacturing exported 14.1 per cent of its gross output in 1969.)

As regards labour intensity, table 4 clearly indicates the marginal role of such labour-intensive products as clothing, wooden goods, textiles (except henequen), and those classified as " miscellaneous ". This presents a sharp contrast to the Korean picture, where exports are concentrated on the most labour-intensive items: garments, wigs, *shibori*, footwear, etc. The result is that Korean manufactured exports are twice as labour-intensive as Korean manufacturing as a whole, while the average employment/output ratio of Mexican manufactured exports (0.117 workers per $1,000) is barely higher than that of all manufacturing (0.101 workers per $1,000 according to the census data). This difference is almost meaningless, considering the statistical errors involved in my estimate. Moreover, the monetary output/labour ratio of Mexican manufacturing is more than twice as high as that of its Korean counterpart (table 5). Consequently, exports to a value of $1 million seem to have provided employment, on the average, for about 100 workers in Mexican manufacturing in 1970, while Korean manufacturing exports to the same value were estimated to have created nearly 500 jobs in 1969.[1]

The fastest-growing export industries in Mexico (electrical and other machinery, and transportation equipment) are the least labour-intensive, partly because they rely heavily on imported parts. This seems to suggest that the employment created per unit of manufactured exports from Mexico may even decrease in the future, if the current pattern of industrialisation and export activity persists.

II. Causes of the limited role of manufactured exports in employment creation

In the previous section, it was suggested that the limited contribution of exports to employment creation in Mexican manufacturing was a result of (1) the small proportion of exports in the total production of this sector, and (2) the low labour intensity of the main export industries. This may perhaps best be explained under the following headings.

Factor cost distortions

The first point may be due partly to the lack of enthusiasm for export business among Mexican industrialists. Generally speaking, Mexican industrialists regard exporting as only a marginal activity [2], whereas their competitors in the Far East look on it as the key to their survival and

[1] Watanabe, op. cit., p. 514.

[2] This impression, which I gained during my visits to Mexican enterprises, is confirmed by Dr. Bueno: " . . . Most industrialists do not even consider the possibilities of selling abroad or regard external markets as marginal outlets " (op. cit., p. 201).

systematically incorporate export targets in their production planning. Mexican export efforts often appear to be irregular and sporadic; tremendous year-to-year fluctuations in exports of individual products suggest that they are intensified only when excess stocks pile up as a result of recessions at home, for example.

The primary cause of this lack of enthusiasm for export business may be the large differentials between domestic and international prices. It is estimated that industrial production in Mexico in 1967 would be worth 25 per cent less than the national accounts figure if it were valued at international prices.[1] Two factors seem to be mainly responsible for this: the import substitution policy, resulting in high material costs; and the incidence of social legislation on employers' labour costs.

Competition from more efficient foreign industries is restricted by import tariffs and quantitative restrictions on imports. The latter are the more important in Mexico. If the product is already manufactured in Mexico, if delivery dates are reasonably satisfactory and if local credit terms etc. are not very inferior, then permission to import will not be granted. If there is no domestic substitute that seems to the licensing committee close enough to the required article, then a recommendation will be made that a licence should be granted, but this will not necessarily be approved by the Ministry of Industry and Commerce. In practice, the domestic price has usually to be at least 100 per cent higher than the imported price before price differences start to justify import licences, and on many items the differences are much higher and still licences are not granted.[2] I was told by Mexican garment manufacturers that they have to pay about 50 per cent more for their textile fabrics than their Far Eastern competitors who import similar materials (often of better quality) at low prices from Japan and the United States.

Besides these more expensive materials, Mexican industries are further handicapped by their relatively high labour costs, and this is perhaps the main cause of the labour-intensive industries' difficulties in export markets. On average, Mexican manufacturers spend about three times more for each worker than their Korean counterparts, what with wages and salaries and expenditure on social security and other welfare schemes, while the productivity of Mexican labour (in terms of monetary gross output per worker) is about double (table 5).

The more extensive use of subcontracting in the Far East, much of it relying on sources of labour that are largely unaffected by labour legislation, such as small household workshops and the wives and daughters of farmers, makes the actual difference in labour costs between

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[1] *La política industrial en el desarrollo económico de México*, op. cit., p. 38. The estimated value of industrial production for 1967 was 49.6 million pesos at domestic 1960 prices and 37.0 million pesos at international 1960 prices.

[2] Timothy King: *Mexico: industrialization and trade policies since 1940* (London, New York and Toronto, Oxford University Press, 1970), pp. 78-80.

TABLE 5. EMPLOYMENT/GROSS OUTPUT RATIO AND LABOUR COSTS IN MEXICAN AND KOREAN MANUFACTURING

Product	Workers per $ million of output [1]		Total annual remuneration per worker in $ [1, 2]	
	Mexico (1970)	Korea (1969)	Mexico (1970)	Korea (1969
All manufacturing	**101.3**	**227.8**	**1 553.2**	**523.5**
Food processing	112.5	228.2	956.4	533.9
Beverages	73.8	127.8	1 939.9	617.1
Tobacco	37.5	55.1	2 332.5	852.9
Textiles	130.0	354.5	1 572.5	409.1
Footwear and garments	255.0	424.0	787.2	499.1
Wooden products (exc. furniture)	280.0	187.5	612.2	596.3
Non-metal furniture	276.3	580.0	876.2	527.0
Paper products	65.0	181.4	2 343.3	610.2
Printing	170.0	340.9	1 371.3	800.9
Leather products	155.0	301.1	1 215.8	478.4
Rubber products	67.5	308.9	2 513.4	436.8
Chemical products	65.0	145.7	2 228.2	665.6
Petroleum and coal products	37.5	46.4	2 339.3	773.1
Other non-metal mineral products	143.8	264.5	1 475.1	589.4
Basic metals	38.8	133.8	2 796.2	662.2
Metal products	135.0	385.4	1 625.5	502.7
Machinery (exc. electrical)	126.3	375.0	1 762.3	547.8
Electrical machinery	98.8	267.1	2 038.1	450.7
Transportation machinery	60.0	173.1	2 409.4	631.0
Other	181.3	484.0	1 361.3	343.2

[1] The rates of exchange underlying the calculation are 12.5 pesos and 288.44 won to $1.
[2] Workers' remuneration is expressed in gross terms and includes not only wages, salaries and bonuses but also contributions paid by the employers to social security and various other welfare schemes.

Sources: Calculated from data in *IX Censo industrial 1971 . . .*, op. cit., and Korean Economic Planning Board: *Report on mining and manufacturing survey 1969.*

the two countries considerably larger than it appears from the table. According to a study made by the United States Tariff Commission [1] around 1970, for example, the average hourly wage rate was $0.53 in Mexico and only $0.27 in Hong Kong in the electronics industry, and $0.65 and $0.16 respectively in toy and doll manufacturing.[2] Wage rates in the labour-intensive garment industry appear to be in much the same proportion. There is no doubt that wage differentials of this magnitude seriously affect the international competitiveness of Mexican industries.[3]

[1] Cited in " Las industrias maquiladoras de exportación ", in *Comercio Exterior*, op. cit., Apr. 1971, p. 275, footnote 3.

[2] Wage rates in other Far Eastern developing countries, including Korea, were even lower.

[3] Puerto Rico's loss of about 43,000 needlework jobs to Far Eastern competitors during the period 1950-65 has been attributed mainly to the increase in minimum wage levels there. See Lloyd G. Reynolds and Peter Gregory: *Wages, productivity, and industrialization in Puerto Rico* (Homewood (Illinois), Richard D. Irwin, 1965), p. 36.

In Mexico, where the statutory minimum wage varies according to occupation and geographic area, the minimum rate tends to be the actual rate in many occupations. This might well be construed to mean that governmental action in this field has kept wage rates somewhat above the level they would have reached if they had been left to the free play of market forces.[1]

On top of the higher wage rates, various social security and welfare expenses further tilt the balance of labour costs against Mexican employers vis-à-vis their Far Eastern competitors. The former are legally obliged to contribute, on the average, 11.15 per cent of their payroll to funds for old-age, invalidity and widows' pensions, sickness, maternity and employment injury insurance. In 1970 only the last type of insurance was payable by Korean employers, and at a very low rate at that.[2] Mexican employers must also pay a further 5 per cent of the payroll into a workers' housing fund (INFONVIT) while larger firms are subject to regulations concerning the provision of various other welfare facilities for employees. Under a profit-sharing law of 1962, enterprises must distribute 20 per cent of their net profits after deductions of 30 per cent for dividends and retained earnings and of an amount fixed according to the ratio of invested capital to wage and salary bills. As this latter amount increases with the capital/payroll ratio, the law discriminates against labour-intensive industries and firms.[3] For Mexican manufacturing as a whole, the proportion of such non-wage labour costs in total labour costs increased from 7.9 per cent in 1960 to 14.1 per cent in 1965.[4]

The possible conflict between the objective of securing better conditions of work through labour legislation and the objective of attaining fuller employment has been attracting analytical interest for some time. Professors Reynolds and Gregory found that the rapid increase in real wages caused by minimum wage regulation was one of the main explanations for the persistence of mass unemployment and underemployment in the booming Puerto Rican economy.[5] A number of writers have arrived

[1] William E. Cole and Richard D. Sanders: " Income distribution, profits and savings in the recent economic experience of Mexico ", in *Inter-American Economic Affairs* (Washington), Autumn 1970, p. 59. Prior to the mid-1960s the minimum wage was below the market price of unskilled labour (cf. John Isbister: " Urban employment and wages in a developing economy: the case of Mexico ", in *Economic Development and Cultural Change* (Chicago), Oct. 1971, p. 39). The gradual acceleration in the minimum wage rates since then is perhaps an indication of the Government's increased concern about the pattern of income distribution, which is significantly more uneven than in most other Latin American countries.

[2] US Department of Health, Education, and Welfare: *Social security programs throughout the world, 1971* (Washington, 1972), pp. 126 and 152.

[3] Ann Dryden Witte: *Employment in the manufacturing sector of developing economies: a study of Mexico, Peru and Venezuela*, Ph.D. thesis submitted to North Carolina State University, Raleigh, 1971 (University Microfilms), p. 64.

[4] Ibid., pp. 220 and 225.

[5] Lloyd G. Reynolds: " Wages and employment in a labor-surplus economy ", in *American Economic Review*, op. cit., Mar. 1965, pp. 19-39; and Reynolds and Gregory, op. cit., pp. 304-306.

at similar conclusions in other Latin American countries and in Africa.[1] After a review of six country studies sponsored by the Organisation for Economic Co-operation and Development, Professors Little, Scitovsky and Scott found evidence that the enforcement of social legislation in India and some of the Latin American countries had diminished employment opportunities, while in the Far East (where employment problems have for the most part been successfully overcome) people seemed to believe that the best way of improving the worker's lot was to increase the demand for labour.[2]

With regard to Mexico, a detailed study of this question has been made by Mrs. Witte in her Ph.D. dissertation.[3] After an extensive analysis, she concludes that the increased labour costs resulting from social security and minimum wage schemes and the decreased capital costs resulting from low interest rates, long-term loans and tariff concessions have been major factors in the slow growth of employment in the manufacturing sector. The responsiveness of the labour coefficient to changes in the relative prices of labour and capital was found to be greatest, not surprisingly, in two of the most labour-intensive manufacturing groups: textiles and clothing, and food, beverages and tobacco.[4]

Higher labour costs will discourage new foreign enterprises from entering labour-intensive industries, and will encourage firms that are already established to reduce their labour requirements per unit of output either by introducing new machinery or, as is more often the case in developing countries [5], through more efficient management. At the same time, the fact that employers' contributions in respect of social security and other welfare schemes for employees tend to increase with the size of the firm may encourage firms to operate at less than the optimum scale; this can cause serious damage to an industry's over-all efficiency and therefore to its international competitiveness.[6] The net result is a slower growth of exports and employment.

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[1] C. R. Frank, Jr.: " Urban unemployment and economic growth in Africa ", in *Oxford Economic Papers* (London), July 1968, pp. 250-274; John R. Harris and Michael P. Todaro: " Wages, industrial employment and labour productivity: the Kenyan experience ", in *Eastern Africa Economic Review* (Nairobi), June 1969, pp. 29-46; and John R. Eriksson: *Wage change and employment growth in Latin American industry*, Research Memorandum No. 36, Center for Development Economics, Williams College (Williamstown (Massachusetts), 1970; mimeographed). For a more general discussion regarding the effect of minimum wages on employment, see ILO: *Minimum wage fixing and economic development*, Studies and Reports, New Series, No. 72 (Geneva, 1968), pp. 43-55.

[2] Ian Little, Tibor Scitovsky and Maurice Scott: *Industry and trade in some developing countries: a comparative study* (London, New York and Toronto, Oxford University Press, 1970), p. 88; see also pp. 81-82.

[3] Op. cit., especially pp. 56-94.

[4] Ibid., p. 84.

[5] Reynolds, op. cit., p. 32.

[6] W. Paul Strassmann: *Technological change and economic development: the manufacturing experience of Mexico and Puerto Rico* (Ithaca (New York), Cornell University Press, 1968), p. 131.

It should be made quite clear, however, that when the writers cited here speak of the adverse effect on employment of social security and other welfare expenditures for employees, what they have in mind is industry-wide or company schemes, not national schemes financed by the government. Undoubtedly, the impact of national schemes would be quite different. If welfare schemes were financed by the State out of its ordinary tax revenues, then the effect on employment would be the same as that of taxes. And the labour-economising bias would thereby be lessened, since taxes on income, sales and purchases are not directly related to capital/labour ratios. The negative influence on employment in this case would become apparent only if the taxes required for financing these schemes were fixed so high that industries became unprofitable, owing for example to loss of competitiveness with foreign rivals.

Obviously, then, any decision regarding the over-all level of social security and other welfare schemes must also take due account of the mode of their financing, if their adverse effect on employment is to be minimised.

Lack of competition

Even when actual production costs have been reduced considerably, lack of competition makes it possible to keep home prices at levels set by old and inefficient firms, allowing those employing more modern technology to enjoy abnormal profits for a long time.[1] Here is a good example. A shoemaker I interviewed in Guadalajara had just bought an automatic machine which enabled him to boost productivity and save labour. The machine would increase a worker's daily output from 12 pairs to 200 without requiring any special skill. Competition being virtually non-existent, however, the selling price could be maintained at its former level and the machine would be paid off within two years, thanks partly to the artificially low cost of imported capital equipment which is made possible by various governmental measures.

Lack of competition on this scale may be attributed to the Government's import substitution policy, which heavily protects domestic industries. Mexico has one of the lowest tariff barriers among the developing countries, particularly in respect of capital goods. The main means of defence against imports is the import licensing system. Initially this was intended to restrict importation of luxury consumer goods, but it now covers about 80 per cent of all the items in the tariff classification.[2] How easily the system can be used by industrialists to prevent competitive

[1] *La política industrial en el desarrollo económico de México*, op. cit., p. 51.

[2] Bueno, op. cit., p. 181. This is a partial explanation for the existence of a large amount of underutilised production capacity in the country (cf. *La política industrial en el desarrollo económico de México*, op. cit., p. 49; King, op. cit., pp. 115-116; and Little, Scitovsky and Scott, op. cit., pp. 61-62).

imports from entering the country has been described by Professor Strassmann.[1] Besides these trade barriers, the Government also uses administrative powers to check the establishment in Mexico of foreign firms that are considered to constitute a threat to existing domestic businesses.

The situation seems to be aggravated by the relative shortage of local entrepreneurship. This might well be caused, at least partially, by the very uneven pattern of income distribution [2], which is bound to deprive many people of the opportunity to secure appropriate education and training and to accumulate the initial capital required.

In any case, it is understandable that in these circumstances Mexican industrialists should prefer to concentrate on the domestic market in which they enjoy such a considerable measure of protection.

Structural factors

Mexico has no built-in export incentives of the type found in the Far East, where industries almost completely depend on imported raw materials and are obliged, often by government regulations, to earn the necessary foreign exchange by exporting a certain proportion of their output. Successful exporting is a matter of life or death to them. But Mexico is richly endowed with natural resources, and in any event the Government's import substitution policy compels its industries to use local materials even though, as we have already seen, they are usually more expensive than imported materials.[3]

That heavy dependence on imported inputs is an incentive to export is clear, even in the light of Mexican experience: the fastest-growing Mexican export industries (electrical and other machinery and transportation equipment manufacturing) rely upon imported parts and components so heavily that they have been contributing even more to the growth of imports than to the growth of exports.[4] Their need for imports compels them to export in order to lessen the foreign exchange constraint upon their survival and growth. As regards automobile manufacturing, each manufacturer's production quota and import licences are determined by the Government in the light of his export performance in the previous year.

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[1] Strassmann, op. cit., pp. 288-291.

[2] This problem was mentioned by Robert McNamara, President of the World Bank Group, when he addressed the United Nations Conference on Trade and Development in Santiago in April 1972: " The richest 10 per cent of the population [in Mexico] ", he said, " received about half the total national income at the beginning of the period and an even larger share at the end of the period (49 per cent in 1950 and 51 per cent in 1969). But the share of the poorest 40 per cent of the people was only 14 per cent in 1950, and declined to 11 per cent in 1969. The share of the poorest 20 per cent during the same period sank from 6 per cent to 4 per cent."

[3] " Protection was often granted without consideration of the excess cost of domestic products relative to imports " (Bueno, op. cit., p. 200).

[4] Ibid., pp. 173-177.

Institutional and other factors

Mexico depends heavily on foreign firms [1], perhaps even more heavily than the Far Eastern countries [2]: Professor Solís believes that more than half of the 400 largest firms are operated by head offices abroad.[3] But there is an important difference in their objectives. Foreign investment in Mexico is geared to supplying the local market [4], while it is mainly export-oriented in the Far East. This difference may be explained by the fact that individual local markets in the Far East are much smaller and that cheaper well-trained labour there gives the investing foreign firms greater cost advantages in international markets than they can expect in Mexico.

The existence of certain export restrictions [5]—Mexico has a system of export permits and export duties which, however, does not apply to manufactured goods—may also deserve some attention as a brake on export expansion. The system was originally intended to guarantee that the home market was adequately supplied, but it has been argued that it now serves only "to impress upon industrialists the idea that exports are of secondary importance ".[6]

On the question of labour intensity, it is important to bear in mind the effects not only of factor cost distortions but also of climatic conditions (not to mention the historical and cultural background). To take an extreme example, it would be unreasonable to expect people in the tropical regions to work as intensively and for as many hours at one stretch as in the temperate regions (unless large sums were invested in air-conditioning). It follows that industries requiring a large amount of manual work per unit of output are intrinsically less suited to the tropical regions than to the temperate ones, and that the former regions should be better able to compete with the latter in more capital-intensive industries where much of the work is done by machine. The impact of climate on the pattern of economic development—and of industrialisation in particular—has been singularly neglected in economic literature.[7]

[1] Total direct foreign investment in Mexico amounted to $78.4 million in 1960, $216.1 million in 1965, and $227.3 million in 1968. This is equivalent to 5.9, 9.9 and 7.0 per cent respectively of the country's gross private fixed investment (*La economía mexicana en cifras 1970*, op. cit., pp. 35 and 303).

[2] Besides encouraging foreign investment, several countries in the Far East have resorted to international subcontracting on a large scale. Among other things, this has gone a long way to solving their marketing problems. See Susumu Watanabe: " International subcontracting, employment and skill promotion ", in *International Labour Review*, May 1972, pp. 425-449.

[3] Leopoldo Solís: " Mexican economic policy in the post-war period: the views of Mexican economists ", in *American Economic Review*, op. cit., June 1971, p. 19.

[4] Ibid., p. 20.

[5] King, op. cit., pp. 83-87.

[6] Bueno, op. cit., p. 201.

[7] Climatic variations between regions naturally affect not only the optimum length of the working day and the feasibility and desirability of applying certain types of technology, but

My argument in this section may be briefly summed up as follows. The relatively low level and growth rate of Mexican labour-intensive exports may reasonably be attributed to the cost disadvantages these industries work under. The current trade and industrial policies favour capital-intensive industries and techniques, as does the effect of social legislation on labour costs. Mexicans sometimes argue that the country-wise import quota system of the United States is the main obstacle to the expansion of Mexican exports of labour-intensive products (above all, textiles) to that country, but even if this system were to be abolished it is by no means certain that Mexico would be able to benefit unless its industries first improved their international competitiveness.

How much one can expect from the present heavy-industry-oriented pattern of export growth is open to question. These industries are naturally at a comparative disadvantage vis-à-vis advanced countries. At present, their exports are increasing largely in response to governmental pressure, but there is necessarily a limit to such forced growth. At the same time, more and more countries in Latin America and elsewhere are setting up and expanding similar export industries, backed by similar official pressures.

The Mexican Government is of course aware of these limitations and has been making efforts to overcome the problem.

III. Export promotion schemes in Mexico

The border and in-bond industry scheme

For many years Mexicans in the northern frontier area crossed the border to find jobs in the United States. In 1965, however, this flow of immigrant workers was stopped by the United States Government under pressure from American trade unions. In order to create alternative employment in this area, the Mexican Government announced an industrialisation programme, which was officially launched in 1966.[1] (Roads had already been paved, industrial " parks " built, complete with railway spurs and sidings, and electricity and water laid on under a " national border programme " which the Government had instituted in 1960.) As part of the industrialisation programme, foreign firms were permitted to establish factories within a 20-kilometre-wide strip running along the United States border from the Gulf of Mexico to the Pacific Coast.

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also, inter alia, the nature of the necessities of life and therefore the level of real income required.

[1] Even before this programme, exporting firms had been able to get a remission of import duties on imported inputs provided their exports had a certain high minimum domestic content. This ensured that the sums remitted would not be great, and in any case the calculation of domestic content was so complicated that most manufacturers had not bothered to claim the remission (Little, Scitovsky and Scott, op. cit., p. 182).

American firms started coming in to utilise the abundant supply of cheap unskilled labour (these are known as " border " industries or factories).[1] Some of them bring into Mexico only those production processes which require large amounts of unskilled labour, continuing to have the more capital-intensive processes performed in the United States. In such cases the factories established on opposite sides of the border are known as *plantas gemelas* or twin factories.

These firms can send to their factories in Mexico machinery and raw materials without paying import and export duties. They are also exempted from any other import restrictions that would normally be applicable. The only condition is that all the materials sent to this zone for assembly or processing must be re-exported. The Federal Government of Mexico does not provide any special assistance, financial or otherwise, to such firms, but state and local authorities can and do offer them various incentives, such as sites for their factories and training facilities for their employees. In the border zone 100 per cent ownership of foreign firms is permitted. Customs and immigration procedures are simplified and the Government offers a guarantee against expropriation and nationalisation.[2]

Between 1966 and 1969 the exports of these firms to the United States increased from $7 million (0.6 per cent of all exports) to $150 million (10.9 per cent). In 1969 the value of imported components amounted to $98 million (or 65.3 per cent of the export figure) and the value added to $52 million (34.7 per cent). Garments, electronic apparatus and toys were the most important products. By the beginning of 1970 the Mexican Government had authorised the establishment of 165 border industries; 120 of these were already in operation and were providing jobs for some 19,000 workers, mainly females. Assuming that these workers accounted for the above-mentioned $150 million of exports, the border industries are slightly more labour-intensive than the average Mexican manufacturing export industry (127 workers per $ million as against 117 workers). The North American investment had reached $33.1 million with a book value of $40.9 million. Moreover, these enterprises paid some $25 million a year for the rent of land and installations.[3] The scheme benefits under Item 807.00 of the Tariff Schedules of the United States whereby materials exported from the United States for finishing abroad are subject, when they are re-imported, to import duties only on the value added

[1] In Baja California, which has more border factories than any other state, the average daily wage rate is approximately equal to the American *hourly* rate, even though this is the state with the highest wages in Mexico.

[2] " Fragmentos del informe de la Comisión de Aranceles de Estados Unidos sobre las industrias maquiladoras de exportación ", in *Comercio Exterior*, op. cit., Apr. 1971, pp. 303-304. See also Anna-Stina Ericson: " An analysis of Mexico's border industrialization program ", in *Monthly Labor Review* (Washington), May 1970, pp. 33-40.

[3] " Las industrias maquiladoras de exportación ", op. cit., pp. 274 and 276.

as a result of such processing. Mexico was the third greatest beneficiary of this concession, after the Federal Republic of Germany and Canada, in 1969.[1]

In view of the success of this scheme in the border region, the Mexican Government extended it to a 20-kilometre-wide coastal strip in March 1971, and to the whole country in November 1972 (these are known as " in-bond " industries or factories). As a result, the programme has continued to grow, and by January 1973 about 400 firms were operating with some 49,000 workers. Exports were worth about $400 million in 1972, 22.1 per cent of the preliminary total export figure for the year. Nearly half of these firms were in the electrical and electronic industry, about 20 per cent in textiles, followed by metalworking, furniture and wooden products, leather, toys and dolls.

Although most of the original firms were American, more recently an increasing number have been coming from other parts of the world, particularly from Japan, to establish plants in Mexico under this programme. Mexican firms can also import materials free of import duties so long as they are re-exported after processing.

Other schemes

The use of export subsidies in the ordinary sense is limited in Mexico, and the fiscal incentives for exporters take the form of exemptions and reductions of federal income tax and various indirect taxes.[2] Since March 1971 the application of this incentive scheme has been widened to cover not only export operations but also those involving the substitution of imported inputs in duty-free border or in-bond processing zones, and not only the manufacturers of direct exports but also export firms that act as intermediaries between the domestic producers and foreign importers. The minimum domestic content which is required in order to be eligible for such concessions has also been reduced from 80 per cent to 50 per cent. Fifty per cent of federal indirect taxes are refunded when national inputs make up to 50-59 per cent of export products, and 100 per cent when the domestic content is 60 per cent or more. This generally amounts

[1] " Fragmentos del informe de la Comisión de Aranceles de Estados Unidos sobre las industrias maquiladoras de exportación ", op. cit., pp. 299-300.

[2] Bueno, op. cit., p. 182. " It [the subsidy as used in Mexico] is not a cash payment to the recipient. Rather, the subsidy takes the form of forgiving tax liabilities, similar to that of tax exemptions. They are called subsidies because they appear in the budget as payments to the taxpayers after they have been entered originally as income to the Government. No money changes hands but the amount of the tax the subsidy represents is forgiven. The legal difference between the fiscal exemption and the subsidy is that the former exempts the taxpayer according to law while the latter is an agreement between the taxpayer and the Treasury. The Treasury agrees to pay all or part of the taxes accruable to the firm and in return the firm agrees to maintain or increase levels of production, employment and investment " (Bernard S. Katz: " Mexican fiscal and subsidy incentives for industrial development ", in *American Journal of Economics and Sociology* (Lancaster (Pennsylvania)), Oct. 1972, p. 355).

to a refund of 10 per cent of the value of exports as compared with slightly over 2 per cent before this new scheme was introduced.[1]

For the financing of working capital for export operations, a special fund (FOMEX) was set up in 1964, and 26.9 per cent of the total exports of manufactures from Mexico were financed by this fund in 1970.[2] A new fund (FONEI) was set up in 1972 to cater for fixed capital financing.

Other measures taken by the Government to encourage export business include efforts to improve port facilities, the establishment of a Mexican Foreign Trade Institute (IMCE), and the provision of information services to exporters. Export duties have been cut, too, and receipts fell from 849 million pesos in 1965 (4.3 per cent of the total current revenues of the Federal Government) to 508 million pesos (1.5 per cent) in 1970.[3] Local chambers of industries have also been endeavouring to foster interest in regular export business.

Besides these official and semi-official efforts to promote exports, an interesting development is noticeable within industry itself. This is the development of *Consorcios de exportación*, or export consortia. Modelled on the large Japanese trading companies and composed of representatives of companies in various fields of the economy, the consortia's activities cover transportation, export financing, public relations with government offices, sales promotion, etc., and aim to promote exporting on a regular basis. These groups benefit from the new fiscal incentive scheme, which as mentioned above is now applicable to trading companies. Considering the important role that similar trading companies have been playing in the rapid expansion of exports from the Far East [4], much may reasonably be expected of this new development in Mexico.

IV. Concluding remarks

In this article an attempt has been made, by means of a case study of Mexico, to throw some light on the role of export promotion in mitigating unemployment problems in developing countries, and to point to some of the constraints on the growth of labour-intensive export industries.

Although the available data are neither complete nor reliable enough to permit of precise analysis, it is clear that exports of manufactures and

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[1] Banco Nacional de Comercio Exterior: *Mexico: the new Government's economic policy* (Mexico City, 1971), pp. 174-183.

[2] Fund for Promoting the Exports of Manufactured Products (FOMEX): *Annual report of operations 1971* (Mexico City).

[3] Figures supplied by Secretaría de Hacienda y Crédito Público. The figure for 1970 is provisional.

[4] Cf. Little, Scitovsky and Scott, op. cit., p. 255. See also " Export promotion in Japan and its application to Latin America ", in *Economic Bulletin for Latin America* (New York, United Nations), No. 1, 1970, pp. 96-98.

semi-manufactures have contributed far less to employment creation in Mexico than in the Far East, notably in Korea: exports worth $1 million provided just over 100 jobs in 1970, as compared with more than 500 in Korea, excluding all the indirect effects. The growth rates of exports and related employment have also been much slower in Mexico, at least until recently.

This is because Mexican manufactured exports are largely the products of capital-intensive heavier industries, e.g. machinery and transportation equipment. The unit employment effect of these industries is limited even if allowance is made for linkage effects, as they rely heavily on imported inputs. Their export growth rate would be much slower but for the export obligations imposed on them by the Government and the linking of their import quotas with their export performance, since they are naturally uncompetitive with their rivals from developed countries.

When it comes to labour-intensive, light industry products, such as textiles, Mexico cannot compete with Far Eastern exporting countries, even though it is situated next door to the world's largest market for these products. Besides a number of non-economic factors, there are two main economic reasons for this: (1) the high degree of protection enjoyed by material-producing home industries, which raises the costs of inputs considerably, and (2) the social legislation—i.e. the minimum wage system, social security, and other kinds of welfare schemes, which, directly supported by individual firms, raise their labour costs to a level that is not compatible with the current employment situation in the country. The United States' import quota system has been taxed with major responsibility for the slow growth of Mexico's labour-intensive exports. Yet, as we have seen, the root cause appears rather to lie in their lack of international competitiveness.

The dangers of heavy and prolonged protection of home industries for the purpose of import substitution have been pointed out by a number of writers (and the border and in-bond scheme described here may be taken as a sign that the Mexican Government is aware of them). The problem concerning the effects of social legislation on employment and industrialisation seems to be no less common among developing (and also some developed) countries [1], but not enough investigation has been made in this domain. Policy makers in these countries will sometimes have to face the need for a choice between better conditions of life and work for an employed minority on the one hand, and jobs for a larger

[1] In reference to Latin America as a whole, it has been argued that: " While capital is made excessively cheap, labour costs exceed the wage bill by a very substantial margin on account of different ' social charges ' and taxes proportional to the wage bill, which to make things worse are often used inefficiently or altogether diverted to aims which have little to do with their original purpose. Both entrepreneurs and workers complain; the former because labour costs are high when compared with the productivity level, the latter because they are underpaid . . . " (Ignacy Sachs: " Selection of techniques: problems and policies for Latin America ", in *Economic Bulletin for Latin America*, op. cit., p. 24).

number of people although at a somewhat lower standard on the other.[1] It seems to be necessary to examine the effects of current levels of social security and other welfare expenditure as well as minimum wage rates on the employment situation and industrial progress of individual countries, and to consider what would be the optimal scale or level of such expenditure in the specific stage of development of the economy concerned.

Investigation of these questions is important, not only for the promotion of employment and industrialisation but also for the progress of social security and other welfare schemes themselves. It has been argued that these schemes can expand only to a limited extent beyond certain categories of urban workers and that the limited expansion of urban employment has restricted the expansion of social security systems in Latin America.[2] So long as the number of beneficiaries remains small and so long as employers can pass the additional costs on to the consumers and thereby preserve their high profit margins, such schemes will not improve but will sometimes actually aggravate the existing pattern of income distribution. Great care and patience must be exercised in applying measures that raise the incomes of some groups of workers but also increase production costs.[3] It follows that the level and rate of increase in minimum wages have to be kept within modest limits if unemployment is not to be exacerbated.

The effects of social security and other welfare charges, however, will certainly be different according to whether they are borne directly by individual enterprises or by the State. It may be that, at earlier stages of economic development, direct contributions by individual firms will encourage capital-intensive and labour-saving forms of industrialisation; if, on the other hand, the necessary revenues are raised indirectly through taxes, such undesirable effects on employment can be avoided fairly easily by devising the tax system in such a way as not to penalise techniques and industries using more labour.

In this regard, Mexico seems to have plenty of room for manœuvre. Its low average tax ratio [4] means that government revenues could be

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[1] For an interesting discussion of this point, see Arun Shourie: " Growth, poverty and inequalities ", in *Foreign Affairs* (New York), Jan. 1973, pp. 340-352, particularly p. 344.

[2] " Social security and development: the Latin American experience ", in *Economic Bulletin for Latin America*, op. cit., Nov. 1968, p. 36.

[3] Experience in the Far East suggests that there is some truth in the philosophy adopted by postwar Japanese planners (and followed by planners in other Far Eastern countries—cf. footnote 2, p. 35 above) to the effect that: " Where large wage and living standard differentials exist, it is not advisable, in general, to correct the situation too hastily by artificial measures which may involve a risk of increasing substantially the numbers of unemployed. It is preferable to remedy the discrepancies gradually, keeping pace with economic growth and capital accumulation . . . " (Saburô Okita: " Choice of techniques ", in *Industrialization and Productivity* (New York, United Nations), Apr. 1961, p. 26).

[4] In the 1966-68 period total taxes excluding social security contributions amounted to 9.9 per cent of the gross national product in Mexico, and including social security to 11.2 per

increased without raising taxes to unreasonable levels, while the introduction of a more progressive tax structure would make it possible to attack the serious problem of income distribution.

The success of the Mexican border and in-bond industry scheme, as well as of the export processing zones and bonded processing export schemes in the Far East, seems to hold out hope as a means of export and employment promotion for countries where the industrial base is still poor and industrial entrepreneurship is lacking.[1] These schemes are sometimes criticised because the use of imported inputs limits the linkage effect and deters the development of domestic supporting industries. But, as in the case of the Korean *shibori*-processing industry [2], supporting industries will grow up gradually in the course of time, particularly if the government provides adequate incentives for that purpose. (It is significant that, in order to stimulate exports and increase employment opportunities, the Mexican Government had to lower considerably the domestic content ratio entitling export manufacturers to tax concessions.) How far this kind of scheme can develop and spread will of course depend to a large extent on the attitude of industrialists and workers in the importing advanced countries, whose co-operation and understanding in this respect can do much to help the less developed countries in their struggle against unemployment and poverty.

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cent, while the corresponding averages of 50 developing countries were 14.0 per cent and 14.6 per cent (45 countries) and the averages of 16 developed countries were 25.0 per cent and 31.9 per cent (Raja J. Chelliah: " Trends in taxation in developing countries ", in *International Monetary Fund Staff Papers* (Washington), July 1971, pp. 276-279 and 324).

[1] For similar business arrangements and their future prospects in another developing region, see Jan F. van Houten: " Assembly industries in the Caribbean ", in *Finance and Development* (Washington), June 1973, pp. 19-22 and 37.

[2] When Korean firms took over part of the manufacturing process of this kimono material under a subcontracting arrangement with Japanese producers in 1962, almost all the necessary materials were supplied from Japan. But inputs of Korean silk increased gradually and by 1970 three-quarters of all the silk used for this purpose came from Korea.