

MESA REDONDA

Nr. 2

Walther L. Bernecker

Foreign Interests, Tariff Policy and Early Industrialization
in Mexico 1821-1848



Institut für Spanien- und Lateinamerikastudien

Instituto de Investigaciones sobre España y América Latina

Universität Augsburg



Institut für Spanien- und Lateinamerikastudien

Instituto de Investigaciones sobre España y América Latina

Universität Augsburg

MESA REDONDA dient vornehmlich der internen Diskussion, dem Austausch mit auswärtigen Wissenschaftlern, der Vorstellung geplanter wie in Arbeit befindlicher Forschungen sowie der Dokumentation des Augsburger Universitätspreises für Spanien- und Lateinamerikastudien. — Zur Mitarbeit wird gesondert eingeladen. Für unverlangt eingesandte Manuskripte keine Gewähr. — Der Austausch mit Materialien anderer Forschungseinrichtungen ist erwünscht.

MESA REDONDA tiene como fines primordiales facilitar la discusión interna, el intercambio de informaciones con científicos de otros centros y lugares, la presentación de proyectos de investigación en fase de preparación o realización, así como la reproducción de trabajos relacionados con el premio que otorga la Universidad de Augsburg a personas que hayan tratado temas sobre España o América Latina. — Para la colaboración en MESA REDONDA se cursará una invitación especial. No se asumirá ninguna responsabilidad en los manuscritos que sean remitidos sin previo requerimiento. El intercambio de materiales con otros Centros de Investigación será bienvenido.

Bezug über / Pedidos a:

Universitätsbibliothek Augsburg (Tauschstelle), Universitätsstraße 22,
D 8900 Augsburg

FOREIGN INTERESTS, TARIFF POLICY AND EARLY INDUSTRIALIZATION IN MEXICO

1821 - 1848

by

Walther L. Bernecker

Universität Augsburg

© 1985

By the author

I.

The purpose of this essay is to analyze the impact of foreign trade upon the state and civil society in the first decades of Mexican independence. It will focus both on socioeconomic and political aspects of that impact. First, it examines the foreign trade at the end of the colonial period and the first decades of independence by reviewing available data. Second, it gives a brief description of some of the most outstanding consequences of this trade in respect to distribution of the imported goods, and unemployment related to the overflow of foreign products, especially textiles. Third, the essay outlines two types of state reaction: a more defensive reaction, pointing out certain aspects of fiscal and customs policy concerning foreign trade (protective tariffs); and a more offensive reaction by the state which promoted industrialization in order to become more independent from imports. This last aspect of industrialization, however, is discussed only in terms of foreign contribution (import of machinery, skilled workers/technicians, investment of "foreign" capital) to the process of modernization. Finally, the essay concludes by trying to provide an answer to the question of why the early attempts at industrialization failed.

II.

Mexico began her independence without fundamental changes in her economic structure. Nor did the emancipation from the motherland mean that the patterns of foreign trade changed basically. Quite to the contrary, Mexico remained what she had already been: a supplier of raw materials and a customer of European manufactures. The basic structure would not change until the last quarter of the 19th century, when the United States took over the rôle, occupied until then by the European states, of Mexico's most important trade partner.

An analysis of the products for import and export can prove that the colonial structure of Mexican economy and foreign trade remained unchanged in the first decades of national independence.

In the 25 years preceeding independence, the precious metals exported through the monopoly-port of Veracruz (nearly exclusively silver), amounted to an average of 73.4% of all Mexican exports. The dominance of precious metals remained unchanged after 1821:

Table 1: Mexican exports 1821-1828 (in %)

Year	Precious metals	Cochineal	Indigo	Vanilla	Other Products
1821	84.5	12.1	1.9	0.3	1.2
1822	73.5	22.8	2.1	0.2	1.4
1823	56.5	38.0	1.3	1.0	3.2
1824	60.4	32.6	1.0	2.0	4.0
1825	74.7	18.9	0.4	0.6	5.4
1826	76.5	17.7	0.4	0.4	5.0
1827	79.4	7.5	1.2	7.5	4.4
1828	85.5	10.2	2.0	0.4	1.9

Source: Juergen Schneider, Frankreich und die Unabhaengigkeit Spanisch-Amerikas. Zum französischen Handel mit den entstehenden Nationalstaaten (1810-1850). 2 vols., vol. 1, Stuttgart 1981, p. 84

Coined silver remained the main export product; of relative importance were cochineal (a dye for silk and wool, exported mainly to France) and, in later years, dyewood. In the middle of the century, the importance of precious metals as export products was even higher and reached 90% of the total exports, while the importance of natural dyes declined because of the invention of synthetic chemical products in Europe.

Mexico's principal import commodities in the first 50 years of her independence were consumer products. More than 90% of her total import consisted in finished and semi-finished goods: textiles (mainly cotton and linen, to a lesser degree silk and wool), clothes, notions, food products and wines, china, crystal and glass, books and paper. By far the most important commodity was textiles; and under the heading textiles, far more than 50% were cotton goods. The textile imports were nearly totally composed of finished or semi-finished goods: textile fabrics

(more than 250 different kinds), cloth, ribbons, clothes, notions. Also, in single years, mainly in the 1840s and the second half of the century, major quantities of raw materials for textiles were imported.

The political independence of the country had definitely opened the locks to the import of foreign textiles. The first years after 1821 represented, compared to the last colonial years, nearly an import-explosion. In the years 1806-1819, something more than 23 million yards of cloth had been imported. After independence, only the top year 1825 reached nearly the same quantity, and from 1821 to 1828 the import amounted to about 80 million yards of cloth. At the same time, the price development was inverse. From 1821 to 1828, the price of textile imports decreased by 22%, compared to the period between 1806 and 1819, although the import-volume had increased by 245%. Between 1806 and 1819, the price for a yard of cloth was still 5.3 pesos; in the 1820s, this price fell to an average of 0.52 and in the middle of the century even to 0.15 pesos for a yard. The price decrease was especially noticeable in the area of cotton goods and, to a lesser degree in finer textiles such as silk. Due to the higher productivity of European industry, to the creation of new means of transportation (railroads, steamboats), and to the reduction of freight costs the import of textiles experienced a reduction in costs. Although the volume of textile imports increased, these articles suffered a relative decrease in their value compared to other imports: The value of imported textiles decreased from 49% in the 1820s to 36% in the 1870s.

The continuity of trade relations during the transition from the colonial to the independent era was maintained also with respect to Spain, Mexico's most important trading partner - although only for a very few years, because with the outbreak of hostilities between the naval fort of San Juan de Ulúa, still occupied by the Spanish, and the port of Veracruz, Mexico interrupted all her commercial intercourse with her former motherland. From 1823 on, the direct imports from other European countries outstripped the Spanish ones.

In the first half of the 19th century, the European trading partners were much more important for Mexico than the U.S. Still in 1856, transaction with European partners amounted to 81% (with U.S. firms: 41%) of the total trade value. In 1872/73, in contrast, economic transactions with North America had reached 39% of the total Mexican trade value, and during the pax porfiriana the U.S. became the dominant factor in Mexico's foreign trade.

Since it is impossible to establish the amount of Mexican imports by foreign trade statistics, already in the mid 19th century the attempt was made to calculate average figures of Mexican import trade by using the import duties. (1) The state revenues coming from import duties, between 1828/29 and 1850/51 amounted to about 120 million pesos. In the same time period, the import duties varied between 25% and 40%, reaching an average payment of 33%. The calculable value of the legal import goods therefore must have been three times as high as the import duties, i.e. almost 360 million pesos. This sum yields an average import volume of 16.3 million pesos a year. But, with certainty, the real import value lay much higher due to the fact that some import goods were free of duties and many were smuggled in.

From 1824 on, Great Britain was Mexico's main trading partner. In spite of the decisive importance of the British-Mexican trade, no reliable figures exist for the decade of the 1820s. Quite to the contrary, it is extremely difficult to figure out, even approximately, the volume and the value of British exports to Mexico. Neither the British consular service nor official Mexican agencies had exact figures at their disposal. The former could not rely upon the figures of British merchants "because the greatest jealousy prevails among them" (2), the latter didn't want to give out exact figures because these would have proven the corruptibility of Mexican port and custom authorities. On the other hand, the figures published in the British "Parliamentary Papers" do not include reports on the reshipment of British goods and manufactures from the U.S. to Mexico, nor do they include the exports from the West Indian islands, except when they were re-exported from Britain. Therefore, private estimates indicated export figures three times as high as the official ones. (3)

From the beginning on, the British delivered to the Mexican market mainly cotton textiles, to a lesser degree also linen and cloths of mixed materials. In 1856, textiles still formed 82% of all goods imported by Mexico from England; in 1872 this percentage had decreased to 74%. Though Mexico's foreign trade statistics for the first half of the 19th century are incomplete and sometimes contradictory, the figures of table 2 (page 6) nevertheless provide an impression of the volume, reached by the trade with Europe and the U.S. But these figures have to be handled very carefully. Comparing, for example, the values of British and French import goods, we find that for 1825 to 1827 there is no great difference; in 1826, the French imports were even higher than the British - albeit all the diplomatic and consular despatches of these years indicate that the British were the leaders in the trade. On the other hand, the figures make clear that until the general crisis of 1826, British imports continuously increased. The explanation for the difference, obviously too small, between the French and the British export volume possibly lies in one of the most frequent sources of statistical errors in 19th century Latin American trade figures; European customs officials always indicated the first port, entered by ships of their countries, as the definitive goal of the products carried by this ship, not considering, that a more or less large part of the shipment could be (and frequently was) consigned to another country. The U.S. trade statistics indicate that 50% to 80% of the goods exported from the U.S. to Mexico, were re-exported, i.e. they came from European countries and entered the U.S. ports (mainly New York and New Orleans) only as transit goods. In the 1820s, the British Consul General in Mexico, Charles O'Gorman, estimated that "about forty per cent of the goods imported from the United States through Tampico were of British origin" (4). Since the re-export trade also concerned French and German goods, all the figures necessarily remain inexact. (5)

Notwithstanding the statistical problems, for the purpose of this essay two aspects should be pointed out: The first is the fact that the Mexican import trade increased vigorously

Table 2: Mexico's foreign trade (in current pesos)

Year	Mexico's import from FRANCE	Mexico's export to	Mexico's import from UNITED STATES	Mexico's export to	Mexico's import from GREAT BRITAIN	Mexico's import from HAMBURG and BREMEN
1821					5.380	
1822					453.460	
1823					1.848.880	
1824					2.762.020	
1825	3.679.800	419.000			7.046.780	
1826	2.860.400	618.800	6.281.000	3.916.000	3.342.075	
1827	2.985.000	1.089.400	4.173.000	5.232.000	6.140.200	
1828	1.998.400	1.352.600	2.886.000	4.814.000	2.671.900	
1829	1.946.800	1.617.800	2.331.151	5.026.761	3.222.630	
1830	4.645.400	1.180.000	4.837.458	5.235.241	9.474.085	
1831	4.070.600	741.200	6.178.000	5.167.000	3.644.290	
1832	2.680.000	1.575.400	3.467.541	4.293.954	999.105	
1833	3.005.400	1.068.200	5.408.091	5.459.418	2.107.435	
1834	2.408.200	1.348.800	5.265.053	8.666.668	2.298.050	
1835	3.460.200	1.418.600	9.029.221	9.490.446	2.014.100	
1836	1.900.000	1.740.800	6.040.635	5.615.819	1.274.110	
1837	1.927.600	1.422.400	3.880.323	5.654.002	2.601.000	1.466.000
1838	1.635.400	883.000	2.787.362	3.127.153	2.198.880	1.760.000
1839	2.268.400	915.800	2.164.097	5.500.707	3.300.850	1.970.000
1840	2.798.800	1.477.800	2.515.341	4.175.001	2.326.650	1.750.000
1841	2.530.600	1.189.400	2.036.620	3.484.957	2.174.505	1.485.000
1842	2.281.400	1.050.800	1.534.933	1.996.694	1.874.845	735.563
1843	2.388.800	1.384.400	1.471.937	2.782.406	2.989.685	929.950
1844	2.764.618	1.476.400	1.494.833	3.387.691	2.470.475	864.934
1845	2.540.400	1.557.800	1.159.331	1.702.936	2.735.650	1.120.308
1846	2.079.400	1.477.600	1.531.180	1.836.621	1.518.425	1.206.372
1847	680.400	347.000	238.004	481.749	503.000	284.704
1848	3.935.342	1.109.620	4.054.459	1.581.247	4.730.000	1.888.960
1849	6.535.837	1.345.559	2.020.868	2.116.719	3.895.000	1.209.400
1850	4.556.191	1.708.160	2.012.827	2.135.866		1.027.756
1851	5.069.165	1.146.686	1.581.763	1.804.779		

only Hamburg

Sources: Note 3a

after the country achieved its independence. And the second one is the enormous importance of textiles in the total import trade. During the 1820s, the proportion of textiles hovered between 58% and 70% of the total goods imported. (6) During the 19th century, they continued being by far the most important import product for Mexico.

III.

Several years ago there arose a controversy with regard to the immediate consequences of the massive influx of European textiles. This controversy referred to Latin America as a whole; nevertheless, it can be exemplified by the Mexican case: Most of the adherents of the so called dependency theory asserted (and still do so) that cheap European imports destroyed the local non competitive manufactures, drove artisans and industrialists into unemployment, had devastating consequences for the economy and the society as a whole. Javier Ortiz de la Tabla Ducasse f.ex. (7) interprets the substitution of England and later of the U.S. for Spain as Mexico's main trading partners as a "change of dependency" (cambio de dependencia); with the end of Spain's political supremacy over Mexico, the trade conditions became even worse for Mexico. Stanley and Barbara Stein have asserted that the massive imports of British manufactured goods "simply crushed local industry based upon primitive technology". (8) And Miguel A. Quintana pointed out that British yarn and textiles not only destroyed Mexican "hand industries" that had been playing an important rôle in the economic life of Latin American countries, but rather that they originated economic problems that "announced another foreign tutelage - possibly a stronger one than the last". (9)

On the contrary, other authors like D.C.M. Platt have pointed out the factors opposed to a big expansion of import trade (10): Trading opportunities were limited, the mass of the population was not in the market for manufactured goods, three-quarters of the Mexican population (indios and mestizos) could make no

contribution to the market, the purchasing power of the new republics was restricted, away from the main cities and seaports the population was sparse, transport conditions appalling, and the marketing of imported goods expensive and unrewarding. Whatever the local circumstances, Platt says (the ravages of civil war, depopulation, the flight of Spanish capital, the abandonment and flooding of the mines), further progress in international trade was limited above all by the nature of the consumer and of his needs. In 1811, López Candelada had estimated the marginal population of Mexico that was not integrated in a "market economy", at 2.320.000 persons; Humboldt's estimation, some years earlier, was even higher: 2.5 millions. (11) The few wealthy people could buy the luxuries obtainable from Europe, and the only people who provided a market for the cheaper level of imports was a small middle class. In 1824, the British Consul General complained: "A cargo of British goods of 10.000 pounds sterling principal would stock the market (of Acapulco) for three years." (12)

Dawn Keremitsis, in a study of the Mexican textile industry, also points out, that the main customers of European textiles were the upper and middle classes of Mexico City (13), and already in 1898 the former Mexican Finance Minister Matías Romero had stated (somewhat too categorically) that "only rich people could afford to consume foreign commodities." (14) Platt asserts, that only the cotton and woolen manufactories operating under Spanish monopolists at the end of the colonial period, the obrajes, felt "the cold draught of competition", whilst the handicraft industry continued to supply the greater part of popular needs right up to the development of a low cost, national manufacturing industry. The development of a substantial and competitive local factory production did far more than imports to displace home spinners and weavers. His conclusion is that imported manufactured goods were far beyond the income of all but a few, concentrated in the major coastal and capital cities; the great majority of the Indians, i.e. the population as a whole continued to wear the products of local domestic industry late into the 19th century. (15)

References to the spread of European textiles in early independent Mexico are numerous. One of the major sources are travellers' accounts. Although some authors do not trust them, because understandably English and other foreign travellers would be inclined to point out evidence of the spread of British (and other European) products throughout the country, this kind of source is quite reliable if used carefully, especially if several different accounts are referred to and compared.

One of the earliest statements with regard to the spread of European textiles is found in the journal of Captain Basil Hall, who was in Mexico shortly after the country had become independent. On the west coast, in Tepic, he asked one of the inhabitants to tell him his opinion of free trade; the Mexican answered: "My opinion of the free trade rests on this - formerly I paid nine dollars for this piece of cloth of which this shirt is made; I now pay two." (16) And a British officer, travelling over portions of the free republics to the south of the United States in 1822, asked many of the people with whom he came in contact what they considered the chief benefit derived from the revolution of independence. The answer was invariably the same: "I can now procure English goods at one third of the price at which they could be purchased during the dominion of the Spaniards." (17)

If these differences in prices could be generalized - probably they cannot -, the decrease in prices of textile items in a very few years would have been tremendous. Albert Imlah has calculated that, on average, export prices of British yarns and cotton piece goods fell 72% over the period 1816/18 to 1849/51; in the woollen industry the decrease was 63%, and in other British exports of manufactured goods, the industries of which were much less mechanized at that time, prices fell 45%. Probably, this fall in prices was not a significant factor in the very early years of Latin American independence when British prices were still high for a mass market; it became more important for the further development of British trade with Latin America. (18)

Nevertheless, there is much evidence that already in the 1820s new habits of consumption as a consequence of the sudden inflow of foreign manufactured goods had spread over Mexico. In 1826, G.F. Lyon toured through the country; he observed that "the rich picturesque costumes of both sexes are now growing into disrepute, and European fashions generally prevail in the principal cities." (19) Obviously, it was not only at the top level of society, where the European items were appreciated; Lyon continues: "The poor Indian now finds within his reach and his power of purchase, the luxuries and comforts which his poverty once denied him; and the abundance and cheapness of English linens, clothing, and ornaments, now leads the natives to perceive that there are other powerful nations, in addition to that of their persecuting conquerors." (20) Lyon's assertion, that the Mexican "picturesque costumes" were "growing into disrepute", finds a corroboration in an anonymous text, published in Mexico in 1832, and entitled Los extranjeros y los aventureros. The author of the pamphlet encouraged his fellow-countrymen to change their traditional dress and to follow the foreign example; he justified his recommendation by a social statement, saying that the traditional Mexican wearing apparel "by the differences in the clothes expressed the inequality of conditions", and this ought to be rejected under a Republican government. (21)

Some years earlier, the British Charge d'Affaires H.G. Ward - like many others - had pointed out the striking changes in the streets of the cities and the mining districts; the opening of the "American" (i.e. the Mexican) ports would lead to a much higher consumption of European goods by people who hitherto had been excluded from the "blessings of civilization": "No better proof of this can be given, than the change which I have myself witnessed, in the course of three years, in the habits and appearance of the lower classes in Mexico. Before the Revolution, the streets of the capital were infested with a race of naked lazzaroni, whose numbers were supposed to amount to nearly twenty thousand, and who were, at once, the disgrace, and the bane, of all public places. This class has now almost totally disappeared; clothing has become so common, that none appear without it. In

the mining districts, a similar change has occurred; and as the resources of the country develop themselves, there is little doubt that it will gradually spread into the most remote provinces." (22)

The Europeans living in Mexico were themselves good customers of their own goods; furthermore, by their example they stimulated the demand for European goods, especially among middle class Mexicans. William Bullock, who in 1825 travelled for six months through Mexico, observed that the wardrobe of an English lady, who had just arrived in Veracruz, "made a hasty tour through most of the respectable houses" of the city and was immediately imitated. (23) And only a few years later, William Maclure noticed that within a short period of time the overall impression had changed substantially: "Two years ago (...) all the women were dressed in dismal black, of the same cut and shape as if cast all in the same mould. Now London or Paris do not exhibit more variety of color and shape, in the dress of both sexes (...) Things change with every batch of milliners, merchants and tailors, etc. that arrive from the four corners of the civilized world." (24) Although Maclure stressed the changes, he also pointed out that the large majority of the population had not changed their habits: "The Indians, constituting four fifths of the population, have always manufactured their own clothes, and do so still: the greatest part of the luxuries of the rich, has always been imported from Europe, and are so yet." (25)

The social consequence of this differing attitude between Indians on the one hand and rich Creoles on the other was a continuous drifting apart between city and land. While in the cities, due to the European import goods and the presence of Europeans, a noticeable change took place in dress fashions, habits of consumption, furnishing, style of life of the upper and middle classes, among the indios in the countryside old traditions were much more preserved. Nearly all the travellers mention the striking and conspicuous difference between these two environments. Basically, other eye-witnesses confirm this impression. Fanny Calderón de la Barca, the Scottish wife of the first Spanish Plenipotentiary in Mexico, observed the country for some years very thoroughly.

Speaking about the dress of the Poblana peasants she pointed out that it was "a manufacture of the country"; on the other hand, in the city she noticed from one year to another a "great improvement in toilet" (26).

To maintain the European style of life among the rich Creoles, the foreigners had created an extended "infrastructure" of shops and services: "Though everything must still be comparatively dear, the bad times have caused a great reduction in prices; and dear as all goods are, they would still be dearer, were it not for the quantity that is smuggled into the republic. There are an amazing number of French shopkeepers; French tailors, hatters, shoemakers, apothecaries, etc.; but especially French modistes and perruquiers. The charges of the former are exorbitant, the latter are little employed except by gentlemen. There are also many Spanish shops, some German, and a few English; but I think the French preponderate." (27)

Some travellers and more historians have asserted that the urban and rural working class or, more generally speaking, all the lower levels of the social structure did not actively participate in the economic life of the Republic. If that was so, the question is how large were the upper and middle class, potentially customers of foreign merchandise. Usually it is said, that in the first half of the 19th century, the percentage of this social strata was minimal. Nearly all the travellers were attracted by the highly visible part of the population, the lower groupings, including factory and mine workers, semi-rural workers, street vendors, intermittently employed day-laborers (jornaleros), beggars and léperos. Nevertheless, and according to census figures of the 1840s, it should be pointed out that (at least in some regions) these percentages were not as low as normally supposed. In the state of Querétaro, f.ex., the groups which were (in 1844) of an upper and middle class position in the "urban" (non-agricultural) sector came to about 21% of the total. In this group are included (at a first level) rentiers, lawyers, doctors, professionals, ecclesiastics, merchants with an estimated yearly per capita income of 900-1340 \$, (at a second level) government employees and clerks, owners of large and small scale

industries with an average income of 365-435 \$, (at a third level) commercial employees and artisans (operators of talleres) with an income of 150-200 pesos (28). The average Mexican per capita income in 1845 was (estimated) 56\$, in Great Britain it was 323\$, in the United States 274\$. (29) The third of the above mentioned groups may have been economically rather indistinguishable from the impoverished masses and not able to participate very actively in a "market economy", but it should be said that this social stratification pyramid was elaborated by a statistician of the time, and that means, that it reflects the way the different strata of the Mexican society saw themselves - and this autoperception probably influenced their consumption behaviour.

Figures for other places at about the same time tend to confirm the presence of a sizeable middle sector. For the Villa de Guadalupe (near Mexico City, today integrated into the Capital) the size of the upper and middle strata, for 1856, has been estimated at 31% of the total; and similar data for the port of Mazatlan, in Sinaloa, in 1854, show also a 31% of upper and middle groups. (30) That means that evidently above the laboring level was a not inconsiderable middle class, something more than a privileged minority. This group of artisans, small shopkeepers, lower-ranking clerks and (in the rural context) the rancheros or the small renters of hacienda lands (labradores) was characterized by insecurity, not by permanent misery - and this distinguished them from the impoverished masses. At least potentially, this rather sizeable group were customers of European import goods.

Although the different eye-witnesses do not agree in all respects, two main conclusions can be drawn from their observations. The first is that Creoles in the cities changed their dress fashions and, together with the Europeans, were the main customers of foreign textiles. The second is much less clear; it refers to the question to what extent the new clothes were also bought and worn by mestizos and indios. The impressions differ from one observer to the other; it only seems to be clear that European textiles by far did not have the same impact upon

these lower classes of Mexican society, although some alteration in dress seems to have taken place. The overall impression is that the change in dress was obvious enough all over Mexico, that nearly all the travellers devoted some space to describing the differences.

IV.

For the persons directly affected by European imports, these foreign commodities appeared as a kind of natural disaster. Many contemporary sources and not fewer historical descriptions deal with the immediate consequences of the influx of foreign textiles on the Mexican artisans. Nevertheless, it is not possible to get exact figures of the unemployment caused by the foreign imports, or of other consequences, such as the lowering in status of the artisans, who looked for a new job or moved into another state. Most of the sources refer to "thousands" of artisans, who allegedly became unemployed and therefore poor. This very general character of the accusations against the foreign imports has been preserved until today. In an edition of sources, f.ex., re-edited in 1977, about the "agony of the artisans", Luis Chávez Orozco said: "Lo irritante es que el artesanado mexicano haya perecido a manos de los intereses comerciales extranjeros, en connivencia con los intereses de un sector mexicano (liberal o conservador), sólo porque no veía más allá de las tesis librecambistas, a la sombra de las cuales podía vivir confortablemente y hasta con lujo y elegancia." The artisans were not victims of the Industrial Revolution, but rather of foreign manufactured goods introduced after 1821 in Mexico. (31) And in another of his publications, Chávez Orozco points out that already during Iturbide's Monarchy (1822/23) the Mexican craftsmen experienced the negative consequences of the liberal custom's tariff of 1821. The foreign imports took their traditional customers away from them, thereby destroying jobs and making, within a very few years, "thousands of artisans" jobless. (32) Up to a certain point, this interpretation repeats almost literally the artisans' complaints of the 1820s. From then on, up till now, nearly all Mexican interpretations stress the disastrous impact of foreign goods on the

lives of the Mexican artisans insisting that this result was due exclusively to the foreign imports.

There seems to be only one noticeable exception: The Sociedad Patriótica para el Fomento de las Artes, founded in Puebla in July 1830, did not join the unanimous chorus of complainers against foreign merchandise; rather, it rejected any monocausal explanation and tried to account for the decline of the Puebla artisans enumerating several interdependent reasons. It could be, the Sociedad argued, that the Puebla textiles had already fallen in the esteem of the customers before the War of Independence, due to carelessness in the production of the textiles; or the decline was due to a fewer number of consumers because of the War of Liberation and epidemics; possibly, Puebla manufacturers spread out all over the country during the War, and now other provinces that had never done it before, were also producing textiles; or the problem had to be related to the flight of Spanish capital; finally, it could be that the Puebla products were not able to compete with imported foreign manufactured goods. "All these reasons may have exerted more or less influence upon the ruin of our factories." (33) Undoubtedly, this statement trying to give a multicausal explanation for the depression in the Puebla textile manufacturing industry, was an exception. The average "explanation" stressed the negative importance of foreign imports.

In March of 1824, the Governor of Puebla, Manuel Gómez Pedraza, in his Report to the State Congress referred to the artisans' crisis: "El Estado de Puebla, en el nuevo orden de cosas, parece estar reducido a ser agricultor: su industria fabril, que, aunque imperfecta, hace algunos años ocupaba sumas considerables, en el día casi ha desaparecido por la concurrencia del extranjero." (34) And in the capital of Oaxaca, where at the beginning of the War of Independence 500 looms had produced cotton goods, in 1827 not more than 50 were working. In the State of Mexico, in 1828 all cities noticed the consequences of the textile imports. The State's Governor complained that Texcoco had become "a city

deserted and ruined by the emigration of families who went to seek a living in more fortunate places." (35) Jalisco and other states continuously complained because their craftsmen were confronted with unemployment and poverty. The artisans of Jalisco even warned the authorities that unless something were done, they might attribute their misery to the system of government.

The figures of Oaxaca are confirmed by Mühlenpfordt, an Hanoverian engineer, who lived in Mexico from 1827 to 1835 working for the Mexican Mining Company and employed by the government of Oaxaca as Director of road constructions. We owe him one of the best accounts of Mexico in the first half of the 19th century. For Jalisco, this German author indicates, that the value of the manufactured goods produced in 1802 was 3.5 million pesos; but after the port of San Blas was opened to foreign trade and, especially, after the North Americans introduced all kinds of cotton goods into Mexico's northern provinces, the wool and cotton manufactures of Jalisco had been nearly extinguished. Only the fabrication of rebozos and tapalos continued to have certain importance. (36) Mühlenpfordt summed up: "Mexico's factories and manufactures, except in a few branches, have become nill." (37)

According to Poinsett, the total value of the textile output in 1822 had sunk already to 4 million pesos, while before independence it had amounted to 7-8 million pesos. Humboldt had indicated the same value for all manufactures, of which textiles constituted the largest single component, for the beginning of the century. For 1810, Tadeo Ortiz de Ayala indicated 9-11 million pesos, and José María Quirós, the Secretary of the Veracruz Consulado, in his Memoria of 1817 was of the opinion that the value of cotton and woolen textiles alone was in excess of 10 million pesos. (38) Potash suggests that "it is not unlikely (...) that New Spain's cloth industry was much more important in terms of the value of its output than has generally been recognized." (39)

According to Ortiz de Ayala and Quirós, the import of one million pesos in textiles resulted in unemployment for 40,000 families; in 1810, presumably 9.2 million pesos worth of textiles were imported, amounting to 65% of the total imports. Since the legal imports in the first years of Mexican independence were

much less important than the imports during the first war-years, it can be concluded that the continuous complaints of the artisans after 1821 reflected primarily the situation created in the ten years before independence and not the result of the opening of Mexican ports in 1821.

In any case, the artisans seem to have lived in a state of serious crisis in the 1820s. In Puebla f.ex., the most notable change over the first twenty years of the century (i.e. including the War of Independence) was the dramatic decline in numbers of merchants involved in dealing in domestically produced cloth (ropa de tierra). The number of retail shops trading with ropa de tierra decreased from (1803:) 28 to (1807:) 18 and (1820:) 5, while at the same time the merchant-houses selling imported European goods increased from (1807:) 10 to (1820:) 13. Continuing prosperity can be found in the import trade also after independence, and hardship was faced by dealers in Mexican manufactures. (40) The coincidence of the artisanal crisis and of national independence led to the conviction, widespread among artisans, that the government's (tariff and economic) policy was to blame for their bad situation. Idealizing the late colonial period, that for many of them - as for some historians (41) - soon appeared as the "good old days", the artisans unisono asked for the re-establishment of the custom barriers; they were naively convinced that a return to the former prohibitive measures would lead to a renaissance of their relative antebellum-prosperity.

It is impossible to quantify the unemployment rate among the artisans; what can be done, is to qualify it, using the popular literature, the poetry, verses, handbills, fictional dialogues, and pamphlets - a kind of literature that has been very much neglected as an historical source until today. It allows an approach to the way of thinking and feeling of the lower strata of the Mexican population, especially of the artisans. Many of the anonymous verses seem to have been written by craftsmen, because they deal primarily with the problems of this group. The "stories" told by the narrator were taken from a collective pool of knowledge and experience resulting from the social environment of the

audience. General "national" problems were reduced to the personal, singular level, interesting details were imaginatively visualized, the individual fate was represented as expression and part of a collective fate.

Very early, according to this literature, the Mexicans were convinced that the British were to blame for the ruin of the Mexican manufactures and the artisans. In 1825, El Payo del Rosario, one of the most famous liberal pamphletists, wrote that the English trade had been built "upon the ruins of our national business"; that the British had thrown the Mexican craftsmen into poverty, importing their manufactured goods; that they had "monopolised" the nation with usurious loans; that they had promised a "trade amity" worthless for the Mexicans. The author warned the Mexicans of the danger of the "British friendship". The motto of his pamphlet was:

Murió el dominio opresor
publicando el plan de Iguala;
mas siendo el inglés traidor
fue salir de Goatemala
para entrar en Goatepeor. (42)

Many arguments referring to the social situation of the artisans were expressed in the form of fictional dialogues. In most cases, it was the artisan's women who expressed the complaints, sorrows, and anxieties of this particular estate: (43)

Clara

Me entristezco, hermana, al ver
a mil familias sujetas
a la hambre, la desnudez,
a la más grande pobreza;
y cuál es la causa, niña,
de tan dolorosa escena?

Juana:

Cree Vd. está bien dictada
esa ley tan indiscreta,
de que se admitan tejidos
como los de manta inglesa,
cuando se podía tejer
muy superior en la tierra?

In the 1820s, the number of pamphlets and broadsides which inundated the country, expanded to a large degree; and nearly all the texts complained about the same: First, that the foreigners were responsible for the decline of Mexican artisanship; and second, that import prohibitions had to be issued in order to

protect the Mexican craftsmen. Finally, at the end of the 1820s, the continuous repetition of the same demands was successful: The government regulated foreign trade in a way artisans had demanded.

V.

As has been pointed out, the custom tariff of 1821 abolished all monopolistic trade restrictions of the Spanish, opening the Mexican ports to the ships and the goods of all nations. At the end of the 19th century, Carlos Díaz Dufóo stated: "The first customs tariff was that of an people which, gnawed by the torture of scantiness, by a delirious impulse, rushed to the full enjoyment of its exigencies." (44) The list of the prohibited goods was relatively small, the custom tariff for most of the imported goods amounted to 25% ad valorem. Already the first reform of the trade regulation, i.e. the new custom tariff of 1824, took into consideration the complaints of the Mexican artisans including in the list of prohibited goods many finished and semi-finished goods (especially textiles). In his justification of the tariff, Finance Minister Arrillaga indicated explicitly, that the prohibitions were made in order to protect the jobs of Mexican artisans and industrialists and the interests of agriculture. (45) Coarse cotton textiles were excluded from the prohibitions due to the fact that the Mexican production of cotton textiles did not fulfill the country's demand. The following tariff of 1827 strengthened the protection of the Mexican artisans, expanding the list of goods that had to pay import duties as well as the list of prohibited goods. Nevertheless, the main problem of Mexican craftsmen remained: In spite of the custom tariff of 40% ad valorem, the Mexican goods could not compete with the European ones either in price or in quality. The only positive solution of the artisans would have been a complete prohibition of all textiles - a measure that the government of Guadalupe Victoria was not able to take because of its predominant laissez-faire-ideology, its need for revenues from the tariff for its national budget and its financial and diplomatic dependence on Great Britain.

It lasted two years more until, in 1829, the popularly supported Guerrero government enacted import prohibitions against the types of textiles which were locally produced. Guerrero had come into power semi-illegally, but very much supported by the artisans and the lower classes of the Mexican population. The overwhelmingly positive reaction of the Mexican artisans to the prohibitory decree proves clearly that they interpreted the new tariff as a triumph for their interests. The atmosphere of Guerrero's short period in office was one of intense economic nationalism, commitment to the encouragement of internal trade and domestic manufacturing, with strong xenophobic overtones. Guerrero's Yorkino-administration marks a turning-point in Mexico's economic history. The former governments - influenced by Alexander von Humboldt and physiocratic ideas - had imagined the real source of Mexican wealth to be the mines and the agriculture; Guerrero now proposed a new governmental policy to promote industrial development. Two points are of interest:

First, that the import trade should be reduced substantially; in practice this meant a drastic extension of import prohibitions. From now on, the main purpose of foreign trade policy should no longer be fiscal interests of the State, but rather the protection of native industry. Although the prohibitory measures were a clear victory for and by a minority of artisans (especially those from Puebla) at the cost of the majority of the population and the state revenues, they were not interpreted as favoring the interests of a small and privileged group of manufacturers, but quite to the contrary as being an opportunistic policy for the masses of the population. President Guerrero undoubtedly was a popular caudillo of the War of Independence, deeply rooted in the lower strata of Mexican society. The movement that had brought him to power, had many nativist elements. The trade prohibitions have to be interpreted in connection with other legislative measures, that tended to exclude all foreigners from retail trade as well as to expell the Spaniards, who still remained in Mexico. It can be viewed as a xenophobic tendency in Guerrero's policy that laid the blame of Mexico's economic problems

at the foreigners' door and accomodated the widespread xenophobia among the population. Decades later, the liberal Miguel Lerdo de Tejada complained: "Esta ley, puede muy bien decirse que es una de las más severas de cuantas se han dictado en materia de prohibiciones, fue, sin embargo, expedida por un gobierno que ostentaba los principios mas exagerados de libertad y de progreso social, lo cual deja presumir que sus autores, sacrificando en ella las ideas que proclamaban, no tuvieron otro objeto que el de adquirir popularidad, halagando las opiniones de los que creen que así es como deben protegerse las artes y la industria nacional." (46)

Second, that the domestic industry should not be supported indirectly only, via import prohibitions, but also directly by the state's acceptance of its responsibility as promoter of industrial development. Guerrero's administration was too short to start an active policy of industrialization; nevertheless, from then on the idea that besides the entrepreneurs also the State had a certain responsibility in the economic sphere, remained a maxim of the Mexican governments.

In spite of the importance attributed to the "Guerrero tariff", the import prohibitions never became effective. As they meant loosing revenues needed to resist a Spanish invasion in the summer of 1829 and, at the end of the year, a rebellion led by Vice-president Anastasio Bustamente against Guerrero, a temporary postponement of the measure was necessary. This postponement, however, does not mean that the delegates to the National Congress did not take seriously their effort to protect the artisans. In the same year of 1829, they did not agree to the accomplishing of a project intended by Juan Ignacio Godoy, who asked for permission to import cotton yarn and some thousand modern hand looms. Godoy held out a prospect of increased tax incomes for the State and, especially, new jobs for the unemployed artisans. In spite of the advantages of the project, the deputies of Puebla opposed it very strongly. The artisan-maestros were very conscious of the difference between their status and that of a worker in a factory, which was equated with an oficial. (47) During the discussion, 1829 in the Puebla Congress, of the Godoy project, a deputy expressed the fear that

the conversion from maestros into salaried workers at lower jobs would bring disaster to the country. Another visualized the despondency of the artisans, "seeing that by becoming oficiales and dependents of the privileged, their industry would be reduced, limits would be set to their ingenuity and they would be condemned to indigence." (48) To the threat of unemployment for some, then, should be added the specter of downward social mobility, of proletarianization for others.

Finally, the Puebla deputies convinced the majority of the Parliament of the noxiousness of the project, which was rejected. One of the major reasons why the delegates of the National Congress turned down the project was the fact that Godoy wanted to develop it together with two Englishmen. The delegates got the impression that the project was a foreign conspiracy aimed at destroying the artisan industry. Godoy justified the involvement of two foreigners stating that he needed money for his project and that he was not able to get it from his Mexican compatriots. (49) Evidently, the lack of capital, or more precisely, the lack of disposition to invest capital in the manufacturing sector, was one of the characteristics of the first phase of Mexican industrialization in the 1830s. Still in 1837, Estevan de Antuñano in a letter to Lucas Alamán complained that there were enough capitalist agiotistas in the country, who nevertheless did not invest their capital in the "national development". (50)

When Lucas Alamán came into power, in 1830, he was perfectly aware of the problem of financing a new industry. He knew that in a "latecomer"-country like Mexico, the introduction of the factors of industrial development as inputs into an agrarian and pre-industrial society could not be accomplished on a significant scale without government investments and programs. This is what made the whole process of modernization a very political matter, strongly opposed by the liberals as well as by the artisans. The former opposed the project because it threw out the idea of *laissez-faire* and of separation of state and industry; the latter opposed it because they were convinced that they had as much, if not more, to fear from a newly created thriving local industry than from foreign imports. It was always possible to mobilize

nationalist feelings against imports, but not so against the industrialists, who themselves monopolized from then on Mexican "nationalism" as their very own weapon.

Despite this opposition, Bustamante's government - whose spiritus rector was Lucas Alamán - founded a "Development Bank" called Banco de Avío. The government maintained imports - i.e. it again allowed the import of coarse textiles, prohibited by the Guerrero administration -, with a protective tariff, and earmarked a part of the revenue (20%) to form the capital of the Banco de Avío to finance new large-scale industries. Artisans were promised that some funds would also be available for them, and that complete prohibition would be established after the amount desired for this bank (one million pesos) had been reached.

The main goal pursued by the foundation of the Banco de Avío is closely related to the issues so far discussed: foreign trade and its repercussion upon Mexican society, customs duties and state revenues, unemployment and dependency. In the Memoria of 1830, Alamán proclaimed as his maxim: "A people has to aim at not being dependent on others in things that are indispensable for its survival." (51) The means to achieve this goal was seen by him in the foundation of factories for goods of mass consumption; luxury goods should not be produced. The Banco de Avío as a national government agency in its capacity as an instrument of guided change took action and made investments (that is, it created an opportunity structure) in order to direct the activities of entrepreneurs and "capitalists" toward developmental goals.

The history of the Banco de Avío has already been written. (52) The main question of the following paragraphs is the relationship between the industrialization process and the foreigners or, in other words, the foreign contribution to the first phase of Mexican industrialization.

VI.

Foreigners, mainly Europeans, played a significant part in the industrialization of Mexico in three ways: First, European skilled workers installed new machinery and then instructed

Mexican workers on how to use it. (53) Secondly, Europeans contributed considerable money necessary to start industrial enterprises in Mexico; a large part of the capital invested in the incipient industry had been accumulated by trade, and many foreign merchants also became industrial entrepreneurs and managers. Thirdly, Europeans were highly involved in the discussion about customs duties in the 1830s and 1840s and, contrary to what might be supposed, not always defending free trade regulations.

Mexico in the 1830s gave few if any indications of its industrial potentialities. The population was overwhelmingly rural and agrarian. Non-agricultural production was carried on for the most part in the home or in small shops employing the old handicraft techniques. One of the main targets of the Banco de Avío therefore was, according to its statutes, "the purchase and distribution of machines for promoting the different branches of industry". European and North American spinning machinery and woollen machines of French invention were imported and helped the Mexican cotton and woollen industries to get a start. Until the end of 1834, the Banco had sent to the Mexican consul in New Orleans 160.000 pesos in order to pay for the machinery ordered in the U.S. Already in 1831, France had delivered a whole wool-factory to be installed in Querétaro, some time later the machinery necessary for silk production; in 1848 the so-called "Jacquard loom" was introduced.

The purchasing and installment of the new mills was confronted with many difficulties described by Potash, Thomson and others. In some cases, the machinery was destroyed and couldn't be used, in others - as in Antuñano's case - it never reached the Mexican shores; or, when the machinery was finally installed, problems arose with the technicians. Fanny Calderón de la Barca, visiting Antuñano's factory in 1841, wrote: "The ignorant foreign workmen declared that no good results would ever be obtained; that the machines were bad, and the cotton worse." (54) The Englishmen failed to make Antuñano's machinery work or to instruct native workmen in the use of machinery. But in spite of all the difficulties, in the 1830s the Banco de Avío and the 1840s private

industrialists continued to import new machinery from abroad. In 1843, one year after the dissolution of the Bank, 59 spinning and weaving mills with a total of 125,362 spindles were in operation or in process of being installed. (55)

The French, British and American specialists (artisans, mechanics, technicians) employed to operate the new machines were payed enormous salaries, ranging from about 700 up to 4000 pesos a year. Some of them couldn't start working, since upon their arrival in Mexico the machines still were stored in the port of Veracruz (Santa Anna's "revolution" of 1832 impeded the transportation of the machines to Querétaro or Celaya where they were supposed to be installed). Until 1835, the Banco had spent more than 100,000 pesos for salaries for foreign technicians who basically had not yet begun working. (56) Others had to be lodged in a secret place near Puebla because the local weavers who were extremely hostile to machinery, menaced their safety as well as Antuñano's life. The same hostility wrecked a ginning enterprise in the cotton area of Veracruz. (57)

Nevertheless, a great number of foreigners seemed to have been "imported" from Europe to show the Mexicans how to use the new machinery. Quoting again Calderón de la Barca, in 1841: "We now hear a great deal of their (Puebla's) cotton-factories, and of the machines, instruments, and workmen, brought from Europe here, already giving employment to thirty thousand individuals." (58)

The Mexican industrialists generally esteemed the work done by the foreigners. In 1843 they stated that the Mexican artisans had made such progress due to "the instruction that they have got from the many foreign masters who have come hither". (59) The French and British artisans founded in Mexico a savings-bank, that was repeatedly mentioned in the Memorias of the General Direction of Agriculture and Industry; the Memorias recommended to the Mexican artisans to imitate the saving-behaviour of the foreigners. (60)

The hiring of foreign mechanics and technicians pursued two goals: First, the specialists were necessary to start working the machinery. Second, they were supposed to instruct the Mexicans how to operate the plants. Many of the contracts specified

the foreigner's obligation to train the natives; the "importation" of foreigners was intended to have a "demonstration effect". In this first phase of Mexican industrialization, the foreign "development aid" had much more the character of an "intelligence import" than that of a "capital import".

Nevertheless, capital was of crucial importance in this first phase of Mexican industrialization. In the twelve years of its existence, the Banco de Avío granted net loans of approximately 770,000 pesos, and it spent about 250,000 pesos for new machinery. The Bank's investment amounted consequently to a sum of more than one million pesos. From this amount, cotton factories got 65.8% of the total loans (509,000 pesos), the textile industry as a whole received 71.1% of the net loans and 73% of the amount spent for new machinery. (61) In spite of these impressive figures, the number of textile factories which were aided financially by the Bank, was very small, about a dozen. On the other hand, in 1843, as already mentioned, there existed not less than 59 textile factories, and one year later 62. They worked with more than 112,000 spindles and 1,900 mechanical looms. In these years, the value of the Mexican manufacturing establishments was estimated by Brantz Mayer at 10 million pesos, by Waddy Thompson at 8 million pesos, by German consular sources at 12 to 15 million pesos. (62) These figures indicate clearly that, apart from the initial boost from the funds of the Banco de Avío, the largest part of the investments came from private sources. The question is, whether these sources were Mexican or foreign ones.

VII.

Historians repeatedly have argued that Alamán's industrialization policy was directed against foreigners. Carlos Díaz Dufóo f.ex. has interpreted the whole project as having been inspired "by bad intentions against foreign capital", and other historians have declared the opposition against foreign investments as a characteristic of the program of the Banco de Avío. (63) Obviously, these arguments confound cause with effect. While no Mexican source indicates any kind of aversion against foreign invest-

ments in the beginning of industry, there are enough proofs of the foreign aversion against the industrialization project. The British Charge d'Affaires H.G. Ward f.ex. stated as early as 1827: "Mexico cannot, during the present century, be a manufacturing country, and, probably, will not attempt it." (64) This opinion basically reflected the point of view of many Mexicans. With exactly the same words, the newspaper El Observador wrote in 1830: "Los mexicanos no somos ni podemos ser en mucho tiempo manufactureros." (65) Also in 1830, the British Consul General Charles O'Gorman called the foundation of the Banco de Avío a "concession to popular prejudices" (66), and ten years later Madame Calderón de la Barca wrote skeptically: "The bank (avio meaning pecuniary assistance, or advance of funds) was established by Don Lucas Alamán, and intended as an encouragement to industry. But industry is not of the nature of the hothouse plant, to be forced by artificial means; and these grants of funds have but created monopolies, and consequently added to the general poverty." (67) Also the German consuls and diplomats spoke quite contemptuously about the "piteous experiments of the native industry." (68)

The foreign attitude towards Mexican industrialization was not reduced to mocking rejection only. At least some foreigners also supported actively attempts of stopping the industrialization process. When in the beginning of 1832, Santa Anna started his "revolution" against the Bustamante/Alamán government asking for Alamán's dismissal, the foreign merchants of Veracruz supported him. Especially well known is the case of the British vice-consul Joseph Welsh who openly advocated Santa Anna's cause. (69) The main reason for Welsh's bias against Alamán is to be found in his opposition to the minister's industrialization program which was interpreted by him as being opposed to British exports. On the other hand, the British merchants of Mexico (City) pointed out that Welsh's "doing so is without our approbation, and that his acts must be considered as those of an individual, and not as of a representative of the British residence in this republic." (70)

An anonymous pamphlet of 1832 intituled O auxiliamos al gobierno, o la patria va al infierno stated that some British and the major part of the French and the other foreigners in Mexico had supported Santa Anna, this "destructive Nero", and that they intended to take over the Republic as their booty; therefore, it was the patriotic duty of all Mexicans to fight against this upheaval. The British Charge d'Affaires Richard Pakenham observed (71) in the government "a tendency to irritate the minds of the Mexican people against foreigners". He concluded that "it entered into the policy of the Government rather to countenance than discourage the propagation of these pernicious ideas, with the view to attach to the insurrection of General Santa Anna the odium of having been brought about by foreign agency." And the representative of the Banco de Avío in the U.S. wrote in 1832 that the natural distrust already existing in the States against the industrialization was growing, and that the forces opposed to that program were trying to convince the spinners and weavers already hired, not to leave for Mexico. (72)

Obviously, among the foreign merchants in Mexico as well as in the countries trading with Mexico there were forces trying to ridicule and to undermine the industrialization program. This attitude seems to be compatible with the main interest of foreign merchants, namely to import manufactured goods to Mexico. There were, nevertheless, also other opinions and interests among the foreigners. Many of them embraced the country's industrialization and contributed to a great extent to its development. Even the Banco de Avío, allegedly founded in opposition to foreign interests, granted loans to foreigners - paradoxically also to foreigners who really had been opposed to its program such, as the family of the above mentioned British vice-consul Welsh, who in the meantime had founded a textile factory in Jalapa.

Lucas Alamán himself founded a textile factory in Orizaba, together with the two Frenchmen Augusto and Próspero Legrand who supplied the major part of the capital. They also were helped by a loan from the Banco de Avío, as was another Frenchman, José Faure. These few examples indicate that the state-

sponsored Mexican industrialization strategy of these years was not xenophobic, as it has been repeatedly asserted. Quite to the contrary: Probably, the State representatives encouraged foreign investments because they could be an example and an incentive for the reluctant Mexicans.

Much more important than the examples of factories sponsored by the Bank, are the others, where foreigners founded without State help, but very often in cooperation with native Mexicans, and protected (from 1837/38 on) by the import prohibitions, new industrial enterprises. The largest amount of the invested foreign capital came from foreign merchant houses already established in Mexico, and flowed into the textile industry. Neither phenomena is surprising due to the fact that (besides the Church) the (foreign) merchants were the only ones who had enough money to invest, and that the textile industry was the most protected by tariffs between 1837 and 1846. All the examples of foreign and native merchant capital invested in industrial enterprises worked in a similar way. First, the merchants "accumulated" their capital through trade enterprises, through speculation with public and private debts, through lending money to the government as agiotistas, sometimes through investments in real estate (although this latter form of investment was more characteristic of a second or even third "investment phase"); secondly, the merchants diversified their investments, and in the 1830s and 1840s invested heavily in productive enterprises. Many times, they didn't invest directly; rather, they became creditors of the new industrialists, and when these for a variety of reasons were not able to repay their debts, the merchant bankers became partners in the enterprise or took it over completely.

Nearly all the studies about entrepreneurs published in the last few years point out this two-phase-mechanism. The volume edited by Ciro Cardoso (73) "Formation and Development of the Bourgeoisie in Mexico in the 19th Century", f.ex. contains eight essays, each dealing with another representative of the "Mexican" bourgeoisie. The curious phenomenon is that six out of these

eight entrepreneurs were foreigners, and the other two (Francisco Somera and Manuel Escandón) creoles in the first generation. Of the six foreigners, four were Spaniards: Béistegui, Gregorio Mier y Terán, Isidoro de la Torre, Valentín Rivero; one Irish: Patricio Milmo; and one Panamenian: Martínez del Río. There exist other studies about "Mexican" entrepreneurs, and nearly all of them were foreigners who first were merchants and later on became industrialists: The dissertation of David Walker analyses the Martínez del Río family; and in the collective volume about the "Pioneers of German Imperialism in Mexico" are included several examples of German merchants who invested in textiles, f.ex. Hermann Stahlknecht and Julius Hildebrand, in Durango; J. Bahnsen, in San Luis Potosí; Archibaldo Hoppe, in Mexico City. (74) On the other hand, only very few Mexican entrepreneurs have deserved the attention of the historians, the most important one being Estevan de Antuñano of Puebla. It is no coincidence that most studies about entrepreneurs are about foreigners in Mexico, and it is also no coincidence that several of them are included in a volume about "Mexican" bourgeoisie, because in their attitude and their investment practices they did not differ basically from their (few) Mexican counterparts.

Most of the textile-entrepreneurs formed stock companies for financing and administering their enterprises, generally two, three or four partners, sometimes of the same family, but more often unrelated by blood. One of the characteristics was the association between Mexicans and foreigners. The example of Lucas Alamán, who together with two Frenchmen founded the cotton yarn factory Cocolapam near Orizaba, has already been mentioned. Pedro Sainz de Baranda associated himself with the American John L. Mac Gregor, and together they founded in Yucatán the Aurora Yucateca. (75) On the Mexican west coast, Manuel Escandón and Eustace Barron, the British consul in San Blas, cooperated closely and organized, through their textile factories La Escoba and Jauja a large part of the contraband of this region. In Puebla, Estevan de Antuñano founded, together with the Spaniard Gumesindo Saviñón, the famous Constancia Mexicana, and the Spaniard José Dionisio Velasco formed a company with the Veracruz import traders Andrés

Vallarino and Ciriaco Marrón and founded the factory El Patriotismo Mexicano.

Several reasons made it desirable to form joint companies between foreigners and natives: (76)

1) Foreign merchants usually had much better international relations, whereby the purchase of new machinery or the introduction of the latest know-how was facilitated.

2) The foreign partner, in most of the cases, was a (whole-sale-) merchant, who wanted to invest his surplus; if the enterprise needed new credits, the economic and often personal relationship between the foreign partner and other foreign merchant bankers made it easier to get the needed loan.

3) The association with a foreigner could be helpful in case of political turmoil and as a protection against too capricious financial burdens imposed by the government. Although foreign enterprises also were obliged to pay forced loans and other more or less forced contributions, generally the Mexican authorities handled them more carefully because of their possibility of asking their respective legation for help; the "Pastry War" between Mexico and France was due to unsatisfied (although highly exaggerated) claims by the French against Mexico.

In one form or another, foreigners were vital in industrial investment and management. For Puebla, it has been pointed out that the Spanish contingent was the most significant. Foreigners were essential in building the factories and in operating them: the skilled mule spinner, the millwright, the machine specialist. Foreign wholesale and retail merchants, spurned by Puebla during the 1820s and early 1830s, became increasingly important during the 1840s as creditors to the new industry. Perhaps the strongest comment, according to Thomson, on the nature of industrialization (in Puebla and other parts of Mexico) was the failure of the industrialists as a group to generate autonomous capital formation from their own enterprises, to found a bank and to release themselves from an excessive dependence upon credits obtained from import houses and cotton monopolists. (77) To a certain degree, the industrialization which took place mainly in Central Mexico between 1835 and 1845, was a readjustment in the investment of merchant capital. The merchant of the late colonial putting out system of independent weavers and spinners had

become the merchant manufacturer involved in and possessing the process of production itself.

According to a Report of the Association of Mexican Industrialists of 1843, 85% of the cotton industrialists were either Mexicans or Spaniards; the remaining 15% were English, French, North Americans and Germans. These figures have been accepted uncritically by the Mexican historians; nevertheless, they must be handled very carefully for several reasons. First, it is not understandable why Mexicans and Spaniards are summed up under one heading as if they had the same citizenship. The Spanish and the Mexican citizenship were clearly separated since the denouncement of the Plan de Iguala and the Tratados de Córdoba, since the expulsion of the Spaniards and since the establishment of diplomatic relations between Spain and Mexico. Secondly, these figures probably include only foreign owners and do not consider that many factories were highly indebted to foreign creditors, who practically controlled the factories without being formally the proprietor. Thirdly, many foreigners were partners in Mexican factories which officially were considered Mexican, but were at the most partially Mexican. There is no doubt, that the percentage of foreigners in the textile industry of Mexico in the 1830s and 1840s was higher than indicated by official figures.

Mexican authorities had good reasons to make foreign participation appear as low as possible. In the 1830s, industrialization had been started in order to become independent from foreign countries; if foreign participation in industry appeared to be too high, it contradicted the initial goal. Furthermore, industrialization was interpreted as a national and patriotic matter that was supposed to put Mexico on an equal level with other industrialized countries in Europe. The names given to the new factories are symptomatic of this underlying idea: Aurora (Sunrise), Fama (Fame), Constancia (Constancy), Patriotismo (Patriotism), Buena Fe (Good Faith), Hercules (Hercules), Libertad (Liberty), Prosperidad (Prosperity), Victoria (Victory). Equally characteristic of the prevailing nationalism in the Mexican industrialization process is the fact that nearly all "Industrial

Companies" founded in the 1830s following an initiative of the Banco de Avío, were of state origin. According to Potash, civil servants - probably due to the pressure of the district political leaders (jefes políticos) - and priests bought most of the stocks of the new industrial societies, which they contemplated more as a semi-public institution with patriotic aims than as an economic enterprise.

VIII.

The early Mexican industrialization attempts of the 1830s repeatedly have been interpreted as a failure. Most of these interpretations do not develop a theoretical framework of the industrialization process or economic growth. They simply claim, as the Liberals already did in the 19th century, that after the closing of the Banco de Avío in 1842, manufacturing capacity did not expand very much and that in the middle of the century the modern textile industry could not serve to contradict the accusation of its opponents and detractors; that it was a forced exotic plant only existing by virtue of prohibitive tariffs and at the expense of the consumer. (78)

Basically, the assertion that Mexican industrialization in this early phase failed, is correct; nevertheless, it succeeded in providing urban employment (79) and an outlet for domestic and, even more, for foreign capital investment in an economy where other investment opportunities (excepting risky speculations) were still lacking. (80) And the achievement of the new merchant-industrialists should not be underestimated. Most enterprises survived under sometimes very hard conditions; some of the new enterprises showed a remarkable resilience. The industrialization of the 1830s, therefore, cannot be characterized as a complete failure, albeit it did not represent the beginning of a (new) phase of economic growth.

Some elements of existing historical models of growth can be applied to Mexico in order to explain the final failure of the industrialization efforts. The model developed by Alexander

Gerschenkron may be useful, because its emphasis rests heavily upon the beginnings of growth and does not - as the model developed by Rostow does - look forward in its economics to the mass consumption society. (81) The general assumption of the Gerschenkron-model is that the more backward a country is, the more rapid will be its initial industrial development. Some of Gerschenkron's "operational rules" which deal with more specific aspects of the growth problem can be adapted to the Mexican case:

1) According to Gerschenkron, the more backward the country, the more sophisticated will be the industrial equipment which it selects for its manufacturing debut. This will be so, because the backwardness of follower-countries is itself partly defined by the advanced nature of the technology at work inside the leader economies. By purchasing modern machines, the backward country can obtain segments of this technology. Mexico, indeed, ordered and got the newest textile machinery at that time, and the result was that the productivity of the new textile industry was comparable to the textile productivity of the U.S. and European countries. (82) But within the deprived Mexican economy, the high-quality equipment did not produce the desired effect of pulling the borrowing country abruptly forward into the industrial race - which, according to Gerschenkron, was supposed to happen.

2) Gerschenkron asserts that the backward economy tends to use not only modern equipment, but also generous amounts of this new technology. Its need to compensate for the shortcomings of its labor supply in skills requires every effort to replace men with machines. This "operational rule", in the Mexican case worked only for approximately a decade. The Banco de Avío was already closed in 1842, and also private entrepreneurs did not continue purchasing larger amounts of new machinery from the mid 1840s on.

3) The backward economy tends to require a great deal of assistance of an institutional kind and substitutes for the limitations of the recruitment of entrepreneurs. In a context of "medium backwardness", where shortage of capital is often the major bottleneck, this assistance often takes the form of innovation within the banking institutions, producing specialized

industrial investment banks. (That was the case of 19th century Germany.) In a context of "chronic backwardness", the state is used as the co-ordinating and managerial agency. (In this context, Gerschenkron points to the imperial bureaucracy in Russia as an example.)

Probably, this last aspect of Gerschenkron's model fits best in the Mexican case. Mexico's backwardness made the presence of creative capitalists (one of Rostow's essential demands) improbable; some other agency must take their place. Backward Mexico "substituted" her lack of an indigenous stream of innovation by imports of advanced technology; she substituted the lack of accumulation of native capital by attracting foreigners (foreign merchants) and making use of their funds; she substituted the lack of a sufficient number of skilled native labor by introducing foreign workmen; and she substituted the services of an entrepreneurial ginger group by state action. The state-run Banco de Avio took over a great deal of the risks, which in a modern, developed and competitive society is characteristic of the rôle of the entrepreneur. (82a)

Although many of Gerschenkron's "substitutes" were present in Mexico's 19th century, the country did not experience (in Rostow's terminology) a "stage of take-off" and did not embark upon the "drive to maturity" where the process of industrial growth should have become "sustained", or irreversible. Several reasons contribute to the explanation of the stagnation of the industrialization efforts already beginning before the middle of the century. These reasons can be summed up in three different "sets" of explanations:

A) "Objective" "physical" reasons

The first set are "objective" "physical" reasons. The saturation of the internal markets because of the sudden expansion of manufactured goods in the years before, the lack of purchasing power of the great majority of the Mexican population, the enormous problems of infrastructure, mainly transportation and communication, which hindered an expansion of the market. It has been

estimated f.ex., that the difference in productivity between the Mexican and U.S. economies in the 19th century would have been reduced (all other things being equal) by at least one-third, if Mexico had shared the transport facilities that the U.S. had. (83)

B) Reasons of "political economy"

The second set of explanations has to do with state action, with economic policies or political economy. The French scholar Raymond Aron, in his "Lectures on Industrial Society" has enumerated some forces which impel entrepreneurs towards an interest in economic areas. (84) Aron mentions appetite for progress and change, interest in science and technique and - most important for the Mexican case - the habit of economic calculation. The latter will function within the framework of a relatively rational and predictable system of administration. Capricious or unstable governments are bad preconditions for long-range plans and commitments by businessmen. Gerschenkron expects that the state will take up a position of major organizational importance in the economic process of very backward countries; Aron argues that the state should provide rational administrative, judicial, and fiscal systems as part of the framework for efficient private enterprise.

This condition, basically, did not exist in Mexico. Not only the political instability, the continuous change of government and regimes, the civil wars and foreign interventions created a hazardous environment for business in which large fixed capital was involved. Moreover, the economic policies of the governments were contradictory. Some examples will illustrate the problem:

1) The Junta of the Banco de Avío declared in its Report of 1835, that the order of the liberal Finance Minister Gómez Farías, of 1833, according to which the duties assigned to the Bank were suspended, had "dealt the mortal blow to Mexican industry." (85) Probably, this statement was exaggerated, but nevertheless: There was no continuity in the industrialization policy of the different governments. (86)

2) Although Alamán tried to create a modern industry, he did not (and did not want to) solve one basic contradiction: He wanted to generate modern industrial progress, maintaining at the same time one of the largest obstacles to this progress, the land of the Church. He was opposed to any kind of disamortization of the ecclesiastical estates, a measure that would have put into circulation the large capital reserves of the Church. Rather, he wanted to fortify the remainder of colonial society adding to the already existing privileged groups (clergy, hacendados) the new group of industrialists. His idea of state interventionism was at least in the same degree a colonial legacy as it was rooted (as has been asserted) in Edmund Burke's and Adam Smith's economic concepts. To express it in the words of one of the historians of Mexican liberalism: His goal, "contradictory in itself, was, colony with industry". (87)

3) The problems of supply of raw cotton and import prohibitions: The import prohibitions of 1837 which were in force until 1846, referred not only to cotton goods and cotton yarn, but also to raw cotton, and what was supposed to be a help for the new industries, became a major obstacle for their further development. (88) During the first years of the prohibitions, the Mexican cotton still was sufficient to supply the newly created factories. But when their number increased, the cotton supply became one of the major problems of the Mexican textile industry. In 1840, the discrepancy between supply and demand of raw cotton was so high, that the former cartel between cotton growers and factory owners was destroyed for good. The industrialists now demanded again the free importation of raw cotton and cotton yarn - first, because the Mexican cotton was not sufficient, and secondly because its price had been rising continuously: from 25\$ in 1839 to 40\$ one year later. (89) In 1843 and 1844, Santa Anna permitted the importing of 60,000 and 20,000 quintales of raw cotton, but this amount was not sufficient by far, and the manufacturers continued complaining that the high price of cotton made it impossible for them to manufacture textiles at competitive prices. But the con-

tinuous complaints of the industrialists remained unsuccessful - all the more since in 1843 the import prohibitions had been included in the new constitution and could only be abolished by a vote of two thirds of the states (now called departamentos). Only in 1846, shortly before the outbreak of the war against the U.S. and after the federal republic had been restored, the importation of cotton was again allowed with permisos de importación de algodón, because the government urgently needed funds to finance the war.

Undoubtedly, most factories had been founded because import prohibitions of foreign textiles protected the national market. But during the whole decade of these import prohibitions, politicians continuously discussed the possibility of abolishing them - first, because they needed revenues, secondly, because the foreign merchants and, on their behalf, the foreign diplomats exerted pressure upon the Mexican government to allow the importation of foreign textiles again. These discussions created uncertainty among the industrialists. Already in 1829, William Drusina had complained in a letter to his partner Martínez del Río about Mexican economic policy: "These people work in such a manner that the devil himself cannot say what they will be doing here in one or two years." (90)

4) The next example is very closely related to the former one: Despite the import prohibitions, foreign textiles were continuously imported - due to many exceptional permits. For example in 1838/39 the federalists, who had taken over Tampico, allowed the importation of forbidden cotton, and even reduced the former customs tariff by 25%; or in 1840, General Mariano Arista allowed the local merchants of Matamoros to import two million pounds of yarn because he urgently needed the duties resulting from customs tariffs to sustain his troops. In this case, the foreign merchants (at least some) had a profit, while the foreign industrialists complained heavily and tried to overturn Arista's action. While the French Minister supported the reclamations of his nationals, the British did not, since he represented the merchants' and not the industrialists' interests. Some authors intimate that the dilatory treatment of this case by the Bustamante government contri-

buted to its fall in 1841. (91) In the following years, Santa Anna also made several exceptions. The main reason for these "policies of exception" was always the same: the local, regional or national rulers depended on the money collected at the custom houses of Veracruz, Tampico, Matamoros, or any other port. The duties on imported cloth had been the principal contribution to government revenues, and a government without this source of revenue was must vulnerable. But, allowing the importations, they contradicted their own laws and inhibited any rational calculation on the part of the industrialists.

5) In the war between Mexico and the U.S. the North Americans abolished the import prohibitions in the ports occupied by them, introducing a liberal tariff system and allowing not only the importing of raw cotton and cotton yarn, but also of cotton cloth, opening the Mexican market again to the cheaper foreign textiles. Although after the war the import prohibitions were temporarily re-introduced, the war marked a deep caesura in the history of Mexican custom policy. Soon after the war, a generation of young liberals came to power and eliminated, step by step, the prohibitions.

6) Finally, the eternal phenomenon of contraband also hurt the incipient Mexican industry. The contraband trade has to be treated as a political variable because such activity is the natural result of a government's attempt to influence market forces. Estimates of the amount of the smuggling vary from 10% to more than 50% - and although, because of obvious reasons, it is hard to ascertain the exact amount of smuggled goods, Mexican and foreign sources cite overwhelming evidence that throughout the 19th century smuggling was one of the major occupations of Mexican and foreign merchants. Martínez del Rio Hermanos f.ex. identified contraband commerce as the chief cause of the bankruptcy of the Miraflores factory in 1861. (92)

The conclusion of these examples is very clear: The Mexican state did not provide what Raymond Aron has called a rational administrative, judicial, and fiscal system as part of the framework for efficient private enterprise. (93) In this sense, the

Mexican state inherited a fatal legacy from the Spanish colonial administration which - as has been recently pointed out - imposed many constraints on colonial economic activity, making economic organization inefficient and thus reducing the productivity of the economy. (94)

C) Reasons concerning the attitudes of economic subjects

The third set of explanations (even if it is a dangerous field) are also non-economic variables, elements which react to, and react upon the objective physical factors (such as raw materials, labor supplies, investment capital, or the lack of them), namely the behavior of entrepreneurs, the attitudes of economic subjects. Social characteristics may exert an influence upon the course of industrialization at least as powerful as any derived from the more basic economic equipment. The form of social organization as well as the climate of opinion within which entrepreneurial behavior occurs will function as an important determinant of industrial activity. Talcott Parsons speaks of "role expectations" inherent in every society and protected by its system of rewards and retributions. (95) Together, the role expectations and their protective mechanism constitute a "social value system" which has a substantial ability to condition the activities of society's individual members. Consequently, for the entrepreneurial objectives to be effectively pursued, it is necessary that the fundamental behavioral patterns of capitalism (risk-taking, profit-motivation etc.) should interlock smoothly with the society's prevailing value system, and should receive the "social approval" of the community. Did these conditions exist in Mexico? Obviously, the answer to this question can only be tentative, more an hypothesis than a real answer.

In his study on Mexico's mercantile evolution in the 19th century, Pablo Macedo, one of the representatives of the científicos' positivist ideology in the late Porfirian era, explained the pre-eminence of foreigners in Mexico's commercial activities adducing, among others, one major reason: The traditional Mexican contempt for commercial activities compared to the social prestige enjoyed by lawyers, physicians, priests or high ranking soldiers. (96)

Macedo's statement with regard to the merchants can be extended to the industrialists. It is doubtful, whether "the impact of western man", as William Woodruff has called it (97), led to the creation of a Mexican spirit of enterprise among an entrepreneurial class.

The opinions of Mexican contemporaries about this question are of little help, because they are as contradictory as is the interpretation of the industrialization process itself. In 1843, the industrialists spoke of a generalized "industrial spirit" and interpreted the new industry as being an "active-body" in the Republic. (98) At the same time, the liberal Mariano Otero noted the complete "disappearance of the spirit of enterprise, which for a moment had shone in the textile industry". (99) Several arguments seem to corroborate this opinion:

First, the initial boost from the funds of the Banco de Avío was decisive and made the first stages of Mexican industrialization appear to have been more a state enterprise than a private economic one. Secondly, the close connection between Mexicans and foreigners can be interpreted as timidity on the part of the Mexican entrepreneurs, who did not show entrepreneurial behavior à la Schumpeter. (100) Thirdly, the import prohibitions between 1837 and 1846 were a crucial condition for the decision of Mexicans to invest. In Puebla f.ex., Estevan de Antuñano was the only merchant who invested in textile manufacturing prior to the issue of the import prohibitions. Fourthly, the legacy of colonial rule also in this sector: Before Independence, the mother country had frowned upon the efforts of colonials to develop some types of handicraft industries; at times the Spanish government had followed a policy of outright suppression and prohibition, at other times industry had been fettered by burdensome rules. It followed from such a policy that the Mexicans, once free of Spain, did not have a satisfactory background in manufacturing, and that the climate of opinion which fosters ingenuity and alertness for profitable investment was largely absent. (101) In 1843, in an article about Mexican industry, the anonymous author wrote: "Los extranjeros han hecho su fortuna por nuestra apatía." (102)

These arguments seem to confirm largely the absence of combative and creative entrepreneurs in this phase of Mexican industrialization. This phenomenon can be interpreted not only as a result of the prevailing value system, but rather as a consequence of the colonial legacy and the political economy of the Mexican state.

The dawn of the 1850s, when many factories had to shut down, was also the end of a passage of political and economic pre-eminence of a generation of essentially conservative and protectionist entrepreneurs. The American War signalled the end of the short age of protectionism, the rise of new liberal leaders and the beginning of a new phase in Mexico's economic history.

Notes

- 1 Archives Nationales, Paris: F¹² 2695. Notes sur la navigation et le commerce du port de Vera-Cruz pendant l'annee 1856.
- 2 O'Gorman to Planta, 1 march 1825 (Public Record Office FO 203/4).
- 3 William F. Cody: British Interest in the Independence of Mexico 1808-1827 (London: University of London Ph.D., 1954).
- 3a Sources: For France, USA, Hamburg and Bremen: Miguel Lerdo de Tejada: Comercio exterior de México desde la conquista hasta hoy (México, 1853), tables 37-41; for Great Britain: (1825-1837) Woodbine Parish: Buenos Ayres and the Provinces of the Rio de la Plata. From their discovery and conquest by the Spaniards to the establishment of their political independence (London, 1852), p. 415; (1828, 1838, 1839:) Bernard Kapp: Les relations economiques exterieures du Mexique (1821-1911) d'apres les sources francaises, reproduced in: Bernard Kapp/Daniel Herrero: Ville et Commerce. Deux essais d'histoire hispano-americaine (Paris, 1974), p. 59, and: Parliamentary Papers. Return relating to the trade with Mexico from 1820 to 1841 (London, 1842); (1840-1846:) Robert A. Potash: "El 'Comercio Exterior de México' de Miguel Lerdo de Tejada: un error estadístico", El Trimestre Económico 20, 1953, p. 474-479 (based upon the "Parliamentary Papers"). Exchange rate: 1 Pound Sterling = 5\$. Probably, England's exports to Mexico between 1829 and 1837 were much higher than indicated. Parish himself indicates that a considerable part of the articles sent to Chile were destined for Mexico's west coast. Nevertheless, the value of the goods exported from Great Britain to Chile in these years was higher than the value of the articles exported to Mexico.
- 4 O'Gorman to Planta, 26 december 1825 (PRO FO 203/4)
- 5 According to sources of the period, in the 1820s the U.S. was the only trade rival for Great Britain. In a despatch to his government, the French colonel Courtois St. Claire (who basically was a kind of "economic spy") wrote about the British trade in 1825: "En un mot ils remuent Ciel et terre pour accaparer le Mexique: La France n'a pas un moment a perdre pour parer le coup que la menace." Xalapa, 20 april 1825, without signature (PRO FO 50/3).
- 6 Inés Herrera Canales: El comercio exterior de México 1821-1875 (México, 1977), p. 28.
- 7 Javier Ortiz de la Tabla Ducasse: Comercio Exterior de Veracruz 1778-1821. Crisis de Dependencia (Sevilla, 1978), p. 335. Some pages before (p. 331) he wrote: "En definitiva la trascendencia del comercio neutral radica fundamentalmente en las nuevas directrices impuestas al comercio exterior novohispano. Rotas las relaciones con la antigua metrópoli, las rutas abiertas por el comercio neutral encaminarian los nuevos lazos de dependencia de México."
- 8 Stanley J. Stein/Barbara H. Stein: The Colonial Heritage of Latin America (New York, 1970), p. 134-135.
- 9 Miguel A. Quintana: Los primeros 25 años de la historia económica de México. Estevan de Antuñano. Fundador de la industria textil en Puebla. 2 vols. (México, 1957), vol. II, p. 38.
- 10 D.C.M. Platt: Latin America and British Trade 1806-1914 (London, 1972), p. 4-7.

- 11 Juan López Cancelada: Ruina de la Nueva España si se declara el Comercio Libre con los Extranjeros. Exprésanse los Motivos. Quaderno Segundo, y Primero en la Materia (Cádiz, 1811); Friedrich Alexander von Humboldt: Versuch über den politischen Zustand des Königreichs Neu-Spanien. 5 vols. (Tübingen, 1809-1814), vol.4.
- 12 O'Gorman to Planta, 10 august 1824 (PRO FO 50/7).
- 13 Dawn Keremitsis: La industria textil mexicana en el siglo XIX (México, 1973), p.23.
- 14 Matías Romero: Mexico and the United States. 1st vol. (New York, 1898), p. 154.
- 15 Platt: Latin America, p. 8-14. Platt's arguments with respect to the importance of the new factories displacing artisans are not new. Already in 1850, the liberal Guillermo Prieto had asserted the same, adducing that at the same time, a kind of "divorce" between Indians and whites happened. Guillermo Prieto: Indicaciones sobre el origen, vicisitudes y estado que guardan actualmente las rentas generales de la federación mexicana (México, 1850), p. 397 and passim.
- 16 Basil Hall: Extracts from a Journal, written on the coasts of Chili, Peru, and Mexico, in the years 1820, 1821, 1822. 2 vols. (Edinburgh, 4th ed. 1825), vol. 2, p. 189.
- 17 William Henry Koebel: British Exploits in South America; a History of British Activities in Exploration, Military Adventure, Diplomacy, Science and Trade, in Latin America (New York, 1917), p. 264.
- 18 Albert Imlah: "The Terms of Trade of the United Kingdom, 1798-1913", Journal of Economic History X, 1950, p. 170-194, see p. 183; see also Platt: Latin America, p. 15.
- 19 G.F. Lyon: Journal of a Residence and Tour in the Republic of Mexico in the year 1826. 2 vols. (London, 1828), vol. 2, p. 233. Somewhat later (p.235) he continued: "Even richly worked muslin and gaudy French silks have here and there found their way into the most retired parts of the country."
- 20 Ibid., p. 197.
- 21 Los extranjeros y los aventureros (México, 1832). See also the anthropological study about the distribution of the different clothes according to class and color criteria: Isidoro Moreno Navarro: Cuadros del mestizaje americano. Estudio antropológico del mestizaje (Madrid, 1973).
- 22 H.G. Ward: Mexico in 1827. 2 vols. (London, 1828), vol. 1, p. 22-23.
- 23 William Bullock: Six months residence and travels in Mexico. 2 vols. (London, 1825), p. 484-485. Some years later, William Maclure (in: Opinions on Various Subjects, dedicated to the Industrious Producers. 3 vols., New-Harmony, 1831-1838) noticed and criticized a change in the wearing apparel of the Mexicans. The new fashions in dress, imported by foreign merchants, were immediately apparent in the main cities and ports: "The original dress of this country was roundabout and pantaloons, showing the human shape in an easy and not inelegant point of view; all that can afford it are now adopting the dandy-like coat with long tails and cumbrous collars, which like the long nails worn by the useless part of some nations, only proclaim their idleness and inutility." (p.328).
- 24 Ibid., p. 253. And again some ten years later, in 1843 and 1844, the upper classes of the City of Mexico left the impression upon an observer as if he were in an European city: Albert M. Gilliam: Travels in Mexico, during the years 1843 and 44 (Aberdeen, 1847), p. 98.
- 25 Maclure: Opinions, vol. 1, p. 383.

- 26 Frances Calderón de la Barca: *Life in Mexico* (Berkeley, 1982), p. 57, 354.
- 27 Ibid., p. 523-524; see also Eduard Mühlenpfordt: *Versuch einer getreuen Schilderung der Republik Mejico besonders in Beziehung auf Geographie, Ethnographie und Statistik*. 2 vols. (Hannover, 1844). The Prussian Minister in Mexico, Emil Karl Heinrich von Richthofen, insisted in the middle of the century, that the European imports had to be limited to those items "welche zu den Bedürfnissen desjenigen kleinen Theils der mexicanischen Bevölkerung gehören, welcher solche Bedürfnisse hat und sie zu befriedigen im Stande ist. Als Consument von auswärts importierter Artikel fällt die ganze eingeborene Indier-Race, die von den 7 Millionen der Gesamtbevölkerung der Republik über 4 Millionen beträgt, vollkommen aus; sie nährt sich nur mit Landesproducten und kleidet sich, wenn man einige in den meisten Fällen kaum die Scham bedeckende Lumpen Kleidung nennen kann, mit den im Lande producirt, durch Prohibitivzölle geschützten Stoffen." Emil Karl Heinrich Freiherr von Richthofen: *Die äußeren und inneren politischen Zustände der Republik Mexico seit deren Unabhängigkeit bis auf die neueste Zeit* (Berlin, 1859), p. 351-352.
- 28 Torcuato S. Di Tella: "The Dangerous Classes in Early Nineteenth Century Mexico", *Journal of Latin American Studies* 5, 1, 1973, p. 79-105.
- 29 John H. Coatsworth: "Obstacles to Economic Growth in Nineteenth-Century Mexico", *American Historical Review* 83, 1, 1978, p. 80-100; see p. 82.
- 30 Di Tella: *Dangerous Classes*, p. 103.
- 31 Luis Chávez Orozco (Ed.): *La agonía del artesanado mexicano* (México, 1977), p. 10-11.
- 32 Luis Chávez Orozco: *Historia de México (1808-1836)* (Mexico, 1947), p. 162; Banco Nacional de Comercio Exterior: *Colección de Documentos para la Historia del Comercio Exterior de México. Segunda Serie. Vol. 1: El Comercio Exterior y el Artesano Mexicano (1825-1830)* (México, 1965), p. 15.
- 33 "Idea de la Sociedad Patriótica formada en esta Capital del Estado de Puebla, para fomento de las Artes" (Puebla, 1831), quoted in Quintana: Antuñano, vol. 2, p. 61-75 (quotation p. 63).
- 34 *El Aguila Mexicana*, 16 march 1824, quoted in *El Comercio Exterior y el Artesano Mexicano*, p. 10.
- 35 Quoted in Robert A. Potash: *El Banco de Avío de México. El fomento de la industria 1821-1846* (México, 1959), p. 51.
- 36 Mühlenpfordt: *Versuch*, vol. 2, p. 381.
- 37 Mühlenpfordt: *Versuch*, vol. 1, p. 429.
- 38 J.R. Poinsett: *Notas sobre México* (México, 1950), p. 155-158; Baron Alejandro de Humboldt: *Ensayo político sobre Nueva España*. 5 vols. (Paris, 1836), vol. 4, p. 12; Tadeo Ortiz de Ayala: *Resumen de la Estadística del Imperio Mexicano dedicado a la memoria del Sr. D. Agustin I., Emperador de México* (México, 1822), p. 48; José María Quirós: *Memoria de estatuto* (Veracruz, 1817).
- 39 Robert A. Potash: *Mexican Government and Industrial Development in the Early Republic: the Banco de Avío* (Amherst, 1983), p. 7.
- 40 G. P. C. Thomson: *Economy and Society in Puebla de los Angeles 1800-1850* (University of Oxford, unpublished Ph.D., 1978), p. 457-458.
- 41 Jaime E. Rodríguez O.: *Down from Colonialism: Mexico's Nineteenth Century Crisis* (Irvine, 1980).

- 42 "Si no se van los ingleses, hemos de ser sus esclavos" (1825), quoted in: James C. McKegney (Ed.): The Political Pamphlets of Pablo Villavicencio "El Payo del Rosario" (Amsterdam, 1975), vol. 1, p. 451-461.
- 43 "Ya los pobres artesanos de hambre y miseria ladramos" (Mexico, 1829), quoted in: El Comercio Exterior y el Artesano Mexicano, p. 221-230.
- 44 Carlos Diaz Dufóo: Industrial Evolution. In: Justus Sierra (Ed.): Mexico. Its Social Evolution (Mexico, 1900-1902), vol. 2, p. 137.
- 45 "Memoria sobre reformas del Arancel Mercantil que presenta el Secretario de Hacienda al Soberano Congreso Constituyente leida en sesion de 13 de enero de 1824 y mandada imprimir por su Soberania", quoted in Guillermo Tardiff: Historia General del Comercio Exterior Mexicano (Antecedentes, Documentos, Glosas y Comentarios), 1503-1847 (México, 1968), vol. 1, p. 216-219.
- 46 Lerdo de Tejada: Comercio exterior, p. 33; see also Pablo Macedo: La Evolución Mercantil. Comunicaciones y Obras Públicas. La Hacienda Pública (Mexico, 1905), p. 51-52.
- 47 In the earlier artisan-guild ("gremios") ordenanzas, the members of the trade were referred to simply as oficiales, or interchangeably as maestros or oficiales, used as synonyms, and contrasted only with the apprentices and the non-organized Indian practitioners of the trade. In later ordenanzas, an explicit distinction was made between maestros and oficiales; the latter, often also called laborantes, were people who had finished their apprenticeship but who either did not have the money to pay for their examinations or for setting up a shop; in this paper, the term is used in the sense of "unexamined guild artisans".
- 48 Discusión habida en la sala de sesiones del honorable Congreso de la Puebla, sobre el proyecto del ciudadano José María Godoy y Compañía, para establecer cierto número de telares en la República que proporcionen un nuevo ingreso al erario público (Puebla, 1829).
- 49 Esposición que se dirige, no a la Cámara, sino en particular a cada uno de los señores diputados, presentando sólo hechos de los mas notables, y pocos para no fastidiar (México, 1829).
- 50 Keremitsis: Industria textil, p. 17-18.
- 51 Lucas Alamán: Memoria de la Secretaría de Estado y del Despacho de Relaciones Interiores y Exteriores, leida por el Secretario del ramo en la Cámara de Diputados el día 12 de febrero de 1830, y en la de Senadores el día 13 del mismo (México, 1830), p. 29.
- 52 For the history of the Bank, see Potash: Banco de Avío; Linda Ivette Colón Reyes: Los orígenes de la burguesía y el Banco de Avío (Mexico, 1982).
- 53 After the Napoleonic Wars, a controversy arose in Britain concerning the desirability of maintaining the laws restricting the export of machinery and the emigration of skilled workers. In practice it was very difficult to enforce these regulations. Eventually both the emigration of skilled workers (1825) and the export of machinery (1842) was freed from all restrictions.
- 54 Calderón de la Barca: Life in Mexico, p. 344-345.
- 55 Memoria sobre el estado de la agricultura e industria de la República, que la dirección general de estos ramos presenta al Gobierno Supremo, en cumplimiento del artículo 26 del decreto orgánico de 2 de diciembre de 1842 (México, 1843) table 5.

- 56 Banco de Avío: Informe y Cuentas 1835, p. 25-26.
- 57 Howard F. Cline: "The 'Aurora Yucateca' and the Spirit of Enterprise in Yucatán, 1821-1847", HAHR 27, 1947, p. 30-60. In spite of the beginning industrialization and the opposition of many weavers, the traditional home based cotton weaver remained a very significant component of the occupational structure throughout the 1830s and 1840s, though the cotton hand spinner (mainly women) disappeared.
- 58 Calderón de la Barca: Life in Mexico, p. 343-344.
- 59 Memoria sobre el estado... 1843.
- 60 Ibid. See also the "Memoria" of 1844 (México, 1845).
- 61 Potash: Banco de Avío, p. 177-181.
- 62 Brantz Mayer: Mexico, as it was and as it is (New York, 1844), p. 314; Waddy Thompson: Recollections of Mexico (New York, 1847), p. 210; Preussisches Handelsarchiv (Berlin, 1850), p. 519.
- 63 Carlos Diaz Dufóo: México y los capitales extranjeros (Paris, 1918), p. 213-214; Marcelo Bitar Letayf: La vida económica de México de 1824 a 1867 y sus proyecciones (México, 1964), p. 157.
- 64 Ward: Mexico in 1827, vol. 1, p. 23.
- 65 Quoted in Enrique Florescano/María del Rosario Lanzagorta: "Política económica. Antecedentes y consecuencias", in: Luis González et alii: La economía mexicana en la época de Juárez (México, 1972), p. 101.
- 66 O'Gorman to Foreign Office, 30 october 1830 (PRO FO 50/63).
- 67 Calderón de la Barca: Life in Mexico, p. 344.
- 68 Eversmann to Lappenberg, Tampico 9 January 1846 (Commerzbibliothek Hamburg, Consulats-Berichte 1846); Richthofen: Verhältnisse Mexicos, p. 278.
- 69 An english eye-witness wrote: "I regretted to find that this gentleman (Welsh) had so far identified himself with the revolutionary parts, that in case of their losing the day his situation will be by no means enviable. It is certainly an act of great imprudence, to speak in the mildest terms of it, for a person accredited as a commercial agent by a foreign power, to mix himself up with either local or national politics." Henry Tudor: Narrative of a Tour in North America; comprising Mexico, the Mines of Real del Monte, the United States, and the British Colonies; with an Excursion to the Island of Cuba. In a Series of Letters, written in the years 1831-2. 2 vols. (London, 1834), vol. 2, p. 159.
- 70 British merchants to Richard Pakenham, Mexico 11 January 1832 (PRO FO 50/71, p. 100-101).
- 71 Pakenham to Viscount Palmerston, Mexico 26 April 1832 (PRO FO 50/72, p. 50-53).
- 72 Informe y Cuentas que el Banco de Avío presenta en cumplimiento de lo prevenido en el artículo 9 de la ley de 16 de octubre de 1830. México, 31 de diciembre de 1832, p. 9.
- 73 Ciro F.S. Cardoso (coordinador): Formación y desarrollo de la burguesía en México, siglo XIX (México, 1978).

- 74 David Wayne Walker: Kinship, Business, and Politics: The Martínez del Río Family in Mexico, 1824-1864 (Chicago, Ph.D. Thesis, 1981); Brígida von Mentz et alii: Los pioneros del imperialismo alemán en México (México, 1982).
- 75 Cline: "Aurora Yucateca".
- 76 In many other cases, foreigners formed companies with other foreigners. The Spaniard Béistegui f.ex. with the Germans Hoppe, the Panamenian Martínez del Río with the German Guillermo Drusina and the Guatemalan Felipe Neri del Barrio, the Spaniard Isidoro de la Torre with the French-Swiss Juan Bautista Jecker, the English Juan Biggs with two other Englishmen, Jorge L. Hammekan and Thomas Grandison. See Archivo de Notarías, México, notario Ramón de la Cueva, 1835, p. 131-132.
- 77 Thomson: Economy and Society, p. 336-337.
- 78 According to Díaz Dufóo, the prohibitive system served only "as a factitious prop to the industries established in the country". Carlos Díaz Dufóo: Industrial Evolution, in: Sierra: Mexico II, p. 141.
- 79 For the case of Orizaba, see Di Tella: Dangerous Classes.
- 80 Thomson: Economy and Society, p. 289.
- 81 Alexander Gerschenkron: Economic Backwardness in Historical Perspective (Cambridge, 1962); Walt W. Rostow: The Stages of Economic Growth (Cambridge, 1960).
- 82 Jan Bazant: "Estudio sobre la productividad de la Industria Algodonera Mexicana en 1843-1845. (Lucas Alamán y la Revolución Industrial en México)", included in: Banco Nacional de Comercio Exterior: La Industria nacional y el Comercio exterior (1842-1851) (México, 1962), p. 27-85.
- 82a Taking together all these "substitutions", this model allows us to view Mexico's industrialization process (as that of any other country) "not as a series of mere repetitions of the 'first' industrialization, but as an orderly system of graduated deviations from that industrialization." Gerschenkron: Backwardness, p. 44.
- 83 For a broader discussion of obstacles to economic growth in 19th century Mexico (including many comparisons with the 18th century New Spain), see Coatsworth: "Obstacles"; for the above mentioned estimation, see ibid., p. 91.
- 84 Raymond Aron: Eighteen Lectures on Industrial Society (London, 1967).
- 85 Potash: Banco de Avío, p. 128 (Mexican Government, p. 83).
- 86 Nevertheless, it cannot be concluded that conservative governments favored and liberal governments opposed industrialization. Also many liberals, mainly after the War with the U.S., strongly favored industrialization. See Donathon C. Olliff: "Mexico's Mid-Nineteenth-Century Drive for Material Development", Annals of the Southeastern Conference on Latin American Studies Vol. II, 1977, p. 19-29.
- 87 Jesús Reyes Heróles: El liberalismo mexicano. 3 vols. (Mexico, 1957-1961), vol.2, p. 168.
- 88 The reasons, why the import prohibitions were finally enacted cannot be discussed here. It should be mentioned, however, that the early industrialization and its survival over many years of acute political instability, owed very much to the persistence of the Puebla lobby. Between 1821 and 1851 there was scarcely a voice to be heard in Puebla's pressuring the national government which did not in some way seek to protect industry and check the invasive tendencies of the foreigner.

The Puebla lobby defended by all means Puebla's historically pre-eminent position as the workshop of Mexico. No other interest group of sufficient strength and determination existed in Mexico to oppose Puebla's vociferous protectionist lobby. By defending also the interests of the cotton growing states Veracruz, Oaxaca, Mexico, Colima, the Puebla lobby could count on their support. See Walker: Kinship; Thomson: Economy and Society; David D. Burks: The Dawn of Manufacturing Industry in Mexico 1821-55 (Chicago, Ph.D. Thesis, 1952); see also the huge amount of representatives of the Puebla lobbyists presented to the National Government, and collected in the Colección Lafragua of the Biblioteca Nacional de México.

- 89 Representación al supremo gobierno, de los empresarios de fábricas nacionales de hilados y tejidos de algodón (Mexico, 1840); Estevan de Antuñano: Teoría fundamental de la industria de algodones en México (Puebla, 1840). Walker's arguments for this point (Kinship, p. 278-287) are not convincing, and even contradictory. For him, the "most telling reason why manufacturers did not seek free importation (of cotton) was that they, themselves, were the principal speculators in cotton" (p. 280). First, it has to be said that manufacturers did seek free importation of cotton; from 1840 on, they continuously asked for a liberal import policy with respect to raw cotton. One of the most important and persevering sollicitors was Estevan de Antuñano. It is true, however, that not all the manufacturers were equally interested in the importation of raw cotton. Puebla's Junta de Industria f.ex. in the beginning opposed any relaxation of the prohibitive laws. When the shortage of cotton increased, even the Dirección General de la Industria Nacional, in 1843, tried to reach a compromise proposing that the importation of raw cotton should be allowed in years when the average price was higher than 18\$ per arroba in the market of Veracruz: Representación dirigida al Exmo. señor presidente provisional de la república por la Junta General Directiva de la Industria Nacional sobre la importancia de ésta, necesidad de su fomento y medios de dispensarselo (Mexico, 1843). From 1843 on, even Puebla's Junta de Industria demanded the importation of foreign cotton. Obviously, some manufacturers were not interested in the importation of foreign cotton, because they speculated with the domestic cotton. The Martínez del Río family belonged to this group of speculators, what apparently induced Walker to generalize his argument, that manufacturers did not seek free importation, although somewhat later he admits that cotton speculations of a few monopolists led "to the despair of other manufacturers" (p. 283), who consequently had to be interested in the importation of raw cotton. There is another contradiction in his argumentation: He claims: "Alone neither group (the manufacturers and the agriculturalists) had enough power to impose their will upon Mexican consumers for any lengthy period of time. Combined, they were nearly invincible." (p. 279) If this argument is correct and both groups basically were not divided, why were the import prohibitions abolished? A much more coherent interpretation seems to be that prohibitionism was abolished just because both groups no longer worked together (as they had done in the beginning, when import prohibitions were enacted).
- 90 Quoted by Walker: Kinship.
- 91 See Richthofen: Zustände (1859), p. 279-280; the case is related in Carlos María Bustamante: El gabinete mexicano durante el segundo período de la administración del Exmo. Señor Presidente D. Anastasio Bustamante. 2 vols. in 1 vol. (Mexico, 1842), vol. 2, p. 104. See the complaints of British citizens interested in the Mexican industry, letter to Richard Pakenham 11 February 1841 (PRO FO 204/76).

- 92 Walker: Kinship, p. 275-276.
- 93 G. Thomson (Economy and Society, p. 475) has concluded that the modernization which took place in Puebla in the 1830s and 1840s represented little more than an anomaly in an industrial and commercial structure which retained its traditional form and in a general economic environment which could not possibly sustain industrial transformation beyond a very rudimentary stage.
- 94 John H. Coatsworth: "The Limits of Colonial Absolutism: The State in Eighteenth Century Mexico", included in: Karen Spalding (Ed.): Essays in the Political, Economic and Social History of Colonial Latin America (Newark, 1982), p. 25-51.
- 95 Talcott Parsons/E. Shils (Eds.): Toward a General Theory of Action (Cambridge, 1951).
- 96 Macedo: Evolución Mercantil.
- 97 William Woodruff: Impact of Western Man. A Study of Europe's Role in the World Economy 1750-1960 (London, 1966).
- 98 Memoria sobre el estado ... (1843), p. 137.
- 99 Mariano Otero: Ensayo sobre el verdadero estado de la cuestión social y política que se agita en la república mexicana (México, 1964).
- 100 Joseph Schumpeter: Capitalism, Socialism and Democracy (New York, 1942); idem: Business Cycles (New York, 1969).
- 101 Burks: Dawn of Manufacturing, p. 51.
- 102 Adelantos de la industria mexicana (México, 1943), n.p.

