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**Foreign and Mexican Companies in Mexico's
First Age of Globalization, 1885-1910**

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Abstract

There is a long standing debate in the economic history of Latin America over the long run consequences of the first era of globalization; a period characterized by rapid economic growth based on foreign investment and regional trade. Our aim is to explore the foreign investment and particularly the role played by foreign companies in Mexico during the Porfiriato. We analyze a database (5132 entries) built from the Noticia del Movimiento de Sociedades Mineras y Mercantiles to study the characteristics of foreign and national companies and the relative importance of national and foreign investment. The first part of our analysis indicates that Mexico as well as other Latin American countries were important recipients of foreign funds. The second part indicates that whereas most of the capital invested in Mexico during this period was of foreign origin, most of the companies registered were Mexican. The analysis of the societal type chosen by companies shows that most foreign companies established as corporations and most Mexican companies established as partnerships. Yet, as time went by, Mexican firms increasingly established themselves as corporations; which indicates that Mexican companies were increasingly taking advantage of modern and more sophisticated forms of organization. Finally, the study of particular cases highlights the difficulties of dividing companies between Mexican and foreign, since it was very common to find different mixtures of nationalities in the capitalization and organization of firms.

Resumen

Existe un gran debate en la historia económica de América Latina sobre las consecuencias de la inversión extranjera en el crecimiento económico. Nuestro objetivo es explorar la inversión extranjera y, particularmente, el papel de las empresas extranjeras durante el Porfiriato. Analizamos una base de datos (5, 132 observaciones) construida usando las Noticias del Movimiento de Sociedades Mineras y Mercantiles para estudiar las características de las compañías nacionales y extranjeras y la importancia relativa entre la inversión nacional y extranjera. La primera parte de nuestro análisis se ocupa de la importancia relativa de México como receptor de inversión extranjera. La segunda indica que, si bien la mayor parte del capital invertido en México durante este periodo era extranjero, la mayor parte de las empresas establecidas eran mexicanas. El análisis del tipo de sociedad que elegían las empresas indica que las empresas extranjeras optaban mayoritariamente por la forma de sociedad anónima mientras que las mexicanas por la forma de sociedad colectiva. Sin embargo, con el paso del tiempo las empresas

mexicanas fueron optando cada vez más por la forma de sociedad anónima. Esto indica que las empresas mexicanas empezaron a tomar ventaja al utilizar formas más modernas y sofisticadas de organización. Finalmente, el estudio de casos particulares refleja la dificultad en dividir a las empresas entre mexicanas y extranjeras debido a que existían, con frecuencia, distintas mezclas en la nacionalidad y administración de las sociedades.

Introduction

From the middle of the 19th century to the First World War the world experienced a dramatic increase in trade and capital flows, marked by the hegemony of the United Kingdom and the triumph of the gold standard. This first globalization opened a window of opportunity of rapid economic growth for those nations capable of integrating their economies with those countries that had experienced an early industrialization.

Mexico came late to this process as a result of the complicated political and financial situation it lived until the 1870s. However, during the 1880s, after the Mexican government settled its foreign debt, in default since 1828, the country rapidly recovered lost ground and became a major destiny for foreign investment. Foreign trade increased substantially and economic expansion set of.

There has been a long standing debate in the economic history of Latin American over the long run consequences that this period of rapid economic growth -based on foreign investment and trade- entailed for the region. For the "structuralist" and "dependentist" school of thought, the pattern of development followed during that era was self-defeating. It did not lead to a process of industrialization and condemned the region to a "periphery" status, with economic conditions worsening through time. For others, the problem was that the globalization process was cut short by the First World War, the Great Depression, the Second World War and perhaps even the Cold War. Those countries that did not attain, during the first era of globalization, levels of development that permitted high savings rates (that allowed self-sustained growth), high educational levels, and stable political regimes were left stranded. For these thinkers the present era of globalization provides a second chance to restart the process or commercial and financial integration and achieve the desired prosperity missed on the first turn. This debate has so many sides and vertex that it could not be our intention to try to settle it down. Our aim is to explore one aspect that once received plenty of attention and continues to deserve analysis: foreign investment and particularly the role played by foreign companies in Porfirian Mexico.

For years it was believed that they substituted, more than complemented, national investment, and were thus detrimental for long run economic development.¹ Nationalist governments passed laws throughout Latin America trying to set limits to them in order to allow national companies to arise. However, by the end of the 20th century, recurrent economic crises and prolonged economic stagnation brought a backlash to this policy, restrictions to foreign investment were removed, and countries began to compete to lure

¹ See for example, José Luis Ceceña, *México en la órbita imperial*, pp. 241-242.

foreign companies into their countries, considering them, once again, a crucial source of economic growth. The pendulum seems to be going back and forth without a clear idea of the actual impact foreign investment has played on economic development.

This paper seeks to provide a better understanding of the nature of foreign investment in Mexico during the Porfiriato. In Section I we provide an overview of foreign investment in Mexico in an international context based on secondary sources. In Section II we analyze a database (5132 entries) built from the *Noticia del Movimiento de Sociedades Mineras y Mercantiles*, edited by Dr. Antonio Peñafiel² to study the different characteristics of foreign and national companies and the relative importance of national and foreign investment.

The exercise of trying to separate from the database Mexican from foreign companies made us realize the complexity of the classification problem.³ It is very difficult to establish the criteria to identify foreign companies, particularly in a globalized context such as that experienced in Mexico during the Porfiriato. We found a wide spectrum of companies with a greater or lesser degree of foreign capital and of foreign managerial control, rather than two separate niches: foreign or Mexican in which companies could be adequately placed into. An accurate classification of the companies in our database could only come from a deeper analysis of everyone of the 5132 companies listed in the Public Registry report, based on information from other sources. Given the almost impossibility of following that procedure we decided to define in terms of our database ventures as foreign or domestic according to the following rule: they were considered foreign if the social capital registered was given in a foreign currency and/or if as the location of the company they included a foreign city or country.

However a deeper look into several companies, of which we had further information made us aware of its problems. Some companies classified as national according to this rule had considerable foreign capital, and several foreign partners. Other companies, classified as foreign had some Mexican capital and partners. Moreover, we realized that the status of companies in terms of their nationality changed continuously through time. Mergers, buy-outs, the formation of conglomerates, were an every day situation during the Porfiriato difficult to express in any database. Thus we decided to include in Section III a broader discussion on the several forms foreign investment took

² Mexico. Secretaría de Fomento. *Noticia del Movimiento de Sociedades Mineras y Mercantiles Habido en la Oficina del Registro Público de la Propiedad y del Comercio durante los años de 1886 a 1910*. Formada por la Dirección General de Estadística a cargo del Doctor Antonio Peñafiel, Mexico, 1911.

³ This is a problem Luis Nicolás d'Olwer was clearly aware of: "Las inversiones extranjeras" in Daniel Cosío Villegas, *Historia Moderna de México. El Porfiriato. La vida económica, segunda parte*. Vol. VIII, Editorial Hermes, 1965. "Inversiones Extranjeras" was clearly aware of.

during the Porfiriato and to make explicit our concerns on what information our quantitative analysis can provide. Finally we give our conclusions.

I. Foreign Investment in Mexico, 1880-1910

International capital movements were important and sizable along the 19th century. Although it was once believed that portfolio investment -where managerial control is absent- explained most of this international investment, studies that arose in the 1970s elucidated that foreign direct investment (FDI) was significant as well. This new research indicated that approximately one-third of world investment in 1914 was foreign direct investment rather than portfolio. In terms of geographical distribution almost 80% of FDI originated in Europe, with the United Kingdom accounting, on its own, for 45%. In contrast, the United States was an importer as well as exporter of capital. It accounted for 14% of total FDI and received 10% of foreign capital. Of importance is the fact that Latin American and Asia received at least 50% of the world's FDI by 1914.⁴

Studies might have overestimated portfolio investment during the nineteenth century due to the fact that it was not static. For example, Stone shows the evolution of British direct and portfolio investment in Latin America from 1865 to 1913. While in 1865 almost eighty percent of foreign investment was directed into portfolio, by 1913 it was down to approximately fifty percent. Likewise FDI increased from a low of 20% to 46%. With respect to portfolio investment most of these funds went into government loans (97% in 1865) compared to corporate securities. By 1913 almost 30% of British foreign portfolio investment went into corporate securities.⁵

As table 1 shows, in the period 1865-1913, most British direct and portfolio investment in Latin American went to three countries, Argentina, Brazil and Mexico. While Brazil's percentage did not vary much during the period, Mexico and Argentina went in opposite directions. In 1865 Argentina barely received any foreign investment from the U.K. while Mexico obtained a third of all investment going to the region. At the time the Revolution was beginning in Mexico, things had certainly changed since almost two-thirds of British monies were geared to two southern American countries: Argentina and Brazil.

⁴ Geoffrey Jones, *Merchants to Multinationals. British Trading Companies in the Nineteenth and Twentieth Centuries*, Oxford University Press, 2000, p. 8.

⁵ Irving Stone, "British Direct and Portfolio Investment in Latin America Before 1914", *Journal of Economic History*, Vol. XXXVII, No. 3 (September, 1977), Table 3, p. 696.

U.S. investment during the period was important in Mexico. Table 2 shows that not only Mexico was an important recipient of U.S. FDI. In the 1897-1914 period Canada, Europe and Mexico were favored by U.S. foreign direct investment in approximately the same proportions. Of interest is also the fact that Latin America as a whole received almost 50% of total U.S. foreign direct investment. Finally, it appears that proximity was an important factor for U.S. FDI.

Table 3 analyzes U.S. FDI in Mexico and shows that by 1897 the mining sector received approximately 10% of total U.S. FDI and that railroads were significant, obtaining close to 20%. In later years, once the Mexican government began buying several railway companies from foreigners, investment dwindled. Canada and Europe received, compared to Mexico, more FDI in manufacturing. Mining in Canada as well as petroleum in Europe attracted important U.S. capital. Table 4 shows how U.S. FDI was distributed in Mexico. This information shows us that most of this investment in 1897 was geared towards railroads and mining and later (1908 and 1914) was heavily concentrated in mining and in lesser degrees in petroleum, railroads and agriculture.

The information analyzed thus far might give the impression that Mexico received British funds mostly in the form of portfolio investment and U.S. capital in the form of FDI. While this is true in general and several authors tend to agree with this idea⁶ once foreign investment is further disaggregated a more multifaceted image emerges regarding foreign investment in Mexico during the Porfiriato.

Table 5 analyzes British foreign investment in Argentina, Brazil and Mexico during the period under study. It is of interest to note that in 1865 British direct investment was almost negligible in Mexico and that 90% of the funds went to government loans. A similar pattern could be observed in Argentina but this was not the case in Brazil where the British invested directly more than a third of their funds. By 1913, the British invested in Argentina half of their funds in that country in the form of FDI. On the other hand, Mexico and Brazil received around 30% and 20 % respectively. While U.K. funds were still an important source for government financing in Mexico, what is of interest to our study is that in Mexico almost 35% of British investment was directed towards corporate securities. Another way of stating this is that firms that were operating in Mexico were obtaining international financing through stock and bond issues. The opposite can be said of Argentina where less than 10% of the British investment went into corporate security investment. This

⁶ Luis Nicolás d'Olwer "Las inversiones extranjeras" in Daniel Cosío Villegas, *Historia Moderna de México. El Porfiriato. La vida económica, segunda parte*. Vol. VIII, Editorial Hermes, 1965. Michael J. Twomey, "The Size and Distribution of Capital in Mexico before 1911", Unpublished manuscript, Department of Economics, University of Michigan, Dearborn, September, 2002 and José Luis Ceceña, *México en la órbita imperial*, Editorial El Caballito, 1970.

information leads us to believe that a more close examination must be directed towards company financing and organization in Porfirian Mexico. Of interest in this study is the role that international funds played in the formation of key companies in the period.

II. Foreign and Mexican Companies Registered in Mexico City from 1886-1910

A. Data

For the purposes of this paper we built a database from the *Noticia del Movimiento de Sociedades Mineras y Mercantiles*, edited by Dr. Antonio Peñafiel.⁷ As in other French Civil Law countries the Mexican Commercial Code established that companies must register in a chartering office, *Registro Público*, the main detail of their constituting contracts (and any relevant changes in them), in order for them to be legally binding. This book was a summary of the firms that filed for charter at the Mexico City chartering office, *Registro Público de la Propiedad y del Comercio*, between January 15, 1886 and December 31st, 1910.

Our database contains information for the 5132 registered firms during the period. However, we exclude those companies that do not provide information on capital or societal type, ending with a database of 5021 entries. Important questions have been raised about the possibility of using this source as a means to study business during the Porfiriato.⁸ Its coverage is limited, and this database can by no means be considered a census of all companies operating in Mexico, for several reasons. In the first place, many companies registered in other cities in Mexico. Secondly, we have found evidence showing that several foreign companies operating in Mexico did not register in Mexico even though (or perhaps because) this meant they would not be protected by the precepts of the Mexican *Código de Comercio*. Given that our database reports all the charters filed at the Mexico City office, it is most likely biased towards larger firms and foreign businesses. Finally, it is not possible from this database to tell which companies existed at any given moment in time. It is a list of the companies that were registered, but it does not tell if the companies ceased to exist and if so, when did this happen. Moreover, some companies were registered several times under different

⁷ Mexico. Secretaría de Fomento. *Noticia del Movimiento de Sociedades Mineras y Mercantiles Habido en la Oficina del Registro Público de la Propiedad y del Comercio durante los años de 1886 a 1910*. Formada por la Dirección General de Estadística a cargo del Doctor Antonio Peñafiel, Mexico, 1911.

⁸ Michael Twomey, "The Size and Distribution of Capital in Mexico before 1911".

names. This often happened with partnerships, which were legally bound to file a new registry every time any partner changed, or when the duration of the companies expired. Nevertheless, we consider that this is still a very useful source to study the principle differences between foreign and Mexican companies and their relative importance in terms of the investment carried out in the period.

The database provides the companies' names, their trade, their date of registry, their authorized capital, their location, their type of organization, their origin, and their duration.⁹ We defined eight sectors in which we divided the firms, according to the information provided as the purpose of the business. As already stated, we defined ventures as foreign or domestic according to the following rule: they were considered foreign if the social capital registered was given in a foreign currency and/or if as the location of the company they included a foreign city or country. Although this source has several problems and given the lack of information on the subject it might be a first step in obtaining a better understanding of the companies opened during the Porfiriato, whether national or international.

B. Results.

The number of companies registered yearly in Mexico City grew extraordinarily from 1886 to 1907 going from 37 to 538, the year in which the greatest number of companies was registered. Graph 1 shows that the number of companies registered followed closely the trend of foreign trade (imports + exports), and also of GNP (which we would show if we had the information for the whole period). From 1886 to 1895 we see a relatively slow growth in the number of companies registered, with a downturn between 1892 and 1895 related to the financial crisis suffered in that period. After that year, there is a strong and constant increase until 1907 when another financial crisis hit the country, resulting in another downturn from 1907 to 1909. The number of companies registered yearly seems to have started its recovery by 1910. Unfortunately we do not have information after that year to ponder the impact of the Mexican Revolution on this trend. As we can see on Graph 2, there is not a clear trend when we consider the capital invested, since huge investments carried out in particular years by foreign companies had a strong influence.

Against the common belief that most companies established in Mexico during the Porfiriato were foreign, we find that the majority of companies registered in Mexico City from 1886 to 1910 were Mexican (89.4%), and only

⁹ We put all monetary variables in pesos of 1900 using the price index developed in Aurora Gómez Galvarriato and Aldo Musacchio, "Un nuevo índice de precios para México". The series on imports and exports used come from Sandra Kuntz, "Nuevas series del comercio exterior de México, 1870-1929".

10.6% were foreign (see Table 6). However, given that foreign companies were substantially larger (see Table 7), only 20% of the capital invested was Mexican, while 80% was foreign.

Half of the companies registered were small commercial businesses, the sector in which most Mexican investment went (54% of the companies, and 22% of the capital) (See Tables 7 and 8). Manufacturing was the other major sector towards which Mexican investment was directed. This sector accounted for 20.7% of Mexican companies (and 17.5% of Mexican capital). Most of the companies in this sector (96.2%) and also most of the capital invested in it (84.9%) were Mexican. Although the sector of other services (hotels, restaurants) was in itself not very important (particularly in terms of the capital invested in it), it is noteworthy that 90% of all ventures in this sector were Mexican. In contrast most foreign companies were in the mining, financial, railroad and utility sectors (56% of the companies, and 88% of the capital). To these sectors went 78.6% of the capital invested by the companies registered in our database.

Mexican companies were considerably smaller in terms of capital than foreign companies with a mean capital of only 3% of their foreign counterparts (see Table 9). This can be explained by the different availability of capital sources that domestic companies faced vis a vis foreign ventures, a result in part of Mexico's underdeveloped financial institutions. It also indicates that it would have been impossible that such important investments could have been carried out solely by Mexican means.

As Table 6 shows, most foreign direct investment in Mexico was American, both in terms of number of companies and of their capital, followed by British and German investment. Yet, the largest companies established were British, with a mean capital of almost double that of American or German investments. Countries tended to specialize in specific sectors. More than half of the American capital in the companies registered went to mining (52%), whereas almost 30% went to railroads and utilities. In contrast, most of the capital invested in British, German, French, Swiss, Spanish and Canadian companies went to the financial sector. German companies had also an important share of their investments in the commercial sector (19%), and French companies in the real estate business (29.7%) (See Table 8).

Most Mexican ventures were partnerships (*sociedades colectivas*) 63%, and most foreign companies were corporations (*sociedades anónimas*) (88.9%) (See Table 10). Yet most of the capital invested, Mexican or foreign was placed in corporations, 76.4% and 97.9% respectively. Whereas foreign companies from the beginning of the period chose the corporate form for their companies, Mexican companies increasingly chose that form (see Graphs 3 and 4). This evidences a learning process taking place in this period by which Mexican entrepreneurs got gradually acquainted with this organizational form of company.

Table 11 gives the results of Probit regressions ran using the same database. It shows that the fact of being foreign, regardless of their size, and sector, increased the probability of choosing to be a corporation and decreased the probability of choosing the partnership form. The same relationship holds for American and French Companies, but not for those from other countries. With time, companies tended to choose increasingly the corporate over the partnership and limited partnership forms (see the variable Year in Table 11). Interestingly this relationship is even stronger when we analyze only Mexican companies (see Table 12). Mexican ventures, were more likely to choose the corporate form if they were in any sector, except trade and services, compared with manufacturing (which was the omitted variable), and to choose to be a partnership more probably if they were in trade and services than in manufacturing, and less likely in other sectors.

Table 13 indicates that the probability of being a foreign company decreased with time through this period, and increased with the size of capital invested, as is obvious from the tables presented. Companies meant to last longer were more probably foreign, as well as those in every sector except services, compared with manufacturing (the omitted variable). Corporations were more likely foreign as well as limited partnerships, compared with partnerships (the omitted variable).

III. Foreign Companies or Global Companies?

The information on our database as well as the information on British and American foreign investment tends to support the general idea that most of Mexico's FDI came from the U.S. and that British as well as other European funds were less important. However, we have tried to go one step further by examining with more detail the origins of such investment. After reviewing the ownership of some of the most important foreign companies that operated in Mexico during the Porfiriato the picture that emerges is more intricate. We believe that foreign investment in this period was international and global in character. This means that most of the companies that were organized in Mexico with foreign funds were part of a more complex and international organization. Frequently, the formation of these companies in Mexico responded to the global needs of their parent corporation. In other words, the organization of a firm in Mexico City, Veracruz, Calcutta or Buenos Aires was a strategy to fulfill international objectives such as obtaining a competitive advantage, access and control to cheaper raw materials, or simply to form a monopoly of a certain product and thus raise prices, etc.

In some cases partners from different nationalities grouped together and obtained funds from Europe as well as the United States. In other instances firms, as in the case of the "free-standing companies" in the U.K., were not

subsidiaries of already existing companies, but were solely formed for a certain purpose and to operate overseas.¹⁰ Some times these firms were incorporated in Mexico but their owners were from overseas, other times they incorporated in the U.S. but their directors had offices in London, Toronto and New York. These examples as well as Table 14 illustrate the difficulties in establishing which group of investors had controlling interest thus complicating the tracing of the firm's nationality.

In Table 14 we have selected companies that had foreign investment - direct, portfolio or both- and that operated in Mexico during the Porfiriato. As was discussed above, the decision to invest in Mexico was a result of diverse aspects. In the case of the Mining Company "El Boleo" the Rothschild family was quite interested in mining -copper, gold and diamonds- and was trying to obtain a monopoly in copper production. Thus investing in "El Boleo", a copper mine, was an important strategy that allowed them to control copper production and ultimately affect the metal's international price.

The case of F.S. Pearson, an American born engineer and established in Canada, is also of interest.¹¹ Pearson and his "Canadian Syndicate" were interested in investing in electric production, tramways and railway companies and in Mexico organized the Mexican Light and Power Company, the Mexican Tramways and the Mexico North-Western Railway. Their investments were not only directed to Mexico but were also directed to other Latin American countries such as Brazil. This group of Canadian entrepreneurs sometimes went on their own and organized companies and in other instances, as in the case of the Mexican Light & Power Company, partnered with the German Siemens-Halske -which had already been working in Mexico to produce electric light.

The cases of the Ferrocarril Central and ASARCO show that they followed a strategy that was compatible with their parent company. What we mean by this is that these companies were not solely organized in a vacuum to function in Mexico. The Ferrocarril Central was organized by a former director of the Atchinson, Topeka & Sta. Fe Railroad and in their view the firm's next step was to connect the American railroads with the Mexican ones. In the case of ASARCO, investment in Aguascalientes and Chihuahua was a natural step to follow in their already mining and refining interests in the U.S.

S. Pearson & Son is a case in point of a British-headquartered construction multinational enterprise in the U.S. This company had important contracts in the U.S. and later came to Mexico to sell its know-how. Once in Mexico,

¹⁰ For a more detailed analysis of the "free standing company" see Mira Wilkins, "The Free-Standing Company, 1870-1914: An Important Type of British Foreign Direct Investment," *Economic History Review*, 41 (1988), 259-85.

¹¹ Not to be confused with Weetman Pearson (Lord Cowdray, owner of El Águila).

Weetman Pearson, company director, invested in oil with some Mexican minority participation. The case of El Aguila as well as the Cía. de Dinamita show that foreign entrepreneurs partnered with Mexican businessmen that had important political connections with the Díaz government.

Finally, Table 14 illustrates that these companies were global in character since they had offices in several important international financial centers such as New York and London. These firms had important connections with major financial intermediaries of the time thus allowing them to obtain portfolio investment (selling of stock, placement of mortgage bonds) which was quite important in terms of obtaining funds.

Conclusions

Foreign investment during the Porfiriato has been highly debated. Some have argued that it was detrimental to Mexico's growth and that it made the country completely dependent on foreign funds, especially those of an American origin. This paper shows that foreign investment during the Porfiriato should be inserted within the period's international capital movements. That is to say that investment -whether direct or portfolio-g geared towards Mexico was part of the first globalization age.

The first part of our analysis indicates that Mexico as well as other Latin American countries were important recipients of foreign funds. What emerges from our analysis is that foreign investment was not static. For example, at the beginning of the period under study British funds were primarily directed towards government financing. As time passed, British monies were also aimed at direct and portfolio investment. This means that the U.K. began to invest in companies that were established in Mexico as well as in government financing. The U.S., on the other hand, geared the majority of its investments into FDI.

The analysis thus far illustrates that most capital invested in Mexico during this period was foreign. Yet it shows that there was a significant amount of Mexican entrepreneurship that has been so far disregarded. It shows that it was practically impossible that Mexican firms could have raised the capital foreign companies invested in Mexico, since the contrast in terms of capital between Mexican and foreign ventures is dramatic. In terms of direct investment in Mexico the United States appears as the major source of capital, surpassing considerably those of other nations. However Great Britain was the country capable of establishing the largest companies. American ventures tended to invest in mining and railroad and utilities whereas European nations in the financial sectors. This specialization makes sense in terms of the geographical proximity of the U.S. which gave it comparative advantage in the sectors it specialized in, and also in terms of the stronger development of financial companies in Europe, which by investing in Mexico enlarged their network. Mexican entrepreneurs, on their part chose to invest in those sectors that required less amounts of capital and in which knowledge of the country was more important: commerce and services. It is highly unlikely that Mexican entrepreneurs could have raised the amounts of capital necessary for those investments carried out by foreign companies, or that they could have acquired the business knowledge foreign companies had in the sectors they specialized into. These findings suggest that foreign investment was more a complement than a substitute to Mexican entrepreneurship.

Finally, the picture we get from this database is that through the period analyzed as time went by more Mexican firms and less foreign firms were established, evidencing a growth in Mexican entrepreneurship and on the financial capacity of Mexican businessmen to carry out their projects. Moreover Mexican firms increasingly established as corporations instead of partnerships, which indicates Mexican companies were increasingly taking advantage of more sophisticated and modern forms of organization. It also shows that Mexican companies were capable of taking advantage of the institutional reforms carried out during the Porfiriato in terms of the business organizational menu.¹²

Finally, as one begins to analyze deeper into the nationality of foreign investment in Mexico, the picture that emerges is more tangled. Investors from different nationalities invested their funds worldwide and sometimes teamed up with Mexicans in order to invest. Other times, investment was made into corporate securities and bonds. In other cases parent companies in the U.K. or the U.S. extended and branched their business operations thus opening new ventures in Mexico.

¹² This reforms were carried out with the introduction of new Códigos de Comercio in 1884 and 1889.

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Tables and Graphs

Table 1

Estimates of British Direct and Portfolio Investment in Selected Latin American Countries. Investment as percentage of Total Latin American Investment

	<i>1865</i>	<i>1875</i>	<i>1885</i>	<i>1895</i>	<i>1905</i>	<i>1913</i>
Argentina	3.34%	12.94%	18.36%	34.55%	36.83%	40.66%
Brazil	25.09%	17.70%	19.00%	16.83%	18.07%	21.60%
Mexico	31.64%	16.27%	16.29%	16.94%	17.36%	11.20%
British Tot. Inv. in Latin America (mill. of pounds)	80.9	174.6	250.5	552.5	688.5	1179.9

Source: Estimated from Irving Stone "British Direct Investment in Latin America Before 1914", *Journal of Economic History*, Vol. XXXVII, No. 3 (September, 1977), Table 6, pp.706-707.

Table 2

**Estimates of U.S. Direct Foreign Investment, Selected Years
Investment as Percentage of Total Investment**

	<i>1897</i>	<i>1908</i>	<i>1914</i>
Mexico	32%	25.71%	22.39%
Canada & Newfoundland	25.60%	25.03%	23.57%
Cuba & other West Indies	7.84%	12.11%	10.72%
Central America	3.36%	2.35%	3.43%
South America	6.08%	6.43%	12.32%
Europe	20.96%	22.81%	21.85%
Asia	3.68%	4.64%	4.58%
Africa	0.16%	0.31%	0.50%
Oceania	0.32%	0.62%	0.65%
U.S. Total Investment (million of dollars)	625	1618	2622

Source: Estimated from Mira Wilkins, *The Emergence of Multinational Enterprise. American Business Abroad from the Colonial Era to 1914*, Harvard University, 1981, Table V.2, p. 110.

Table 3
Estimates of U.S. Foreign Direct Investment by Sectors as Percentage of Total Investment

	<i>1897</i>	<i>1908</i>	<i>1914</i>
<i>Mexico</i>			
Railroads	17.76%	3.52%	4.2%
Utilities	0.96%	1.36%	1.26%
Petroleum	0.16%	3.09%	3.24%
Mining & Smelting	10.88%	14.46%	11.52%
Agriculture	1.92%	2.47%	1.41%
Manufacturing	0.00%	0.62%	0.38%
Sales Organizations*	0.32%	0.12%	0.15%
<i>Mexico Total</i> <i>(in million of dollars)</i>	200	415	581
<i>Canada & Newfoundland</i>			
Railroads	2.08%	3.15%	2.63%
Utilities	0.32%	0.31%	0.31%
Petroleum	0.96%	0.93%	0.95%
Mining & Smelting	8.80%	8.41%	6.06%
Agriculture	2.88%	1.55%	3.85%
Manufacturing	8.80%	9.58%	8.43%
Sales Organization*	1.60%	0.93%	1.03%
<i>Canada & Newfoundland Total</i> <i>(in million of dollars)</i>	159	402	610
<i>Europe</i>			
Railroads	0.00%	0.00%	0.00%
Utilities	1.60%	0.80%	0.42%
Petroleum	8.80%	6.12%	5.26%
Mining & Smelting	0.00%	0.19%	0.19%
Agriculture	0.00%	0.00%	0.00%
Manufacturing	5.60%	6.18%	7.63%
Sales Organization*	4.00%	1.85%	3.24%
<i>Europe Total</i> <i>(in millions of dollars)</i>	125	245	439
<i>Total US FDI</i> <i>(in million of dollars)</i>	625	1618	2622

Source: Estimated from Mira Wilkins, *The Emergence of Multinational Enterprise. American Business Abroad from the Colonial Era to 1914*, Harvard University, 1981, Table V.2, p. 110.

Wilkins points out that many of these figures are questionable, but they present the general pattern. For example, in terms of the Mexican figures, they may be too low for 1908 and too high for 1914.

* Excludes petroleum distribution; includes trading companies and sales branches and subsidiaries of large corporations.

Table 4
U.S. Foreign Investment in Mexico as Percentage of the Country

	1897	1908	1914
Railroads	55.50%	13.73%	18.93%
Utilities	3.00%	5.30%	5.68%
Petroleum	0.50%	12.05%	14.63%
Mining	34.00%	56.39%	51.98%
Agriculture	6.00%	9.64%	6.37%
Manufacturing	0.00%	2.41%	1.72%
Sales Organization*	1.00%	0.48%	0.69%
Mexico Total (in million of dollars)	200	415	581

Source: Estimated from Mira Wilkins, *The Emergence of Multinational Enterprise. American Business Abroad from the Colonial Era to 1914*, Harvard University, 1981, Table V.2, p. 110.

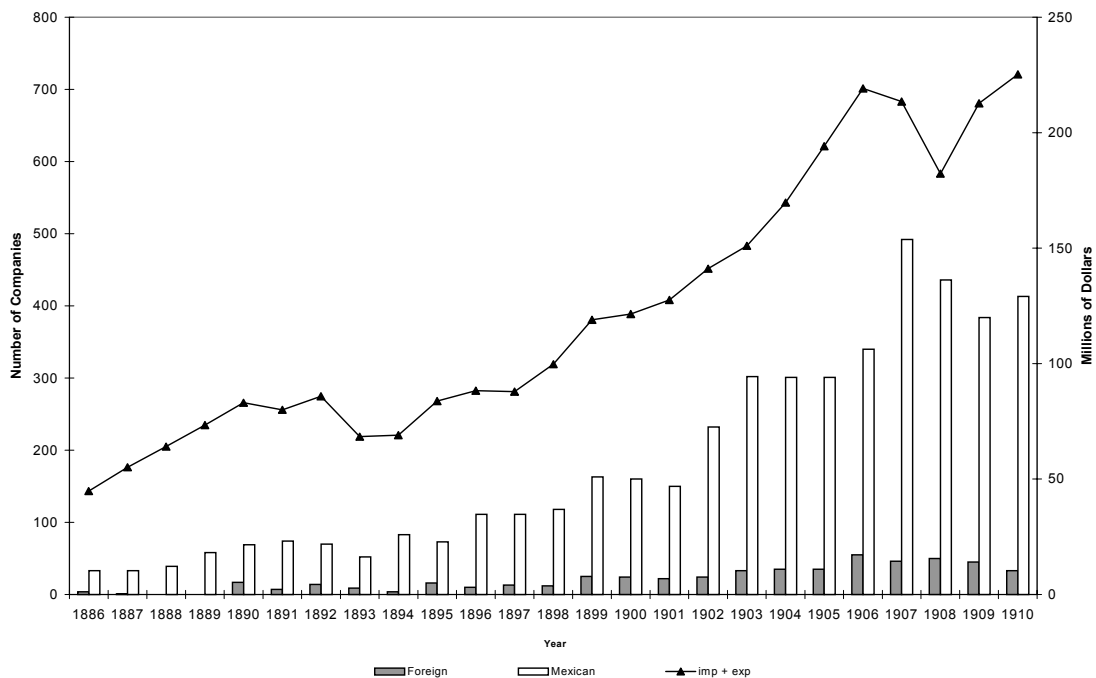
* Excludes petroleum distribution; includes trading companies and sales branches and subsidiaries of large corporations.

Table 5
Estimates of British Direct and Portfolio Investment in Selected Latin American Countries. Investment as Percentage of Total Investment

	1865	1875	1885	1895	1905	1913
Argentina						
Direct Investment	18.52%	26.99%	41.96%	50.81%	59.31%	53.92%
Total Portfolio Investment:	81.48%	73.01%	58.04%	49.24%	40.69%	46.19%
Government Loans	81.48%	73.01%	58.04%	47.46%	39.83%	38.47%
Corporate Securities	0.00%	0.00%	0.00%	1.78%	0.87%	7.71%
Argentina Total Investment (in million of pounds)	2.7	22.6	46	190.9	253.6	479.8
Brazil						
Direct Investment	35.47	34.30	47.06	25.81	23.79	22.25
Total Portfolio Investment:	64.04	66.02	52.94	74.19	76.21	77.75
Government Loans	64.04	66.02	48.74	56.34	66.96	46.94
Corporate Securities	0.00	0.00	4.20	17.85	9.24	30.81
Brazil Total Investment (in million of pounds)	20.3	30.9	47.6	93	124.4	254.8
Mexico						
Direct Investment	7.81	16.9	26.47	23.40	24.44	32.70
Total Portfolio Investment:	91.80	82.75	73.53	76.60	75.56	67.30
Government Loans	91.80	82.75	61.52	37.82	48.37	34.44
Corporate Securities	0.00	0.00	12.01	38.78	27.20	32.85
Mexico Total Investment (in million of pounds)	25.6	28.4	40.8	93.6	119.5	132.1
Latin America Total Inv. (in million of pounds)	80.9	174.6	250.5	552.5	688.5	1179.9

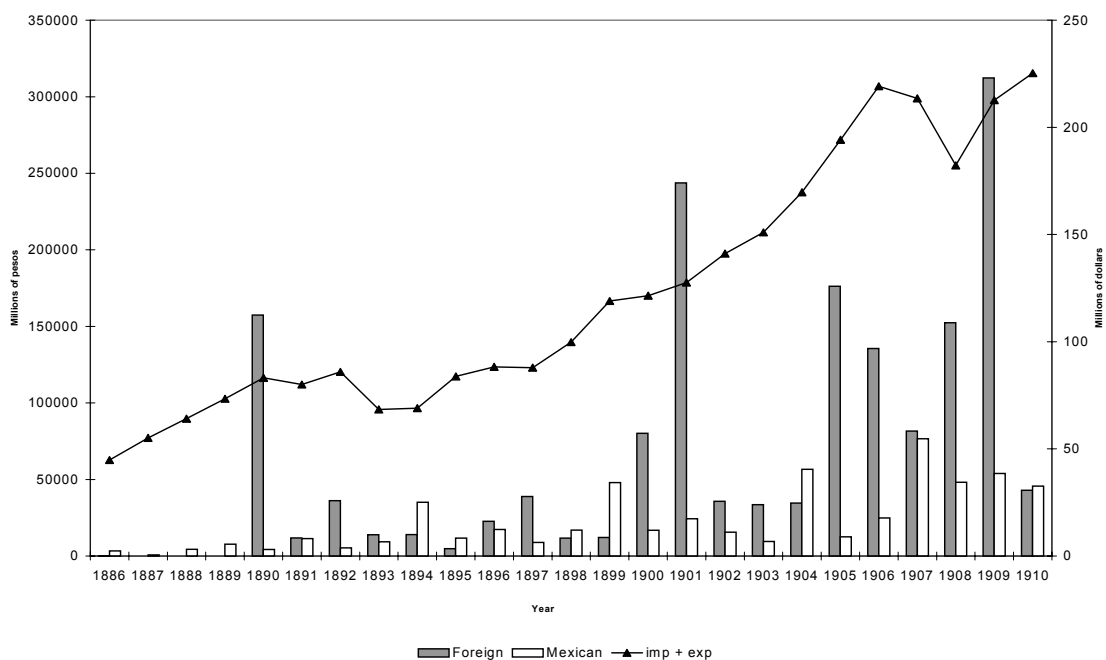
Source: Estimated from Irving Stone "British Direct Investment in Latin America Before 1914", *Journal of Economic History*, Vol. XXXVII, No. 3 (September 1977), Table 6, pp.706-707.

Graph 1. Number of Companies. Registered in Mexico City, 1886-1910.



Source: República Mexicana, Secretaría de Fomento [Peñañiel, Antonio], 1911. Noticia del Movimiento de Sociedades Mineras y Mercantiles (1886-1910), Mexico, Secretaría de Fomento.

Graph 2. Value of Companies. Registered in Mexico City, 1886-1910.



Source: República Mexicana, Secretaría de Fomento [Peñañiel, Antonio], 1911. Noticia del Movimiento de Sociedades Mineras y Mercantiles (1886-1910), Mexico, Secretaría de Fomento.

Table 6. Mexican and Foreign Companies in Registered in Mexico City 1886-

	Number	%	Capital (1000s)	%	Mean Capital
Mexico	4587	89.38%	\$442,525.66	19.95%	\$97.32
U.S.	372	7.25%	\$1,088,791.07	49.09%	\$2,942.68
U.K.	106	2.07%	\$579,513.78	26.13%	\$5,519.18
Germany	29	0.57%	\$63,884.67	2.88%	\$2,202.92
France	19	0.37%	\$29,475.57	1.33%	\$1,551.35
Switzerland	3	0.06%	\$5,103.60	0.23%	\$1,701.20
Spain	7	0.14%	\$4,206.71	0.19%	\$600.96
Canada	2	0.04%	\$2,281.07	0.10%	\$1,140.53
Denmark	2	0.04%	\$808.05	0.04%	\$404.02
Holland	1	0.02%	\$933.53	0.04%	\$933.53
Belgium	1	0.02%	\$312.01	0.01%	\$312.01
Italy	2	0.04%	\$95.52	0.00%	\$47.76
Argentina	1	0.02%	N.A.	N.A.	N.A.
Total Foreign	545	10.62%	\$1,775,405.56	80.05%	\$3,281.71
Total	5132	100.00%	\$2,217,931.23	100.00%	\$435.91

Sources: Calculations based on information from: Mexico. Secretaria de Fomento. Noticia del Movimiento de Sociedades Mineras y Mercantiles Habido en la Oficina del Registro Público de la Propiedad y del Comercio durante los años de 1886 a 1910. Formada por la Dirección General de Estadística a cargo del Doctor Antonio Peñafiel, Mexico, 1911. Notes: Capital is reported in Pesos of 1900s.

Table 7. Number of Companies per Sector Registered in Mexico City, 1886-1910

Sector	Foreign	%	Mexican	%	Total	%
Manufacturing	37	6.8%	948	20.7%	985	19.2%
Mining	158	29.2%	206	4.5%	364	7.1%
Agriculture	59	10.9%	247	5.4%	306	6.0%
Real Estate	43	7.9%	178	3.9%	221	4.3%
Finance	91	16.8%	177	3.9%	268	5.2%
R.R. and utilities	52	9.6%	121	2.6%	173	3.4%
Commerce	99	18.3%	2469	53.9%	2568	50.1%
Services	3	0.6%	238	5.2%	241	4.7%
Total	542	100.0%	4584	100.0%	5126	100.0%

Source: See Table 6.

Table 8. Mexican and Foreign Companies Registered in Mexico City 1886-1910 by Sector.
Social Capital as a Percentage of Total, by Country and by Sector.

	Mexico	U.S.	U.K.	Germany	France	Switzerland	Spain	Canada	Other	Total Foreign	Total
Manufacturing	17.53%	0.82%	0.67%	0.66%	1.61%		0.03%		4.75%	0.77%	4.12%
Mining	15.23%	52.21%	9.83%	6.08%	1.42%			3.38%	2.37%	35.47%	31.43%
Agriculture	8.96%	5.71%	1.18%						69.61%	3.94%	4.94%
Real Estate	6.79%	3.06%	5.53%		29.70%					4.17%	4.70%
Finance	15.09%	7.46%	73.17%	71.13%	60.16%	99.61%	94.54%	96.62%		32.70%	29.19%
R.R. & Utilities	13.09%	27.25%	6.48%	3.08%	0.00%					18.94%	17.77%
Commerce	22.35%	3.46%	1.81%	19.04%	7.10%	0.39%	5.43%		23.27%	3.55%	7.30%
Services	0.96%	0.04%								0.03%	0.21%
N.A.			1.33%							0.43%	0.35%
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Manufacturing	84.94%	9.75%	4.26%	0.46%	0.52%				0.07%	15.06%	100%
Mining	9.67%	81.53%	8.17%	0.56%	0.06%			0.01%		90.33%	100%
Agriculture	36.18%	56.75%	6.22%						0.85%	63.82%	100%
Real Estate	28.87%	31.96%	30.77%		8.41%					71.13%	100%
Finance	10.32%	12.55%	65.50%	7.02%	2.74%	0.79%	0.61%	0.34%		89.68%	100%
R.R. & Utilities	14.70%	75.27%	9.53%	0.50%	0.00%					85.30%	100%
Commerce	61.10%	23.26%	6.49%	7.51%	1.29%	0.01%	0.14%		0.19%	38.90%	100%
Services	90.34%	9.66%								9.66%	100%
Total	19.95%	49.09%	26.13%	2.88%	1.33%	0.23%	0.19%	0.10%	0.06%	80.05%	100%

Sources: See Table 6

**Table 9 . Mean capital of the Companies per Sector
(Thousands of pesos of 1900s)**

Sector	Foreign	Mexican	Total	Mexican/ Foreign
Manufacturing	\$371.64	\$81.91	\$92.81	22.04%
Mining	\$4,011.48	\$327.13	\$1,920.64	8.15%
Agriculture	\$1,185.08	\$162.46	\$361.59	13.71%
Real Estate	\$1,722.81	\$171.78	\$477.72	9.97%
Finance	\$6,450.17	\$383.87	\$2,451.93	5.95%
R.R. and utilities	\$6,436.86	\$503.26	\$2,318.24	7.82%
Commerce	\$647.54	\$40.44	\$63.56	6.25%
Services	\$150.96	\$18.02	\$19.70	11.94%
Total	\$3,290.85	\$97.64	\$435.91	2.97%

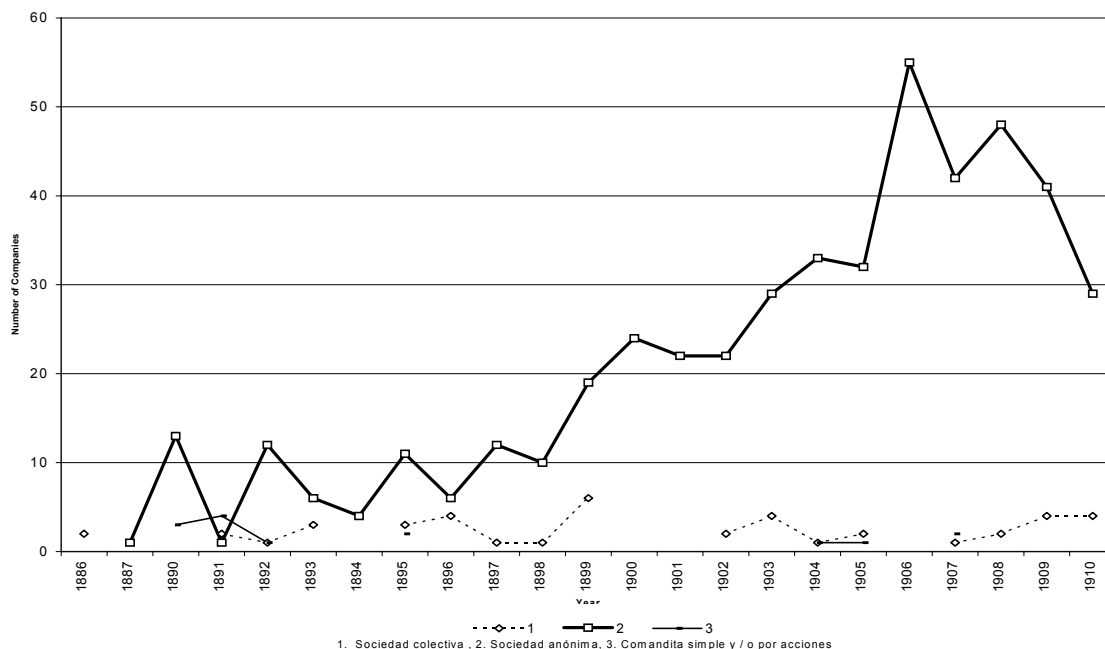
Source: See Table 6

Table 10. Companies Registered in Mexico City 1886-1910 by Organizational Form

Type	Number of Companies						Total Capital of Companies (Thousand of Pesos of 1900s)						Mean Value of Companies		
	Foreign	%	Mexican	%	Total	%	Foreign	%	Mexican	%	Total	%	Foreign	Mexican	Total
Anónima	482	88.9%	958	20.9%	1440	28.1%	1,728,424	97.9%	339,459	76.4%	2,067,882	93.6%	3,609	355	1,445
Comand. Acciones	4	0.7%	17	0.4%	21	0.4%	3,102	0.2%	4,082	0.9%	7,184	0.3%	776	240	342
Comandita Simple	19	3.5%	672	14.7%	691	13.5%	12,813	0.7%	23,147	5.2%	35,960	1.6%	674	35	52
Colectiva	36	6.6%	2,889	63.0%	2,925	57.1%	21,653	1.2%	76,199	17.2%	97,852	4.4%	637	27	34
Cooperativa	1	0.2%	48	1.0%	49	1.0%	58	0.0%	1,228	0.3%	1,344	0.1%	58	30	31
Total	542	100.0%	4,584	100.0%	5,126	100.0%	1,766,049	100.0%	444,115	100.0%	2,210,222	100.0%	58	30	31

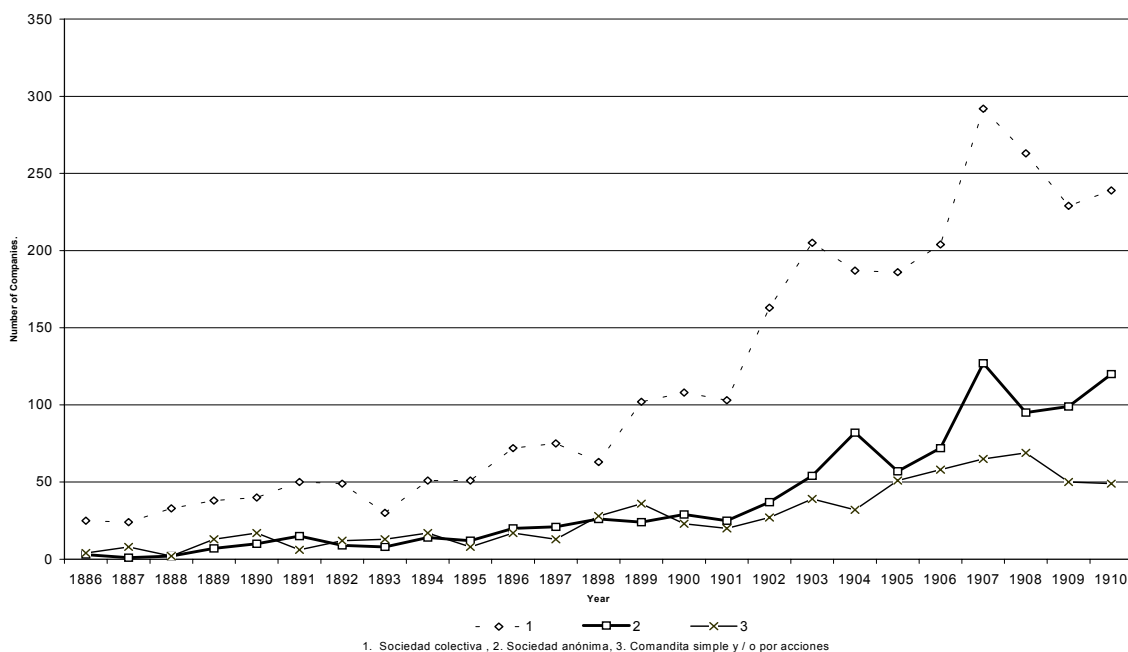
Source: see Table 6.

Graph 4. Foreign Companies. Registered in Mexico City, 1886-1910



1. Sociedad colectiva, 2. Sociedad anónima, 3. Comandita simple y/o por acciones
 Source: República Mexicana, Secretaría de Fomento [Peñafiel, Antonio], 1911. Noticia del Movimiento de Sociedades Mineras y Mercantiles (1886-1910), Mexico, Secretaría de Fomento.

Graph 3. Mexican Companies. Registered in Mexico City, 1886-1910



1. Sociedad colectiva, 2. Sociedad anónima, 3. Comandita simple y/o por acciones
 Source: República Mexicana, Secretaría de Fomento [Peñafiel, Antonio], 1911. Noticia del Movimiento de Sociedades Mineras y Mercantiles (1886-1910), Mexico, Secretaría de Fomento.

Table 11. Companies Registered in Mexico City.

	<i>sociedad colectiva</i>		<i>sociedad anonima</i>		<i>comandita simple</i>	
	(1)	(2)	(3)	(4)	(5)	(6)
Year	-0.006 [0.002]***	-0.006 [0.002]***	0.012 [0.002]***	0.012 [0.002]***	-0.002 [0.000]**	-0.002 [0.000]**
Capital_1900	-0.0001 [0.000]***	-0.0001 [0.000]***	0.0001 [0.000]***	0.0001 [0.000]***	0.0000 [0.000]	0.0000 [0.000]**
Exchange rate	0.065 [0.040]	0.070 [0.040]*	0.005 [0.043]	-0.021 [0.044]	-0.040 [0.021]*	-0.032 [0.019]*
Duration	-0.005 [0.000]***	-0.005 [0.000]***	0.006 [0.000]***	0.006 [0.000]***	-0.001 [0.000]***	-0.001 [0.000]***
Mining	-0.18 [0.037]***	-0.10 [0.041]**	0.31 [0.041]***	0.15 [0.043]***	-0.09 [0.011]***	-0.05 [0.016]***
Real Estate	-0.10 [0.041]**	-0.18 [0.037]***	0.16 [0.043]***	0.31 [0.041]***	-0.05 [0.017]***	-0.09 [0.011]***
Agriculture	-0.08 [0.037]**	-0.07 [0.037]**	0.14 [0.038]***	0.14 [0.039]***	-0.04 [0.016]**	-0.03 [0.015]**
Finance	-0.004 [0.043]	-0.010 [0.043]	-0.015 [0.038]	0.006 [0.040]	-0.040 [0.019]**	-0.042 [0.016]***
R.R. and utilities	-0.12 [0.051]**	-0.11 [0.051]**	0.26 [0.055]***	0.25 [0.055]***	-0.09 [0.013]***	-0.08 [0.012]***
Commerce	0.11 [0.020]***	0.11 [0.020]***	-0.18 [0.020]***	-0.18 [0.021]***	0.01 [0.011]	0.01 [0.010]
Services	0.022 [0.039]	0.022 [0.039]	-0.102 [0.032]***	-0.104 [0.033]***	-0.002 [0.020]	-0.002 [0.018]
Foreign	-0.33 [0.031]***		0.36 [0.038]***		-0.01 [0.022]	
United Kingdom		-0.07 [0.087]		-0.06 [0.065]		0.15 [0.074]**
France		-0.25 [0.125]**		0.31 [0.158]**		0.03 [0.088]
United States		-0.39 [0.031]***		0.53 [0.041]***		-0.09 [0.013]***
Germany		-0.17 [0.132]		-0.08 [0.101]		0.16 [0.111]
Others_Foreign		-0.35 [0.085]***		0.30 [0.145]**		0.14 [0.111]
LR chi2	1445.84a	1464.46b	2476.53a	2533.87b	251.35a	279.97b
Prob>chi2	0.000	0.000	0.000	0.000	0.000	0.000
Observations	4917	4917	4917	4917	4917	4917

Source: República Mexicana, Secretaría de Fomento [Peñafiel, Antonio], 1911. Noticia del Movimiento de Sociedades Mineras y Mercantiles (1886-1910), Mexico, Secretaría de Fomento.

Standard errors in brackets

* significant at 10%; ** significant at 5%; *** significant at 1%

a. 12 degrees of freedom

b. 16 degrees of freedom

Table 12. Mexican Companies.

	sociedad colectiva	dF / dx	sociedad anonima	dF / dx	comandita simple	dF / dx
Year	-0.01 [0.004]***	-0.01	0.04 [0.005]***	0.01	-0.01 [0.004]*	0.00
Capital_1900	-0.0010 [0.000]***	-0.0004	0.0012 [0.000]***	0.0003	-0.0003 [0.000]	-0.0001
Exchange Rate	0.16 [0.105]	0.06	-0.16 [0.136]	-0.04	-0.10 [0.120]	-0.02
Duration	-0.013 [0.000]***	-0.005	0.018 [0.000]***	0.005	-0.006 [0.001]***	-0.001
Mining	-0.43 [0.110]***	-0.17	0.81 [0.115]***	0.27	-0.82 [0.204]***	-0.11
Real Estate	-0.26 [0.112]**	-0.10	0.45 [0.117]***	0.13	-0.38 [0.162]**	-0.07
Agriculture	-0.14 [0.098]	-0.06	0.32 [0.105]***	0.09	-0.19 [0.125]	-0.04
Finance	-0.04 [0.114]	-0.01	0.07 [0.123]	0.02	-0.36 [0.157]**	-0.06
R.R. and utilities	-0.15 [0.142]	-0.06	0.51 [0.149]***	0.16	-0.79 [0.264]***	-0.11
Trade	0.26 [0.052]***	0.10	-0.52 [0.064]***	-0.13	0.04 [0.060]	0.01
Services	0.01 [0.098]	0.00	-0.27 [0.120]**	-0.06	-0.01 [0.114]	0.00
Constant	27.39 [7.999]***		-67.82 [10.128]***		15.82 [9.235]*	
LR chi2 (11)	788.54 0.000	1203.16 0.000	1497.19 0.000	2261.21 0.000	148.79 0.000	150.18 0.000
Observations	4386	4386	4386	4386	4386	4386

Source: República Mexicana, Secretaría de Fomento [Peñafiel, Antonio], 1911. Noticia del Movimiento de Sociedades Mineras y Mercantiles (1886-1910), Mexico, Secretaría de Fomento.

Standard errors in brackets

* significant at 10%; ** significant at 5%; *** significant at 1%

Tabla 13. Foreign Companies

Foreign Companies		
	coeficientes	dF / dx
year	-0.021 [0.0068]***	-0.002
capital_1900	0.0002 [0.0001]***	0.0000
er	-0.0913 [0.1597]	-0.0076
dur	0.0070 [0.0007]***	0.0006
Real Estate	0.4891 [0.1434]***	0.0596
Mining	0.9473 [0.1179]***	0.1529
Agriculture	0.5563 [0.1340]***	0.0704
Finance	0.6741 [0.1411]***	0.0932
R.R. and utilities	0.3793 [0.1553]**	0.0428
Trade	0.2918 [0.1075]***	0.0244
Services	-0.3063 [0.2777]	-0.0199
cooperativa	0.0996 [0.4339]	0.0090
soc anonima	1.2413 [0.0923]***	0.1704
com simple	0.4197 [0.1294]***	0.0457
com por acciones	0.2599 [0.6452]	0.0270
Constant	38.2444 [12.7746]***	
Observations	4917	4917

Standard errors in brackets

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 14. Foreign Investment in Selected Companies Operating in Mexico 1880-1910

Company Name	Partners	Main Inv. in Same Area or Name of Parent Company	Origins of Funds	Place of Incorporation	Directors
Cía. Minera "El Boleo"	French Rothschilds owned 37.5%.	<p>a) 1890s: the Rothschilds controlled 40% of the world's copper production.</p> <p>b) Río Tinto (Copper mines in Spain)</p> <p>c) Anaconda (Copper mines in the U.S.) in 1899 it was purchased by Amalgamated Copper Co. (U.S.)</p> <p>d) DeBeers (Diamonds in South Africa)</p> <p>e) German Southwest Africa (gold)</p>	<p>a) House of Rothschild</p> <p>b) Portfolio investment from Europe.</p>	France	Paul Mirabaud Ernest Michot M. Demorest
American Smelting and Refining Co. (ASARCO)	Guggenheim Family. Family of German heritage, established headquarters in the U.S. and became American	<p>a) Associated with American Smelters Securities Company. (U.S.)</p> <p>b) Owned mines, ores and refining in Utah, Montana, Colorado, Kansas, Nebraska,</p>	<p>Mostly owned by the Guggenheim family.</p> <p>Portfolio investment: Kuhn & Loeb (U.S) placed stock in the Netherlands through Hope & Co. (Netherlands)</p>	New Jersey, U.S.	<p>Head Office: N.Y.</p> <p>Corporate Office: N.J.</p> <p>Mexico City Office</p> <p>European Agent: London</p> <p>Directors in: N.Y., Denver, Baltimore, Salt Lake City, Omaha, Plainfield N.J.</p>

		Illinois, New Jersey, Montana, Aguascalientes and Chihuahua	and the Bank of Amsterdam. Kleinwort, Sons & Co. (U.K.) handled their banking services.		and Aguascalientes.
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Table 14. Continues

Company Name	Partners	Main Inv. in Same Area or Name of Parent Company	Origins of Funds	Place of Incorporation	Directors
Cía. Nacional Mexicana de Dinamita y Explosivos	<p>a) Societe Financiere pour l'Industrie au Mexique</p> <p>b) Societe Centrale de Dynamite</p> <p>c) Cía. Industrial Jabonera "La Laguna"</p>	Societe Centrale de Dynamite	Mexico France Switzerland	Mexico Contract signed with Secretaría de Fomento and partners	Directors: Ernesto Pugibet, Porfirio Díaz Jr., Eugenio Ituarte, Mauricio Armand-Delille
S. Pearson & Son	<p>Weetman Pearson (Lord Cowdray)</p> <p>A.E. Worwick (Canadian) in the Veracruz Electric Light, Power and Traction Co.</p>	<p>a) Foreign-headquartered construction multinational enterprise in the U.S.</p> <p>b) In charge of construction of the Hudson River Tunnel and the East River Tunnels.</p> <p>c) Mexico City Drainage Cannal, Port construction in Coatzacoalcos, Salina Cruz and Veracruz</p> <p>d) Subsidiary: Whitehall Electrical Co. (managed electric companies in Mexico and later in Chile)</p>	U.K. Europe	U.K.	n.a.

<p>Cía. Petrolera “El Águila”</p>	<p>Weetman Pearson (Lord Cowdray)</p> <p>Minority Participation: Porfirio Díaz Jr. and Guillermo Landa y Escandón.</p>	<p>S. Pearson & Son</p> <p>On 1909 “El Águila” bought from S. Pearson & Son Ltd. their oil concessions, properties and interests.</p>	<p>U.K. Mexico</p> <p>Portfolio investment (8%) in Europe managed by the London City & Midland Bank Ltd.</p>	<p>Mexico</p>	<p>G. Landa y Escandón, Weetman Pearson, J. B. Body, E. Creel, P. Díaz Jr., L. Elguero, P. Macedo, F. Pimentel y Fagoaga, L. Riba, Enrique Tron, R.D. Hutchinson.</p>
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Table 14. Continues

Company Name	Partners	Main Inv. in Same Area or Name of Parent Company	Origins of Funds	Place of Incorporation	Directors
Ferrocarril Central (before nationalization)	Boston families: Nickerson, Cheney & Paine	Atchinson, Topeka & Sta. Fe Railroad (U.S.)	Portfolio Investment: Baring Brothers in U.K. with Kidder, Peabody in Boston.	Boston, U.S.A.	Thomas Nickerson and other Boston partners.
Mexican Light & Power Company (also owned the Mexican Electric Co.)	F.S. Pearson (American born and established in Canada). Siemens-Halske Co. of Berlin (Germany) Canadian "syndicate": Sir William Mackenzie, Fred S. Pearson, Sir William Van Horne, E.R. Wood, Z.A. Lash, Miller Lash.	In Brazil owned: The Brazilian Traction Light and Power Co. Rio de Janeiro Tramway, Light & Power Co.	Canada U.K. Germany Portfolio Investment: Dresdner Bank: Germany	Canada (1902)	Head Office: Montreal Office in Mexico City Directors: F.S. Pearson, Walter Gow, Miller Lash, Van Horne, Z.A. Lash, Flett, Brown, Wood.
Mexican Tramways	F.S. Pearson and Canadian "syndicate"	Similar investments in Brazil	Canada U.K. Portfolio Investment: Bank of Scotland	Canada (1906)	Head Office: Toronto London Office Directors in New York (F.S. Pearson), Toronto, London and Mexico.

Mexico North-Western Railway	F.S. Pearson and Canadian "syndicate"	n.a.	Canada U.K.	Canada (1909)	F. S. Pearson, E.D. Kenna, Enrique C. Creel, Walter Gow, Hiram C. Smith, Sir William Van Horne, E.N. Brown, Guillermo de Landa y Escandón
<p>Sources: Irving Stone "British Direct Investment in Latin America Before 1914", <i>Journal of Economic History</i>, Vol. XXXVII, No. 3 (September, 1977), Mira Wilkins, <i>The Emergence of Multinational Enterprise. American Business Abroad from the Colonial Era to 1914</i>, Harvard University Press, Luis Nicolás d'Olwer "Las inversiones extranjeras" in Daniel Cosío Villegas, <i>Historia Moderna de México. El Porfiriato. La vida económica, segunda parte</i>. Vol. VIII, Editorial Hermes, 1965, Mira Wilkins, <i>The History of Foreign Investment in the United States to 1914</i>, Harvard University Press, 1989, Secretaría de Hacienda y Crédito Público, <i>The Mexican Year Book 1909-1910</i>, Niall Ferguson, <i>The House of Rothschild 1849-1999</i>, Viking, 1999, Sandra Kuntz Ficker, <i>Empresa Extranjera y Mercado Interno, El Ferrocarril Central Mexicano 1880-1907</i>, El Colegio de México, 1995, Priscilla Connolly, "S. Pearson & Son: Contratista de Obras Públicas" in Carlos Marichal and Mario Cerutti, <i>Historia de las Grandes Empresas en México, 1850-1930</i>, Fondo de Cultura Económica, 1997. n.a.: not available</p>					