From fiscal revenue to industrial promotion:
tariffs in Mexico, 1870-1916

Graciela Márquez
El Colegio de México

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Comments welcome at gmarquez@colmex.mx

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Introduction

In the last decade tariff history has been increasingly studied from a global perspective. Trends and trajectories in less-developed countries have revealed that the well-documented European tariff backlash of the 1860s and 1870s was neither unique nor the stronger upward rise in trade barriers. The emergence of a tariff walls in the North Atlantic economies at the end of the 19th century has been now found in other regions of the World. In fact, the protectionist drift in Continental Europe was a minor event when compare to the major economies in Latin America and the European periphery whose patterns better adjust to the US tariff history of the turn of the century. Jeffrey Williamson summarized the comparative analysis findings: “There is plenty of evidence of rising world protection before World War I… but much of the anti-global reaction was centered in the periphery.”¹

Economic historians have also devoted some time to analyze the causes the tariff-raising dynamics. Revenue needs, falling transportation costs, compensation for scarce factors hurt by foreign competition, strategic trade policies, and infant-industry policies are the chief factors that explain the persistence of high tariffs in the periphery in general and in Latin America in particular.

Countries found in tariffs a powerful instrument to react against globalization forces but also to suit the demands of domestic interest groups. In this sense, the commitment to high tariffs did advance some policy goals that

¹ Williamson (2006), 114.
varied across countries in the periphery. Understanding differences in policy responses and its timing will shed some light on the factors that drove protectionism in the late 19th and early 20th centuries.

This paper focuses on changes in tariff policy in Mexico from the period 1870 to 1916. The aim is to investigate whether it fits into the worldwide rise of protectionism in the four decades before World War I as well as to explain the connection between commercial policy and industrial promotion goals. Implicit rates of protection—custom revenues as a share of total import values—offer a measure of average tariff levels over time and are widely used to compare between regions and countries. I used implicit rates of protection to compare Mexico’s tariff levels to regional and global patterns in order to determine whether or not it fitted into the time trends pointed out in the literature. The use of specific duties—a fix amount per unit of measurement—impedes to quantify protection at a more detailed level. A transformation into ad valorem rates allows not only assessing for single product but also to obtained weighted averages by group of products. I have computed weighted ad valorem rates by type of products (capital, intermediate and finished goods) which help us understand the evolution of the structure of protection.2

The following section situates Latin American protectionism on a global perspective in the late 19th and early 20th centuries as the region with the highest tariff barriers of the World. The next section examines the tariff pattern in Mexico from the 1870s to 1916 and its connection to exchange rate protection. Section three investigates the transition from a fiscal target tariffs to

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2 For methods of computing average tariffs see Tena (1998).
an industrial policy based upon selective protectionism. Section four summarizes the results.

I. Latin American protectionism in global perspective

After Independence Latin American financial authorities confronted a very weak fiscal situation because mounting expenses had to be covered with few sources of revenue among which import duties were the most significant. Despite intense debates on the design of commercial policy between protectionists and free traders, few countries were able to introduce a significant reduction in tariffs. Over time in addition to the fiscal dependence on foreign trade taxes, interest groups lobbied in favor of high tariffs to protect a number of sectors from foreign competition. Therefore throughout the 19th century liberal and conservative governments alike failed to dismantle the protection enjoyed by domestic producers.

In the last quarter of the 19th century the larger economies in Latin America embarked in an export led growth model based upon the commodity lottery. Despite the intense participation in foreign commodity markets, various studies now support the idea that Latin America was the region with the highest tariff levels of the world before the surge of protectionist policies of the 1930s and the import substitution industrialization after World War II. Jeffrey Williamson and John Coatsworth found that Latin America was the most tariff protected region of the World from the late 1880s until the 1930s, even

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3 Perhaps the best example of an attempt to reduce import duties occurred during the guano era in Peru when tariffs rates dropped 30 and 80 percent to 20 and 30 percent, only to increase them again once the export boom came to an end. For the best study of the period see Gootenberg (1989); Contreras Carranza (2009) deals with trade taxes in the post-guano era.
surpassing the U.S. the second most protected economy before 1914.\(^4\)

Furthermore, the Latin American move to protection “was much steeper than was true of Europe” from the 1860s to the early 1890s: the average tariff rate in Germany reached 9.1 percent and 10.1 percent in France whereas Brazil, Colombia, Mexico and Peru rose to 34 percent.\(^5\) In part, a noticeable price drop of foreign goods explained the end-of-the-century rise in protection in Latin America due to the specific duty regimes.\(^6\) Rubio also reports evidence that confirms that Latin American tariff levels ranked first among any other area of the World in the pre-1914 period, however similar protective barriers did exist in various individual countries such as the U.S., the Russian Empire, Portugal, Greece, and the Philippines during the so-called belle époque.\(^7\)

Although Latin America continued to be the most protected region of the world, at the beginning of the 20\(^{th}\) century tariffs exhibited a declining trend that ran up until World War I. Indeed, the time trend in Rubio’s estimates shows a reduction from its peak in 1890 to the end of her series in 1912. Similarly, Blattman, Clemens and Williamson argue that the pre-World War I drift towards protection “levels off in the 1890s, and then actually moderates up to WWI.”\(^8\)

That is, the Latin American leaped to high levels of protection in the last quarter of the 19\(^{th}\) century but during the first decade of the 20\(^{th}\) century the average protection of this region stabilized. In sum, comparative analysis have concluded that Latin America was the region with highest tariff protection in from the 1860s to the beginning of the First World War. This leading position

\(^4\) Coatsworth and Williamson (2004b)
\(^5\) Clemens and Williamson (2002), 9.
\(^6\) Bulmer-Thomas (2003), 139.
\(^7\) Rubio (2006), 15-16.
\(^8\) Blattman, Clemens and Williamson (2002), 3.
was well established throughout the period despite a slight moderation in the closing years which did not modify the top-ranking of the region.

Productive structures and integration to the world markets for commodities varied across Latin America. By 1914, countries in this region belonged to one of three groups: the first one with a dominant export sector that transferred productivity gains to non-export economy; a second group of countries whose exports expanded but produced little productivity growth in the non-export sector; the third group included those economies with poor export performance coupled with a lagged productivity levels in the non-export sector.\(^9\) Regarding tariff levels, differences also emerged. According to Williamson and Clemens’ data, the average tariff level ranged from 47.4 percent in Colombia to 18.3 in Chile for the 1900-1913 period; Mexico ranked just above Chile with 21.9 percent (see Table 1). Similarly, in a sample of ten Latin American countries Rubio (2006) placed Colombia as the most protectionist country and Chile as the least protected economy by 1912. In per capita terms there were also marked differences. Uruguay, Argentina and Cuba led a first group with a per capita customs revenue above two pounds sterling followed by Costa Rica, Chile and Brazil fluctuating between half and little more than one pound sterling. Venezuela, Colombia, Mexico and Peru reached the lowest per capita customs revenue within Latin America (less than half pound sterling).\(^10\)

\(^9\) This characterization follows Bulmer-Thomas regional differences on the eve of the First World War. See Bulmer-Thomas (2003), 147.

\(^10\) Rubio bases her estimates on data from the United Kingdom Statistical Abstract for the principal and Other Foreign countries from 1890 to 1912. See Rubio (2006), Figure 7.
Table 1
Average tariff level 1900-1913
(percentage)

<table>
<thead>
<tr>
<th>Country</th>
<th>Average tariff level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>23.4</td>
</tr>
<tr>
<td>Brazil</td>
<td>40.4</td>
</tr>
<tr>
<td>Chile</td>
<td>18.3</td>
</tr>
<tr>
<td>Colombia</td>
<td>47.4</td>
</tr>
<tr>
<td>Cuba</td>
<td>25.6</td>
</tr>
<tr>
<td>Mexico</td>
<td>21.9</td>
</tr>
<tr>
<td>Peru</td>
<td>23.2</td>
</tr>
<tr>
<td>Uruguay</td>
<td>33.3</td>
</tr>
</tbody>
</table>

Source: Clemens and Williamson (2002)

From a global perspective, then, Latin American erected a tariff barrier in the four decades before the First World War at a height above of its commercial partners and the rest of the peripheral economies. In the following section we discuss whether Mexico fits in the pattern just described for Latin America.

II. Tariffs as a source of protection

Throughout the 19th century and until the mid 20th century the Mexican government used specific tariffs (a fix amount per unit of measurement) for taxing imports, in part aiming at reducing fraudulent practices of over or under invoicing and also as means of coping with the scarcity of qualified customs officers to administer valuation of foreign merchandise. For the same reasons, many other countries throughout Latin America adopted specific duty regimes. Transforming specific rates into ad valorem rates allows measuring the protective power of specific tariffs.

Table 2 shows estimates of weighted ad valorem tariff rates for selected years between 1872 and 1916, all of which are associated to major reforms usually involving a revision of most of the categories in the tariff schedule, with the exception of the estimate for 1884 when most specific duties remained at
the level set in 1880. Therefore these protection levels closely approximate the
goals set by government officials since the deteriorating effect of silver
depreciation on specific duties was absent immediately after each reform took
place. My estimates indicate that tariff protection in Mexico declined steadily
throughout the period, except for 1888. This is consistent to government plans
to reduce the dependence on foreign trade taxes during the Restored Republic
(1868-1876) and the Porfiriato (1876-1911).

Table 2
Mexico:
Weighted ad valorem tariff rate

<table>
<thead>
<tr>
<th>Year</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1872</td>
<td>68.51</td>
</tr>
<tr>
<td>1884</td>
<td>60.94</td>
</tr>
<tr>
<td>1888</td>
<td>62.24</td>
</tr>
<tr>
<td>1892</td>
<td>45.82</td>
</tr>
<tr>
<td>1905</td>
<td>34.95</td>
</tr>
<tr>
<td>1916</td>
<td>30.81</td>
</tr>
</tbody>
</table>

Sources: Own elaboration based upon import data drawn from for 1872,; 1884, Stavoli (1888) for 1884; Peñafile (1895) for 1892; Mexico, SHCP, Boletín de estadística fiscal for 1905 and 1916. For tariff data Dublán and Lozano (1876-1904) for 1872, 1884 and 1892; 1888 Mexico, SHCP(1885); U.S. Bureau of Statistics (1905); 1916 Mexico, SCHP (1916).

Most comparative studies use implicit rates of protection (total duties/total (or
dutiable) imports), which are not directly comparable to the rates shown in
Table 2. In order to explore whether the declining trend is attributable to a
measurement problem, Figure 1 plots the implicit rates of protection for the
same years of Table 2. This exercise leads us to confirm that in Mexico tariffs
reduced its protective power from the early 1870s and well into the Mexican
Revolution, contrary to the general trend observed in Latin America in the closing years of the 19th century.

Unlike the Latin American or the World patterns described by Coatsworth and Williamson (2004a) and Bértola and Williamson (2006), tariff rates in Mexico did not rise in the 1870s and 1880s. Rather, by 1892 protection – measured as a weighted ad valorem tariff rate- had dropped in almost one third of the 1872 level and continued to fall thereafter, but at a much slower pace. This behavior coincides with Blattman, Clemens and Williamson who reported that Mexico was among the few countries whose tariff level declined between 1870 and 1890.\textsuperscript{11} Figure 1 also shows that the tariffs mitigated its fall at the beginning of the 20th century such that by 1905 tariff protection had only

\begin{figure}
\centering
\includegraphics[width=\textwidth]{Figure1.png}
\caption{Implicit rate of protection, selected years (percentage)}
\end{figure}

\textsuperscript{11} “Only six countries lowered their rates between 1870 and 1890 –China, Cuba, Mexico, the UK and the US. There is also evidence of a worldwide reversal in the pre-war drift towards protection after about 1900, Blattman, Clemens and Williamson (2002), 5. This declining trend has also been noted by Kuntz (2007) and Márquez (1998).
declined less than 2 percentage points, that is, dismantling protection became more difficult as rates approached lower levels.

Yet, quantitative evidence demonstrates that Mexico shared the high tariff levels of other Latin American economies and ranked among the most protected countries in the globe.\textsuperscript{12} However, tariff protection in Mexico peaked in the 1870s and significantly dropped in the early 1890s, a trend that continued until 1916. Therefore, comparative accounts on a protectionist drift in the four decades before the First World War poorly describe the Mexican case because it exhibited a the reduction, instead of an increase, of tariff barriers in the same period. Of course, the fact that we observed a declining trend in tariff protection does not invalidate the claim that Mexico and other Latin American countries belonged to a high tariff club. Our estimates also show that Mexico was, comparatively, a leading member of the high tariff club in Latin America. Even at a level of the early 1890s, the implicit tariff protection in Mexico was 31.93 percent, well above the 10 percent in Chile, the less protected economy of the region.\textsuperscript{13}

Mexico’s different pattern of tariff protection in the late 19\textsuperscript{th} and early 20\textsuperscript{th} centuries lies in the design and negotiation of trade policy.\textsuperscript{14} The 1872 tariff was discussed for more than four years and was finally enacted by the Executive. Although the main goal was to moderate the level of tariffs, Finance Minister Matías Romero acknowledged the difficulties to drastically reduce the prevailing rates without causing much discontent among those who had benefit from highly protective rates, but also to preserve a significant source of revenue. The

\textsuperscript{12} Richard Salvucci pointed out that in the 1880 Mexico’s tariffs on finished cottons were “the highest in the world,” Salvucci (1991), 722.
\textsuperscript{13} Coatsworth and Williamson (2004a), 212.
\textsuperscript{14} The rest of this section relies on Márquez (2002), chapters 1-3.
abolition of prohibitions and a larger number of products free of duty worked in favor of a more liberal tariff policy. Yet, the long process of negotiation within and outside Congress coupled with a political regime in search for alliances set the stage for granting protection indiscriminately, even at the expense of confronting interests of different petitioners.

Still perceived as a highly protective tariff, Congress decreed a ten percent reduction in all specific tariff rates even before the 1872 tariff went into effect. In the following years, organized groups of textile manufacturers requested tariff increases for competing imports, including finished and intermediate goods. The 1880 tariff abridged these rate changes and introduced modifications in customs procedures, but most of specific tariffs remained unchanged.\(^{15}\) The weighted ad valorem tariff rate drops almost 8 percentage points between 1872 and 1884, which was an expected outcome if one considers the price effect produced by the monetary standard which set the Mexican peso value in terms of the international price of silver. The depreciation of silver increased the price of imports in Mexican currency which in turn deteriorated the protective power of specific duties because rate changes lagged behind.

Attempts to reform specific tariffs of a larger group of categories began immediately after that the 1880 tariff went into effect. Although the Congress conferred on the Executive the authorization to reform the customs law, financial difficulties of the González administration (1880-1884) shaped changes that were finally introduced by the 1885 tariff. President Díaz, then at the beginning of his second term in office, issue the new tariff law—among

\(^{15}\) A comparison of the 1872 and 1880 tariffs yields changes in specific rates of 29 categories. See Márquez (2002), 97.
other emergency measures—to cope with the financial crisis inherited from the González administration. Hence, rate changes included increases in almost three-quarters of categories, as means to increase revenue. The dissatisfaction produced by the 1885 tariff was soon addressed by the Executive who once more secured the Congress’ authorization to reform the customs law. In less than two years a new tariff went into effect, demonstrating that what drove changes in 1885 was the critical condition of public revenue rather than a radical change in commercial policy. A contemporary account pointed out the disastrous impact of the customs reforms: “the present unbearable tariff, issued in 1885, leaves the working classes in complete misery, the capitalists with their enterprises in bankruptcy, and the miner in most cases is obliged to abandon, with his hopes of wealth, his labor and money invested.”

The 1887 tariff was an attempt to ameliorate rate increases in foodstuff and intermediate goods introduced in 1885. The 139 rate reductions in 1887 must have served to moderate the average ad valorem tariff rate reached under the 1885 tariff, but this was far from a generalized liberalization. Our estimates for 1888 demonstrate that the average tariff level diminished in less than 3 percentage points relative to the level found in 1884. The major shift in the level of the ad valorem tariff in Mexico took place in 1891 when the Díaz administration issued a new customs law. At the new rates the weighted ad valorem rate dropped a little more of 12 percentage points from the level reached in 1888. Unlike other customs law, reductions dominated rate changes (402 out of 556 comparable categories between 1887 and 1891).

16 U.S. Consul James Viosca, La Paz, Mexico, January 8, 1887, in U.S. Department of State, Reports from the Consuls of the United States, n. 74, February 1887, Washington, GPO.
17 The number of compatible categories between 1885 and 1887 was 448; there was a rate reduction in 139 of them. See Márquez (2002), 150-152.
coupled with an expansion of the duty free list. In addition to tariff rate changes, the eroding effect of the peso devaluation contributed to the reduction of the ad valorem rate as shown in Table 2. In the following years, this eroding effect continued as most specific tariffs remained unchanged or even declined.

Another major reform took place in 1905 following Mexico’s adoption of the gold standard. Although specific rate increases outnumbered rate reductions (217 versus 175 categories), the average tariff rate continued its declining trend reaching 34.95 percent. While it is true that the devaluation eroding effect came to an end with the monetary reform, tariff adjustments were insufficient to recover the protective power of tariffs lost during the 1890s and early 1900s.

At the end of the Porfirian regime (1876-1911), tariff protection had dropped by more than 30 percentage points. The outbreak of the Mexican Revolution in 1910 brought about pressures to increase revenue and foreign trade taxes were one source especially affected. Unlike the Porfiriato when most of the time tariff rates changes affected individual categories, during the first years of the Revolution only a small fraction of the total number of categories underwent changes on their individual import duties. In contrast, rate increases affecting all categories were used repeatedly. As a result of this new policy, between 1912 and 1914 the Federal government decreed increases of 5, 10 and 50 percent on all specific tariffs. The generalized increases proved to be insufficient to the ever increasing military expenditures, the lack of control of many customs houses and the fall in import volumes.

18 The devaluation of the peso increased the price of imported goods thus reducing the percentage represented by the specific rate.
19 U.S. Department of Commerce, various years, n. 10, p. 84, n. 11, p. 127, n. 13, p. 197; México, Secretaría de Hacienda y Crédito Público, Memoria de Hacienda, 1911-1913, p. 401 passim.
In 1916 Venustiano Carranza, in control of the customs house at Veracruz since 1914, sought to regularize the collection of tariffs through modifications on most of the individual rates and the abolition of generalized increases. The tariff reform of 1916 changed duties of 632 categories in relation to the rates set in 1905. Despite rate increases outnumbered rate reductions (582 versus 50 categories, respectively), the average tariff rate for 1916 fell behind the level of 1905. This result is not surprising if we take into account the evolution of prices of imported merchandise and its inverse relationship with ad valorem rates. The dislocation in international trade resulting from the First World War increased import prices which reduced the protective effect of specific tariffs.

In addition to tariffs, Mexican producers enjoyed other sources of protection. In particular, exchange rate protection increased the relative prices of imports (independently of its effect on specific tariffs).\(^20\) This kind of protection equally affected all types of imports in the same proportion adding up to the protection conferred by individual tariffs. The decision to remain on the silver standard, largely debated in 1886, took into consideration the protective effects of the currency devaluation on domestic sectors.\(^21\) In this sense, tariff revisions not always aimed at compensating the loss of the protective power of import duties because the exchange rate protection provided a non-tariff barrier sufficiently high to injured domestic producers. In 1898, Lionel Carden, a British diplomat in Mexico City correctly observed the effect of silver depreciation: “The present tendency of the government is to somewhat reduce the duties on

\(^{20}\) In Brazil “the real depreciation of the exchange rate compensated for the reduction of the tariff”. Haber (2005), 19.

\(^{21}\) For contemporary debates on why Mexico should remain on the silver standard see Mexico, Secretaría de Fomento, Colonización, Industria y Comercio (1886). For the protective effects of the
imported cottons, as the home industry is now thoroughly well able to take care of itself, and favored as its by the very heavy premium on gold, has practically nothing to fear from foreign competition. Yet, in the late 1890s the volatility in the international silver market hurt commercial transactions because of the uncertainty of foreign trade operations rose. In 1905 merchants, public officials, foreign investors, industrialists and to a lesser extend silver miners welcomed the adoption of the gold exchange standard in 1905:

From information furnished this office by bankers, importers, and leading commercial houses in this consular district, the recent adoption of the gold standard by the Mexican government has served to stimulate the inauguration of new business enterprises, as well as to strengthen confidence and credits. With a fixed rate of foreign exchange, the logical sequence of an unvarying monetary standard importers are making lower prices, and many exporting firms in the United States and Europe who had withdrawn their traveling sales men have notified old customers that the sending of this agents for the promotion of business will resume at once.

Once the exchange rate protection came to an end, import duties became relevant to offset the sectors that had developed under the auspices of high tariffs and silver depreciation. The next section examines how trade policy addressed this new situation.

22 Great Britain, Diplomatic and Consular Reports (1898).
24 U. S. Consul Hanna, of Monterrey, reported that “[He was] informed by leading business men that the principal objects in view of the new tariff are the protection of the manufacturing interests in Mexico, the increase in revenue, and the accumulating of such a surplus form the duty collected as will forever guarantee the gold standard and make it more easy to maintain. Department of Commerce and Labor. Bureau of manufactures. Monthly Consular and Trade Reports, September 1905, n. 300.
III. From fiscal revenue to industrial promotion protection

Among the explanations of why Latin American tariffs were so high in the pre-1914 period the fiscal motive appears as dominant. According to Williamson and Coatsworth (2004a) warfare played a major role in explaining the high level of tariffs across Latin in the first five decades after Independence, “most Latin American governments between 1820 and 1870 were not aiming to protect specific producers or sectors, but to keep troops in the field against foreign or domestic enemies.” Although high tariffs echoed demands from artisans, the weakness of the bureaucratic structures and the low collection costs made trade taxes the more reliable device to face the revenue needs of the newly Independent Republics. It was precisely the low collection cost that turned trade taxes in a major source of public financing in Europe and the United States during the nineteenth century. The path dependence process thus created must have instilled an inertial level of tariffs even after the Latin American governments secured other sources of revenue.

The idea that tariffs catered the fiscal needs of the Federal government survived well into the 20th century. In 1946 a study of Mexico’s fiscal condition underlined the importance of tariffs for the Federal treasury. However, the fiscal dependence on foreign trade taxes had been a pressing issue since Independence when almost a third of public revenues came from import and export duties (see Figure 2). The U-shape between 1836 and 1850 coincided

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26 According to Bulmer-Thomas after Independence the debates on free trade and protectionism confronted conflicting interests within the government but ultimately budgetary conditions dominated the tariff policy formation. See Bulmer-Thomas (2003), 32.
27 In Germany and the United States, trade taxes as a percentage of public revenue averaged more than 50 percent in the period 1881-1913. In peripheral Europe, the fiscal dependence on trade taxes was moderate in Spain in comparison to Italy. See Tena (2006), 19-20.
with a period of great political instability and the war with the United States. Under these extreme conditions the government pursued often contradictory trade policies: prohibitions and extraordinarily high tariff rates stimulated contraband and other illicit practices, decreasing instead increasing revenues, thus accentuating the vulnerability of public finances. In addition, in 1848 the control of the Tampico and Veracruz customs houses by the U.S. army deteriorated the already scant public revenues.29

The 1856 tariff moderated the prohibitions and excessive duties but surcharges elevated tariffs in more than 80 percent.30 Lacking other sources of financing—Mexico had defaulted its foreign debt since the late 1820s—the Mexican government was left with trade taxes as its main source of revenue. From the mid-1850s to the late 1880s the Mexican government relied on foreign trade taxes for financing internal conflicts, external threats and to a lesser extent the promotion of economic development. As shown in Figure 2, the average percentage of foreign trade taxes to total revenue grew from 29.21 in 1825-1850 to 56.86 percent in 1856-1892.

29 For an analysis of the use of tariffs as a political weapon against commercial and territorial U.S. expansion in Mexico see Salvucci (1991).
30 On the changes introduced by the 1856 tariff see Kuntz (2002), 66.
By 1870 the fiscal dependence on trade taxes was regarded as a major obstacle to sound public finances by Minister Matías Romero who sought alternative sources of revenues. The renegotiation of the foreign debt (in arrears since the late 1820s) and the introduction of the stamp tax on mercantile transactions and the production of textiles, tobacco and alcoholic beverages were the key components of a fiscal reform proposed by Romero. Yet, Romero’s plans took over two decades to materialize. The renegotiation of the foreign debt, which opened up access to international capital markets, concluded until 1889. The stamp tax, established in 1873, underwent several reforms before it became the source of one-third of total revenues in the last twenty years of the Porfiriato (see Figure 3).

31 On Romero’s fiscal reform project see Márquez (2003).
Stamp taxes allowed the Mexican government to reduce the dependence on foreign trade taxes. The access to foreign capital markets during the 1890s further improved public finances and provided the government with sufficient degrees of freedom to combine fiscal targets and industrial promotion as tariff policy goals.

Public officials and industrialists in nineteenth century Mexico were well aware of the infant industry arguments used elsewhere to protect nascent industries and to promote manufacturing activities. In fact, one of the early experiences of development policies in Latin America was the Banco del Avío founded in the 1830s. The Banco aimed at fostering textile mills through revenues collected at the customs houses. The ill-fated project could not overcome the pressing short-run needs of the almost bankrupt public finances.\(^{32}\) Political instability and the external threats impeded to lessen the fiscal target drive of the tariff policy. The revenue needs were not alone in keeping tariffs up. Producers who had benefited from the protective barriers

\(^{32}\) The support for the establishment of a paper mill in Mexico City in 1825 preceded the governmental support policies implemented by the Banco del Avío in the 1830s. On the Banco del Avío see Potash (1983).
lobbied to maintain their privileges in spite of the inconsistencies provoked by conflicting demands. But lobbying activity by pressure groups was overcame (and sometimes complemented) by deliberate policy goals that aimed at fostering industrial development.

Did Mexican tariff policy remained dominated by its fiscal target orientation throughout the nineteenth century? Recent works have concluded that late nineteenth and early twenty century witnessed a transition from a revenue seeking tariffs to an industrial protectionism. Steve Haber has argued that in the 1890s “the Mexican government honed the tariff system with an eye toward protecting domestic manufacturers and maximizing government revenues.”

When did this industrial bias first appear? To answer this question I have estimated weighted ad valorem tariff rates for type of product for six years between 1872 and 1916. If the government was implementing a fiscal-oriented tariff one might expect a tariff structure with undifferentiated tariff rates by type of product. The opposite would be a cascading structure which taxed more heavily finished goods and set lower duties on intermediate and capital goods. By differentiating tariff rates by type of products it is possible to better evaluate the intentionality of commercial policy that sometimes hides behind average rates.

The structure of protection for five years is shown in Figure 4. Capital goods were the less protected for the entire period. This type of goods was

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34 A similar exercise using differentiated weighted ad valorem tariff rates for the period 1910-1930 can be found in Márquez (2007).
35 “From the average tariff rate one can not say whether what is being taxed are luxurious goods paying incredibly high amounts to enter the country, while most things enter paying relatively little or non duty or whether a uniform tariff is applied throughout all imports. This two tariff rules would have very different impact on the actual imports buy may turn out to show very similar average tariff rates depending of the amounts imported, the size of the tax, and the price elasticity of the products imported”. Rubio (2006), 20.
either exempted in the customs law of 1872 and 1880. Furthermore, for these years capital goods share in total imports were low, concentrating in a handful of categories. Fiscal constraints in the mid-1880s led to imposed duties on machinery, equipment and tools for artisans, and agricultural implements, but their level was considerable lower than intermediate and finished goods. From its peak in 1888, the tariff protection conferred on capital goods declined until the less than 5 percent in 1916. The evolution of average tariff protection on intermediate goods showed the highest rate for any type of product in 1872 and 1888 and almost the same for finished goods in 1884, whereas in the following three observations intermediate goods were always taxed below finished goods but higher than capital goods. Finished goods fell behind the protection conferred on intermediate goods in 1872 and 1888, but for the rest of the years under study this type of goods were the most protected ones. These results are consistent with tariff negotiation and fiscal needs of the early 1880s despite the efforts to lower specific duties in 1887.
More importantly, the structure of protection shows that by the early 1890s there was a clearly intention to differentiate tariff rates in favor of finished goods. At that time some contemporary observers still considered that in the early 1890s fiscal needs still drove tariff policy. For example the U.S. Consul at Veracruz reported in 1892 that “The federal revenue is chiefly derive from customs, imposts, sale of stamps and occupation taxes, and hence the importer and merchant have to pay into the treasury the larger portion of the money needed to meet the expenses of the Federal Government, and hence also we have in Mexico a high tariff, primarily for revenue”\textsuperscript{36} However, in the following years it was uncommon that opinions on tariff policy refer to fiscal revenues as one of the goals pursued by trade policy. On the contrary, there were reports

\textsuperscript{36} Department of State, Bureau of Statistics, Reports from the Consuls of the United States, n. 146, November 1892, 387.
and observations on how tariff changes targeted the protection of domestic manufacturing. For instance, in the early 1900s U.S. consuls reported that tariff rate changes supported steel production in Mexico: in 1903 consul W. W. Canada observed “The Mexican government has reduced the import duty of ferromanganese with view of encouraging the manufacture of steel by modern methods in the Republic.” A year later, consul Hanna pointed out that “The new tariff law which went into effect in April last especially benefited the iron and steel industries of this country.” 37 These changes benefited directly the recently established Fundidora de Monterrey, the first steel producer in the country. Over the years, a cascading structure became more evident as specific duty upward changes concentrated in finished goods.

By examining the relationship between tariff rates of finished and intermediate goods the fiscal orientation of tariff policy is evident for the years 1872, 1884 and 1888. Import duties on consumption and intermediate goods maintained a ration close to the unit which indicates that the government did not differentiate tariff rates before the reform of 1891 (see Table 2).

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Ratio of weighted ad valorem tariff rates by type of product</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1872</td>
</tr>
<tr>
<td>Finished / Intermediate goods</td>
<td>0.88</td>
</tr>
<tr>
<td>Finished / Capital goods</td>
<td></td>
</tr>
<tr>
<td>Intermediate / capital goods</td>
<td>2.12</td>
</tr>
<tr>
<td></td>
<td>2.52</td>
</tr>
</tbody>
</table>

Source: Same as Table 1

The first indication of a policy aiming at protecting producers of finished goods appeared in our estimates of 1892. For this year the ratio consumption and intermediate goods was 1.17 but declined by 1905 just to recover in 1916 reaching 1.69. One possible explanation of the reduction in the distance of the weighted tariff rates was deliberate effort of protecting the iron and steel and cement industries established in the early 1900s. In the case of capital goods, their duties were always significantly lower than those of other type of imports. This result coincides with revisionists views of the Mexican Revolution that insist on the continuities from the Porfiriato and the post-1910 period.38

Specific tariff upward changes concentrated on those products being produce by native industries. Well organized industrialists lobbied in favor of higher tariffs for their products since exchange rate protection did not longer ameliorated the impact of lower import duties. New pressing fiscal needs appeared in the first years of the Mexican revolution but since tariffs increased in the same percentage for all categories the cascading structure of protection survived.

IV. Conclusions

The presence of high tariff rates does not necessarily reflect a protectionist goal. On the one hand, fiscal motives might very well induce an indiscriminately rise in tariff rates with a null effect on the promotion of domestic sectors. On the other hand, tariff policies primarily design to promote import-competing sectors might occur under a declining tariff rates. This paper have shown that during the belle époque Mexico’s tariff rates were comparatively higher than in most areas

38 See Haber, Razo and Maurer (2004).
of the World. Yet, tariff rates declined consistently from their 68.5 percent peak in the 1870s to a 30 percent level of 1916.

Mexican governments depended on foreign trade taxes for most of the 19th century, as was the case of many other Latin American countries. Once other sources of revenue (the stamp tax) and external financing became available in the 1890s, fiscal concerns reduced their importance in the tariff setting process. This is not to say that fiscal targets disappeared from the agenda but they were clearly of second importance.

The revenue protective function of the tariff implied high tariff rates, as those observed in the 1870s and 1880s, but domestic sectors were not necessarily beneficiaries of such protection as they faced similar levels of duties charged on intermediate goods. Once industrial promotion entered as a deliberate goal in the tariff policy design we observed that that tariff rate changes targeted a cascading structure.

Estimates of weighted ad valorem tariff rates confirm that a deliberately effort to protect import competing sectors began in the 1890s. A cascading tariff structure in which finished goods benefited from higher levels of tariff rates, above the rates of intermediate and capital goods, was in place in the last two decades of the Porfiriato. The tariff structure accentuated its cascading nature even after the tariff changes decreed during the Revolution, even considering the fiscal pressures that came up with the armed conflict.

This paper have shown that the transition from a fiscal target tariff to a commercial policy conducive to import substitution emerged as early as 1891 when the tariff law offered differentiated protection to finished, intermediate and
capital goods. Another important finding is that the Revolution maintained and even deepened the cascading tariff structure.

The study of tariff policy in Mexico, and other regions of the World offers a rich agenda on issues not treated here. The influence of exchange rate regimes, the lobbying patterns of pressure groups, inflationary pressures on tradable goods are only a few of pending issues that scholars need to consider in future research. Also, more detailed grouping of finished and intermediate goods, i.e. food and beverage, or distinctions between durable, semi-durable and non-durable consumer goods will improve our assessment of industrial promotion policies in Mexico during the Porfiriato.
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