CHAPTER VII

MEXICO'S TRADE RELATIONS WITH THE U.S.A. AND U.K.

Section (a) Trade Relations with the U.S.A.

Mexico in its trade with the U.S. has the advantages of proximity, established trade routes, and the complementary character of the products of the two countries. Besides the three major commodities i.e. Mexican silver, gold, and petroleum other mineral and agricultural raw materials are exchanged against U.S. manufactures. It sends 67% of its total exports to U.S., and gets 56% of its total imports. The U.S. is thus the most important trade partner of Mexico and the Mexican terms of trade with the U.S. are of considerable importance to the economy of the former country. If we ignore the volume and value of Mexican silver and gold traded, we note that the U.S. as a rule has had a substantial export balance with Mexico. However, gold and silver from Mexico, in as much as these precious metals are products of their mines and do not represent monetary reserves should be considered as part of Mexico's merchandise trade. If silver and gold are taken as merchandise then Mexico has been having regularly, over the period, export surplus. In 1925 the export surplus amounted to $34 million which
improved at an average rate of 1.3% per annum, and it was as high as $65.2 million in 1938.¹

Silver being the most important item of Mexican export trade its price in New York has influenced the Mexican terms of trade throughout the period, and were mainly responsible in worsening them between 1925 and 1932. Because of increased world production of silver, until 1930, and decreasing industrial and monetary demand the price of silver declined steadily from an average of 69.4 cents in New York in 1925 to a low of 34.6 cents an ounce in 1932.

During the 1930's especially since 1932, commerce between the U.S. and Mexico especially Mexican export surplus has been affected by a series of unusual economic and political developments in both the countries. These developments have been based on governmental action and have had to do principally with the trade in gold, silver and petroleum - the three major exports of Mexico. A brief consideration of the influence of these commodities on the Mexican export surplus will not be out of place.

In the spring of 1933 the U.S. departed from the gold standard; this was followed by the devaluation and stabilization of the Dollar in the beginning of 1934 at

¹. Lowest figure for Mexican export surplus being $8.1 million in 1930.
approximately 50% of its former value in terms of gold. By this action the substantial amounts of gold which were sold to the U.S. by Mexico were increased in dollar value by nearly 70% apart from any change in quantity.

Shortly after devaluation of Dollar, the U.S. Congress passed in 1934, the Silver Purchase Act which aimed at increasing the proportion of silver to gold in the monetary stocks of the U.S. with the ultimate objective of having and maintaining 1/4th of the monetary value of such stocks in silver. To achieve this aim an extensive silver purchase programme was launched, and consequently a sharp rise in the silver prices was experienced. The effect of this programme upon the value of silver shipped to U.S. from Mexico, the world's largest producer of that metal, was especially great.

With Mexico, along with China and Canada, the U.S. made special arrangements relating to the purchase of silver. From the beginning of 1936 until the end of March 1938, the U.S. had an agreement with Mexico under which U.S. agreed to purchase a maximum of 5 million ounces a month of newly mined Mexican silver. The actual U.S. imports of silver from Mexico rose from $17.6 million in 1933 to $63.7 million in 1935 i.e. a rise of 250%.

They declined sharply after 1935 but still remained higher than in several years before 1934. A substantial part of this rise was due to rise in price. In the month preceding the Silver Purchase Act, May 1934, the price of silver averaged 44.5 cents an ounce; but because of the ensuing purchases by the U.S. and the accompanying speculation the price rose rapidly to a peak of 81.3 cents an ounce on April 26, 1935. It then fell rapidly until the beginning of 1936 during most of which year and throughout 1937 it held at about 45 cents an ounce.

Thus since 1932 onwards the prices of gold and silver have been great stabilizers of the terms of trade of Mexico besides improving its balance of trade. However, these two commodities comprised 23% each, of the total exports during 1934-39. The rest of 44% of the exports consist of petroleum, copper, lead, iron, henequen, and few other agricultural raw materials. The price terms of these diverse exports, have been mainly responsible for pulling down the terms of Mexican trade after 1932.

Whereas the policies of the U.S. Government affecting silver and gold served to increase greatly the value of commerce between the U.S. and Mexico, the expropriation of foreign-owned petroleum companies by the Mexican Government in 1938 operated to decrease it substantially which was noted in the trade figures of the last three quarters of 1938.

The Terms of Trade: The calculation of terms of trade of Mexico with the U.S. and other required parameters is given as under:
Trade of Mexico with U.S. 1925-39.  
Initial Export Surplus for Mexico

\( E_2 \cdot .01; \quad r_{P_2} = -8.9 \)

\( R_1 \) of U.S. = -4

\( m_1 = -\.39; \quad a_1 = .4; \quad r_{P_1} = -.42 \)

\( c_1 = 1.02; \quad e_1 = 1.29; \quad r_{P_{P_1}} = -1.2 \)

\( R_{P_1} = 1.3 \)

\( m_2 = -.39; \quad a_2 = -.93 \)

\( c_2 = 1.64; \quad e_2 = -9.92 \)

\[ R_{P_1} = m_1 + m_2 - a_1 - a_2(r_{P_2}-r_{P_1}) + c_1 R_2 - c_1 R_1 + e_1 R_1 - e_2 R_2 \]

\[ 1.3 = -.39 + .39 - (.4 - .93) (r_{P_2} - r_{P_1}) + (1.64(-.01)-1.02) \]

\[ (-1.02(-.4) + 1.29(-.4) - (-7.92 \times .01)) \]

\[ 1.3 = -.01 - .03(r_{P_2} - r_{P_1}) + .0164 = .408 - .516 = .0792 \]

\[ 1.3 = -.04(r_{P_2} - r_{P_1}) = 1.003 \]

\[ r_{P_2} - r_{P_1} = \frac{1.3 - 1.003}{.54} = -\frac{2.303}{.54} \]

1. \( r_{P_2} - r_{P_1} = -4.26 \)

2. \( r_{P_1} = 4.2 \)

\[ r_{P_2} = -4.26 - 4.2 = -8.46 \]

3. \( r_{P_2} = -8.46 \)

4. \( \frac{r_{P_1}}{r_{P_{P_1}}} = 2.1 \)

5. \( \frac{r_{P_2}}{r_{P_{P_2}}} = 3.0 \)

6. \( a = 3.5 \)

6. \( b = .94 \)

1. These results are based on statistical work shown in Appendix D.2.
It shows that the terms of trade for Mexico during 1925-38 were declining at an average rate of -4.26 per annum. Nearly all the factors affecting the terms of trade were exerting a downward pressure.

To begin with, the elasticity of exports with respect to change in productivity was perverse for both the U.S. and Mexico. But the perversity was greater i.e. 3.0 for Mexico than of the U.S. exports i.e. 2.1 and hence the unfavourable movement of the terms of trade for Mexico. Kindleberger's hypothesis that the elasticity of exports with respect to change in productivity is perverse only for primary producers is not entirely true. Perverse response of the supply of exports to changes in productivity has been noted for both the manufacturing U.S. and primary producing Mexico.

Taking the elasticities of reciprocal demand one notes that the income elasticity of Mexican demand for American products 1.64 was a little above the American counterpart 1.02. On the other hand, though the American demand for Mexican products had little price elasticity -.39, the price elasticity of Mexican demand for American products was -.38 implying thereby that more was bought with the rise in American prices. Thus both income- and price-elasticity of reciprocal demand were acting to pull the Mexican terms of trade downwards.
The American product-elasticity of supply has been 1.29. This along with the negative rate of growth of the real income of the U.S. - .4 meant a contraction of American supply of exports; on the other hand price-elasticity of Mexican exports - .93 meant an increase in Mexican exports; in spite of the unfavourable terms on which they were being supplied in increasing quantities. Both these elasticities of supplies \( e_1 \) and \( e_2 \) were again acting to pull down the terms of trade.

The product elasticity of Mexican exports \( e_2 = 9.92 \) stands for the fact that there was a greater concentration towards the development of domestic industries. This is also borne out by the fact that due to the U.S. Silver purchase programme world production of silver was on the increase. "Mexican production, however, failed to increase as rapidly after 1933 as did world production. World production exceeded somewhat 1929 peak in each of the years 1937-40, but Mexican production failed to reach more than 80% of its 1929 level.\(^1\) The rate of change of productivity in Mexican export industry was also -8.9 per annum. This partly tells us the exhaustion of the mineral resources, failure of agricultural crop in one year, and loss of production of petroleum in 1938, consequent upon the expropriation of foreign ownership.

\(^1\) Ibid., p. 208.
Testing the Singer-Prebisch doctrine we note that the American export prices were falling at an annual rate of \(-4.2\%\) in spite of the fall in productivity of her export industries at a rate of \(-1.2\%\) i.e. the fall in export prices was 3.5 times the rate of change of productivity. The fall of productivity actually entitles U.S. for raising the prices of its exports, whereas the U.S. did not do so, contrary to what Singer-Prebisch hold. On the other hand their doctrine stands out for the productivity price relationship in Mexican export industries. There too the productivity was declining at an average rate of \(-8.9\%\) annually and the prices instead of rising were falling at a rate of \(-8.46\) or \(.94\) times the productivity change. The fall of prices was sharper for Mexico than for the U.S. and hence the unfavourable movement of the terms of trade for Mexico.

Mexican trade with the U.S. approximates to case 2.D described in chapter 2 with unfavourable movement of terms of trade but an improving trade balance.

In spite of the unfavourable movement of the Mexican terms of trade, it is very difficult to say whether or not the U.S. grasped a bigger share from the gain from its trade with the U.S. The U.S. purchased large
quantities of silver but paid a higher price than would have prevailed in the free market. Secondly, we have to note that the devaluation of Dollar in terms of gold raised the value of Mexican gold exports automatically. And finally, the expropriation of American-owned petroleum involved a great deal of loss to the American interest — which will be dealt in greater detail in the following pages.

U.S. Investments in Mexico

U.S. portfolio investments in Mexico have been small compared to the U.S., direct investments in Mexican mining and public utilities. The following table from Cleona Lewis gives us an idea that there were not many new short term dollar bonds issued after 1921, and not a single long term dollar bond over since 1921. The minus figures in the net face value tell us that there have been redemption of bonds both long and short term of insignificant value after 1923 practically each year till 1930. After this year there was no redemption of bonds till 1938, except in the year 1933, when the sinking fund payments were received by the American investors of the value of $1.2 million.  

### American Portfolio Investment in Mexico

**Aggregate and Net New Dollar Loans ($ million)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Face</th>
<th></th>
<th>Net Face</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short term</td>
<td>Long term</td>
<td>Short term</td>
</tr>
<tr>
<td>End of 1914</td>
<td>21.7</td>
<td>117.1</td>
<td>21.7</td>
</tr>
<tr>
<td>1921</td>
<td>2.8</td>
<td>1.0</td>
<td>2.8</td>
</tr>
<tr>
<td>1922</td>
<td>0.1</td>
<td>-</td>
<td>0.1</td>
</tr>
<tr>
<td>1923</td>
<td>-</td>
<td>-</td>
<td>-0.5</td>
</tr>
<tr>
<td>1924</td>
<td>1.4</td>
<td>-</td>
<td>1.4</td>
</tr>
<tr>
<td>1925</td>
<td>-</td>
<td>-</td>
<td>-1.9</td>
</tr>
<tr>
<td>1926</td>
<td>-</td>
<td>-</td>
<td>-0.3</td>
</tr>
<tr>
<td>1927</td>
<td>0.2</td>
<td>-</td>
<td>0.2</td>
</tr>
<tr>
<td>1928</td>
<td>-</td>
<td>-</td>
<td>-0.2</td>
</tr>
<tr>
<td>1929</td>
<td>-</td>
<td>-</td>
<td>-1.3</td>
</tr>
<tr>
<td>1930</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total at the End of 1935</td>
<td>26.2</td>
<td>118.1</td>
<td>21.7</td>
</tr>
</tbody>
</table>

Source: Cleona Lewis, America's Stake in Foreign Investment, p.362.

It is very difficult to do an accounting of the total profits or loss on the American portfolio investments, because the estimate of the total value itself is extremely uncertain. Most of the Mexican issues were brought out between 1899-1910. Although in several cases American
under-writers headed the syndicates, their European affiliates and syndicate member were thought to have sold by far the largest share. The movement of their securities back and forth across the Atlantic before the World War I when Europe was probably buying them, during and since that time when the U.S. may have been the purchaser, render an estimate of the amount held in the U.S. extremely hazardous.

The problem is further complicated by the condition of the market for the Mexican securities. At the end of 1930, Mexican issues were quoted in the New York Stock Exchange at prices between 8½ and 11½ bid. If in order to arrive at an estimate of the present value of American holdings of the Mexican securities, Turlington's figure at par value $115,785 is taken, and a present value is given to it on the basis of the stock exchange quotations, it could not possibly be over $15 million.

On the other hand the figures for 1935 present difficulties of opposite type. Cleona Lewis gives the face value of the Mexican $ bonds held by Americans at $138.8


2. Estimated by Edgar Turlington; Mexico and Her Foreign Creditors' Washington, 1933, p. 318; including principal and accrued interest at par value.
million. For the same year the market value of these securities is estimated at $161 million,\textsuperscript{1} which represents an appreciation of capital value because the Stock Exchange quotations for these securities were above par.

So far as the returns on American portfolio investments are concerned, we find that these were in complete default as to the payment of interest for most of the years after 1927. The normal rate of return before 1927 was 6\% i.e. about the same as for Argentine dollar bonds for similar years. Between 1927-'38, only twice returns were yielded on these securities: once in 1933 when $134,000 were paid, and in 1934 $105,000 were transferred to the American investors by way of income on their total portfolio investments.\textsuperscript{2} Thus so far as the yield on portfolio investments goes it has probably been meagre and unremunerative to the Americans.

It is difficult to conclude whether the default as to interest payment was due to the difficulty of transfer or due to any determined policy of the Mexican Government which had embarked upon a National Economic Policy of a revolutionary type. So far as the transfer problem goes, one notes that Mexico had an export surplus throughout the period improving at an average rate of 1.3\% per annum. However one does not know as to how much of these surpluses were offset by transfer of earnings on direct American investment,\textsuperscript{3} and how much

\textsuperscript{1} Foreign Trade of Latin America, Part II, Vol. II.
\textsuperscript{2} Cf. A.E.Taylor, The Balance of International Payments of the U.S. for year 1933, and 1934, Bureau of Foreign and Domestic Commerce.
\textsuperscript{3} As figures for these are not given in the Balance of Payments of U.S. with Mexico, or anywhere else.
remained to service the portfolio debt. The doubt regarding
the intention of the Mexican government to service its
foreign debt, are further confirmed by the fact that there
have been hardly any restriction on the sale of foreign
exchange during 1930's.

American Direct Investment in
Mexico

<table>
<thead>
<tr>
<th></th>
<th>1919</th>
<th>1924</th>
<th>1925</th>
<th>1930</th>
<th>1933</th>
<th>1936</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling Organisations</td>
<td>5</td>
<td>7</td>
<td>8.6</td>
<td>-</td>
<td>-</td>
<td>10.8</td>
</tr>
<tr>
<td>Mining and Smelting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Precious metal</td>
<td>100</td>
<td>112.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>119</td>
</tr>
<tr>
<td>b) Industrial minerals excluding oil</td>
<td>122</td>
<td>124.0</td>
<td>230.4</td>
<td>-</td>
<td>-</td>
<td>94</td>
</tr>
<tr>
<td>Oil production</td>
<td>200</td>
<td>250.0</td>
<td>210.5</td>
<td>-</td>
<td>-</td>
<td>69.0</td>
</tr>
<tr>
<td>Oil distribution</td>
<td>-</td>
<td>-</td>
<td>4.3</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Sugar</td>
<td>-</td>
<td>12.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>b) Fruit and Rubber</td>
<td>3</td>
<td>3.5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>17.2</td>
</tr>
<tr>
<td>c) Other agricultural products</td>
<td>45</td>
<td>41.0</td>
<td>58.8</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>8</td>
<td>7.0</td>
<td>6.25</td>
<td>-</td>
<td>-</td>
<td>3.3</td>
</tr>
<tr>
<td>Railroads</td>
<td>122.9</td>
<td>139.2</td>
<td>73.8</td>
<td>-</td>
<td>-</td>
<td>147.8</td>
</tr>
<tr>
<td>Public utilities</td>
<td>31.7</td>
<td>31.7</td>
<td>90.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>-</td>
<td>-</td>
<td>8.2</td>
<td>-</td>
<td>-</td>
<td>12.9</td>
</tr>
</tbody>
</table>

Total: 727.4 652.536 664.786 632.632 632 476.4

Source: For 1919 and 1924, figures are from Cleona Lewis
‘America’s Stake in International Investment’, The
Institute of Economic of the Brookings Institution,
Washington D.C. 1938, pp. 533, 584, 585, 590, 591,
595, 602, 603.

(continued on next page)
U.S. direct investments in Mexico rank third among the twenty Latin American countries and fourth among the countries of the world. U.S. direct investment in Mexico are exceeded by those in Canada, Cuba, and Chile. The amount of American direct investments continued to increase till 1924, when the figure reached $727.4 million, the estimate for the year 1929 $682.6 million represents a considerable decline. This is mainly attributable to: first, the depreciation in the value of petroleum properties in Mexico brought about by the depletion of Mexico's oil resources as well as by the policy of the Mexican government towards these resources; secondly, the expropriation and nationalization of land in connection with the governments agrarian policy; and thirdly, to the considerable decline in the value of the railroads investments.

In 1929, mining and smelting, especially precious metals took 4/5th of total investments. Other metals of considerable value in which investment was made were copper, lead etc.

(continued from last page)


Figure for 1930, Paul D. Dickens, A New Estimate of American Investments Abroad Trade Information Bulletin, 767.

Figure for 1933, A.E. Taylor, The Balance of International Payments of the U.S. in 1933, Bureau of Foreign and Domestic Commerce, p. 56.

Figure for 1936, Paul D. Dickens, American Direct Investments in Foreign Countries, 1936, Economic Series No.1. Bureau of Foreign and Domestic Commerce, Washington, 1936.
The Mexican petroleum industry closely approached
mining attracting $200 million in producing and refining
cost. Investment in petroleum industry in Mexico has
seen more ups and downs than any other industry. In 1912,
the best estimate\(^1\) of American investments in this industry
put the amount at $15 million. In ten years the industry
rose from relative insignificance to its peak, and in the
next eight years had decreased by at least half. As we
shall see later, the decline in investments in this industry
continued till the industry was nationalized in 1939.
Communication, transportation, and public utilities attracted
the third largest amount of investments. Most of the
railroads not connected with the mines were acquired from
the former British and Canadian owners before 1914. The
investment in railroad had started on the downward track
by 1929.

American investments in manufacturing and selling
organisations were relatively small, and the agricultural
properties, though reduced greatly from their former
value due to nationalisation, were worth $58.8 million.

In the year 1936, the total amount of direct invest-
ments was $479.4 million which represented a decline of
$203 million or about 30% from the 1929 estimates.

\(^{1}\) Cf. John B. Osborne, referred to in Cleona Lewis,
Ibid., p.
Manufacturing and selling organisations were the only industrial groups that showed an increase in investment but only slightly. Mining and smelting continued to be the main fields for investments, though about half the companies in operation in 1929, had closed down as it became difficult for them to carry on their operations due to the industrial depression of early 1930's. The U.S. Silver Purchase Policy, however, was a boon to investors in the silver mining and hence the amount of investments in the precious metal was fairly high, higher than in 1929.

The decline in the total amount of investments is mainly attributable to sharp reductions in the value of agricultural and mineral investments, brought about by the expropriation of these properties by the Mexican government. The origin of these expropriations goes back to the Constitution of 1917, written down after the revolution of 1919, which provided for a National Economic Policy for the reorientation of nation's economic and social structure. The aggressive implementation of this policy did not begin until the inauguration of President Lazaro Cardenas on November 30, 1934. 'A Six Year Plan' was adopted to carry on the principles of the Constitution of 1917 with regard to agrarian programme, labour legislation, nationalisation and strict control of mineral resources, larger government
control and regulation of industry, agriculture, commerce etc. The Plan placed emphasis on the diminution of the country's dependence on foreign market and on the development of Mexican enterprises rather than foreign controlled concerns.

The principal means used by the Government to carry out its policy were expropriation of agricultural and mineral properties, adjustment of internal taxes and custom duties, the organisation of cooperatives, the formation of mixed companies under the control of the State and the limitation of new mining concessions to Mexican citizens alone. In 1927, the Mexican Government had recognised oil rights acquired prior to the Constitution of 1917 going into effect, and issued certain confirmatory concessions to the owners. But based on article 27 of the Constitution of 1917, the Executive, on November 23, 1936, signed an expropriation law which permitted Government seizure of property for reasons of public and social welfare. Accordingly petroleum, and other mineral resources were declared to be

1. However a constitutional amendment, promulgated on December 15, 1934, declared that Mexicans "shall be preferred to foreigners in equality of circumstances, for all kinds of concessions, and for all employments, offices, and Commissions of the Government for which Mexican citizenship is not indispensable."
the property of the Nation. Thus the process of expropriation of oil properties began which was completed in the year 1938.1

The extent of loss involved is very difficult to estimate. For one thing the figures for investment in the oil enterprises represent a highly underwritten value. The process of under-writing these investment had started in the late 1920's. In 1928, the figure was estimated as high as $408 million, which started declining rapidly in 1929 and by 1936 the under-writing had proceeded quite far.2 Thus by the process of expropriation nearly one third of the direct American investments were finished. And to what extent these losses were compensated by the earnings on other investment is very difficult to assess.

1. The events which led up to the expropriation of foreign controlled oil properties in Mexico had their beginning in 1936. In that year various Unions in the petroleum industry merged to form the Syndicate of Petroleum Workers. On November 3, 1936, the Syndicate under the Federal Labour Law of 1930, sought to obtain wages increases and social welfare benefits. No agreement having been reached at a Joint Conference which lasted from December 1936 to May 1937, the Syndicate called a strike effective May 27, 1937. On June 7, 1937 the controversy was submitted to the Federal Conciliation and Arbitration Board; and the strike was ended. A special group of the Board handed down an award in favour of the Union on December 28, 1937; and the Oil Companies filed a petition for injunction with the Mexican Supreme Court. The Supreme Court, in a decision of March 1, 1938, denied the injunction and sustained the findings of the Board. On March 16, 1938, the Syndicate of the Petroleum Workers petitioned the Board to end the labour contract between the oil companies and the Union, and on March 18, the Board declared the contract broken. On the same day, foreign-

(continued on next page)
One can, however, hesitatingly suggest that probably looking from the time the U.S. investments in Mexican oil industry began, the earnings thereon just made up the losses. During the period under study, however, decidedly the losses outweighed the total earnings on the direct investment.

It has been already noted that the export of silver, production of which was controlled by Americans, were not in any way responsible for pulling down the Mexican terms of trade during the 1930's; nor could it be the petroleum exports, which pulled down the price terms as these were scarce in 1930's as compared to 1920's due to the conflict between the labour and the oil companies.

Thus one can conclude that during the period under study the U.S. direct investments in Mexico were not very profitable, especially because the Petroleum and Agricultural investments had the worst of their history in this period.

(note continued from last page)

Controlled oil properties in Mexico were expropriated by Executive decree on the basis of the Expropriation Law of November 1936. On December 2, 1939, the Mexican Supreme Court upheld the action of the Mexican Government in expropriating the foreign controlled oil properties. Cf. Foreign Trade of Latin America, U.S. Tariff Commission, 1942, pp.178-182.

Secondly, in spite of the fact that the export industries were controlled by the American investors, the terms of trade were not in any sense falling, due to the superfluous exportable supplies of Silver and Petroleum in 1930's. The falling Mexican terms of trade during 1925-1938, are attributable, first, to the values of price-and income-elasticity of Mexican demand and also to the perversity of elasticity of Mexican supplies of all exports during the 1920's, and perversity of elasticity of Mexican export supplies of other industrial and agricultural raw materials particularly.

Section (b) Trade Relations with the U.K.

The U.K. occupies third position for Mexico in her trade relations. After the U.S. and Germany - she is the next important trading partner taking on an average 8% of Mexican export, and supplying about 19% of her total imports. As against this U.K. takes 9% of Mexican exports and supplies only 4% of her imports. In spite of the importance of Germany, we have chosen to study Mexican trade relations with Britain for two reasons. First it is difficult to get comprehensive trade figures and account of capital movement between Germany and Mexico. And secondly, to maintain uniformity in the study as for other three Latin American Countries the trade relations with the U.K., besides the U.S., are dealt with.
Terms of Trade of Mexico with U.K.

The calculation of the terms of trade and other relevant parameters are given below:

### Trade of Mexico with U.K. 1925-35

<table>
<thead>
<tr>
<th>( R_2 )</th>
<th>( R_{F_2} )</th>
<th>( R_{P_2} )</th>
<th>( R_{P_{F_2}} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>.01</td>
<td>-9.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( R_1 \) of U.K. 1.9

\( n_1 = .24 \) \( s_1 = -2.6 \) \( R_{P_2} \) \( R_{P_{F_2}} \) 1.9

\( e_1 = 1.12 \) \( e_1 = .51 \) \( R_{F_1} \) 1.9

\( n_2 = 2.96 \) \( s_2 = .17 \)

\( e_2 = .31 \) \( e_2 = .39 \)

\[
R_{F_1} = n_1 + n_2 - s_1 - s_2 (R_{P_2} - R_{P_1}) + e_2 R_2 + e_1 R_1 - e_2 R_2
\]

\[
-6.2 = -.24 - 3.0 (-2.6 - .17) (R_{P_2} - R_{P_1}) + (-.31 x .01) - (1.12 x 1.9) + (-.51 x 1.9) - (.30 x .01)
\]

\[
-6.2 = -3.24 - 2.77 (R_{P_2} - R_{P_1}) - .0031 - 2.128 - .95 - .0039
\]

\[
-6.2 = -6.01 (R_{P_2} - R_{P_1}) + 3.1
\]

1. \( R_{P_2} = R_{P_1} = \frac{\text{not given}}{6.01} = .5 \)

2. \( R_{P_1} = -2.1 \)

3. \( R_{P_2} = .5 - 2.1 = -1.6 \)

4. \( \frac{R_{X_1}}{R_{P_1}} = -3 \)

5. \( \frac{R_{X_2}}{R_{P_{F_2}}} = .06 \)

6. \( a = -1.1 \)

7. \( b = 3.5 \)

---

1. These results are based on the statistical work shown in Appendix D.1
In the year 1925, Mexico had an export surplus of £23.56 million on trade account with the U.K. This continued to decline at an average rate of -6.2% per annum. The terms of trade of Mexico with Great Britain were improving at an annual rate of 0.5%.

This favourable movement of terms of trade was in spite of the fact that the Mexican exports were perversely elastic to the changes in productivity (the value being 0.06) whereas the British elasticity of exports with respect to changes in productivity was of right sign being -0.3. Thus Kindleberger's explanation of the falling terms of trade of primary producers due to the perverse elasticity of the supply of exports to changes in productivity does not hold good for the Mexican terms of trade.

Similarly, Singer-Prebisch doctrine also does not stand true at all for the Mexican terms of trade which have been improving at an annual rate of 0.5%. In Britain productivity in the export industries was increasing at an annual rate of 1.9%, and the benefits due to the rise in productivity were being passed on to the consumers in the form of low prices. The prices were falling more than proportionately 1.1 times the rise in productivity, i.e. at an annual rate of 2.1%. On the other hand Mexican mineral production was very slack during this period and the per man year productivity was falling at a rapid rate of -8.2%. This should have resulted in a rise of export prices; but actually the Mexican export price level was
falling at \(-1.0\%\) per annum or 5.5 times the productivity change. Had the Mexican export prices risen as rapidly as the productivity in export industry was declining, her terms of trade would have improved much more than they actually did.

The elasticities of international demand and supply explain fully well the favourable movement of the Mexican terms of trade. Britain had a fairly price inelastic demand \(-.34\) for Mexican products than Mexico had for British products — the value of price elasticity of Mexican demand being 2.98. Income elasticity of demand of Britain for Mexican products was 1.12. This along with 1.9\% per annum rate of growth of real income meant large demand for Mexican products. On the other hand the Mexican income-elasticity of demand for British products had a wrong sign being \(-.31\); that is with the rise in real income, at a rate of 0.1\% per annum, the Mexican demand for British products was contracting. Thus both the income and price-elasticity of Mexican and British demand were in favour of Mexican terms of trade. Had the rate of growth of real income of Mexico been higher, or the minus value of its income-elasticity of demand greater, the terms of trade would have improved much more than 0.5\% the actual improvement.
Taking the elasticities of supply we note that the price elasticity of British supply of exports was -2.6 i.e. with the unfavourable movement of terms of trade its supply would expand, similarly Mexican exports were also relatively price-elastic, the value being -1.7 i.e. with the favourable movement of terms of trade the Mexican supply was contracting.

The products elasticity of British supply was -.51 telling us about the development of British industries other than those producing for exports to Mexico. On the other hand, Mexican supplies of exports were not increasing very fast in spite of the product elasticity of exports being .33 because of the low rate of growth of real income of Mexico .01% per annum.

These supply elasticities not only provide an explanation for the favourable movement of the Mexican terms of trade but also explain the declining export surplus of Mexico at an annual rate of 6.2%.

Thus, the elasticities of international demand and supply provide a full explanation of the favourable movement of the Mexican terms of trade with Britain; and both Kindleberger's as well as Singer-Prebisch explanation fall to ground.
Mexican trade with U.K. approximates to case 2.3 described in Chapter 2, with favourable terms of trade but declining export surplus.

We must remember, however, that the Mexican trade with Britain is comparatively small part of her total foreign trade; and as such this improvement in her terms of trade cannot be taken as an indicator of the strengthening of Mexican economy.

British Investment in Mexico

The following table gives British investments, total and in different fields, in Mexico and the rate of interest of realized thereon.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Investments</th>
<th>Govt. Bonds</th>
<th>Railways</th>
<th>Miscellaneous</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount</td>
<td>% rate</td>
<td>Amount</td>
<td>% rate</td>
</tr>
<tr>
<td>1910</td>
<td>144.3</td>
<td>4.1</td>
<td>30.3</td>
<td>4.8</td>
</tr>
<tr>
<td>1913</td>
<td>159.0</td>
<td>3.7</td>
<td>28.5</td>
<td>4.7</td>
</tr>
<tr>
<td>1924</td>
<td>216.4</td>
<td>0.7</td>
<td>43.2</td>
<td>-</td>
</tr>
<tr>
<td>1925</td>
<td>197.0</td>
<td>0.7</td>
<td>32.5</td>
<td>-</td>
</tr>
<tr>
<td>1926</td>
<td>197.3</td>
<td>0.8</td>
<td>33.5</td>
<td>-</td>
</tr>
<tr>
<td>1927</td>
<td>199.9</td>
<td>0.8</td>
<td>38.7</td>
<td>-</td>
</tr>
<tr>
<td>1928</td>
<td>199.0</td>
<td>0.8</td>
<td>38.7</td>
<td>-</td>
</tr>
<tr>
<td>1929</td>
<td>200.7</td>
<td>0.9</td>
<td>38.7</td>
<td>-</td>
</tr>
<tr>
<td>1930</td>
<td>193.0</td>
<td>1.2</td>
<td>38.7</td>
<td>-</td>
</tr>
<tr>
<td>1931</td>
<td>195.0</td>
<td>1.1</td>
<td>38.59</td>
<td>-</td>
</tr>
<tr>
<td>1932</td>
<td>177.9</td>
<td>0.4</td>
<td>38.59</td>
<td>-</td>
</tr>
<tr>
<td>1933</td>
<td>179.3</td>
<td>0.6</td>
<td>38.59</td>
<td>-</td>
</tr>
<tr>
<td>1934</td>
<td>178.5</td>
<td>0.3</td>
<td>38.59</td>
<td>-</td>
</tr>
<tr>
<td>1935</td>
<td>185.5</td>
<td>0.3</td>
<td>38.59</td>
<td>-</td>
</tr>
<tr>
<td>1936</td>
<td>178.6</td>
<td>0.8</td>
<td>38.59</td>
<td>-</td>
</tr>
<tr>
<td>1937</td>
<td>178.3</td>
<td>0.7</td>
<td>38.59</td>
<td>-</td>
</tr>
<tr>
<td>1938</td>
<td>178.0</td>
<td>0.4</td>
<td>38.59</td>
<td>-</td>
</tr>
<tr>
<td>1939</td>
<td>172.5</td>
<td>0.2</td>
<td>38.59</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: The South American Journal & Brazil and River Plate Mail.
There is a controversy about the total amount of British nominal investment in Mexico. The South American Journals' figures are supposed to be exaggerated as they are on the basis of securities quoted on the London Stock Exchange which were not all held by Englishmen. Hence Rippy's figures can be taken as better approximations which have been computed after considerable investigation.

British Investment in Mexico £ million

<table>
<thead>
<tr>
<th>Year</th>
<th>South American Journal</th>
<th>Fred Rippy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1913</td>
<td>109.0</td>
<td>150.4</td>
</tr>
<tr>
<td>1924</td>
<td>216.4</td>
<td>156.4</td>
</tr>
<tr>
<td>1939</td>
<td>172.5</td>
<td>162.4</td>
</tr>
</tbody>
</table>

Accordingly, the estimates of rate of return on total British nominal capital given by the Journal are low because they included too much of the unremunerative capital not owned by British. The rate of return, according to the Journal for 1913 is 4.1% and thereafter it declined sharply so that the annual average after 1924 was as low as 1%. According to Rippy the rate of return was certainly higher for these years. He feels, "it is unlikely, however, that the normal annual average ever rose far above 5% during the years of Don Porfirio's dictatorship" or that the average nominal yield was much above 2% for any year following 1913."^{2}

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1. i.e. before 1910.
2. Fred Rippy, Mexico, A Story of Bonanza's and Heartbreaks, p. 93.
Even if one takes the higher rate of return given by Rippy, one notes that these have been the lowest, for comparable years, of all the returns yielded on British capital in any other Latin American country.

The amount invested in Mexican Government securities was not very large as compared to the total investment. This was the most unremunerative investment of all. In the course of a century and a quarter after the first English investment were made in them, these were in default for nearly half the time. These were two long periods 1867-1885 and 1914-1944 when Englishmen received no income from these Mexican bonds.

The figures in the Journal for British investment in Mexican railways are also reckoned to be rather exaggerated. As against the Journal's figures, Rippy gives his own as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Journal's Figures (£ mn.)</th>
<th>Rippy's Figures (£ mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900</td>
<td>-</td>
<td>£ 30.6</td>
</tr>
<tr>
<td>1910</td>
<td>£ 93.7</td>
<td>£ 42.5</td>
</tr>
<tr>
<td>1913</td>
<td>£ 103.7</td>
<td>£ 49.0</td>
</tr>
<tr>
<td>1924</td>
<td>£ 109.4</td>
<td>£ 51.1</td>
</tr>
<tr>
<td>1949</td>
<td>£ 73.1</td>
<td>£ 25.0</td>
</tr>
</tbody>
</table>

Accordingly the rate of return given by the Journal are underestimated figures. From Rippy's calculation one notes that income from investment in railways was 3.2% in 1910,
less than 3% in 1931, and less than 2% annually between 1914-1934 and nothing whatsoever from 1935 onwards. Even these higher rates, given by Rippy, do not compare favourably with returns on railway investment in any other Latin American Republic.

The most profitable railway investment was by Eloro Mining and Railway Co. Ltd. which paid approximately 8.5% average return between 1900-1940, and for the first two decades the return was 9.4 per cent.

As in most of the other Latin American republic, the average nominal return from English miscellaneous i.e. direct investment in Mexico was higher than on capital in government bonds or railways. The average nominal rate was 5.3% in 1910, and 4.9% in 1913. But after this, the revolutionary period in Mexico and the world economic depression that followed brought down the rate to a nominal average of less than 2%.

Majority of the economic enterprises proved to be unprofitable especially in all the real estate, public utility concerns and the manufacturing industry. Some of the mining enterprises also were equally unprofitable; for instance Manapil Copper Co. Ltd. which was yielding 15% before 1920, ceased to pay returns till 1943 when the yield was 2.5. Mexico Mines of Eloro which remitted 62% dividend
between 1908 and 1927 was dissolved in 1930 as the returns ceased after 1927; and similarly the Esperanza Ltd. was dissolved in 1930 because the returns had dropped from the high level of 106% in 1906 to 50% in 1914 and thereafter the enterprise could not recover.

Though the English petroleum investments were, on the whole, not very successful, "now and then, however, a few Englishmen were cheered by mining bonanzas, and Westman Dickinson and Pearson and his associates were immensely enriched by the exploitation of Mexico's petroleum."\(^1\)

Among the mining bonanzas one can describe the San Francisco Mines of Mexico Ltd. established in 1913 to work gold, silver lead, copper and zinc mines in Chihuahau. It started paying in 1923 an annual average of 25%, and after 1933 only 6.25% till 1943 when the average rose again to 27% for seven years.

Another most profitable investment was in an Engineering firm S. Pearson Ltd. which was headed by Westman D. Pearson (Lord Cowdray) who probably garnered larger profits than any other man\(^2\) during and since the Spanish conquest.

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2. With the possible exception of Edward L. Doheney of California gold mines.
The firm was earning 100% profits from its operations since 1889 and was primarily busy in draining the surrounding valley of Mexico City, building harbour at Vera Cruz reconstucting Tehotlanpec Railways, erecting warehouses, organising electricity enterprises etc. Most of the shares of the Company were owned by Pearson family itself.

"But the profits made by Cowdry and his associates and by English owners of securities in some lucky mining companies and a few banks failed to lift the average returns on the British investment in Mexico...to a level that can be described as exploitative. Most Englishman received no more than a meagre income from their Mexican investments and a good many suffered losses. A handful of speculators, bankers, mineowners engineers, oilmen and exporter were amply rewarded; but the U.K. as a whole could not have greatly benefitted. Heart breaking disappointment were far more numerous than bonanzas."\(^1\)

Thus taking the British investment as a whole one notes that these have been far less remunerative than even similar investments in Chile. The default of interest service on the Govt., and railway bonds conspicuously involved losses to a considerable extent. The default of service stands in full conformity with the fact that export surplus of Mexico was declining at an average rate

\(^1\) Fred Rippy, Ibid., pp. 103-104.
of -6.2% annually between 1925-1938. Whatever little surplus was exported from Mexico was probably used to transfer the earnings of direct investment, which were also not very profitable.

The unlucky British investors in Mexico cannot be blamed of exerting any undesirable influence on the Mexican terms of trade with Britain as these were improving at an average annual rate of 0.5%.