

AN ANALYSIS OF FACTORS UNDERLYING THE RECENT  
DECLINE OF AMERICAN AUTOMOBILE EXPORTS  
TO SELECTED LATIN AMERICAN MARKETS

Thesis for the Degree of Ph. D.  
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thesis entitled  
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## ABSTRACT

# AN ANALYSIS OF FACTORS UNDERLYING THE RECENT DECLINE OF AMERICAN AUTOMOBILE EXPORTS TO SELECTED LATIN AMERICAN MARKETS

by Naser Georges Bodiya

World markets for automobiles, in the last decade, have grown proportionately more than the United States domestic market. Despite this growth, our exports have declined both in share of the world automobile market and in absolute terms. In fact, the United States has shifted from the foremost exporter to a net importer in the past decade.

There are several complex forces responsible for the changes in the export pattern of the major automobile producing countries. Manufacturers themselves disagree about the reasons for the decline in United States car exports. This thesis attempts to identify and evaluate the reasons for the diminution, and to suggest corrective courses of action. Though the case is specific and localized, the implications are of importance for other durable and capital goods export industries. Moreover, this subject is of immediate import to Michigan, since automobile production is the central sector of its economy.

Since Latin America is the most important market for American car exports, the largest Latin American markets, Argentina, Brazil, and Venezuela, have been selected as a case study for detailed analysis. In the course of the analysis, the data relevant to the decline of American automobile exports are





examined and interrelationships are identified. Finally, inferences are drawn and underlying reasons for the decline are suggested.

Data were collected from both primary and secondary sources. The primary sources included published and non-published material from automobile manufacturers, trade associations, and specialized research entities such as the London Economist Intelligence Unit, Ward's and McGraw-Hill International, as well as published reports from various agencies of the United States and the foreign governments concerned. In many instances oral interviews were the only means of penetrating the security barriers of the automobile industry.

The research and analysis led to three conclusions. First, the decline in the overseas markets for American automobiles has been primarily the result of foreign import restrictions, enhanced competition of foreign car producers, and the failure of the American automobile industry to adjust design and models to foreign market requirements. Second, certain secondary factors, mostly deficiencies in particularization of marketing policies and practices of American automobile manufacturers, also contributed to the decline. Third, to persist in foreign markets, the American automotive industry must in the future pursue some or all of the following alternatives:

- strengthen pressure for reciprocal treatment of automotive exports and removal of unwarranted specific barriers;

- expand overseas subsidiaries and branches, both marketing and manufacturing and in combination with foreign automotive manufacturers where specific criteria are met.



Naser Georges Bodiya

consider a shift in design and reduction in size, power and price, and further **particularization of marketing** and distribution policies in terms of the **specific** circumstances of each foreign market.





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OF AMERICAN AUTOMOBILE EXPORTS TO  
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By

Naser Georges Bodiya

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# ANALYSIS OF FACTORS INFLUENCING THE RECENT ABILITY

OF THE WORKING CLASS IN THE UNITED STATES

BY J. H. HARRIS, JR.

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sacrifices in order that this study might be completed.

This dissertation was presented to the committee on September 11,  
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Naser G. Bodiya

East Lansing, Michigan  
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Chairman

Mr. J. H. Smith

1911

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## 2.1. Venezuela: National Institute for the Capital in 1974

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## INTRODUCTION

The world market for automobiles has been undergoing significant changes affecting the major automobile producing countries. There are several complex forces responsible for these changes: foreign exchange difficulties, national objectives for economic development and the desire for industrialization, tariffs and other trade barriers, and the marked contrast between the popular automobile in the United States and that in other parts of the world. There are, in addition, secondary forces such as changed methods of marketing, and the response to consumer buying habits and motives.

These and other variables have been put forward by manufacturers as reasons for the big setback in United States automobile exports. In all of these factors there is undoubtedly an element of truth, but the enigma of disagreement over the decline of United States automobile exports still remains and warrants a serious examination. In addition, the subject is of state-wide, as well as industry-wide importance, due to the peculiar nature of Michigan's economic structure. Furthermore, this sensitive industry has implications for other durable and capital goods industries.

During the past decade overseas markets for automobiles have grown proportionately more than American domestic markets. Despite this growth, American automobile exports have been dwindling both in share of the world automobile market and in absolute terms. At the same time, United States





merchandise exports have shown a continuous rise in recent years (except in 1958), while the automobile share of export values has been falling, as is clearly indicated in **Table 1**.

**TABLE 1**  
**UNITED STATES MERCHANDISE AND AUTOMOBILE EXPORTS**

	Millions of dollars		Automobiles as a percent of merchandise
	Merchandise	Automobiles	
1955	14,280	380	2.66
1956	17,321	331	1.91
1957	19,390	299	1.55
1958	16,263	258	1.59
1959	16,225	220	1.36

Calculated from: U.S. Department of Commerce, Survey of Current Business (June and September, 1959); and Balance of Payments Statistical Supplement (1958), pp. 12, 13; U.S., Bureau of the Census, United States Exports of Domestic and Foreign Merchandise, Schedule B, Report No. FT 410, Part 11 (1952-1959).

One of the biggest questions in United States automobile exports is what factors underlie the recent decline. This thesis attempts to identify the primary reasons for the decline, to assess the degree of its seriousness, and to suggest possible courses of action to correct it. Finally, the study ventures on some speculation about the outlook of these markets.

The method of analysis which will be followed in arriving at the above objective will center around the following procedure: examining data relevant to the decline of American automobile export; identifying the interrelationships; drawing inferences; and suggesting underlying reasons for the decline. The

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subject matter of this thesis will be general in character; it is based on a systematic study of available printed information, the cooperation of American automobile manufacturers, the United States Bureau of Foreign Commerce, Foreign Service Dispatches, and the Office of Economic Counselors for selected Latin American countries.

Of the selected Latin American markets, only Argentina, Brazil, and Venezuela will be analyzed in detail. In order to recognize the context of the American automobile manufacturers' position in the world market, it is worthwhile to examine the overall growth in world trade, the competitive strength of the major automobile producing countries, and their relative trading position in the various sectors of the world. Special emphasis, however, will be given to the United States position in this changing pattern of automobile trade.

With this purpose in view, Chapter I will be devoted to the profile of world market in 1938 and the postwar years up to and including 1958. Chapter II will deal with the shift in the pattern of automobile trade from American exportation to local manufacture abroad. The framework of market structure in the selected Latin American countries will be discussed in Chapter III, together with the problems that the United States has been encountering in automobile export. Chapter IV will deal with the secondary factors pertaining to the decline of United States automobile exports. By identifying the interrelationships in a few Latin American markets, inferences can be drawn on which variables should be evaluated critically; hence Chapter V will be concerned with evaluation of critical variables.



## CHAPTER I

### PROFILE OF THE WORLD MARKET IN 1938 AND THE POSTWAR YEARS

#### Automobiles in Use

The number of automobiles in use throughout the world has increased from 43 million in 1948 to 86 million in 1958, thus doubling in an eleven-year period. This rate of increase was five times as great as the increase in world population, resulting in one car to every thirty persons in 1958 as compared to one car for every fifty persons in 1948. Tables 2 and 3 show the world automobile registrations and also the varying density of car population in different areas. The variation in the rate of increase is brought about, among other factors, by the changes in the purchasing power, the area's external trading position, density of car population, desire for mobility, and living conditions. (The terms automobile and car will be used interchangeably.)

#### Western Hemisphere

During the period 1948-58, almost 27 million more automobiles were registered in the Western Hemisphere. Approximately 80 percent of this increase has occurred in the United States. With a total of 57 million automobiles in use, the United States has one automobile to every 3 persons, the highest ratio in the world. The rate of increase of American automobiles,



TABLE 2

WORLD AUTOMOBILE REGISTRATIONS, BY AREAS  
(Thousands of units)

	World total <sup>a</sup>	Africa	Asia	Europe	Oceania <sup>b</sup>	Western Hemisphere <sup>c</sup>	United States
1938	34,956	512	408	6,414	814	26,803	25,151
1948	42,843	560	305	5,270	984	35,723	33,398
1949	47,582	738	377	6,404	1,063	39,000	36,434
1950	53,027	847	480	7,130	1,247	43,322	40,315
1951	56,001	848	602	7,165	1,399	45,987	42,683
1952	58,347	933	674	7,783	1,522	47,436	43,811
1953	62,501	983	718	8,722	1,618	50,461	46,460
1954	66,643	1,075	794	10,275	1,689	52,811	48,499
1955	73,065	1,275	866	12,203	1,965	56,755	52,173
1956	78,433	1,343	1,015	14,416	2,185	59,475	54,332
1957	82,664	1,436	1,114	16,564	2,237	61,314	55,906
1958	86,140	1,580	1,302	18,189	2,419	62,649	56,870

<sup>a</sup>Details may not add exactly to total because of rounding.

<sup>b</sup>Until 1958, Oceania included Australia, New Zealand, Hawaii, Guam, New Caledonia, New Guinea--Papua, Fiji Islands, Cook Islands, Samoa, and Trust Territories.

<sup>c</sup>The Western Hemisphere includes, North, Central, and South America.

Compiled from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1939, 1949-1960).

about 5 percent a year on the average, can be explained by certain factors: the industrial boom, the high per capita income; the wide acceptance of installment credit in automobile buying; the suburban development; and the high purchasing power of the United States domestic market. Since the United States had a high car ownership ratio prior to the Second World War and even in the immediate





TABLE 3

## NUMBER OF PERSONS PER AUTOMOBILE

	World total	Africa	Asia	Europe	Oceania	United Hemisphere	United States
1938	59.8						5.2
1948	52.9	314.1	3,858.6	112.4	14.0	8.2	4.4
1949	48.7	242.4	3,282.2	89.6	12.0	8.1	4.1
1950	43.9	211.4	2,601.6	78.4	9.9	7.4	3.7
1951	42.2	211.4	2,110.2	78.8	8.9	7.3	3.6
1952	40.7	202.8	1,887.7	72.6	8.8	7.1	3.6
1953	38.5	211.2	1,747.9	67.5	8.6	6.8	3.4
1954	38.5	191.7	1,742.4	59.5	8.0	6.6	3.3
1955	36.0	163.4	1,645.8	51.0	7.1	6.3	3.2
1956	33.9	159.6	1,433.9	42.0	6.8	6.1	3.1
1957	32.3	152.0	1,305.3	37.0	6.2	6.1	3.1
1958	31.3	122.6	1,148.1	35.2	6.2	6.1	3.1

Calculated from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1939, 1949-1960).

postwar period, the percentage increase appears to be relatively low. In actual numbers, however, the magnitude of growth accounts for more than half of the world's automobile population between 1948 and 1958. Nonetheless the rate of increase has subsided in the most recent years under study. It is not unnatural to expect this levelling of growth, since over 70 percent of American families own automobiles and about 13.5 percent of all American families own more than one automobile.<sup>1</sup> If anything, the increase such as it has been, can

<sup>1</sup>Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1959-60), 33, 35, quoting Survey of Consumer Finances, Federal Reserve Board, and "National Automobile and Tire Survey, 1959," conducted by Alfred Politz Research, Inc. for Look magazine during April and May, 1959.



be attributed to the increasing percentage of families owning more than one car.

World automobiles in use doubled between 1948 and 1958. Some areas exceeded the world norm while others fell short. Those which had low automotive density to begin with generally experienced a higher rate of increase than the advanced industrial economies, but there were significant departures. Asia, for instance, which had the lowest auto-population ratio to begin with (1 car to 3,859 population) increased the most rapidly, quadrupling during 1948-58. Yet Africa, which started with only one automobile for every 314 persons (the second low) did not increase as rapidly as Europe. Oceania and the Western Hemisphere, which had a high density of car population in 1948 experienced a lower rate of increase.

#### Trends in World Production

World automobile production almost doubled between 1948 and 1958, increasing from 4.6 million to 8.7 million units. Between 1955 and 1958 there was a decline of 21 percent. The decline during this period resulted primarily from the sharp drop (over 46 percent in automobile production in the United States) which could be explained by an "over-sold"<sup>2</sup> market, and the buoyant general economic conditions of 1955. Table 4 demonstrates this situation. Outside of the United States, automobile production in 1958 was the highest ever recorded in a single year, with a volume of output exceeding 1955 by 43

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<sup>2</sup>Despite the fact that the years subsequent to 1955 experienced higher level of national income, this year remains the all-time record in automobile sales.



TABLE 4

WORLD AUTOMOBILE PRODUCTION,<sup>a</sup> BY COUNTRY OF ORIGIN  
(Thousands of units)

	United States	Canada	France	Italy	Sweden	United Kingdom	West Germany	Others	Total	U. S. as percent of total
1938	2,020	124	190	59	2	341	277	49	3,062	65.9
1948	3,909	167	100	44	3	335	30	21	4,609	84.9
1949	5,119	194	188	79	5	412	104	35	6,136	83.4
1950	6,666	285	257	101	10	523	214	118	8,174	81.6
1951	5,337	281	314	119	11	476	267	53	6,858	77.8
1952	4,321	284	370	114	11	448	301	76	5,925	72.9
1953	6,117	365	371	143	19	595	388	71	8,069	75.8
1954	5,559	287	437	181	29	769	561	141	7,964	69.8
1955	7,920	375	553	243	33	898	762	230	11,014	71.9
1956	5,816	374	649	289	38	708	911	175	9,060	64.2
1957	6,120	340	725	326	52	861	1,040	488	9,952	61.5
1958	4,247	298	924	369	69	1,052	1,181	546	8,686	48.9

<sup>a</sup> For some countries production data represent assembly which were partly or wholly produced in another country, thus the world total will include some duplication.

Calculated from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1939, 1949-1960).



percent. The increase was achieved mainly by France, West Germany and Italy. Between 1948 and 1958 the American share of world production declined from 85 percent to a low of 49 percent, with wide fluctuations during the period. In 1958, for the first time since the end of World War II, the total automobile output outside the United States surpassed American automobile production.

In order to understand the changes in the level of automobile output, the pattern of production of each of the major automobile producing countries will be discussed separately.

United States and Canada's  
automobile manufacturing

While in 1950 the United States produced over four-fifths of the world's automobiles and over two-thirds during the past decade, its share has been declining persistently, particularly after 1955. Nonetheless the United States has still by far the largest automobile industry in the world. In fact it has the largest and most important durable goods industry. The "Big Three," General Motors, Ford, and Chrysler, dominate the automobile output; together they account for some 95 percent of the total automobile production; however, American Motors has recently been making inroads into the total automobile output in the United States.

Unlike the United States, Canada's share of world automobile output has been maintained somewhat the same throughout the period under study. The Big Three have of course their manufacturing facilities in Canada, selling not only to the Canadians but also outside the Northern Hemisphere, particularly to areas in which Canada enjoys the preferential tariffs.



from 15 pounds to a few of the best of the season.

Since American and Canadian automobile production serve primarily their home markets, the level of output is subject to conditions of their domestic economic activities than to the state of their foreign markets.

West Germany's automobile manufacturing

In 1938, Germany had an output of over 1/4 million automobiles, of which one-fourth were exported. During World War II a great bulk of the industry's plant and equipment was destroyed or seriously damaged. Recovery was slow; and West Germany's automobile output in 1948 barely reached 30 thousand units. In the succeeding years automobile output rose substantially. The prewar level was not reached, however, until 1951; by 1956 West Germany replaced Britain as the second largest auto producer in the world, and has retained its position ever since.

In 1958, West Germany produced 1.2 million units, more than five times its 1950 output. The great expansion in activity in the automobile industry has of course been a part of the industrial boom in West Germany. While income has risen rapidly, prices in general have risen only moderately and, consequently, the real purchasing power of the population has been rising year after year.<sup>3</sup> This fact, together with the somewhat stable prices of automobiles and comparatively low car ownership, influenced the rapid growth of automobile production in Germany.

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<sup>3</sup>"The German Motor Industry," Motor Business (London), No. 15, September, 1957, pp. 11-12.



British automobile manufacturing

Like the United States, the United Kingdom was able to resume its automobile production immediately after the war, and by 1948 it almost matched its prewar production level. Thereafter there has been a continuous increase, except for 1950-51 and 1956-57. In the immediate postwar period the United Kingdom and the United States were virtually the only countries with the ability to produce automobiles in large volume, and to cope with demand.

Traditionally, British automobile output is divided equally between domestic and export markets. However, as the other European manufacturers reemerged around 1951, the English share of total automobile production fell steadily. Nevertheless, the United Kingdom's output by 1958 was three times its prewar level.

French automobile manufacturing

France has expanded its car manufacturing considerably since the war. In 1958 its automobile output passed 900 thousand units, about four times the 1950 output. The growth of the industry has been largely reflected by the substantial success of the small automobile, both in the domestic as well as in the foreign markets, particularly since 1955.

It is clear from the accompanying Table 5 that the proportion of small automobile production under 6 horsepower, French rating, has increased from 43 percent in 1955 to 56 percent in 1958, and perhaps increased even more in later years. There have been several factors, influencing the concentration upon small automobile production:

biochem. J. 1981, 194, 101-105.

TABLE 5

AUTOMOBILE PRODUCTION IN FRANCE  
(Percentage distribution by horsepower group)

Horsepower	1955	1956	1957	1958
Under 6	42.8	47.8	55.0	56.1
6 - 8	35.7	35.9	36.7	33.7
9 - 12	13.7	9.5	5.8	7.0
Over 12	7.8	6.8	2.5	3.2
	100.0	100.0	100.0	100.0

Compiled from: "The French Motor Industry, " Motor Business, No. 22, April, 1960, p. 17.

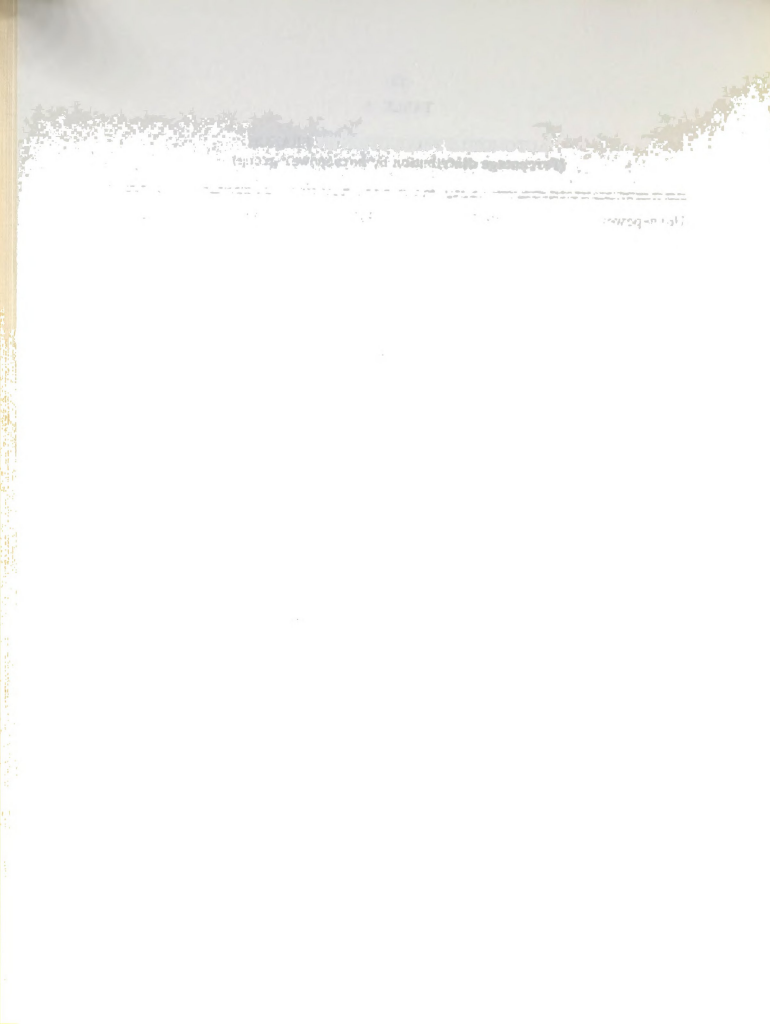
1. The extension of automobile ownership to the lower income groups throughout the world market,
2. The high cost of gasoline,
3. The introduction of progressive tax based on horsepower rating,
4. Shortage of parking space and road congestion.

All these have encouraged the use of smaller, economical cars. In fact the demand for small automobiles, especially in the most recent years under study, has been expanding rapidly not only in Western Europe, but also in other markets.

Italian automobile manufacturing

The Italian automobile industry varies from its European counter-

<sup>4</sup>"The French Motor Industry, " Motor Business, No. 22, April, 1960, p. 17.



parts. The domestic market is fairly small, and exports relatively a small proportion of output. In 1938, Italy produced some 60 thousand automobiles, a figure which was surpassed by 1949. In the subsequent years it continued to increase its output, except when it experienced a slight decline in 1952 and recovered thereafter. By 1958, Italy's automobile output reached about 370 thousand units which was more than six times its 1938 level.

Rapid increases in output came between 1953 and 1958. The pattern of growth did not vary from that of the other European producers except that the growth was steadier in Italy than elsewhere.

#### Swedish automobile manufacturing

Prior to the Second World War, Swedish automobiles were hardly known to any country other than the Scandinavian region. The relatively small size of its domestic market has made it necessary for Swedish manufacturers to seek foreign markets for their automobiles. The development of automobile exports was of great interest to the Swedish economy, since with market diversification they expected to offset the seasonal fluctuations in the sale of their automobiles to their home market. The increase in automobile output has been substantial since 1953; by 1958 the Swedish automobile output was 7 times the level of 1950.

#### World Trade in Automobiles

World trade in automobiles in the postwar period has risen rapidly. Table 6 shows that between 1938 and 1948 the volume of automobile exports rose from 375 thousand to 543 thousand, an increase of 45 percent; by 1958,





TABLE 6

AUTOMOBILE IMPORTS BY AREAS  
(Thousands of units)

	World Total	Africa	Asia	Europe	Oceania	Western Hemisphere	World total excl. U. S. imports
1938	375	53	30	135	86	65	n. a.
1948	543	117	58	126	83	153	515
1949	521	86	46	155	111	122	513
1950	720	82	42	234	164	197	699
1951	837	114	77	249	170	227	813
1952	703	101	60	252	104	186	670
1953	746	104	56	309	92	184	717
1954	943	112	59	441	149	180	909
1955	1,162	163	85	516	166	229	1,105
1956	1,175	155	83	525	111	297	1,068
1957	1,433	204	72	571	109	471	1,174
1958	1,763	231	74	649	116	685	1,296
Market Shares							
1938	100	14.4	8.1	36.6	23.3	17.6	n. a.
1948	100	21.8	10.8	23.5	15.5	28.5	95.9
1949	100	16.5	8.8	29.8	21.3	23.5	98.7
1950	100	11.4	5.8	32.5	22.8	27.4	97.2
1951	100	13.6	9.2	29.7	20.3	27.1	97.1
1952	100	14.4	8.5	35.8	14.8	26.5	95.3
1953	100	14.0	7.5	41.5	12.3	24.7	96.2
1954	100	11.9	6.3	46.9	15.8	19.1	96.6
1955	100	14.1	7.3	44.5	14.3	19.8	95.3
1956	100	13.2	7.1	44.8	9.5	25.4	91.2
1957	100	14.3	5.0	40.0	7.6	33.0	82.3
1958	100	13.2	4.2	37.0	6.6	39.0	73.8

<sup>a</sup>Details may not add exactly to total because of rounding.

Calculated from: The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, 1956-1959).



automobile exports rose to 1,755 thousand units, more than three times the 1948 figure. This is a remarkably high and sustained rate of increase. However, there have been some fluctuations in the rate of export growth in each area.

Destination for exports have shifted appreciably in the postwar period. Traditionally Europe has been the largest export market. As Table 6 shows, this sector maintained that position until 1958 when it was exceeded by the Western Hemisphere. After the Western Hemisphere and Europe, which account for more than 3/4 of world automobile imports come Africa and Oceania with 13 percent and 7 percent respectively, and finally Asia with 4 percent.

Africa and Europe have been able to maintain prewar positions in their share of automobiles imported from various sources of supply. However Asia's share dropped by one-half between 1938 and 1958; Oceania had one-third of its 1938 share, while during the same period the Western Hemisphere increased its share from 18 percent to about 40 percent, primarily attributable to the substantial imports of automobiles into the United States.

#### Shares of the major producing countries

Within the overall growth of exports, there have been significant changes in the shares of the major producing countries. Three phases in the struggle for world automobile markets since the war have to be distinguished. The changes in the first phase are not of a fundamental or significant nature since in the immediate postwar period only the American and English manu-



facturers were able to expand productive capacity rapidly and to sell virtually unopposed in a car hungry world market. In the second phase, which started after 1951, France, Italy, West Germany, and Sweden entered the scene; and as their productive capacity increased the shares held by the United States and the United Kingdom declined. This may have been inevitable, for the large American and British shares were not the result of a free expression of consumer choice. In 1956 the market entered a third phase of more intense competition, as indicated by more serious downward trend in American and Canadian shares.

Since 1938, however, there has been a fundamental change in the relative shares of the main producing countries. Table 7 clearly shows the

TABLE 7  
PERCENTAGE SHARES OF WORLD EXPORTS  
BY AUTOMOBILE MANUFACTURERS

	Shares distribution			Ratio 1958/1938
	1938	1948	1958	
United States	43	40	7	0.2
Canada	11	5	1	0.1
France	5	10	18	3.6
Italy	5	2	9	1.8
Sweden	1	--	2	2.0
United Kingdom	18	41	27	1.5
West Germany	17	1	36	2.1
Total <sup>a</sup>	100	100	100	

<sup>a</sup> Totals may not add to 100 percent due to rounding.

Calculated from: The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, 1956-1959).



expanding shares of some major producing countries and the reduced shares of the United States and Canada. It is interesting to note that France has gained most throughout the period, relatively speaking, having 3.6 times her 1938 share, followed by West Germany and Sweden, which have doubled their shares.

#### United States exports to world market

Before World War II, the United States was easily the largest exporter of automobiles, accounting for over 40 percent of the automobiles entering international trade (see Table 8). As a proportion of total American automobile production, however, exports have accounted for only 8 percent.

Immediately after the war, the United States automobile industry quickly converted to civilian production; by 1948, the United States automobile exports surpassed its prewar level. In subsequent years, however, the United States automobile exports have declined both in volume and as a share of total world exports. In fact the 1948 volume of automobile exports was a record, almost equalled in 1951 and 1955, yet its share of total world exports declined continuously after 1954. The American share of world automobile exports has dropped from 43 percent in 1938 to approximately 7 percent in 1958. During the same period United States automobile exports as a percent of its production fell from 8 percent to 3 percent and to 2 percent in 1959. American car exports in 1958 dropped to a postwar low of 122 thousand from 212 thousand as recently as in 1955, with fewer than 100 thousand for 1959.

Table 8 also reveals the dramatic decline of the United States share in the world automobile exports, which has been the most striking feature in the





TABLE 8

## UNITED STATES AND WORLD AUTOMOBILE EXPORTS

	Total world exports <sup>a</sup>	United States exports		
	Thousands of units	Thousands of units	Percent of total world exports	Percent of total U. S. production
1938	375	162	43	8.0
1948	543	218	40	5.6
1949	521	140	27	2.7
1950	720	120	17	1.8
1951	837	217	26	4.1
1952	703	141	20	3.3
1953	746	154	21	2.5
1954	943	173	18	3.1
1955	1,162	212	18	2.7
1956	1,175	175	15	3.0
1957	1,433	142	10	2.3
1958	1,763	122	7	2.9
1959	2,247	104	5	1.9

<sup>a</sup> Total world exports include major producing countries (United States, Canada, France, Italy, Sweden, United Kingdom and West Germany).

Calculated from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1939, 1949-1961); and The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, 1956-1959).

history of market shares in automobile exports. This was accompanied by the emergence of mass-produced European automobiles.

The rapid expansion in production of European automobile manufacturers in 1950-51 was stimulated by the rising export sales. In 1950 automobile manufacturers of Europe supplied approximately 80 percent of the 720 thousand automobiles exported by the major producing countries. In 1958 they



raised their export shares to over 90 percent of a much larger (1 3/4 million) automobile market. Table 9 portrays the shrinking shares of the United States and Britain in a world market they once controlled.

West Germany's exports  
to the world market

We have noticed earlier that West Germany has experienced a rapid growth in its automobile production. However, exports rose even faster. West Germany has, as can be seen from Table 9, steadily increased its share of automobile exports. This rapid and pronounced increase has been almost entirely at the expense of the United States and Canada and to some degree Britain. It was only by 1950, when West Germany's automobile exports resumed its prewar level, that the picture really began to change. During that year it had only a 10 percent share of total world exports; by 1956 West Germany had replaced the United Kingdom as the largest automobile exporter in the world.

West Germany's penetration of the market has been worldwide. In 1958 Europe received approximately 50 percent of West Germany's automobile exports. This is a market where trade and income have been rapidly and steadily rising, and where trade has been liberalized to a great extent. Europe, of course, has been West Germany's traditional market for automobiles since before the war. In 1938, over one-third of Europe's automobile imports were from West Germany, the proportion of which was not reached until 1953, though the prewar volume was easily surpassed by 1950 (see Table 10). In the following year, both West Germany and Britain had



TABLE 9

AUTOMOBILE EXPORTS TO THE WORLD, BY MAJOR PRODUCING COUNTRIES  
AND THEIR MARKET SHARES  
(Thousands of units)

	United States	Canada	France	Italy	Sweden	United Kingdom	West Germany	Total <sup>a</sup>
1938	162	40	19	18	2	68	65	374
1948	218	27	55	12	1	224	6	543
1949	140	17	76	15	--	257	14	519
1950	120	24	89	20	1	398	69	721
1951	217	37	93	29	2	368	91	837
1952	141	42	83	25	1	309	103	704
1953	154	28	81	30	1	307	143	744
1954	173	7	101	41	2	372	247	943
1955	212	12	133	69	3	389	344	1,162
1956	175	14	151	78	8	335	413	1,174
1957	142	16	319	111	19	424	502	1,433
1958	122	13	320	161	32	484	631	1,763
Market Shares								
1938	43.1	10.8	5.2	4.9	0.5	18.2	17.4	100.0
1948	40.1	5.0	10.1	2.1	0.1	41.3	1.1	100.0
1949	26.9	3.4	14.7	2.9	0.1	49.4	2.7	100.0
1950	16.7	3.3	12.3	2.7	0.1	55.2	9.6	100.0
1951	25.9	4.4	11.1	3.5	0.2	44.0	10.9	100.0
1952	20.1	5.9	11.8	3.6	0.2	43.9	14.6	100.0
1953	20.7	3.8	10.9	4.0	0.2	41.2	19.2	100.0
1954	18.4	0.8	10.7	4.3	0.3	39.4	26.1	100.0
1955	18.2	1.0	11.4	6.0	0.3	33.4	29.6	100.0
1956	14.9	1.2	12.9	6.7	0.7	28.5	35.2	100.0
1957	9.9	1.1	15.3	7.7	1.3	29.6	35.0	100.0
1958	6.9	0.8	18.2	9.1	1.8	27.5	35.8	100.0

<sup>a</sup>Details may not add to totals due to rounding.

Society Calculated from: The Motor Industry of Great Britain (London: The  
of Motor Manufacturers and Traders, Limited, 1956-1959).



TABLE 10

AUTOMOBILE EXPORTS TO EUROPE, BY MAJOR PRODUCING COUNTRIES  
AND THEIR MARKET SHARES  
(Thousands of units)

	United States	Canada	France	Italy	Sweden	United Kingdom	West Germany	Total <sup>a</sup>
1938	46	1	9	12	-	15	50	135
1948	43	-	26	7	-	49	--	126
1949	37	1	42	10	-	51	14	155
1950	33	1	46	14	-	79	61	234
1951	45	4	39	18	1	71	71	249
1952	27	6	37	20	1	78	82	252
1953	32	8	40	24	1	89	115	309
1954	46	1	49	30	2	122	191	441
1955	52	-	69	50	3	104	237	516
1956	34	1	79	58	4	92	257	525
1957	23	1	95	78	7	100	268	571
1958	18	1	105	104	10	90	321	649

Market Shares

1938	34.5	1.1	7.0	8.9	---	11.3	37.0	100.0
1948	34.3	0.3	20.3	5.7	0.4	39.1	----	100.0
1949	24.0	0.8	27.0	6.2	0.1	32.9	8.9	100.0
1950	14.0	0.3	19.8	5.9	0.2	33.7	26.1	100.0
1951	18.2	1.6	15.9	7.3	0.3	28.4	28.4	100.0
1952	10.9	2.4	14.8	8.0	0.4	31.1	32.4	100.0
1953	10.4	2.7	12.9	7.8	0.4	28.7	37.2	100.0
1954	10.5	0.1	11.0	6.8	0.5	27.8	43.3	100.0
1955	10.2	0.1	13.3	9.7	0.5	20.2	46.0	100.0
1956	6.5	0.2	15.1	11.1	0.7	17.5	49.0	100.0
1957	4.1	0.2	16.6	13.6	1.2	17.5	46.9	100.0
1958	2.7	0.1	16.2	16.0	1.6	13.8	49.4	100.0

<sup>a</sup>Details may not add to totals due to rounding.

Calculated from: The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, 1956-1959).



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equal shares of the car exports to Europe, with 28 percent each. Since then West Germany continued increasing its share, and in 1958 supplied half of the European market, selling over 300 thousand automobiles, or more than six fold the prewar figure. Though the United States and the United Kingdom controlled three-fourths of the European imports after the war, they held only 17 percent in 1958, with the more dramatic loss to the United States.

The rapid expansion of German automobile exports, however, has not been confined to its traditional European market. Exports of German automobiles to the other areas have also increased substantially, though the share is not dominant. Although it remains true that Germany and other major producers sell their cars in different markets, there has been a significant switch in the world market share.

A comparison between West Germany's manufacturers and others selling in different markets may be revealing. Germany has been concentrating her sales effort in Europe, particularly in Belgium, Luxembourg, the Netherlands, Sweden, and Switzerland, and by the mid-50's in the United States, where all the major automobile manufacturers have been doing well. By contrast, Britain's most important markets have been in the Commonwealth. Incidentally, these are the preferential markets in which British shares have fallen sharply in recent years--from a high of 91 percent in 1953 to a low of 70 percent in 1958. The United States has been concentrating on the Western Hemisphere supplying over half of the area's automobile imports in the postwar period compared to 80 percent in the prewar period (see Table 11). Although this high proportion has not been maintained since the war, we

European market, which over the years has been

the power of the

TABLE 11

AUTOMOBILE EXPORTS TO THE WESTERN HEMISPHERE BY  
MAJOR PRODUCING COUNTRIES AND THEIR MARKET SHARES  
(Thousands of units)

	United States	Canada	France	Italy	Sweden	United Kingdom	West Germany	Total <sup>a</sup>	Total, excl. U. S. imports
1938	54	2	1	1	-	2	6	65	---
1948	89	1	9	1	-	54	-	153	125
1949	60	1	5	1	-	54	-	122	115
1950	67	1	8	1	-	117	3	197	176
1951	130	6	9	1	1	70	9	227	203
1952	88	11	5	1	-	72	8	186	153
1953	93	6	4	1	-	68	13	184	154
1954	93	-	5	3	-	55	25	181	146
1955	108	1	8	4	-	50	58	229	172
1956	100	2	15	5	4	75	96	297	189
1957	85	3	54	19	12	144	154	470	211
1958	78	2	122	40	20	221	201	685	254

Market Shares

1938	83.2	2.3	1.4	1.1	---	3.0	9.0	100.0	
1948	58.2	0.4	5.8	0.4	0.1	35.2	---	100.0	71.2
1949	49.3	0.7	4.4	0.9	0.1	44.5	---	100.0	52.5
1950	34.0	0.5	4.1	0.5	0.1	59.4	1.4	100.0	38.1
1951	57.4	2.7	4.0	0.7	0.3	31.0	3.9	100.0	64.1
1952	47.4	6.0	2.6	0.4	0.1	38.9	4.5	100.0	57.8
1953	50.3	3.4	2.0	0.5	---	36.8	6.9	100.0	59.9
1954	51.4	0.1	2.5	1.5	---	30.6	13.9	100.0	63.6
1955	47.3	0.3	3.6	1.7	---	21.7	25.3	100.0	63.0
1956	33.8	0.8	5.0	1.7	1.2	25.1	32.3	100.0	53.0
1957	18.1	0.6	11.6	4.0	2.5	30.5	32.7	100.0	40.2
1958	11.3	0.3	17.9	5.9	3.0	32.3	29.4	100.0	30.6

<sup>a</sup>Details may not add to totals due to rounding.

Calculated from: The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, 1956-1959).



can see from the table that the United States has been holding a strong position in this sector anyway. However the table further reveals the serious decline, from 47 percent in 1955 to 11 percent in 1958, which has been captured largely by West Germany and Britain and, to some extent, by France and Italy. This dramatic decline is magnified by the substantial increase in the imports of foreign cars into the United States. By eliminating the United States from total exports to the American continent, the United States share would have fallen only to 31 percent in 1958, instead of to 11 percent. At any rate, comparing 1948 and 1958, the United States penetration in the area has been halved, although it is still considered its best market.

The choice of markets by the United States and Britain has perhaps, to some degree, been caused by the greater ease of exporting to countries where there are strong trade relations or tariff advantages. The latter is true of the United Kingdom's preferential tariffs. Unfortunately these territories have been precisely the markets where demand for automobiles has been growing the least rapidly. Virtually all countries within these territories generate their income principally from agricultural and mining industries, which exchange their products for manufactured goods, so vulnerable to sharp economic fluctuations. Furthermore some of the Commonwealth countries (Australia and India) and some Latin American countries have already begun to manufacture cars themselves. Finally Britain's, and to some extent the United States', leading markets either already have a relatively higher car population or are markets with a poor per capita income where it will be many years before motorization can take place on any important scale.



France and Italy's world exports

France and Italy seriously entered the scene of automobile exports much later than other major manufacturers, although they began producing immediately after the war. The export market has, in the past, been of relatively less importance to the French and Italian industries than to their counterparts (particularly the European ones); a relatively large and protected domestic market, and a high level of production costs, have to some extent militated against French and Italian exports.

In the early postwar period, the French automobile industry depended on the rapid growth of its starved domestic markets for cars. The first serious attempt to develop overseas markets came in 1956 when the Suez crisis halted the rapid growth in the domestic market. Alarmed by this incident, there was a growing realization among French manufacturers that too much reliance on the domestic market would make them vulnerable if a sudden downturn in local demand occurred. As a result, the automobile manufacturers concentrated on developing the export markets. The success is to be measured by the increase of automobile exports to the extent that they more than doubled between 1956 and 1958, raising their share of world automobile exports from about 13 percent in 1956 to slightly more than 18 percent in 1958 (see Table 9). This development is of considerable importance to the world automobile market even though the increase has been a moderate one compared with that exhibited by West Germany. It is important because it has come about at a time when competition in overseas markets was increasing and when the pressure of demand on the French domestic market was still above normal.





An interesting feature of the French auto industry is not that its share has risen, for this share is relatively small compared to those of its major competitors (United Kingdom, United States and West Germany), but that its share has remained roughly at the same level for such a long period, as is exhibited in Table 9. Although it is not easy to find the explanation for this steady share of the market, a number of reasons could be set forth. One might assume that the French zone,<sup>5</sup> to which France exports her automobiles, has been the backbone of its export market. However, exports to this zone increased moderately from 41 thousand units in 1956 to only 69 thousand units in 1958, and the proportion of total automobile exports to this area declined from about 27 percent to approximately 22 percent during the same period.<sup>6</sup> This steady growth is all the more significant when one considers that the expansion has taken place in exports to countries outside the French zone.

The most important market for French automobiles in the postwar period as a whole has been Africa and Europe. The size of the African share is due to dominance in the market especially in the case of Algeria and Morocco which are among the first five important markets. France's share in Africa has increased from 14 percent in the prewar and immediate postwar period to approximately one-third of the total African imports. In Europe,

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<sup>5</sup>"The French Motor Industry," Motor Business, No. 22, April, 1960, p. 22.

<sup>6</sup>French Zone comprises all the French overseas territories and protectorates, and includes Morocco and Tunisia for the present purpose. As taken from Ibid., No. 9, December, 1956, p. 15.



Belgium (the location for a number of French assembly plants) has been the largest market for France, and lately West Germany has become the second important market. In Europe, France occupies the second place after West Germany, although she was in the fifth place among the auto manufacturers in the prewar period.

In the most recent years under study, France has been able to make some inroads in the Western Hemisphere, particularly in the United States. Table 11 clearly shows that the 15 thousand units exported to this area in 1956 rose to 54 thousand in 1957 and to 122 thousand in the subsequent year. As a result of this increase, France's export share in the Western Hemisphere rose from 5 percent in 1956 to 18 percent in 1958. Although the French automobile industry was perhaps a little later than its European rivals in exploring the tremendous upsurge in United States demand for the small car, it has certainly succeeded in the last few years in gaining quite a large share of America's imported cars.

The development of the small automobile in France has been a major factor. Possibly the French share of the world automobile market would have declined through the inflationary costs of production referred to earlier. But such a decline has been avoided by the manufacturers' decisions to enter the small automobile market in which they can compete favorably. France, Italy, and Germany have taken part in the large expansion of the European small automobile market; Fiat, Volkswagen, Renault and Citroen have led the world in this development.

The extension of car ownership to the lower income group, together



with the existence of high taxation and expensive gasoline have stimulated the development of the small car in Germany, France and Italy. Italy's performance in the export market has been moderately increasing its share of the world export market. A relatively more rapid increase occurred since 1955 and continued rising thereafter, reaching 9 percent of the world market in 1958. In comparison to its prewar position Italy moved up from the fifth to the fourth position at the expense of the United States.

Italy's strength lies in the European market, where the growth has been the greatest. West Germany is an important market to Italy and to some degree Belgium is also. This may seem unexpected at first, though this importance is linked with the fact that Fiat assembles cars in Germany. Italy has been able to increase its market share steadily but moderately, and in 1958 Italy and France each had the same share of the European market (see Table 10). In the Western Hemisphere, particularly in the United States, Italy has gained for the same reasons as other European car producing countries. Italy's export penetration has been small throughout the world, and has been primarily achieved through the small car, in particular Fiat.

Broadly speaking, the United States manufacturers have been concentrating mainly on large and medium automobiles; the United Kingdom on medium and large cars; West Germany on medium and France and Italy on small cars. In recent years there has been a shift toward the small car under 1 litre, or at least under the 1 1/2 litre.<sup>7</sup> This pronounced trend has been

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<sup>7</sup> In the absence of detailed figures on sales by models, the choice of engine capacity groups is dictated solely by the availability of statistics.

changes in the export market have been a major factor in the decline of the export market.

There is a need for a more

mainly at the expense of the 1 1/2 to 2 litres class. Table 12 shows the trend in production and exports of European automobiles by engine capacity group. This trend is clearly **reflected in the exports of this type of automobile**, though the proportions of production and exports are different.

Table 12 reveals the wide acceptance of European small automobiles throughout the world market. This table shows that the greatest concentration of automobile production is in the medium (1.0 - 1.5 litre group), followed by the small (up to 1.0 litre group). A case in point is that in 1950, 70 percent of European manufacturers had their automobiles in the lowest two ranges; this proportion increased to 80 percent by 1956, attributable solely to the lowest group, at the expense of the two upper groups. A similar trend has been followed in the exports, except that the percentage increase appeared in each of the lower two groups only at the expense of the 1.5 - 2.0 litre group. Similar tables for the European automobile manufacturers have been examined and there are, of course, differences in the proportion of output and exports between the various groups in the different European countries. However the direction of the trend is virtually the same for all the countries considered.<sup>8</sup>

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Though there are drawbacks to the use of this crude measure, nevertheless it still reveals some interesting facts about the type of automobiles demanded.

The engine capacity of an automobile cannot be satisfactorily measured by its power output, although in practice there is a fairly close correlation between the two. However, bearing in mind such a limitation, engine capacity does offer an indication of the general qualities of a car, and this is sufficient for the present purpose.

<sup>8</sup>"The Present Pattern of Production and Trade in Motor Vehicles," Motor Business, No. 11, June, 1957, pp. 33-35.





TABLE 12

AUTOMOBILE PRODUCTION AND EXPORTS BY ENGINE CAPACITY GROUPS  
(France, Germany, Italy, Sweden and United Kingdom)

	Distribution of Production in Litres				Total
	up to 1.0	1.0 - 1.5	1.5 - 2.0	2.0 and over	
1950	20.1	50.8	17.2	11.9	100.0
1951	23.4	49.2	15.9	11.5	100.0
1952	23.9	49.5	14.0	12.6	100.0
1953	25.8	47.4	15.0	11.8	100.0
1954	28.2	47.6	11.3	12.9	100.0
1955	29.6	48.7	9.1	12.6	100.0
1956	32.1	47.9	9.0	11.0	100.0

Distribution of Exports in Litres					
1950	14.2	57.6	17.7	10.5	100.0
1951	15.1	58.6	15.6	10.7	100.0
1952	13.4	59.4	12.1	15.1	100.0
1953	17.6	54.8	11.1	16.5	100.0
1954	16.5	56.5	8.5	18.5	100.0
1955	18.7	59.7	5.1	16.5	100.0
1956 <sup>a</sup>					

<sup>a</sup> Not available.

Compiled from: "The Present Pattern of Production and Trade in Motor Vehicles," Motor Business, No. 11, June, 1957, p. 33.

These statistics, by engine capacity grouping, do not represent free market choices in the real sense,<sup>9</sup> because the picture is distorted by extraneous factors. For instance the special taxation levied on the size of horsepower; the quota restrictions by value levied by importing countries do encourage

<sup>9</sup> Expressing freedom of choice without being influenced by availability of models or taxes, etc.



maximizing the number of automobiles imported within their respective value quotas, thus importing the cheaper and smaller models of cars.<sup>10</sup> These factors, together with the large number of small automobiles being produced for the American growing market, distort the picture for production figures. This can clearly be seen from the comparison of production and exports by engine capacity groups, both for the total and for the individual automobile producing countries.

The United Kingdom has been consistently producing about two-thirds of the lower engine capacity group and one-third of the upper, although it has exported a higher proportion of its upper group; while West Germany retained about the same proportion of production and export between 1950-1956. France and Italy have in general been concentrating on the lowest range, up to 1.0 litre or at least less than 1.5 litre, however they differ in the sense that France has maintained almost the same proportion of production and export, while Italy has been exporting a much larger proportion of its output in the 1.0 - 1.5 litre group. In contrast, Sweden has been concentrating on the 1.0 - 1.5 litre, constituting 80 percent in each of production and export.<sup>11</sup>

The fact that all these countries have been more successful in exporting in the two lower groups suggests that demand in the overseas market is pulling in different directions from demand in the local markets of the producing countries. However to avoid this distortion, an export pattern to 'neutral'

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<sup>10</sup> "The Medium-Size Car in Western Europe," Motor Business, No. 15, June, 1958, p. 15.

<sup>11</sup> Ibid.

1. The first part of the paper is devoted to the study of the properties of the function  $f(x)$  defined by the equation

$$f(x) = \int_0^x \frac{1}{1+t^2} dt, \quad (1)$$

where  $x$  is a real number. It is shown that the function  $f(x)$  is increasing and concave down on the interval  $(-\infty, \infty)$ .

2. In the second part of the paper, we study the properties of the function  $g(x)$  defined by the equation

$$g(x) = \int_0^x \frac{1}{1+t^4} dt, \quad (2)$$

where  $x$  is a real number. It is shown that the function  $g(x)$  is increasing and concave down on the interval  $(-\infty, \infty)$ .

3. In the third part of the paper, we study the properties of the function  $h(x)$  defined by the equation

$$h(x) = \int_0^x \frac{1}{1+t^6} dt, \quad (3)$$

where  $x$  is a real number. It is shown that the function  $h(x)$  is increasing and concave down on the interval  $(-\infty, \infty)$ .

4. In the fourth part of the paper, we study the properties of the function  $k(x)$  defined by the equation

$$k(x) = \int_0^x \frac{1}{1+t^8} dt, \quad (4)$$

where  $x$  is a real number. It is shown that the function  $k(x)$  is increasing and concave down on the interval  $(-\infty, \infty)$ .

5. In the fifth part of the paper, we study the properties of the function  $l(x)$  defined by the equation

$$l(x) = \int_0^x \frac{1}{1+t^{10}} dt, \quad (5)$$

where  $x$  is a real number. It is shown that the function  $l(x)$  is increasing and concave down on the interval  $(-\infty, \infty)$ .

6. In the sixth part of the paper, we study the properties of the function  $m(x)$  defined by the equation

$$m(x) = \int_0^x \frac{1}{1+t^{12}} dt, \quad (6)$$

where  $x$  is a real number. It is shown that the function  $m(x)$  is increasing and concave down on the interval  $(-\infty, \infty)$ .

7. In the seventh part of the paper, we study the properties of the function  $n(x)$  defined by the equation

$$n(x) = \int_0^x \frac{1}{1+t^{14}} dt, \quad (7)$$

where  $x$  is a real number. It is shown that the function  $n(x)$  is increasing and concave down on the interval  $(-\infty, \infty)$ .

8. In the eighth part of the paper, we study the properties of the function  $o(x)$  defined by the equation

$$o(x) = \int_0^x \frac{1}{1+t^{16}} dt, \quad (8)$$

where  $x$  is a real number. It is shown that the function  $o(x)$  is increasing and concave down on the interval  $(-\infty, \infty)$ .

markets of Europe, where consumers' scale of preference has not been greatly influenced by extraneous factors, has been examined.

Table 13 shows the exports of the major European manufacturers to eight principal European markets for 1953-1957 (latest available by c. c. group). It can readily be seen from this table that the export concentration has been in the c. c. group under 1,600 c. c., with increasing proportion in the first and third ranges and the second range holding itself. As can be seen, the increase has been at the loss of the largest c. c. groups in excess of 1,600 c. c. There are fairly wide variations between the patterns in the different countries selected, though in every one of them except Switzerland (where the pattern is

TABLE 13

AUTOMOBILE EXPORTS TO MAJOR EUROPEAN "NEUTRAL" MARKETS<sup>a</sup>  
(Percentage distribution by engine capacity, c. c. groups)

c. c. group	1953	1954	1955	1956	1957
up to 600	1.9	3.2	5.8	6.1	6.8
601 - 1200	37.5	41.8	39.1	38.6	38.2
1201 - 1600	31.7	28.7	32.9	32.6	36.9
1601 - 2200	3.7	4.8	3.6	6.1	5.9
2201 - 2800	7.7	11.6	9.0	9.4	6.7
2801 and over	12.6	9.9	8.9	6.1	5.0
unclassified	4.9	---	0.7	1.0	0.6
Total	100.0	100.0	100.0	100.0	100.0

<sup>a</sup>Exports by major European automobile producers. 'Neutral' markets are: Austria, Belgium, Denmark, Holland, Norway, Portugal, Sweden, Switzerland. Types of cars purchased in "neutral" markets show almost free exercise of choice.

Compiled from: "The Medium-Size Car in Western Europe," Motor Business, No. 15, June, 1958, p. 24.



relatively stable) the trend is in the same direction. With the extension of motoring to wider sections of the population, as mentioned earlier, one would expect to see a tendency for exports in the three lower groups to expand most rapidly.

The small automobile has a special regional significance, for it is particularly in Europe that the automobile manufacturers produce, sell and operate this type of car. In 1958 total production of the Volkswagen, Renault, Citroen, and Fiat--the four leading makes of small automobiles in Europe--was 1.3 million units, or 54 percent of the combined output of automobiles in France, Germany, and Italy (see Table 14). This proportion has been maintained since 1955 for which production by makes are available.

The small automobile has gained popularity not only in Europe but throughout the world market; and recently it has been obtaining growing acceptance in the American market.

TABLE 14  
AUTOMOBILE OUTPUT BY MAKES  
(Thousand units)

	1955	1956	1957	1958
France, Germany, and Italy	1,489	1,777	2,001	2,474
Volkswagen, Renault, Citroen and Fiat	807	953	1,102	1,325
Above makes as percent of the 3 countries	54.2	53.6	55.1	53.6

Calculated from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, Special Release); and Global Automotive Market Survey and World Motor Census, 1955-1959 (New York: McGraw-Hill International Corporation).





It can be seen from Table 15 that United States imports in recent years have increased at a rate much faster than the total market. The increase in volume imports have been especially rapid since 1955, during which period there has been a slackening in the American economy. European-built automobiles seem to compete with American-built automobiles as a whole. Not only has the United States been losing its percentage share of the world market through its exports, but its increasing volume of imports has reflected on the relative increase in the share of the European automobile exporters. As a result of this, Staff Report on Employment, Growth, and Price Levels estimated that developments such as these have cost the United States over \$400 million of its export surplus in 1958.<sup>12</sup>

TABLE 15

NEW AUTOMOBILE REGISTRATIONS IN THE UNITED STATES

	Imported (Thousands of units)	Total	Imports as a percent of total
1950	21	6,326	0.3
1955	57	7,170	0.8
1956	108	5,955	1.6
1957	259	5,982	4.3
1958	431	4,650	9.3

Calculated from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1949-1960).

<sup>12</sup>U. S., Congress, Joint Economic Committee, Employment, Growth, and Price Levels, 86th Cong., 1st Sess., December 24, 1959, p. 482.



Of the total car imports into the United States, 90 percent are estimated to fall in the lower grouping of up to 1,200 c.c.<sup>13</sup> The smaller foreign automobile is cheaper to buy and to run; it is easier to use in cities and much easier to park; and finally it satisfies the urge to be different.

The vast majority of the American automobiles exported fall into the range of the over 2,800 c.c. group,<sup>14</sup> which has been declining among all the c.c. groups classified, as has been analyzed in the eight 'neutral' markets.

The major sources of the United States automobile exports have been, of course, the Big Three, Chrysler, Ford, and General Motors. In combination, these have accounted for the major part of the total United States exports during the postwar period. Among the three manufacturers there seems to be little variation in the export proportions of their total automobile production. In general the tendency for the manufacturers with the highest share of domestic market have been exporting relatively less than average proportion. In terms of volume, exports of all three manufacturers have experienced a continuous decline, with the exception of 1951 and 1955, when export volumes were about the same, being the highest ever recorded.<sup>15</sup>

Decision by the Big Three to enter the compact car market in late 1958, concomitant with the rapid increase in automobiles imported into the

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<sup>13</sup> "The Market in the U. S. for European Cars," Motor Business, No. 13, December, 1957, p. 29.

<sup>14</sup> "The Medium-Size Car in Western Europe," op. cit., p. 24.

<sup>15</sup> "The United States Passenger Car Industry," Motor Business, No. 21, December, 1959, p. 33.



United States, suggests that the automobile industry does not stand still but is subject to changes; indeed, it is influenced by competitive conditions not only at home but abroad.<sup>16</sup>

In recognition of the effects of the European competition upon exports of automobiles from the United States, both Ford and General Motors, and more recently Chrysler, have been making heavy investments for modernization and expansion of facilities in their overseas subsidiaries. The American subsidiaries abroad have had an obvious advantage in the United States market in that they have been distributing their products through their already established local outlets. Consequently the loss to the American producers has been reduced. The shift in the pattern of automobile trade from American exportation to local manufacture abroad will be treated in the following chapter.

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<sup>16</sup> Ward's Automotive Yearbook (Detroit: Ward's Automotive, 1959), p. 45.



## CHAPTER II

### THE SHIFT IN THE PATTERN OF AUTOMOBILE TRADE FROM AMERICAN EXPORTATION TO LOCAL MANUFACTURE ABROAD

#### Automobile Production for the Market Outside the United States

As was noted in the previous chapter the role of American automobile manufacturers in the world market has become of decreasing importance as the automobile production and export of other countries expanded. Automobile production by the major producing countries,<sup>1</sup> other than the United States and Canada, passed the 3.5 million mark for the first time in 1958. This figure represented 44 percent of the total units produced by the major auto producing countries, and was approximately 92 percent of all automobiles (including U. S. and Canadian exports) sold outside of the country of origin in that year (see Table 16).

In 1958 Europe had a ratio of one car to every 35 persons. The relatively high ratio has been attributable to the high standard of living of the major automobile producing countries, which has enabled them to be good consumers of automobiles. These auto manufacturing countries, consisting

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<sup>1</sup>Major producing countries include United States, Canada, France, Italy, Sweden, United Kingdom, and West Germany. In addition to these there are other auto producing countries. Since the latter constitute only a small proportion of the total output, their exclusion from this analysis is not significant.





TABLE 16

AUTOMOBILE PRODUCTION AND EXPORTS  
BY MAJOR PRODUCING COUNTRIES<sup>a</sup>  
(Thousands of units)

	Production				Export			
	Total	U. S. & Canada	Europe	Europe as % of total	Total	U. S. & Canada	Europe	Europe as % of total
1938	3,013	2,144	869	28.8	374	202	172	56.0
1948	4,588	4,076	512	11.2	547	245	298	54.9
1949	6,101	5,313	788	12.9	519	157	362	69.7
1950	8,056	6,951	1,105	13.7	721	144	577	80.0
1951	6,805	5,618	1,187	17.4	837	254	583	69.7
1952	5,849	4,605	1,244	21.3	704	183	521	74.0
1953	7,998	6,482	1,516	19.0	744	182	562	75.5
1954	7,823	5,846	1,977	25.3	943	180	763	80.9
1955	10,784	8,295	2,489	23.1	1,162	224	938	80.7
1956	8,885	6,190	2,695	30.3	1,174	189	985	83.9
1957	9,464	6,460	3,004	31.7	1,433	158	1,275	89.0
1958	8,140	4,545	3,595	44.2	1,763	135	1,628	92.3

<sup>a</sup> United States, Canada and Europe (France, Italy, Sweden, United Kingdom and West Germany).

Calculated from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1939, 1949-1960); and The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, 1956-1959).

about one-third of European population, had over three-fourths of the automobiles in use in Europe in 1958, giving them a ratio of one car to every 14 persons.<sup>2</sup> Europe has been the area where trade and income levels have been rapidly and steadily increasing; consequently in this continent the

<sup>2</sup> Calculated from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1959-1960), p. 25.



automobile manufacturing countries in particular offered a market with an enormous potential. The home market together with increased demand for imports elsewhere, has been a strong influence on the marked increase in production during the period under review.

During the postwar period (1948-57) the principal auto manufacturers in Europe increased their production from 11 to 32 percent of the total output by all major auto producers in Europe and North America. By 1958, however, their proportion of total output reached a high of 44 percent, a year of low American car output attributed in part to recession and in part to the rapidly increasing American imports of European small cars. In export markets, the combined export share of the major auto-producing countries in Europe increased from 55 percent in 1948 to over 92 percent in 1958.

This remarkable growth in the exports of European auto manufacturers was achieved by applying restraints such as tight credit and installment payments on the domestic demand, thereby developing the mass distribution system outside their countries. In the Harvard Business Review, Mr. H. P. Whidden said this:

. . . The opinion of numerous businessmen and economists in West Germany in regard to this question is typical. They feel that German export achievements would have been impossible if a real mass market had begun to develop in Germany during the past few years. These very same people admit that the lack of a mass-distribution system would put the German economy in real danger of collapse should export orders fall off drastically.<sup>3</sup>

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<sup>3</sup>Howard P. Whidden, "Birth of a Mass Market--Western Europe," Harvard Business Review, XXX, 3 (May-June, 1955), 106.



Exports are especially important for the United Kingdom and West Germany and to some extent to France, as these countries have a stake in rebuilding and expanding their auto export trade that is several times larger than the United States. Furthermore the home market of these manufacturing countries is too small to consume readily as large a volume of one of their major industries as is regularly consumed by the United States. Table 17 shows the proportion of exports to production by major auto producing countries. It can

TABLE 17

AUTOMOBILE EXPORTS AND PROPORTION OF PRODUCTION  
BY MAJOR AUTOMOBILE PRODUCING COUNTRIES

	United States	Canada	France	Italy	Sweden	United Kingdom	West Germany <sup>a</sup>
1938	8.0	32.6	10.2	31.0	82.0	20.0	22.0
1948	5.6	16.4	58.7	30.8	22.9	67.8	20.3
1949	2.7	9.0	41.6	21.3	6.0	62.6	12.7
1950	1.8	8.5	34.8	19.4	7.7	76.2	32.2
1951	4.1	13.2	29.7	24.2	14.6	77.5	34.1
1952	3.3	14.7	21.8	22.0	12.0	69.2	33.4
1953	2.5	7.7	22.2	18.5	7.4	50.8	37.0
1954	3.1	6.6	24.1	22.6	8.3	47.6	43.9
1955	2.7	3.2	24.0	28.6	9.2	41.6	45.2
1956	3.0	3.8	23.4	27.7	20.3	44.9	45.4
1957	2.3	4.8	30.2	34.3	35.9	49.5	48.3
1958	2.9	4.5	34.6	44.0	45.9	46.3	53.4

<sup>a</sup>Germany in 1938.

Calculated from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1939, 1949-1960); and The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, 1956-1959).



be seen from this table that the United States and Canada had by far the smallest proportion of exports to production, in fact showing a declining rate. On the other hand, the major European auto manufacturers have been exporting an increasing share of their output. The United Kingdom, however, showed a decline that may have been due to the relaxation of restraints on its home market in the latter years of the 50's and the reemergence of its European rivals.

Unlike European auto manufacturers, American car producers are not so largely dependent upon foreign markets. Automobile export is comparatively less important to the United States because the country is relatively more self-contained, with a home production absorbed by its immensely large domestic market.

#### Restrictions of world automobile market

It has been noted that in recent years American automobile manufacturers, especially the Big Three, have been on the defensive in their export trade. The system of quotas, tariffs, and assembly plants in other countries has been responsible for the American setback.

The world automobile market may be divided between major auto producing countries and other countries. Table 18 clearly shows that the producing countries have a virtual monopoly in their domestic markets, except for Sweden, where automobile output supplies about one-fourth of the total domestic market. In addition to these major producers there are other auto manufacturers who have been expanding their production facilities. Assembly operations by the major car makers have also been carried on in





TABLE 18

AUTOMOBILE MARKET OF MAJOR PRODUCING COUNTRIES, 1955-58  
(Thousands of units)

	France	Italy	Sweden	United Kingdom	West Germany
<b>Domestic Market<sup>a</sup></b>					
1955	430	176	120	520	435
1956	508	n. a.	121	380	518
1957	530	220	137	446	565
1958	613	213	156	579	636est.
<b>Imports</b>					
1955	10 <sup>b</sup>	2	90	11	17
1956	10	n. a.	91	7	20
1957	24	5	104	9	27 <sup>c</sup>
1958	9	5	119	11	86est.
<b>Imports as percent of Domestic Market</b>					
1955	2.3	1.1	75.0	2.1	3.9
1956	2.0	n. a.	75.2	1.8	3.9
1957	4.5	2.3	75.9	2.0	4.8
1958	1.5	2.3	76.3	1.9	13.5est.

<sup>a</sup>"Market" here is defined as production for domestic market (the difference between total production and exports) and imports.

<sup>b</sup>Includes transshipments to French overseas territories.

<sup>c</sup>Includes buses.

Calculated from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, annual); and The Motor Industry of Great Britain (London: Society of Motor Manufacturers and Traders, Limited, 1956-1959).

several countries throughout the world, reaching some 400 thousand automobiles in 1957.<sup>4</sup> Indeed, in some of the countries assembly has become a very

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<sup>4</sup>Estimated from: Global Automotive Market Survey and World Motor Census (New York: McGraw-Hill International Corporation), 1957, p. 73; 1958, p. 54.



big industry, comprising over 50 percent of automobile weight or value, with increasing percentages in subsequent years. The countries in which these auto manufacturers and assemblers operate have been levying tariffs and other restrictions in encouragement of their industrialization scheme, particularly in the automobile industry. One automobile representative remarked that while it is true that a number of countries have removed quantitative controls on imports of United States automobiles, other restrictive measures such as taxes, licensing, restriction fees, etc. effectively exclude American automobiles from these markets.<sup>5</sup> As a result of these discriminatory measures against the United States, foreign production of automobiles, once a fraction of United States output, took the lead for the first time in 1958, by producing more than half of the world's total output.

Is America losing to automobile  
manufacturers abroad?

Long before the Second World War, American automobile manufacturers recognized the trend toward industrialization in many overseas countries. Special efforts have been especially directed by some countries to produce automobiles locally. Realizing the consequences of such a trend, both Ford and General Motors acquired production facilities abroad, beginning in prewar years. In response to the decline in American automobile exports and their decreasing share of the market abroad, Ford, General Motors, and

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<sup>5</sup>U. S. Department of Commerce, Business and Defense Services Administration, Special Conference with Motor Vehicle Producers on Export Trade Promotion (Washington 25, D. C. : April 5, 1960), p. 6.



to some degree Chrysler, through their subsidiaries abroad have been able to participate in the growing market for European-built automobiles, thereby increasing their **total business**.

Prior to and especially after World War II, international and/or overseas operations were formed by American automobile manufacturers to handle exports of cars produced in plants in United States and Canada, their subsidiaries and foreign branches in various export markets, principally Europe, Latin America, and the Middle East.

Expansion of American facilities  
abroad to circumvent restrictions

The expanding world economy, particularly in the free countries of Europe, has generated a phenomenal growth in the automobile markets abroad. Economic growth, combined with the limited or insufficient dollar exchange and other government restrictions together with the lower production costs abroad, has made it imperative for American automobile manufacturers to expand their facilities abroad, in order to supply these rapidly growing markets. As a result, the American automobile producers embarked on an expansion and development program abroad. This undertaking has of course strengthened their competitive positions by adapting operations to consumer demands of particular markets as well as to currency dislocations, quota restrictions, and other trade barriers peculiar to foreign markets. In short, the interest in investing large sums of money in foreign operations stems from many motives, among which are the following:

1. In a general recession, foreign markets act as a counter-



balance against declining sales at home.

2. Growing industrialization abroad, sometimes sponsored by governments eager to conserve foreign exchange reserves, forces exporters to consider manufacturing and assembling overseas. For instance, Australia and some Latin American countries have been requiring an increasing proportion of local automobile content. Such an attitude confronted the American automobile manufacturers with the alternative of manufacturing there or getting out of some important markets altogether.
3. Some American car manufacturers interested in export markets have considered production operations overseas in order to meet increasing competition from their American rivals and European firms that are already manufacturing abroad.
4. Relatively lower cost of smaller automobile production abroad has been an incentive for Americans to manufacture outside the United States.<sup>6</sup>

In anticipation of the above effects upon imports of automobiles from North America, Ford's and General Motors' annual reports indicated heavy

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<sup>6</sup>Charles H. Lee, "Getting Your Share of Overseas Markets--New Patterns in Foreign Operations," *Dun's Review and Modern Industry*, November, 1956, p. 116; and Ernest R. Breech, *A New Challenge from the Old World*, an address delivered at the annual Pittsburgh Chamber of Commerce Dinner, in the Penn-Sheraton Hotel, Pittsburgh, December 1, 1958, pp. 4-5.





investments for modernization and expansion of foreign facilities.<sup>7</sup>

Ford Motor Company has manufacturing subsidiaries in Canada, England, and West Germany, producing cars, trucks and tractors; however our concern here is automobiles only. According to public announcements Ford spent \$168 million in the 1950's on Ford of England, stressing primarily the expansion of foundry, stamping, machining, and assembly facilities, together with the development of new models. In embarking on an integration and expansion program, an expenditure of \$60 million was made for Ford-Werke of Germany with the idea of doubling its 1953 capacity by 1958. The company's investment has also resulted in increasing its ownership of 64.6 percent in 1954 to 99 percent in 1958. Ford had also acquired in mid 1950's 15.2 percent equity in Simca which was sold to Chrysler in late 1958. Some \$10 million was allocated by Ford to assembly operations and sales distribution subsidiaries throughout the world, particularly in Europe, Latin America and the Middle East, to form a vital link in Ford's overall program. Manufactured vehicles from all these sources are assembled in various countries.<sup>8</sup>

General Motors, in its long-range planning to meet the needs of world expanding economy, also launched its program of further expansion and development of its overseas facilities. In 1954 an expenditure of about \$200 million to fulfill its four to five year program was disclosed by the corporation's president. General Motors' manufacturing facilities are its non-consolidated

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<sup>7</sup> Much of the discussion in the following few pages is based on Chrysler's, Ford's and General Motors' Annual Reports.

<sup>8</sup> Later developments are discussed in Chapter IV.



subsidiaries of Vauxhall Motors Ltd., in England; Adam Opel A. G. in West Germany; and Holden's Ltd., in Australia. Furthermore, this undertaking called for expanding their Belgian, Swiss, Swedish and Danish assembly facilities, which assemble Vauxhall and Opel vehicles as well as General Motor's American-source automobiles.

Chrysler Corporation's move in its manufacturing and marketing expansion and development did not come until late 1958, when the corporation acquired a 25 percent interest in Simca (including the 15.2 percent held by Ford). Realizing the growing demand for European-type automobiles, Chrysler International formed a separate overseas company, with headquarters in Geneva, Switzerland as a center of distribution for Chrysler products and its newly acquired assembly operations.

These large investments by both Ford and General Motors and to some degree Chrysler were not geared solely to automobile expansion; though a larger proportion was allocated to cars, other vehicles such as trucks and tractors and non-automotive products have benefited from this plan. Sources of these finances have been primarily retained earnings of local plants and perhaps partly local borrowings and/or companies' headquarters in the United States.

The continuing expansion of American manufacturing and assembly operations abroad has provided the American automobile manufacturers with significant sources of supply upon which they are able to draw for those markets in which North American automobile exports are restricted. The accompanying Table 19 illustrates this fact.



TABLE 19

OVERSEAS AUTOMOBILE PRODUCTION BY MAJOR PRODUCING COUNTRIES<sup>a</sup>  
 AND NORTH AMERICAN EXPORTS FOR WORLD MARKETS  
 (Thousands of units)

	North American exports	U. S. overseas plants	Total American overseas sales	Foreign production	Total market
1948	261	112 <sup>b</sup>	373	512	773
1949	189	161 <sup>b</sup>	350	788	977
1950	167	222 <sup>b</sup>	389	1,105	1,272
1951	262	212 <sup>b</sup>	474	1,187	1,449
1952	202	233	435	1,244	1,446
1953	201	340	541	1,516	1,717
1954	204	451	655	1,977	2,181
1955	244	515	759	2,489	2,733
1956	183	514	697	2,695	2,873
1957	170	578	748	3,004	3,174
1958	133	790 <sup>b</sup>	923	3,595	3,728

SHARES OF TOTAL AMERICAN OVERSEAS SALES AND OF MAJOR PRODUCERS ABROAD

	Total American overseas sales as percent of total market	American manufacturing subsidiaries	
		Percent of total American overseas sales	Percent of foreign production
1948	48.3	30.0	21.9
1949	35.8	46.0	20.4
1950	30.6	57.1	20.1
1951	32.7	44.7	17.9
1952	30.1	53.6	18.7
1953	31.5	62.8	22.4
1954	30.0	68.9	22.8
1955	27.8	67.9	20.7
1956	24.2	73.7	19.1
1957	23.6	77.3	19.2
1958	24.8	85.6	22.0

<sup>a</sup>Includes North America, France, West Germany, Italy, Sweden, and United Kingdom.

<sup>b</sup>Partly estimated.

Calculated from: Annual Reports (Detroit: Ford Motor Company and General Motors Corporation); The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, annual); L'Argus de L'Automobile et des Locomotions (Paris, France); Tatsachen und Zahlen aus der Kraftverkehrswirtschaft (Frankfurt am Main, Germany: Verband der Automobil Industrie E.V.); Automobile in Cifre 1953 (Torino, Italy: Associazione Nazionale Fra Industrie Automobilistiche e Affini); and Sveriges Automobilindustriforening (Stockholm, Sweden) as reported in a special release, Production of Motor Vehicles in Foreign Countries (Detroit: Automobile Manufacturers Association, August 20, 1959).



In 1948, the first postwar year under review, American automobile exports from plants in United States and Canada surpassed the prewar figure. These exports were supplemented by the products of their European manufacturing subsidiaries, which amounted to 112 thousand units or 30 percent of their total operations. Table 19 also shows that up until 1951 North American (U. S. and Canada) manufacturers' exportation of automobiles constituted a higher proportion than that of their European subsidiaries' output with the exception of 1950, a year affected by the Korean War. By the end of 1952, however, 54 percent of the American overseas operations from all sources were carried on by their European subsidiaries. In 1953 about two-thirds of international operations originated in American manufacturing plants abroad.

As the overseas program of expansion and development of manufacturing and assembly operations gradually materialized, American sales abroad from all sources were continuously increasing, except for 1956. The decline in this year over the previous one may have been the result of credit restrictions in manufacturers' domestic markets as well as import restrictions in overseas markets, aggravated by gasoline rationing caused by the Suez crisis. The increase of overseas sales of American-made autos came solely from the American manufacturing subsidiaries since exports from United States and Canada were declining. This reversal trend resulted in having a larger and larger proportion of automobiles supplied by American manufacturing plants abroad. In 1958, 86 percent of automobiles sold by American international activities were from their overseas manufacturing operations, and only 14 percent represented exports from United States and Canadian plants.





This trend has in effect reflected on the American operations abroad as its percentage share from the total foreign market declined from about 48 percent in 1948 to 25 percent in 1958. The decline, as exhibited by Table 19, was chiefly responsible for American-source exports, because the share of American manufacturing subsidiaries as a percent of total foreign output remained relatively constant, ranging from a low of 18 percent in 1951 to a high of 23 percent in 1954 and standing at 22 percent in 1958.

#### Production by individual companies

As was noted in Table 19, about one-fifth of major European automobile output is represented by American manufacturing operations in that area. A comparison of the combined output of Ford and General Motors with their English and German rivals during the postwar period for which production data by makes are available affords important insights. The combined output of the "Big Five": the British Motor Corporation (chiefly Austin and Morris), Ford, Hillman of the Rootes Group, Standard, and Vauxhall accounts for about 90 percent of the total automobiles produced in the United Kingdom. While the British Motor Corporation has been the leader in Great Britain's automobile output, Ford has been the second largest automobile manufacturer, producing from less than one-fifth to approximately one-third of the total automobile output in this nation (see Table 20). Vauxhall of General Motors has been ranging from a low of 8 percent to a high of over 11 percent during the period under review. Although the table shows Vauxhall in the third place in terms of units produced, it was actually in the fourth, exceeded by the Rootes Group if we



TABLE 20

AUTOMOBILE PRODUCTION OUTSIDE U. S. AND CANADA IN THOUSANDS, AND PERCENTAGE SHARE OF LEADING MAKES IN EACH MAJOR PRODUCING COUNTRY

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
France	100	188	257	314	370	368	437	553	649	724	924
Citroen	34.1	26.3	25.2	24.9	23.9	27.7	23.5	22.1	20.0	19.3	19.4
Peugeot	19.1	16.3	18.7	18.3	17.4	18.4	16.8	16.6	17.3	17.5	15.7
Renault	29.9	34.1	32.3	31.2	32.7	32.7	36.1	31.9	33.1	36.7	39.4
Simca	9.3	11.4	11.3	13.1	18.7	13.8	17.0	25.6	24.8	20.9	20.5
Italy	44	65	101	119	114	143	181	231	280	318	369
Fiat	n.a.	n.a.	n.a.	n.a.	89.5	91.6	90.1	94.4	93.6	92.8	79.4
Sweden	3	5	9	13	11	19	29	33	37	52	69
Volvo	99.7	99.9	88.9	84.6	72.7	84.2	79.3	84.8	83.8	78.8	76.8
United Kingdom	335	412	523	476	448	595	769	898	708	861	1,052
Austin	n.a.	n.a.	n.a.	n.a.	21.2	18.0	19.4	20.0	15.5	19.2	16.6
(Morris	n.a.	n.a.	n.a.	n.a.	n.a.	15.6	14.3	16.2	16.3	17.5	13.3
Ford <sup>b</sup>	19.4 <sup>a</sup>	19.2 <sup>a</sup>	18.0 <sup>a</sup>	16.8 <sup>a</sup>	22.3	27.0	27.3	26.9	32.1	27.9	28.5
Hillman	n.a.	n.a.	n.a.	n.a.	n.a.	9.8	8.1	8.5	8.5	8.7	9.5
Standard <sup>b</sup>	n.a.	n.a.	n.a.	n.a.	n.a.	7.2	10.4	9.5	8.1	6.3	5.3
Vauxhall	12.2 <sup>a</sup>	10.4 <sup>a</sup>	9.2 <sup>a</sup>	9.0 <sup>a</sup>	8.0	10.3	9.4	8.7	9.3	10.6	11.4
West Germany	30	104	216	267	301	369	518	705	848	959	1,181
Daimler Benz	15.4	16.5	15.7	15.8	12.2	9.5	9.4	9.0	8.2	8.4	8.4
Ford Taunus <sup>b</sup>	0.6	10.7	11.3	10.1	10.2	9.2	7.5	7.5	6.9	6.2	8.8 <sup>a</sup>
Lloyd	n.a.	n.a.	0.7	1.8	2.0	5.2	6.4	8.3	6.1	5.4	4.2
Opel <sup>b</sup>	20.1	26.9	27.8	23.2	22.2	22.7	25.2	20.2	19.2	19.4	22.9 <sup>a</sup>
Volkswagen	63.9	44.8	38.7	36.2	39.9	42.5	40.6	41.2	40.8	41.9	39.8 <sup>a</sup>

<sup>a</sup> Estimated or factory sales.

<sup>b</sup> Automobiles of American ownership.

n.a.: not available

Calculated from: Annual Reports (Detroit: Ford Motor Company and General Motors Corporation); The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, annual); L'Argus de L'Automobile et des Locomotions (Paris, France); Tatsachen und Zahlen aus der Kraftverkehrswirtschaft (Frankfurt am Main, Germany: Verband der Automobil Industrie E.V.); Automobile in Cifre 1959 (Torino, Italy: Associazione Nazionale Fra Industrie Automobilistiche e Affini); Sveriges Automobilindustriforening (Stockholm, Sweden) as reported in a special release, Production of Motor Vehicles in Foreign Countries (Detroit: Automobile Manufacturers Association, August 20, 1959); and "The Italian Motor Industry," Motor Business, No. 13, December, 1957, p. 19.



include its other models with Hillman. In short, the American operators' combined share of British output has increased from 30 percent in 1952 (earliest published data available) to 40 percent in 1958.

In West Germany five automobile manufacturers, Daimler Benz, Ford, Lloyd (of the Borgward group), Opel, and Volkswagen, constitute some 85 percent of the total German output. Volkswagen is by far the largest producer, and with its one basic model has gained and retained about four-tenths of car production in this country. Like Ford of England, Opel of General Motors occupied the second position in West Germany, producing from one-fifth to one-fourth of the total output. Daimler Benz has been the third largest in terms of car output, however, its share has been declining from 15 and 16 percent in the early 50's down to 8 percent in the latter period under study. This company produces only large cars whose demand has declined appreciably in overseas markets. Ford's Taunus, though holding the fourth position throughout the postwar period, running between 6 and 11 percent as exhibited by Table 20, has retained the fifth position, considering the inclusion of other Borgward makes along with Lloyd. At any rate, the combined share of Opel and Taunus has been ranging from one-third to one-fourth of the total German output.

Table 20 further reveals that while Ford and General Motors have increased their share in the United Kingdom, their combined share in West Germany has declined during the postwar period though in both countries their absolute volumes have increased considerably. The decline in the combined share of Ford and Opel of Germany has probably been brought about by their concentration on a small number of models; at no time has either Ford or



General Motors produced more than two types of car.

As a result of Ford's acquisition of a 15 percent interest in Simca, a noticeable increase in French production was apparent in 1955. Simca is the second largest producer, exceeded only by Renault, a government-owned automotive manufacturer. In the fourth quarter of 1958, Chrysler Corporation acquired a 25 percent interest in Simca, including Ford's interest in the company. Chrysler and Simca have been closely associated, providing technical assistance to each other as well as sales outlets in certain overseas markets.

In France the combined automobile output for the "Big 4," Citroen, Peugeot, Renault, and Simca accounted for over 90 percent during 1948-1958. The leading manufacturer is Renault, with one-third of total output, largely due to the success of its Dauphine model and its highly integrated operation. Simca is the second largest in terms of units of automobiles produced, concentrating on medium-sized high performance cars. Citroen, which produces small and medium-sized cars, has held the third position in the last four years after losing its second place in the early period under review. Peugeot, which produces motorcycles, bicycles, engines and machine tools, in addition to cars, has retained a relatively constant share thus holding the fourth place in the latter 1950's.

In Italy, Fiat dominates the market with over 90 percent of the total automobile output; this dominance goes back long before the Second World War. Fiat has since then pioneered a great many technical advances in the automobile industry; it seems that the firm is almost self-sufficient, for it makes all its





components except tires and ball bearings. Fiat's output of automobiles has increased in the postwar period, but its share of Italian car output declined markedly by 1958. The increase in Lancia's and Alfa Romeo's output is solely responsible for the drop of Fiat's share of automobile output to 80 percent.

Volvo is by far the largest automobile producer in Sweden, manufacturing some 80 percent of total output. The decline in its share of Swedish automobile output was due to the entry of Saab into the auto industry. Saab is primarily an aeroplane producer, and its car production, which began in 1949-50 is only a secondary activity.

#### Trends toward concentration

The phenomenal increase of automobile output in the five major producing countries in Europe was achieved in varying degrees by the gradual expansion of plant capacities owned by the leading manufacturers of these countries. In a rapidly expanding market the amount of capital, and the ease with which it may be acquired, are paramount. As a result we find that certain firms have been able to expand, integrate, and compete vigorously while other firms have been losing their relative shares. The automobile industry is, of course, highly competitive, with definite advantages being associated with large-scale production. In view of this, The Economist (London) has this to say:

In a highly competitive business, where costs fall sharply as volume increases, to accept any decline in one's share usually means an increase in one's costs relative to those of other makers, tending to weaken a manufacturer's



position still further.<sup>9</sup>

Any manufacturer desirous of increasing his market share has to plan to do so well in advance. This is partly the result of concentration. It is not unusual to find in each of these countries just two or three firms dominating the market; in the case of Italy and Sweden only one firm is dominant. In most countries and throughout the history of the automobile industry there has been a tendency for the number of firms in the industry to diminish. This trend is illustrated by the comparison between the present and the early twenties: in 1922 some 90 firms in United Kingdom turned out 55,000 cars, while in 1957 the output of 25 firms was about 800,000 cars.<sup>10</sup> The trend toward concentration continues.

Lack of similarly classified cost data for producing firms makes it impossible to measure precisely the relative production costs of such a complex entity as the automobile industry. Nonetheless, a few generalizations will help us to understand the advantages realized by the economies of large scale production.

Sometimes industries which grow up on the foundation of large scale production economies are obliged to dissipate these economies almost completely to meet variations in demand. Variations in Europe have been wide, and so consumers have been getting a wide choice of styles and types of automobile.

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<sup>9</sup>"How Many Cars in the Sixties?" The Economist, October 22, 1960, p. 361.

<sup>10</sup>"The British Motor Industry in Perspective," Motor Business, No. 12, September, 1957, p. 3.



It has often been said that the British automobile industry makes an excessive number of models, thereby denying itself the possible economies of scale, that is, of decreasing costs up to a point. These economies do not arise, however, solely in the manufacture of automobiles themselves. There is a considerable variation between manufacturing firms in the degree to which components are purchased. On the average some 60 percent of the value of automobiles is accounted for by outside purchases.<sup>11</sup> The complexity of vehicle design, particularly in recent years, has led to an increasing proportion of purchased parts. To say the least, certain advantages are obvious in that the producer of a component part standardizes his items, spreading his overhead over a larger sales volume and thus minimizing his unit cost. The following statement by The Economist (London) clearly supports this contention.

Collaboration between the motor car manufacturer and the component manufacturer has gone a very long way to make sure that variations in the needs of different models interfere very little with the achievement of minimum manufacturing costs.<sup>12</sup>

Because of the standardized component parts produced by English manufacturers, there are relatively more small automobile firms in England than on the European continent. The outstanding feature of the economies of large scale production is the fact that as output expands fixed costs per unit fall rapidly. The small manufacturer whose operation does not lend itself to large scale production either because of small volume or the large range of

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<sup>11</sup> "Too Many Models," The Economist, October 19, 1957, p. 9.

<sup>12</sup> Ibid., p. 10.



model specifications selected by the customers, has found himself in difficulty in maintaining a competitive position with his counterparts.

The only way to bring costs down would seem for the manufacturers to concentrate on as limited a number of basic models as possible and to keep these models in production over a relatively long period of time.

The automobile manufacturers on the European continent are sometimes charged with having intentionally restricted the number of different models produced while keeping available a wide range of different types.<sup>13</sup> Certainly, concentration on a few models proved to be of significance as competition in the automobile industry increased. A classic example of such concentration is Volkswagen, with its one basic model, accounting for two-fifths of total German automobile output. In West Germany, limiting the number of car models produced seems to have been a matter of policy.<sup>14</sup> Together with Volkswagen, three other firms produce six basic models. They are Auto Union (Daimler-Benz and Auto-Union merger) with one basic model, Opel, with two models, and Ford, with three models.<sup>15</sup> These basic models of the four companies accounted for about three-fourths of all automobile output in West Germany (see Table 20).

France also has a high concentration in that its four leading companies produce a limited number of basic models with large volumes, thus benefiting

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<sup>13</sup>"The German Motor Industry," Motor Business, No. 12, September, 1957, p. 26.

<sup>14</sup>Ibid., p. 19.

<sup>15</sup>The third Ford model is the new 17 M.





from the economies of scale. Italian and Swedish automobile manufacturers have followed this same policy with considerable success over a period of time as is exhibited in Table 20 by Fiat and Volvo.

Although the automobile manufacturers in continental Europe benefit from the internal economies of scale, there are certain external diseconomies, i.e., costs which are beyond their control. One aspect that is worth noting is the greater degree of integration in this area than in the United Kingdom. A turnover tax, which is levied at various stages of production, adds an artificial cost factor to component parts purchased by the automobile manufacturers. For instance, an ad valorem tax is applied on each sale made; i.e., on the sale of the raw material to the parts manufacturers, and on the sale of the parts to the automobile producer. This, of course, encourages the auto manufacturers to make rather than to buy, even for those items which might be made with real economies of scale by subcontractors or suppliers. While all the major automobile producers are affected by this taxation, Italy's exports are hampered due to the fact that turnover tax rates apply equally to all automobiles, whether produced for export or for home market.<sup>16</sup>

Fiat has integrated vertically with its suppliers and horizontally with its competitors to expand its car output. In short Fiat has been forced to produce almost everything it requires for its automobile manufactures. By the very nature of the economies of scale it is conceivable that Fiat's costs stand higher than its European rivals, which are serviced by low cost

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<sup>16</sup>"The Italian Motor Industry," Motor Business, No. 13, December, 1957, p. 16.



component firms that are able to spread their costs over a large number of automobile manufacturers.

The automobile manufacturers of Western Europe are more dependent upon foreign markets than the United States manufacturers are. The relative smallness of most European countries' domestic markets has made it necessary for the auto manufacturer to increase its exports as a means of attaining the economies of scale. In consequence, unit costs have been reduced; thus the individual producer was able to compete with his rivals. Furthermore, restrictive measures imposed by local governments of the manufacturing countries have been causing fluctuations in the production of automobiles. As a way of offsetting such fluctuations in their home markets, auto manufacturers developed and retained their export levels to a high degree.

The proportion of exports to production in each of the major producing countries has been referred to earlier. It suffices here to examine exports of the American subsidiaries and their proportions of total factory sales in both the United Kingdom and West Germany.

Economic prosperity, especially in the major automobile producing countries, has seen a steady growth in demand for automobiles, especially of the foreign type. This is reflected in the increasing share of Ford's and General Motors' sales volume outside United States and Canadian exports. Notwithstanding their increased domestic sales in Britain and West Germany, both Ford and General Motors exported some 50 percent of their foreign subsidiaries' combined output during those years of the 1950's for which data are available. Table 21 indicates that while Ford's proportion of exports to its



TABLE 21

AUTOMOBILE EXPORTS' PROPORTION OF PRODUCTION OF UNITED KINGDOM  
AND WEST GERMANY AND OF FORD AND GENERAL MOTORS  
(1950, 1953-58)

	United Kingdom			West Germany		
	Total %	Ford %	Vauxhall %	Total %	Ford %	Opel %
1950	76	81	74	32	32	41
1953	51	45	65	37	41	47
1954	48	52	56	44	53	55
1955	42	47	57	45	46	53
1956	45	46	49	45	40	65
1957	50	54	62	48	40	51
1958	46	51	64	53	48	55

Calculated from: The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, 1951, 1958-1959); and Tatsachen und Zahlen aus der Kraftverkehrswirtschaft (Frankfurt am Main, Germany: Verband der Automobil Industrie E. V., annual).

total output ranged from a high of 81 percent in 1950 to a low of 45 percent in 1953 in Britain; Vauxhall of General Motors ranged from a low of 49 percent in 1956 to a high of 74 percent in 1958 in the same country. Together they exported more than half of their total output, a proportion which was slightly above the United Kingdom's export share. Automobiles produced in England by American manufacturers are sold primarily in Europe and the British Commonwealth countries. In West Germany, on the other hand, Ford's proportion of exports to its total output ranged from a low of 32 percent in 1950 to a high of 53 percent in 1954, while Opel of General Motors ranged from a low of 41 percent in 1950 to a high of 65 percent in 1956. Combined percent-



age exports of the two American manufacturers in West Germany were in general lower than those of the United Kingdom, with no particular pattern. However Opel's proportion of exports was continuously higher than West Germany's percentage of exports as a whole. Besides selling their automobiles locally to West Germany, Ford and General Motors exported to other European destinations; furthermore their automobiles have been also enjoying noticeable acceptance in Latin American countries.<sup>17</sup>

In addition to European subsidiaries, General Motors has expanded its production facilities of Holden in Australia. Combined production of cars and commercial vehicles in 1958 passed the 100 thousand mark per year contemplated in their recent expansion move. This level of output is five times the 1950 level. Unfortunately there is no breakdown for cars to be incorporated in this analysis. Nonetheless it is estimated that more than half of the total output is in automobiles.

#### Conflict between production and marketing

The ultimate aim of economic activity is to satisfy consumer needs as precisely as possible and at the same time to minimize cost. Costs in car manufacture depend more than anything on the scale of production achieved; this in turn depends upon the success of individual models on the market.<sup>18</sup> Actually, the existence of a large volume of business under a single firm does

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<sup>17</sup> Ford Motor Company, Annual Report, 1956, p. 15.

<sup>18</sup> "Free Trade in Motors," The Economist, October 19, 1957, p. 2.





not in itself result in economies, it merely provides an opportunity to achieve them. Businessmen have too often assumed that if they could break into a specified volume range, costs would decline and profits increase. This cheerful outlook, says Wroe Alderson, overlooks the fact that the achievement of economies of scale in production phases may often be accompanied by large marketing expenditures to attain the necessary volume.<sup>19</sup> Decisions must be made concerning the extent to which economies achieved through mass production can be utilized in reducing prices and the extent to which these savings must be used in advertising and selling as an alternative method of increasing volume. In short the success of individual automobile manufacturers depends only in part upon relative production costs; it also rests upon certain variables such as the appropriateness of their design policy and the effort and ability they put into selling automobiles.

#### Realistic perspective

As indicated in this chapter, the decline in the total foreign business of American automobile producers has not been so severe as the percentage decrease in the exports of American automobiles may imply. A mitigating factor has been an appreciable shift of activity from American based manufacture and exports to foreign manufacture and distribution.

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<sup>19</sup>Wroe Alderson, Marketing Behavior and Executive Action (Homewood, Illinois: Richard D. Irwin, Inc., 1957), pp. 451-52.



## CHAPTER III

### LATIN AMERICA - A REGIONAL CASE STUDY

#### Part I

##### Latin America--The Largest Export Market for U. S. Automobiles

Our economic ties with Latin America, through trade and investment, are stronger than those with most other parts of the underdeveloped world. This region is the most important automobile market for the United States, although its relative significance is on the decline. Because of our intimate relationship with Latin America and our predominant trade position in automobiles, the Latin American region is chosen as a case study for examining the underlying reasons for the decline in American automobile exports.

##### Latin American car registration

In order to prepare the way for discussion of the United States' largest export market for its automobiles, it is helpful to examine the extent to which car registration has changed in this area. While in 1938 Latin America had only about half a million cars in use, in 1948 it registered 850 thousand units. With an increasing standard of living in this region, Latin America registered 2.2 million automobiles by 1958, a figure more than four times its prewar level, and more than two and a half times the 1948 registration (see Table 22).



TABLE 22

**AUTOMOBILE POPULATION, AND NUMBER OF PERSONS PER AUTOMOBILE  
IN LATIN AMERICA AND ITS LARGEST COUNTRIES<sup>a</sup>**

	Automobile population (Thousand units)		Number of persons per automobile	
	Total	Largest countries	Total	Largest countries
1938	496	434	n. a.	200
1948	851	619	158	156
1949	915	689	170	143
1950	1, 117	804	141	124
1951	1, 211	847	136	125
1952	1, 300	923	126	116
1953	1, 475	1, 051	114	105
1954	1, 630	1, 141	106	99
1955	1, 664	1, 153	106	101
1956	1, 892	1, 293	96	92
1957	2, 040	1, 426	91	86
1958	2, 204	1, 533	88	84

n. a. : not available

<sup>a</sup>"Largest countries," here defined as having the largest registrations and imports combined are: Argentina, Brazil, Cuba, Mexico, and Venezuela.

Calculated from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1939, 1949-1960); and The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, 1958), pp. 115-18.

Although the rate of increase in car population in this region is much less than the expansion of automobile registration in Europe, it is considerably above the rate of increase in world car population, as was shown in Chapter I. Increased car registration, stimulated by higher income, meant one car for every 88 persons in 1958 as compared to one car for every 158 persons in 1948, as



shown in Table 22.

Five Latin American countries (Argentina, Brazil, Cuba, Mexico, and Venezuela) accounted for 70 percent of the total Latin American automobile registration in 1958. Table 22 also serves to show that the rate of increase in per capita car population in the five countries was even higher than in the region as a whole. In 1948 the five countries combined had one car to every 156 persons as compared to one car for every 84 persons in 1958.

Sources of automobile  
supply to Latin America

Long before World War II Latin America was the largest market for United States automobile exports. During the postwar period under consideration, Latin America absorbed over one-third to more than one-half of total United States automobile exports (see Table 23). The accompanying table also shows that the largest countries referred to earlier have accounted for some three-fourths of total Latin American imports from the United States during the postwar period as a whole. Exports to Latin America and particularly to its five largest markets have been shared by other automobile manufacturers. The major auto producing countries of Europe (France, Italy, the United Kingdom and West Germany) have been gaining ground in the area in recent years. Table 24 shows that until 1955 four-fifths of total automobiles imported by the five largest Latin American markets were from the United States and Canada. The American export share declined to about 50 percent by 1958, while the European countries penetrated the market. West Germany, in particular, increased its share from 3 percent in 1950 to over 28 percent in 1958;





TABLE 23

U. S. AUTOMOBILE EXPORTS TO LATIN AMERICA  
AND ITS LARGEST COUNTRIES<sup>a</sup>

	Latin America		Five Largest Countries	
	Thousand units	Percent of total U. S. exports	Thousand units	Percent of exports to Latin America
1948	86	39	64	74
1949	56	40	42	75
1950	63	53	47	74
1951	117	54	94	81
1952	74	53	57	77
1953	69	45	47	67
1954	75	43	53	70
1955	81	38	59	73
1956	62	35	47	76
1957	69	48	54	79
1958	60	50	51	84

<sup>a</sup> as defined in Table 22.

Calculated from: The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, 1949-1959); and Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1939, 1949-1960).

this nation was followed by France and Italy, with the United Kingdom's share fluctuating.

In absolute terms of course, in recent years automobile exports to these five markets have been increasing, reaching the highest record in 1958. Despite the rise in automobile exports, the United States has been losing its export volume as well as its percentage share in these markets. However, as of January 1, 1959, the United States still had the largest share of automo-



TABLE 24

AUTOMOBILE EXPORTS TO LARGEST LATIN AMERICAN  
MARKETS<sup>a</sup> BY MAJOR PRODUCING COUNTRIES

	Total thousand units	Percentage share <sup>b</sup>				
		U. S. & Canada	France	Italy	United Kingdom	West Germany <sup>c</sup>
1938	40	85.1	1.4	1.8	1.1	10.5
1948	77	82.6	5.2	0.4	11.7	----
1949	55	77.2	4.9	1.3	16.5	----
1950	61	77.4	2.8	1.0	15.7	3.1
1951	124	80.5	3.3	0.9	10.0	5.4
1952	85	79.7	2.7	0.5	11.4	5.6
1953	63	82.7	1.9	0.9	4.5	10.0
1954	64	81.9	1.5	3.0	3.0	10.6
1955	73	81.8	2.3	3.9	3.0	9.0
1956	69	69.0	3.8	4.4	5.6	17.2
1957	82	67.8	5.0	5.4	5.4	16.5
1958	105	49.4	7.8	6.0	8.3	28.5

<sup>a</sup>"Markets" here are defined as exports to Argentina, Brazil, Cuba, Mexico, and Venezuela.

<sup>b</sup>Details may not add to 100 percent due to rounding.

<sup>c</sup>Germany for 1938.

Calculated from: The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, 1949-1959).

biles in use in these countries: Argentina (78 percent), Brazil (58 percent), Cuba (94 percent), Mexico (87 percent), and Venezuela (80 percent).<sup>1</sup>

In addition to the foreign sources of automobile supply, Latin American

<sup>1</sup>Global Automobile Market Survey and World Motor Census (New York: McGraw-Hill International Corporation, 1959), pp. 13, 17, 23, 31, 39.



countries have their own assembly operations or manufacturing facilities, though only on a limited scale. Complete statistical data for automobile assembly and production are not available; only fragmentary information for recent years under review was obtainable. Assembly operations have been carried on by Latin American countries which have relatively a large local automobile market: these are Argentina, Brazil, Mexico, and Venezuela. The accompanying Table 25 shows the number of units assembled by each of the above countries in the years for which data are available.

TABLE 25

AUTOMOBILE ASSEMBLY OPERATIONS, BY LATIN AMERICAN COUNTRIES  
(Number of units)

	Argentina	Brazil	Mexico	Venezuela	Total
1954	n. a.	6,774	11,750	9,750 <sup>a</sup>	28,274
1955	n. a.	2,203	13,500	10,535	26,238
1956	2,501	940	15,075	9,604	28,120
1957	n. a.	1,478	18,860	8,860	29,198

<sup>a</sup> Estimated.

Calculated from: Global Automotive Market Survey and World Motor Census (New York: McGraw-Hill International Corporation), 1955-58.

Automobiles were assembled by importing "completely knocked down" units such as engines and chassis, from various automobile manufacturers but primarily from the United States. This was especially true of Mexico and Venezuela. In subsequent years countries engaged in assembly operations decreed a gradual increase of the local material content of the automobiles to



be assembled, thereby attaining a higher proportion of local value added.

A close review of statistics and literature reveals that in Latin America only Argentina, Brazil, and Mexico have been manufacturing automobiles in recent years. During the period under review, Industrias Kaiser and DINFIA (a state enterprise) were the only automobile manufacturers of importance in Argentina. Total automobile output in 1958 (the only year for which automobile figures are available) for the two establishments was 3,700 units, of which 2,500 were produced by Kaiser and the remaining 1,200 by DINFIA.<sup>2</sup> In Brazil, Vemag (a former Studebaker-Packard selling organization) was another motor vehicle manufacturer which produced 2,200 cars in 1958.<sup>3</sup> Mexico's production volume for automobiles in 1958 was 23,583.<sup>4</sup> It is believed, however, that this figure represents in part assemblies from components produced in other countries rather than production per se, since no definite criterion has been established for the "manufacture" of automobiles.

The move towards the establishment of a local automobile industry in Latin America has been to a large extent the result of expansion in assembly operations. This move has been particularly true of Brazil. This aspect will be developed in Part II of this chapter, in discussing the framework of the region's market structure.

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<sup>2</sup>Global Automobile Market Survey and World Motor Census (New York: McGraw-Hill International Corporation, 1959), p. 73.

<sup>3</sup>Ibid.

<sup>4</sup>World Motor Vehicle Production, 1958, special release, Automobile Manufacturers Association and U.S., Commerce, Business and Defense Services Administration--Automotive and Transportation Equipment Division, August 20, 1959.





## Part II

### Framework of Market Structure in the Selected Latin American Countries

In order to understand the framework of market structure in the selected Latin American countries, it is imperative to assess each country separately. For this purpose three countries--Argentina, Brazil, and Venezuela--have been selected as representative. The choice is by no means an arbitrary one. It is based on a combination of factors: the availability of pertinent information, the large automobile population and, finally, the disparate economies of the selected countries. Each of these countries will be discussed in terms of the following aspects:

The relationship between income and demand for automobile imports will be examined by simple correlation analysis of the two variables. If the relationship is lacking, then the national policies instituted to protect foreign exchange reserves will be studied. At the same time, the balance of payments position will be taken into account.

Furthermore, national objectives of Argentina, Brazil, and Venezuela with regard to foreign exchange, industrialization, inflation, and social legislation will be examined. In addition, implementation of national policy through specific restrictions will be considered. Other factors of concern will be to establish the amount and the nature of tariffs, surcharges, and tax levies on automobile imports as well as their differential effects. A close examination will also be directed toward any degree of discrimination that may exist in the exchange rate.



Argentina

Argentina is considered one of the more highly developed countries both agriculturally and industrially, in Latin America, and is numbered among the fifteen trading nations in the world. In recent years, however, Brazil and Venezuela have exceeded it in trade.<sup>5</sup>

The Argentine automobile market

Prior to World War II, Argentina was the leading Latin American automobile market, with some 200 thousand units registered in 1938. As other Latin American countries imported more automobiles, Argentina's position deteriorated relatively. By 1951 Brazil led in automobiles in use. In 1958 Argentina's car population had reached 350 thousand units, an increase of only 75 percent over 1938 (see Table 26).

TABLE 26

ARGENTINA: AUTOMOBILE POPULATION  
AND NUMBER OF PERSONS TO A CAR

	1938	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
Car population (in thousands)	206	224	220	275	221	222	257	296	314	334	330	358
Number of persons per car	61	72	74	59	77	79	70	62	60	57	59	59

Calculated from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1939, 1949-1960).

<sup>5</sup>U. S., Bureau of Foreign Commerce, World Trade Information Service (WTIS), Basic Data on the Economy of Argentina, Part I, No. 58-73, 1957, pp. 8-9.



Argentina was a unique case. Its car density rose from a ratio of one car to 61 persons in 1938 to one car for every 59 persons in 1958. Although this ratio is higher than in Latin America as a whole, Argentina's proportionate increase in car ownership has been relatively much lower. In some years there was a decline in the density of car ownership. The decline reflected a decrease in automobile imports.

Between 1948 and 1958, Argentina's total car imports from the major producing countries amounted to 80 thousand units, of which Canada and the United States supplied slightly over 40 percent (see Table 27). The combined

TABLE 27  
ARGENTINE AUTOMOBILE IMPORTS, MARKET SHARE,  
BY COUNTRY OF ORIGIN

	U. S. and Canada	France	Italy	United Kingdom	West Germany <sup>a</sup>	Total number
1938	82.5	1.8	3.2	1.9	10.7	22,704
1948	89.7	0.8	0.4	9.1	----	11,306
1949	66.7	5.8	13.2	14.3	----	1,956
1950	44.7	5.0	10.8	6.0	33.6	1,822
1951	68.9	3.9	3.9	6.9	16.4	15,492
1952	17.8	1.7	0.2	11.4	68.9	3,050
1953	25.9	0.7	3.7	0.9	68.7	5,012
1954	14.9	1.5	22.6	0.9	60.0	5,239
1955	28.9	11.5	20.1	0.6	38.9	6,114
1956	18.0	15.8	10.4	11.5	67.5	7,845
1957	38.1	9.6	11.4	4.9	35.9	8,993
1958	9.4	12.9	10.8	3.5	63.5	13,902

<sup>a</sup>Germany in 1938.

Calculated from: The Society of Motor Manufacturers and Traders, Limited (The Motor Industry of Great Britain, 1949-1959).



share of the United States and Canada has declined from about 90 percent in 1948 to about 9 percent in 1958. This shift came primarily after 1952 when West Germany began penetrating the automobile market. Nonetheless, it has been noted that in 1958, 78 percent of automobiles in use in Argentina were of North American origin.

The automobile population in Argentina is influenced chiefly by changes in purchasing power, by the country's external trading position, which determines its ability to pay for imports, and by age and propensity to replace existing cars.

The automobile population in Argentina is large for a Latin American country; therefore, imports serve a large replacement market as well as the market for new cars. The decline of automobile imports has had a striking effect on the age of Argentine automobiles (see Table 28). In 1958 some 160 thousand units, or 41 percent, of the total were over 20 years old, up from 29 percent in the same age group in 1953.

The question confronting us is what underlying reasons are responsible for the decline in automobile imports of American origin? In seeking an answer, it is important to get to the heart of the matter by evaluating the Argentine economy.

#### The Argentine economy

A recent United Nations study<sup>6</sup> indicates that Argentina's gross

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<sup>6</sup>United Nations, Department of Economic and Social Affairs, Economic Commission for Latin America, Economic Survey of Latin America, 1956 (New York, 1957), pp. 8-9.





TABLE 28

## AGE DISTRIBUTION OF AUTOMOBILES IN ARGENTINA

Years	Number of units		Percentage distribution	
	1953	1958	1953	1958
Under 5	25,743	101,436	7.5	25.8
5 - 10	45,083	25,743	13.2	6.5
10 - 15	58,295	45,083	17.1	11.5
15 - 20	113,165	58,295	33.2	14.8
20 - 25	98,917	113,165	29.0	28.8
over 25	-	43,219	-	(12.6)
not classified	-	6,500	-	(12.6)
Total <sup>a</sup>	341,203	393,441	100.0	100.0

<sup>a</sup>Totals differ from the earlier registration figures of Table 26 due to different sources.

Compiled from: "The Argentine Motor Industry," Motor Business, No. 23, July, 1960, pp. 29, 30.

national product in U. S. dollars represented some 22 percent of the gross national product of all of Latin America in 1956, and is exceeded only by Brazil.

Argentina's economic growth as measured by its gross national product indicates a fourfold increase from about 62 billion pesos in 1950 to 317 billion pesos in 1958; national income has increased from 52 to 268 million pesos for the same years.<sup>7</sup> These values, being unadjusted by the substantial rise in prices and fall in the value of the peso suggest an unrealistic growth

<sup>7</sup> International Financial Statistics, Washington, D. C.: International Monetary Fund, XIII, No. 9 (1960), 48.



during this period. To assess the real magnitude of the increase and its importance for recent development of the country's economy, changes in purchasing power of the currency must be taken into account. Argentine national income, at 1953 prices, rose from approximately 102 billion pesos in 1950 to about 124 billion pesos in 1958, a modest increase in real terms (see Table 29). If demographic growth is taken into account, per capita income in 1958 actually stood lower than in the two previous years.

TABLE 29

ARGENTINA: ADJUSTED<sup>a</sup> NATIONAL INCOME, PER CAPITA INCOME  
AND THEIR INDEXES

	National income (Billions of pesos)	Per capita in pesos	Index (1953 = 100)	
			National income	Per capita income
1938	58.3	4643	60	87
1948	121.8	7562	129	148
1949	111.2	6823	118	130
1950	101.8	6322	108	122
1951	104.8	6125	110	117
1952	86.3	4890	92	94
1953	94.6	5239	100	100
1954	102.2	5562	108	106
1955	107.3	5727	114	109
1956	114.3	5983	121	114
1957	114.3	5872	121	112
1958	123.7	5868	131	112

<sup>a</sup>Income deflated by Argentina's cost of living index (1953 = 100).

1938	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
15	31	40	51	69	96	100	104	117	132	165	217

Calculated from: International Financial Statistics, Washington, D.C.: International Monetary Fund (several volumes); and United Nations, United Nations Statistical Yearbook (New York, 1958), p. 422.



In order to see this trend clearly, a comparison between national income and per capita income indexes is given in Table 29. These indexes show the impact of a rate of population increase greater than that of national income. While Argentina's population increased by more than 20 percent in the 11 year period,<sup>8</sup> the country's real national income increased by only 2 percent between 1948 and 1958.

It may seem at first sight that the low level of income has influenced the decline in automobile imports; however, correlation analysis (between per capita income and automobile imports) for the years under study suggests a low correlation coefficient of only 0.2026.<sup>9</sup> The indeterminacy of relationship between income and automobile imports is partly ascribable to the trend behavior of the two correlated variables, and partly by the long period of car shortage already discussed. These results were to be expected in view of the fact that only in the absence of balance of payments difficulties and other obstacles could there be a closer correlation between income and car imports.

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<sup>8</sup> Calculated from U. S. , Bureau of Foreign Commerce, op. cit., p. 3.

<sup>9</sup> The equation for correlation analysis for Argentina is:

$$r = \frac{NExy - (Ex)(Ey)}{\sqrt{[NEx^2 - (Ex)^2][NEy^2 - (Ey)^2]}}$$

Where r = Correlation coefficient; x = per capita income (adjusted); y = automobile imports; N = number of years covered

$$r = \frac{11 (192, 675) - (1, 264) (1, 651)}{\sqrt{[11 (147, 414) - (1, 264)^2][11 (346, 183) - (1, 651)^2]}} = 0.2026$$



### National objectives

For many years, Argentina has been an important producer of agricultural and livestock products entering into international trade. Shortage of essential commodities during World War II led Argentina to diversify its economy to such a degree that the industrial sector has been surpassing agricultural activities since 1954.<sup>10</sup> Nonetheless Argentina is basically dependent on its agricultural products, which provide the funds for the indispensable imports demanded by its expanding economy.

The internal instability of the Argentine economy has already been mentioned. The cost of living index (Footnote, Table 29) showed a rapid upward trend, especially since 1956, and constituted the most visible manifestation of the instability in question. As will be seen later in this part, the inadequate capacity to import and the lagging development of the basic sectors, principally transport and electric energy, influenced the inflationary cycle.

### Argentine balance of payments position

A United Nations survey of 1955<sup>11</sup> shows that since 1948 Argentina for the most part experienced an unfavorable balance of payments, fluctuating from a deficit of over 2 billion pesos (in 1950 prices) in 1948 to a small surplus in

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<sup>10</sup> U. S., Bureau of Foreign Commerce, *op. cit.*, p. 4, quoting Banco Central de la Republica Argentina, *Boletin Estadistico*, No. 1, January, 1958.

<sup>11</sup> Table 12 "Argentina: Capacity for payments and capacity to import 1945-55," as shown in United Nations, Department of Economic and Social Affairs, Economic Commission for Latin America, *Economic Survey of Latin America, 1955* (New York, 1956), p. 11.





1953. Another survey<sup>12</sup> by the United Nations also shows an unfavorable balance of payments of 226 and 217 million dollars, respectively, for 1957 and 1958. This state of affairs still continues. These fluctuations in the balance of payments result primarily from Argentina's reliance on primary agricultural products for its export income. The prices of these products, as shown in Table 30, are very unstable, and by their effect on Argentina's foreign payments position and on the level of purchasing power, they introduce an element of instability into the Argentine market.

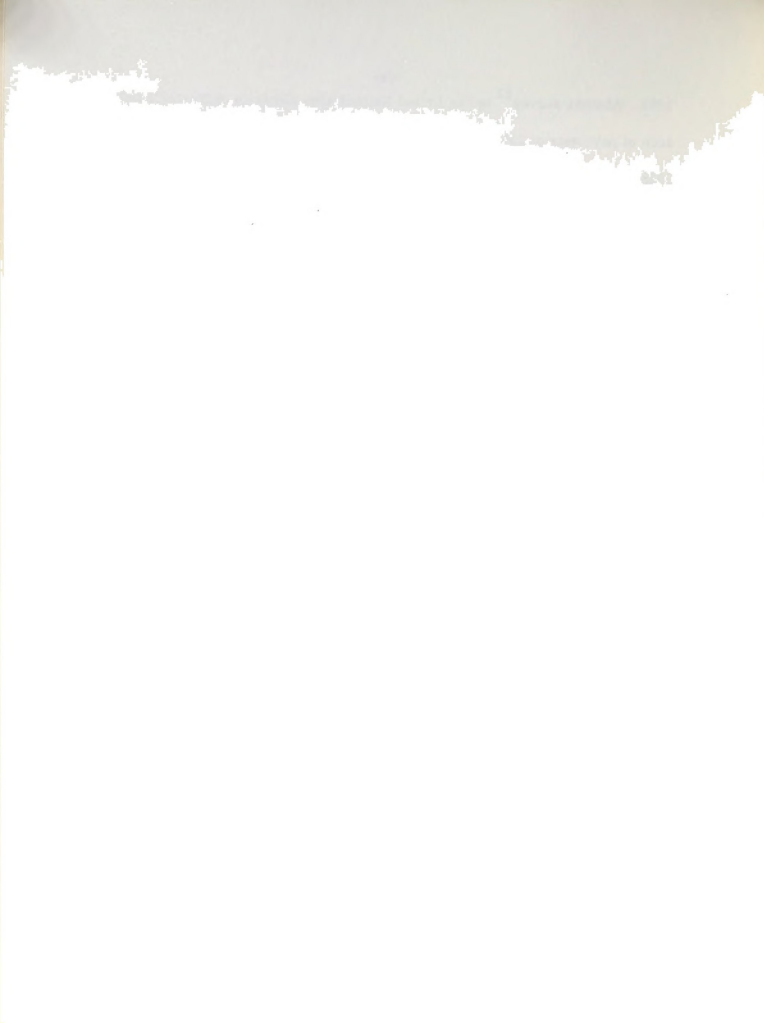
TABLE 30

ARGENTINA: INDEXES OF VOLUME OF EXPORTS, EXPORT PRICES,  
TERMS OF TRADE AND VOLUME OF IMPORTS  
(1953 = 100)

	1951	1952	1953	1954	1955	1956	1957	1958
Volume of exports	88	59	100	108	94	103	111	120
Export prices	120	105	100	90	87	78	76	73
Terms of trade	111	88	100	97	93	80	74	81
Volume of imports	175	128	100	135	161	148	166	175

Compiled from: International Financial Statistics, Washington, D. C. : International Monetary Fund (several volumes).

<sup>12</sup> Table 76 "Argentina: Balance of Payments in 1957 and 1958," as exhibited in United Nations, Department of Economic and Social Affairs, Economic Commission for Latin America, Economic Survey of Latin America, 1958 (New York, March, 1959), p. 94.



If the movement of prices on the world market is taken into account, the capacity to import is seen to have depended and still to depend upon exports of agricultural products. Argentina's exports accounted for 10 percent of its national income in the postwar period under review. Some 70 percent of the value of all the country's export is attributable to wheat, corn, meat, wool, hides, linseed, and quebracho extract (see Table 31). Since 1951 (the earliest

TABLE 31  
ARGENTINA: VALUE OF EXPORTS, TOTAL,  
AND BY PRINCIPAL CATEGORIES  
(In millions of U. S. dollars)

	1951	1952	1953	1954	1955	1956	1957	1958
Wheat	200.6	5.9	243.6	205.3	245.9	154.9	158.9	126.1
Corn	28.4	67.0	75.2	117.3	23.3	63.3	44.6	81.5
Meat	154.5	121.8	154.7	155.6	205.6	241.0	256.6	295.4
Wool	176.4	119.7	187.0	121.2	124.0	123.8	117.4	99.1
Hides	109.6	82.4	74.6	62.3	55.0	65.8	59.8	59.0
Linseed	126.7	17.8	26.4	42.8	29.0	19.0	32.6	38.8
Quebracho extract	40.7	36.6	38.7	30.1	27.3	26.3	24.8	19.0
Sub total	836.9	451.2	800.2	734.6	710.1	694.1	694.7	718.9
Total	1,169.4	687.8	1,125.1	1,026.6	928.6	943.8	974.8	993.9

Compiled from: International Financial Statistics, Washington, D. C.: International Monetary Fund (several volumes).

year for which comparable data are available), the value of exports of these commodities has shown a decline in line with the value of total exports. The shrinking value of exports is attributable to the fall in their relative prices, since the volume of exports has been rising (see Table 30). Since 1953, export



prices have been falling steadily, leading to a considerable reduction in Argentina's export earnings. This situation has been intensified by the fact that, despite the weakening terms of trade as shown in Table 30, Argentina's volume of imports has been, at the same time, increasing considerably, thus intensifying the external disequilibrium. These opposing forces have been in continuous conflict in the 1950's, causing a shortage of foreign exchange which has made it necessary for Argentina to curtail imports.

Argentine imports have usually exceeded exports, especially in trade with the United States, which has been supplying the country with one-tenth to one-fourth of the value of imports in some years. On the other hand, in trade with Europe Argentina's exports have normally exceeded imports (see Table 32). In the dollar area, where Argentina had to import a considerable proportion of its required fuel and capital goods, it could not find a market large enough for its agricultural products. It is very difficult for Argentina to balance its trade with the United States as almost all the products which Argentina exports are already available in the United States. Since surpluses obtained through trade with European countries could not be transferred to finance its deficit with the United States, Argentina has been experiencing a dollar shortage. The result of this difficulty has been intensified especially in 1958; its effect can be clearly seen from the gold and foreign exchange reserves (see Table 33).

It seems that Argentina did not take advantage of the accumulated exchange reserves during the war. Available resources were partly spent on imported goods which ranked low on the list of priorities and partly utilized to

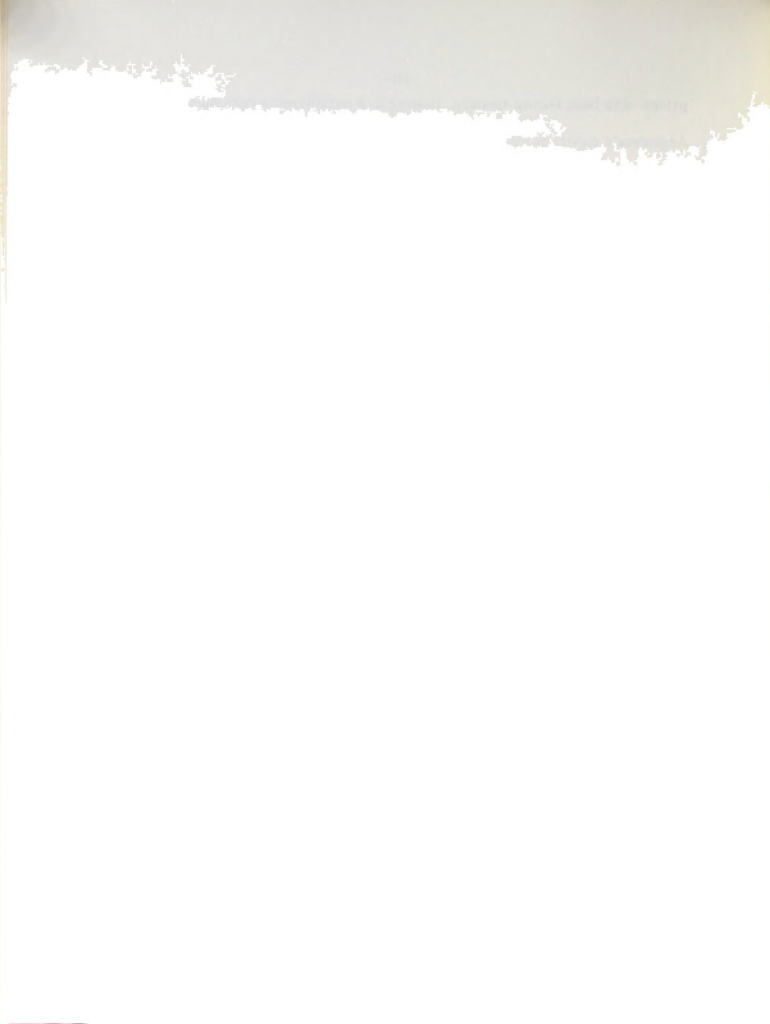


TABLE 32

ARGENTINA'S FOREIGN TRADE, TOTAL AND WITH  
NORTH AMERICA<sup>a</sup> AND EUROPE<sup>b</sup>  
(In millions of U. S. dollars)

	Total World			North America			Europe		
			Net			Net			Net
	Export	Import	Balance	Export	Import	Balance	Export	Import	Balance
1938	461	491	- 30	48	127	- 79	250	230	20
1948	1627	1590	37	177	745	-568	721	412	309
1949	975	1080	-105	101	134	- 33	473	453	20
1950	1168	1045	123	216	154	62	528	308	220
1951	1223	1230	- 7	233	241	- 8	562	387	175
1952	691	848	-157	163	156	7	322	213	109
1953	1109	726	383	190	112	78	462	198	264
1954	1056	844	212	106	129	- 23	467	236	231
1955	929	1173	-244	129	219	- 90	363	300	63
1956	944	1128	-184	128	320	-192	474	280	194
1957	975	1310	-335	125	394	-269	468	322	146
1958	994	1233	-239	140	279	-139	430	348	82

<sup>a</sup>United States and Canada.

<sup>b</sup>Major European automobile manufacturers.

Calculated from: Direction of International Trade, New York: Joint Publication, United Nations, International Monetary Fund, International Bank for Reconstruction and Development, Annual Issue, Series T (several volumes).

nationalize foreign investment, thus producing a far lower economic yield than

others might have offered.<sup>13</sup> Lack of industries manufacturing capital goods,

<sup>13</sup> After World War II, Argentina acquired the railroad system and several utility properties which were formerly a British capital investment, leaving British holdings at only £68.5 million by 1949, a fall from the peak of £453 million in 1934, quoting U. S., Commerce, Bureau of Foreign Commerce, *op. cit.*, p. 12; and United Nations, Department of Economic and Social Affairs, Economic Commission for Latin America, Economic Bulletin for Latin America, IV, No. 1 (New York, 1959), 16.





inadequacy of transport and energy in the postwar period have caused bottlenecks in the Argentine economy.

TABLE 33

ARGENTINA: GOLD AND FOREIGN EXCHANGE RESERVE<sup>a</sup>  
(In millions of U. S. dollars)

1938	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
426	809	n. a.	655	520	420	532	524	457	382	286	129

<sup>a</sup> Figures in this table refer to gross assets in gold and foreign exchange and exclude liabilities, which are difficult to calculate and in many countries are negligible.

Compiled from: International Financial Statistics, Washington, D. C. : International Monetary Fund (several volumes).

In addition, the growth of consumption which absorbed a larger volume of production, has drained exportable surpluses. This together with exchange policy<sup>14</sup> in favor of promoting internal redistribution of productive resources at the expense of agriculture in general and of agricultural exports in particular,<sup>15</sup> has intensified the external disequilibrium.

<sup>14</sup> The result of exchange rate and price policy applied to agricultural production and exports was as follows: an excessive external overvaluation of the peso caused an obvious disparity between its purchasing power on the home market and abroad. Under this system it meant that domestic prices fixed for the producer were far from encouraging as compared to those of exports. Quoting United Nations, Department of Economic and Social Affairs, Economic Commission for Latin America, Economic Survey of Latin America, 1955 (New York, 1956), p. 11.

<sup>15</sup> The purchase for export of crops from the farmer by the state trading agency, IAPI (Instituto Argentino para Promocion del Intercambio),



By late 1955 new measures for strengthening the exchange rate and agricultural prices were necessitated by the need to revive the agricultural activity and the capacity to import. Hence devaluation of the Argentine currency (from 5.00 and 7.50 pesos to the dollar to 18 pesos),<sup>16</sup> which took place in 1955, somewhat levelled down its external to its internal purchasing power. Prior to 1959, resort also was had to the multiple rate device. As a consequence of the devaluation of the peso, however, and the incentive offered to the producer, there was, according to the Economic Survey of Latin America,<sup>17</sup> a rise in the cost of living when it affected prices of consumer goods and an indirect one, through the rise in production costs, when it influenced prices of raw materials and capital goods. This increase in the cost of living was aggravated by wage increases which gave impetus to the acceleration of the inflationary process.

It must be noted, however, that all these measures intended to reduce the balance of payments disequilibrium were not sufficient. In fact this adverse balance of payments had become so serious by 1956 that trading countries were reluctant to extend further credit. As a result of the international payments agreement by the so-called Paris Club, the member nations were forced to

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at prices considerably below market prices was a factor which undoubtedly influenced the successive reduction in crop cultivation. Quoting U.S., Bureau of Foreign Commerce, op. cit., p. 7.

<sup>16</sup>International Financial Statistics, op. cit., XII, No. 12 (1956), 11.

<sup>17</sup>United Nations, Department of Economic and Social Affairs, Economic Commission for Latin America, Economic Survey of Latin America, 1958 (New York, 1959), p. 99.



exchange an orderly retirement of Argentina's commercial indebtedness.<sup>18</sup>

The aggravation of the adverse balance of payments which reached a high point during the three year period of 1956-58 compelled the Central Bank of Argentina to sell gold out of its reserves in these years as well as on other occasions. The seriousness of gold and foreign exchange reserves level, which indicate the capacity for a country to import, can also be shown by introducing the ratio of these reserves to imports. From a ratio of 96 in 1938, Argentina's position in reserves dropped to about 11 percent by 1958 (see Table 34).

TABLE 34

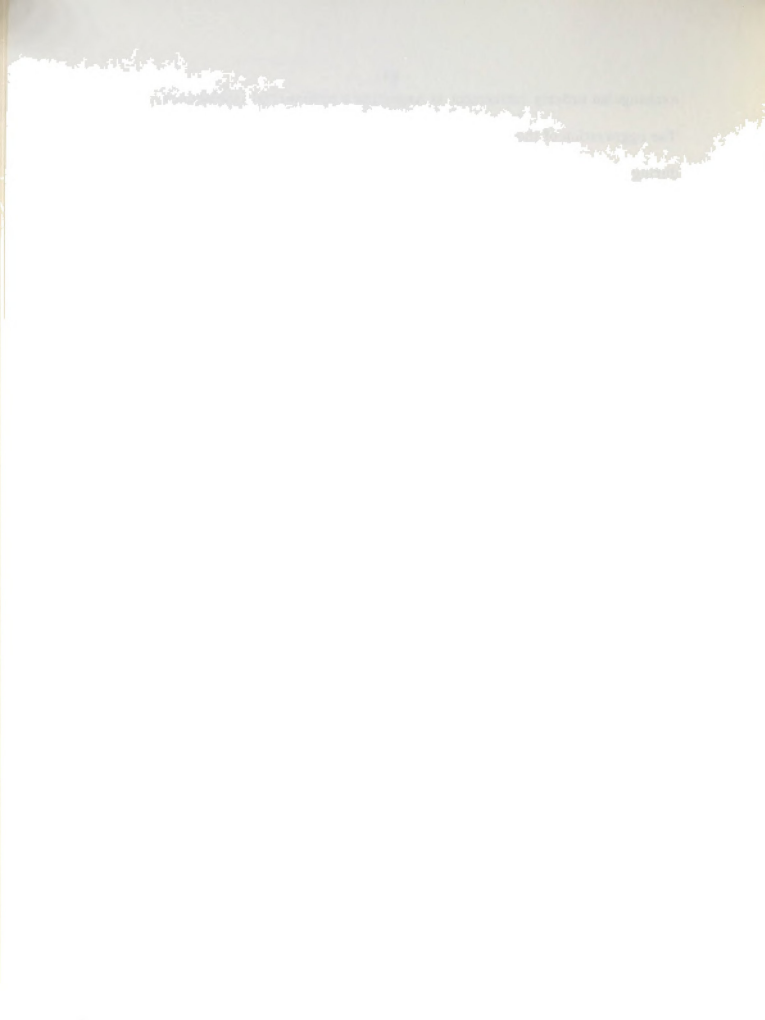
ARGENTINA: RATIO OF GOLD AND FOREIGN EXCHANGE RESERVES  
TO IMPORTS

1938	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
96.1	54.2	n.a.	55.2	35.1	35.6	66.9	53.5	39.0	33.9	21.8	10.7

Calculated from: International Financial Statistics, Washington, D. C. : International Monetary Fund (several volumes).

The worsening of Argentina's balance of payments position in the recent years under review made necessary a considerable tightening of import

<sup>18</sup> It was this situation that brought about the Paris Club, participated in by Argentina and 11 European creditor countries (Austria, Belgium-Luxembourg, Denmark, Finland, France, West Germany, Italy, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom; Finland became the 12th member of the Club on April 25, 1958). The Club set up a plan by which the various currencies of the participating countries have free convertibility among themselves, and annual payments by Argentina at fixed interest rates have been scheduled. Quoting U. S., Bureau of Foreign Commerce, op. cit., pp. 16-17.



restrictions in the latter part of 1958. Although import restrictions have helped to check Argentina's foreign exchange deficit, its position is still not wholly satisfactory. Fluctuating import restrictions are likely to continue to be imposed as we shall see in our discussion of the Argentine automobile industry.

#### The Argentine automobile industry

Automobile assembly plants of American companies were established in Argentina in the 1920's and for many years supplied virtually all the cars sold in that country. Since 1947, however, the plants have been almost closed down owing to the quantitative controls in the form of foreign exchange restrictions on the importation of component parts required for assembly. Nonetheless, the Big Three have been looking for more favorable conditions in Argentina in order to resume their activities in that country.<sup>19</sup>

During World War II, continental Europe ceased to be a source of Argentine imports, and the United States and the United Kingdom could not supply its requirements. With this experience in mind, the government policy under Juan Peron's regime was to industrialize the country. The government undertook the manufacture of light cars and trucks in the plant of the Air Ministry in Cordoba. Also in Cordoba, in 1955, Kaiser constructed a factory to produce jeeps and later, automobiles. Europeans as well as Americans have shown interest in the production of automotive parts and equipment, especially

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<sup>19</sup>"The Argentine Motor Industry, " Motor Business, No. 23, July, 1960, p. 27.





for trucks. These manufacturers have grown in size and in number as a result of the establishment of the automobile industry.<sup>20</sup>

With the end of the Peron regime in late 1955, the desire for free enterprise economy was encouraged by the government, although controlling measures to safeguard the excessive outflow of foreign exchange were retained in foreign trade. Argentina recognized the deficiencies in its electric power and fuel and in the transportation complex together with its obsolescent capital equipment and periodic shortages of raw materials. These deficiencies could be met only by imports. Consequently, the country reestablished a foreign exchange market in 1956 to liberalize import restrictions, hoping to remove the obstacles to economic growth. Through a \$100 million loan from the Export-Import Bank in 1956, the country was able to start rehabilitation of the state-owned railroads while calling for construction and expansion of fuel facilities.<sup>21</sup>

#### Implementation of national policy

Under the liberalization of import restrictions automobiles were imported at the free market rate of exchange, which was then between 40 and 45 pesos to the dollar as compared to the official rate of 18 pesos to the dollar. Although no exchange permit was required, the automobile producers were protected, for automobile imports were (and still are) subject to the provision

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<sup>20</sup>U. S. , Bureau of Foreign Commerce, op. cit. , pp. 10-11.

<sup>21</sup>Ibid. , p. 11.



of the following schedule of surcharges, according to the U. S. Department of Commerce;<sup>22</sup>

		1956 Surcharges
		<u>f. o. b. Value (Pesos)</u>
Tariff No. 625	Automobiles up to 1,000 kilograms in weight and not exceeding U. S. \$1,600	80,000
Tariff No. 626	Automobiles up to 1,000 kilograms in weight and exceeding U. S. \$1,600	225,000
Tariff No. 627 and 628	Automobiles between 1,000 and 1,500 kilograms in weight and not exceeding U. S. \$2,000	275,000
	Automobiles over 1,500 kilograms in weight and exceeding U. S. \$2,000 is prohibited	

It is true that Argentina has no overt discrimination, but since virtually all American standard automobiles fall in the highest tariff class of 275,000 pesos, price and weight restraints, as shown above, adversely affect our traditional position in the Argentine market. The effect of this is to reduce drastically the availability of new American cars to the Argentine middle class market, and encourage the ownership of smaller European cars instead (see Table 27). The increasing acceptance of the small and medium car (under 1,600 c. c. and under 2,800 c. c. respectively) is exhibited in Table 35.

Although no complete data are available for Argentina's total imports by engine capacity, a glance at this table gives us an idea as to the popularity of the small car. However, total Argentine automobile imports by weight is

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<sup>22</sup>Compiled from a communication between U. S. Department of Commerce, Bureau of Foreign Commerce, and its Detroit Field Office, March 7, 1956.



TABLE 35

ARGENTINE IMPORTS OF AUTOMOBILES FROM UNITED KINGDOM,  
BY ENGINE CAPACITY (c. c. group)

	Percentage Share <sup>a</sup>								Station wagons and estate cars
	Total units Actual	Under 1000	1000- 1600	1600- 2200	2200- 2800	2800- 3500	over 3500		
1948	1,033	38	43	8	7	1	3	-	
1949	277	-	20	29	24	-	27	-	
1950	109	10	46	18	8	13	5	-	
1951	1,070	-	52	1	47	-	-	-	
1952	348	-	18	62	16	1	-	-	
1953	45	2	16	13	58	9	2	-	
1954	47	-	15	49	28	9	-	-	
1955	36	-	22	-	69	8	-	-	
1956	705	13	70	1	2	-	-	14	
1957	444	-	65	2	2	1	-	30	
1958	484	-	87	1	4	-	-	7	

<sup>a</sup>Totals may not add exactly to 100 percent due to rounding.

Compiled from: The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, 1949-1959).

available only for 1959. The nature of Argentina's imports of automobiles from all sources in 1959 seem to reinforce the previous fact, since more than half of the imports fall into the small car group, most of the larger luxury cars come from the United States. Of the small cars (up to 1,000 kilograms) 3,556 were from West Germany (see Table 36).

Surcharges scheduled in 1956, as shown in preceding pages, were to be reduced by 5 percent for each year of the age of the automobile, but automobiles over three years of age were not to be imported. Furthermore, in



TABLE 36

## TOTAL ARGENTINE AUTOMOBILE IMPORTS, BY WEIGHT, 1959

Weight in kilograms <sup>a</sup>	Total imports	From U. S.
Up to 1,000	3,773	3
1,000 - 1,500	463	454
1,500 - 1,900	107	106
over 1,900	112	89
Luxury cars up to 1,900	3,035	2,508
Chassis up to 1,000	100	0
Chassis over 1,000	--	--
Total	7,590	3,160

<sup>a</sup> One kilogram equals 2.205 pounds.

Compiled from: United States Foreign Service Dispatch No. 1784, Buenos Aires to the Department of State, Washington, D. C.: June 15, 1960.

the same year a discount of 30 percent of the duty was allowed on a totally unassembled automobile, and 15 percent on semi-assembled imports.

Much of Argentina's increased imports of used automobiles could probably be attributed to this provision. In addition to the 5 percent allowance, the lowest surcharge would be applicable on the used cars relative to their low prices. Imports of used automobiles from the United States showed a substantial increase during 1956 and particularly in the subsequent years; an increase from 121 and 439 units in 1955 and 1956 respectively to over 2,000 and 2,800 respectively in 1957 and 1958.<sup>23</sup> Unfortunately there are no figures

<sup>23</sup> U.S., Bureau of Foreign Commerce, United States Exports of Domestic and Foreign Merchandise, Schedule B, Report No. FT 410, Part II (1952-1959).





available for used automobiles imported by Argentina from sources other than the United States, but it is probable that there are also imports of used cars from European sources. With regard to unassembled automobiles, it may be reasonably assumed that their weights as well as prices are relatively less than those of assembled cars; consequently they would benefit by the application of surcharges in the lowest price class and also in weight. Further benefits accrue by the allowable discount for unassembled cars. As a result of this measure more assembly operations were undertaken in Argentina, followed by manufacturing of automotive parts and equipment.

Argentine policy seems to have aimed at encouraging local assembly with a view to eventual domestic manufacture. This was implicit in a larger discount on completely knocked down cars than on the semi-assembled imports. In addition, quotas and heavy duties have been instituted intermitantly with a weakening of Argentina's foreign exchange position. For instance the heavy drain of scarce foreign exchange in the latter part of 1957 resulted in a total ban on motor vehicle imports for several months.<sup>24</sup>

Under the aforementioned restraints the Argentine demand for automobiles intensified and was reflected in prices. Used cars (40 percent were over 20 years old) sold at remarkably high prices (see Table 37).

Though Argentine demand for automobiles is high and likely to increase, there is little prospect of filling it by imports. Import restrictions will probably tighten and the country's market will be supplied from local

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<sup>24</sup> Global Automotive Market Survey and World Motor Census (New York: McGraw-Hill International Corporation, 1958), p. 8.



TABLE 37

ARGENTINA: REPRESENTATIVE USED VEHICLE PRICES IN MAY 1960  
(Prices in U.S. dollars by model year)<sup>a</sup>

	Model year			
	1935	1948	1953	1959
Chevrolet	1, 582	4, 200	6, 328	10, 948
Ford	2, 128	4, 256	5, 600	10, 349
Fiat (600)	913	1, 826	2, 920	--
Morris (8 h. p.) <sup>b</sup>	792	1, 268	--	3, 164
Vauxhall (10 h. p.) <sup>c</sup>	1, 036	--	--	5, 480

<sup>a</sup> Given in English pounds and was converted into U.S. dollars at the rate of \$2.80 to a pound.

<sup>b</sup> Morris sold in 1959 represents 1956 Minor.

<sup>c</sup> Vauxhall in 1959 was Victor model.

Compiled from: "The Argentine Motor Industry, " Motor Business, No. 23, July, 1960, p. 31.

sources as regards assembly operations as well as manufacturing. This prospect is reinforced by recent industrial development efforts of the Frondizi administration.<sup>25</sup>

#### Development of the automobile industry

The success of the Argentine motor industry clearly depends upon its ability to attract capital and domesticate it. By the end of 1958 Argentina had enacted a Foreign Capital Investment Law,<sup>26</sup> guaranteeing the same rights as

<sup>25</sup> "The Argentine Motor Industry, " Motor Business, op. cit., p. 30.

<sup>26</sup> Much of this discussion in the following few pages is taken from Ibid., pp. 24-32.



are accorded to capital of national origin. By the spring of 1959 a vehicle decree required manufacturers to produce evidence of five years' financial and technical capacity, and to avoid importation of machinery and equipment that are available in Argentina.

To domesticate the automobile industry a formula was set up for the gradual buildup of local content. In case of lack of compliance, a small surcharge on CKD (completely knocked down) automobiles was imposed in the first five years, rising to 300 percent thereafter. The automobile producers were yet more strongly favored, for automobile imports still were subjected to special surcharge on a weight basis. According to Argentine Embassy correspondence<sup>27</sup> surcharges on automobile imports (new or used, assembled or unassembled), under Decrees No. 9969/58, 5439/59 and 14823/59, are as follows:

1958 Surcharges f.o.b. Values  
(Argentine pesos per kilogram)

a) Automobiles up to 1,000 kilograms in weight and not exceeding U.S. \$1,600	500
b) Automobiles up to 1,000 kilograms in weight and not exceeding U.S. \$2,000	750
c) Automobiles over 1,000 and not exceeding 1,500 kilograms in weight and not exceeding U.S. \$2,000	900

In the same correspondence and under Decree No. 9969/58 it is stated that in no instance can surcharges be less than 240,000 Argentine pesos.

With such a protection it is virtually impossible for the United States

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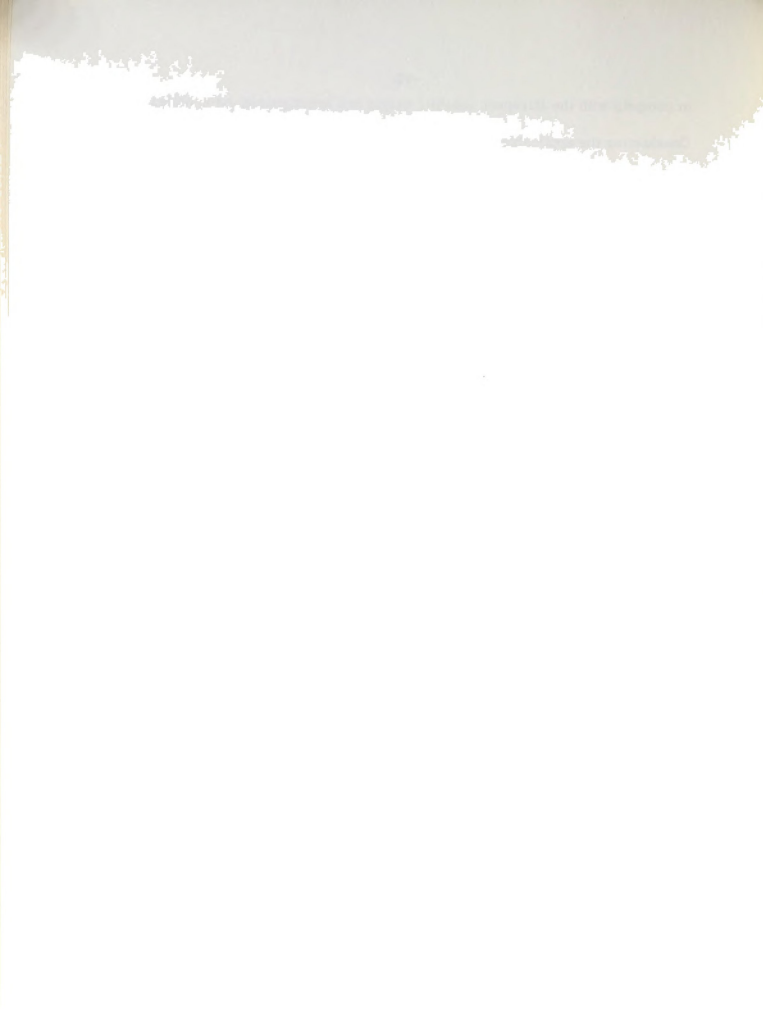
<sup>27</sup> Personal letter from the Embassy of the Argentine Republic, Office of Economic Counselors, Washington, D. C., DM No. 760/60, October 19, 1960.



to compete with the European smaller weight and lower priced automobiles. Considering the applicable surcharges and the encouragement of the Argentine government to develop the motor vehicle industry, more than twenty companies have already submitted proposals for manufacture in Argentina. However, only half of the proposals submitted by various companies, including the Big Three of the United States, have been approved since 1959. While most of the manufacturers are combining the production of automobile and trucks, Chrysler's, Ford's and General Motors' (Bedford of England) manufacturing is confined to trucks. Since the present study deals only with automobiles, the discussion will be limited to them. As noted before in this chapter, Kaiser, Fiat, and DINFIA are already producing vehicles in Argentina. Industria Kaiser, the largest producer of automobiles in Argentina, has recently attempted product diversification by acquiring the body tools of the defunct Alfa Romeo, and adding its own engine and transmission to market a new "Bergantin." Furthermore, in 1960 Kaiser signed a license agreement with Renault to produce the Dauphine. Since 1955 Kaiser has been enjoying a virtual monopoly in local production of cars and jeeps in the Argentine market, a position taken over from Mercedes Benz after Peron's fall.

DINFIA (the state-owned vehicle company) has been producing a car, the Graciela, which is powered by the imported East German Warthurg engine. Production of this car for 1959 was estimated about 700 units. Recently, DINFIA and Borgward Company of West Germany announced a joint venture to produce trucks, and it is hoped that the Isabella car will be produced eventually.





Fiat, which had its vehicle manufacturing limited to tractors, intends to include in its range of production Fiat car models 600 and 1100. In 1960 Austin of British Motors Corporation (BMC) planned under a license agreement with Siam di Tella of Argentina to produce an automobile made up of parts of the English firm's Riley, Oxford and A55 cars.

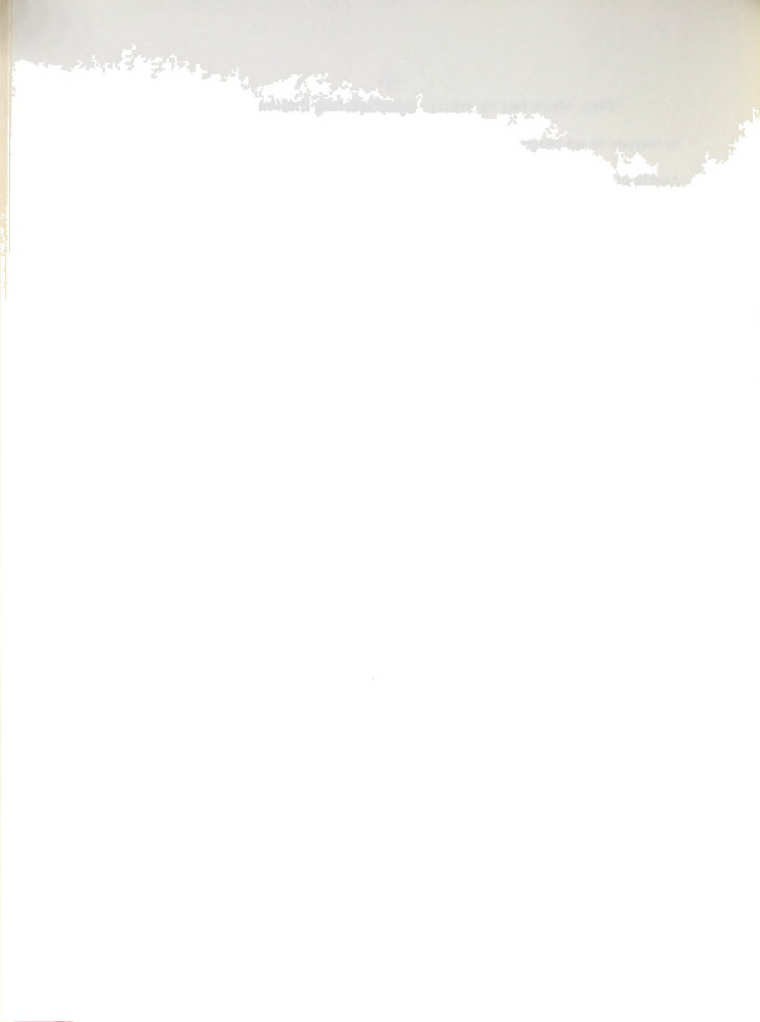
In addition to these major manufacturers, Citroen of France in 1960 seems to have intended to produce its 2CV model through Staudt, a local company; Peugeot to produce its model 403 through I. A. F. A. ; and the Metal-mecanica company of Argentina is programming production of two German B. M. W. cars. It is believed that a number of companies, among them Studebaker-Packard, Volvo, Auto Union and Scania Vabis, also submitted investment plans in 1959.

Following the Argentine decree of investment and import norms for the automobile industry in early 1959, a dozen new entrants rushed in with their manufacturing proposals hoping to profit quickly from the deferred demand.

One might reasonably expect a substantial increase in automobile production to have eventuated. A compilation by La Prensa<sup>28</sup> shows that the manufacturers' production schedule was expected to reach almost 70 thousand automobiles. The production schedules for various companies, as reported by

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<sup>28</sup> United States Foreign Service Dispatch No. 896, Buenos Aires to the Department of State, Washington, D. C., December 15, 1959 stated: "The Buenos Aires daily, La Prensa, in its issue of December 12, 1959 carried an article on the outlook for vehicle manufactures in Argentina in 1960. Based upon schedules submitted by the companies themselves, La Prensa compiled the presumed production" for 1960.



La Prensa, are shown in Table 38. La Prensa indicates that the production schedule of the various companies tends to be optimistic forecasts; within the industry circles no one anticipates that anything near that volume could be achieved. And if it were there is some doubt that the market could absorb the planned volume of output. Production and income in real terms are now increasing with industrialization and price stabilization, but it will be some years before Argentina can be regarded as a large automobile market.

TABLE 38

ARGENTINA: PRESUMED PRODUCTION OF AUTOMOBILES IN 1960<sup>a</sup>

Company	Number of automobiles
IKA (Kaiser)	31, 330
DINFIA	2, 000
DINBORG (DINFIA-BORGWARD)	500
Fiat	4, 500
Siam di Tella (Riley and Austin)	7, 200
Staudt y Cia (Citroen)	2, 500
IAFA (Peugeot)	4, 000
Others <sup>b</sup>	17, 420
Total	69, 450

<sup>a</sup> Most companies listed have plans to double their output.

<sup>b</sup> Consist of small organizations, which for the most part are planning to produce midget automobiles classified as "beetle" or "bubble" cars.

Compiled from: U. S. Foreign Service Dispatch No. 896, Buenos Aires to the Department of State, Washington, D. C., December 15, 1959 citing the Buenos Aires daily, La Prensa, December 12, 1959.

Kaiser's output throughout 1960-64 is scheduled to remain the same at



31 thousand automobiles, while the total output is to double by 1964. This will leave Kaiser with only one-fourth of the total units of output in 1964 as compared to three-sevenths in 1960.<sup>29</sup>

For Argentina to be able to absorb in 1964 twice the planned automobile output of 1960, its national income will have to expand at a very rapid rate, credit will have to be eased, and/or the consumers will be forced to buy less of other things. To be certain, the need for controlling domestic consumption to maintain a balanced economy, may militate against substantial increase in the demand for automobiles.<sup>30</sup>

Apart from the automobile market potential in Argentina, it is unlikely that the manufacturers' plans for automobile production would be realized in its early years of operation: Motor Business also asserts that the problem of inadequate local sources of supply is considerable, and the quality is rather poor by North American and European standards. However, encouraged by the demanding standards of automobile manufacturers, local quality is improving and becoming more standardized.

Argentina intends to expand its motor industry as rapidly as its economic conditions permit.<sup>31</sup> The considerable backlog of replacement demand for automobiles and the potential growth for new purchases should enable

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<sup>29</sup> Ibid.

<sup>30</sup> "The Argentine Motor Industry," Motor Business, No. 23, July, 1960, p. 31.

<sup>31</sup> Ibid., pp. 31-32.



automobile manufacturers in the next few years to attain a profitable level of output relative to **capacity**. **However**, the prospect for automobile imports to meet this demand is not overly bright. **Importing** is hindered by heavy **surcharges** which are unlikely to be reduced at a time when an automobile industry is being developed in Argentina.





Brazil

Brazil is the largest country in South America. It includes about one-half of the land mass of the continent, although much of its interior is unexplored and uninhabited. This country has over 60 million inhabitants, which is about half the total population of Latin America.

The Brazilian automobile market

Brazil is today the largest market for cars in Latin America. The postwar development of the Brazilian market has been rapid indeed. Between 1948 and 1958 automobile registrations in Brazil rose by more than two and one-half times, from 163 thousand to 437 thousand units, or more than four times its prewar level (see Table 39).

Despite its rapidly increasing population (from 52 million in 1950 to

TABLE 39

BRAZIL: AUTOMOBILE POPULATION AND NUMBER OF PERSONS TO A CAR

	1938	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
Car population (in thousands)	108	163	189	238	277	300	338	368	303 <sup>a</sup>	306 <sup>a</sup>	396	437
Number of persons per car	442	292	257	207	190	176	162	152	189	191	154	144

<sup>a</sup>These registrations originated in a different publication (as noted in source) and hence are not strictly comparable. It is also probable that some cars were "de-registered" during these years and brought back into use in later years.

Calculated from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1939, 1940-1960).



63 million in 1958)<sup>32</sup> Brazil has been able to improve its ratio of cars to the number of persons, from one car to 292 persons in 1948 to one car for every 144 persons in 1958. However, Brazil's car ownership still remains below the Latin American average, though comparatively better than in the postwar years.

Heretofore Brazil's market demand for replacements as well as new ownerships had to depend on imports. During the period 1948-58, car imports from the major automobile producing countries totalled 188 thousand units, over half from United States and Canada (see Table 40). It is clear from this table that about three-fourths of total automobile imports were accounted for in the first five years of the postwar period under review, and only one-fourth for the remaining period. In conjunction with the decline in the total automobile imports during the period 1953-58 inclusive, it is interesting to note the significant changes in the share of each major automobile producing country in the Brazilian automobile market. While North America had virtually dominated this market in 1938, its share declined considerably by 1958, with some fluctuations in the course of this period. West Germany has similarly, in recent years, penetrated the Brazilian market as it did that of Argentina. Restrictive measures on the importation of automobiles may have limited the increase in the car population in the latter part of the period.

To obtain a clearer picture of the decline in automobile imports and the shrinking share of the United States in the Brazilian market, the previous

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<sup>32</sup> U.S., Bureau of Foreign Commerce, WTIS, Basic Data on the Economy of Brazil, Part I, No. 58-87, December, 1958, p. 3.



TABLE 40

## BRAZIL'S AUTOMOBILE IMPORTS MARKET SHARE, BY COUNTRY OF ORIGIN

	U. S. & Canada (percent)	France (percent)	Italy (percent)	United Kingdom (percent)	West Germany <sup>a</sup> (percent)	Total number
1938	80.6	1.9	n. a.	0.2	17.3	8,095
1948	60.1	13.4	0.9	25.7	--	27,683
1949	42.6	11.3	2.1	44.0	--	17,977
1950	38.0	6.6	2.3	46.5	6.6	16,384
1951	67.6	5.5	0.9	18.9	7.2	48,879
1952	59.3	5.9	0.3	26.7	7.9	29,110
1953	59.9	6.3	--	9.4	24.3	8,636
1954	54.9	7.0	0.8	0.4	36.9	4,937
1955	45.5	5.0	0.3	1.1	18.3	3,368
1956	74.8	3.9	3.2	1.3	16.8	3,219
1957	33.6	4.1	0.8	0.8	60.7	6,122
1958	42.9	2.8	0.4	1.2	52.7	13,463
1959	21.9	10.8	0.1	0.1	67.2	27,627

<sup>a</sup> Germany in 1938.

Calculated from: The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, 1949-59). For 1959, United States Foreign Service Dispatch, No. 375, Sao Paulo, to the Department of State, Washington, D. C., April 13, 1960.

pattern of analysis will be followed, in discussing the market situation within the context of the general economic structure of the country.

#### The Brazilian economy

Brazil's gross national product rose substantially from 189 billion cruzeiros in 1948 to 883 billion in 1956 and to 1,289 billion in 1958.<sup>33</sup> This

<sup>33</sup> International Financial Statistics, Washington, D. C.: International Monetary Fund (several volumes).



phenomenal increase in current cruzeiros requires adjustment, however, to take into account the sharp **increases in prices**. Calculated on the basis of 1948 prices, the increase from 1948 to 1956 was 49 percent or, on a per capita basis, 23 percent.<sup>34</sup> National income in current cruzeiros rose from 158 billion in 1948 to 1,030 billion in 1958, an increase of five times and a half. Allowing for changes in the value of cruzeiro, however, the Brazilian national income, at 1953 prices, rose only 61 percent from 1948 to 1958 (see Table 41). This table also serves to show the per capita income during the same period, increasing by 22 percent. The percentage increase is even less than that of the national income, owing to a parallel increase of one million in the Brazilian population per annum.

No distribution of income statistics is available for Brazil. It might be helpful, however, to examine the regional distribution of national income of the various sections of the country as given by the U. S. Department of Commerce.<sup>35</sup> The most important state in Brazil, from the economic standpoint, is Sao Paulo. Being the largest industrial center in all South America, this state accounted for 32 percent of the national income in 1956. The Federal District combined with the states of Rio de Janeiro and Minas Gerais accounted for 31 percent; the combined states of Rio Grande do Sul, Parana, and Santa Catarina accounted for another 18 percent. Although the above mentioned

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<sup>34</sup> U. S. , Bureau of Foreign Commerce, *op. cit.* , p. 4, as calculated in a study prepared by a Joint Working Group of the Brazil National Economic Development Bank and the Economic Commission for Latin America.

<sup>35</sup> Ibid.



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TABLE 41

BRAZIL: ADJUSTED<sup>a</sup> NATIONAL INCOME, PER CAPITA INCOME  
AND THEIR INDEXES

	National income (Billions of cruzeiros)	Per capita income (cruzeiros)	Index (1953 = 100)	
			National income	Per capita income
1948	267.1	5,617	75	86
1949	310.2	6,402	86	98
1950	332.2	6,731	94	103
1951	377.5	7,173	106	110
1952	356.8	6,782	100	104
1953	356.7	6,526	100	100
1954	382.5	6,858	108	105
1955	406.6	7,105	114	109
1956	421.6	7,212	118	110
1957	420.0	6,886	118	105
1958	432.6	6,856	121	105

<sup>a</sup>Deflated by the cost of living index in Brazil (1953 = 100)

1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
59	58	64	67	82	100	118	141	172	206	238

Calculated from: International Financial Statistics, Washington, D. C.:  
International Monetary Fund (several volumes).

states comprised only 17 percent of the land area and 57 percent of the population in 1956, they accounted for 81 percent of the national income.

The economic status of these states is reflected in the number of their automobiles in use. About 88 percent of the Brazilian automobile population in 1957 were registered in the above-named states, with Sao Paulo having over 140 thousand units or one-third of the car population.<sup>36</sup>

<sup>36</sup>Global Automotive Market Survey and World Motor Census (New York: McGraw-Hill International Corporation, 1958), p. 9.



It would appear that the states with high income have the capacity to absorb more cars. The fact remains, however, that correlation analysis of adjusted per capita income and car imports indicates a negative coefficient of 0.1619.<sup>37</sup> Assuming a positive correlation between income and automobile imports, such a result is indicative of the existence of some barriers to the free patterns of expenditure.

Approximately three-fourths of automobile imports to Brazil took place in the first five years of the postwar period under review. The potential market for automobiles should in some way be related to income. Since 1952, however, there has been a considerable decline in automobile imports, though per capita income has been holding its own. With a relatively large car population in Brazil and a relatively high purchasing power of the people, it should be expected to have a higher level of car imports. Here too automobile imports are sharply influenced by the country's external trading position and its national objectives.

#### Brazil's external trading position

During World War II, overseas demand for Brazil's exports was

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<sup>37</sup>The equation for correlation analysis in Brazil is:

$$r = \frac{N\bar{Exy} - (\bar{Ex})(\bar{Ey})}{\sqrt{[N\bar{Ex}^2 - (\bar{Ex})^2][N\bar{Ey}^2 - (\bar{Ey})^2]}}$$

where r = correlation coefficient; x = per capita income (adjusted); y = automobile imports; N = number of years covered

$$r = \frac{11 (213, 009) - (1, 135) (2, 082)}{\sqrt{[11 (117, 581) - \{1, 135\}^2][11 (661, 846) - \{2, 082\}^2]}} = -0.1619$$



strong and at favorable prices; imports, on the other hand, were limited because foreign suppliers were geared to war production. In the postwar period Brazilian imports rose considerably because of pent-up demand and of new requirements for industrial expansion. However, balance was maintained during the early part of the period under review as a result of the favorable terms of trade (see Table 42). The trade balance has nevertheless

TABLE 42

BRAZIL'S FOREIGN TRADE: VALUE OF TRADE, VOLUME OF EXPORTS AND IMPORTS, AND TERMS OF TRADE

	Total (in millions of U. S. dollars)			Index (1953 = 100)		
	f. o. b. Export	c. i. f. Import	Net Balance	Volume of		Terms of trade
				Exports	Imports	
1938	289	295	6	n. a.	n. a.	n. a.
1948	1, 173	1, 134	39	135	61	55
1949	1, 089	1, 116	- 27	n. a.	n. a.	n. a.
1950	1, 346	1, 098	248	104	85	113
1951	1, 757	2, 010	-253	109	105	112
1952	1, 409	2, 009	-600	85	96	97
1953	1, 539	1, 319	220	100	100	100
1954	1, 562	1, 633	- 71	100	126	136
1955	1, 423	1, 307	116	109	123	106
1956	1, 483	1, 234	249	111	102	99
1957	1, 391	1, 489	- 98	103	96	96
1958	1, 243	1, 353	-110	99	87	93

n. a. : not available.

Calculated from: Direction of International Trade, New York: Joint Publication by United Nations, International Monetary Fund, and International Bank for Reconstruction and Development. Annual issue, Series T (several volumes); and International Financial Statistics, Washington, D. C.: International Monetary Fund (several volumes).



been negative in half of the postwar years. Several reasons underlie the unfavorable balance of trade, among them are the following: heavy imports in the early postwar period, excessive imports caused by the fear of a spread of the Korean War, and in recent years, the fact that imports were somewhat relaxed in unrealized anticipation of higher receipts from coffee exports.<sup>38</sup>

Foremost among import commodities have been fuel (most important category), industrial raw materials, machinery and transportation equipment. Official statistics suggest that only 5 to 6 percent of the total value of imports in recent years under study are in the less essential commodity group.<sup>39</sup>

Brazil's export concentration lies in these commodities, coffee, cotton and cocoa beans, together representing 62 to 84 percent of the total value of exports in 1948-58. Coffee alone accounted for over 60 percent (over 70 percent in some years) of its total shipments abroad in the same period (see Table 43). For the period under consideration, the decline in coffee exports has been reflected in the total value of exports. Since 1956, the decline has been especially noticeable due in part to the deterioration of the terms of trade, in addition to the decline in the export volume in subsequent years.

The United States has been by far the biggest customer for Brazil's principal export, coffee. For that matter the United States has been by far the largest market for Brazil's exports as a whole, accounting for 40 to 50 percent

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<sup>38</sup> U. S., Bureau of Foreign Commerce, op. cit., p. 16.

<sup>39</sup> Ibid.





**BRAZIL: VALUE OF EXPORTS, BY PRINCIPAL CATEGORIES**  
(In millions of U. S. dollars)

	Coffee	Cotton	Cocoa	Total categories
1948	488	183	58	729
1949	628	108	52	788
1950	860	105	78	1,043
1951	1,051	207	69	1,327
1952	1,051	34	41	1,126
1953	1,088	102	75	1,265
1954	948	223	135	1,306
1955	844	131	91	1,066
1956	1,030	86	67	1,183
1957	846	44	70	960
1958	688	25	89	802

Compiled from: International Financial Statistics, Washington, D. C.: International Monetary Fund (several volumes).

of the total value for most of the years 1950-58. The total value of trade between Brazil and North America is given in the accompanying Table 44. In short, Brazil's foreign exchange, and its dollar position in particular, depend primarily on coffee exports. It can be seen from Table 44 that Brazil normally has a trade surplus with the United States. A large proportion of dollar receipts from exports has been utilized for nontrade invisibles and petroleum products imported from Venezuela, either directly or indirectly from the refineries in the Netherlands Antilles.<sup>40</sup> Argentina was the chief supplier of

<sup>40</sup>Ibid., p. 17.



TABLE 44

**BRAZIL: VALUE OF TRADE WITH NORTH AMERICA<sup>a</sup>**  
(In millions of U. S. dollars)

	1938	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
Exports (f. o. b.)	100	524	566	752	882	749	770	594	617	753	678	548
Imports (c. i. f.)	75	606	488	391	875	886	407	581	321	365	572	501
Net balance	25	-82	78	361	7	-137	363	13	296	388	106	47

<sup>a</sup>United States and Canada.

Calculated from: Direction of International Trade, New York: Joint Publication by United Nations, International Monetary Fund, and International Bank for Reconstruction and Development, annual issue, Series T (several volumes); and International Financial Statistics, Washington, D. C.: International Monetary Fund (several volumes).

wheat, followed by Canada. Japan and West Germany at various times purchased a considerable volume of cotton from Brazil. Brazil's trading position can be seen from Table 45, which displays the 1950-58 percentage distribution of trade by areas for which comparable data are available.

#### National objectives

Brazil is traditionally associated with coffee; it is the cornerstone of its economy. This country is the world's leading coffee producer and exporter, accounting for over one-half of world production in 1957-58. Coffee growing is a feast or famine industry. It takes five years for a coffee tree to produce the first crop. Once in production, it will continue to bear fruit for fifteen years or more. As a result, both a shortage of supply and overproduction may last for a long time. For instance, the decline in the coffee market and its low



BRAZIL: PERCENTAGE DISTRIBUTION OF TRADE BY AREAS

	Exports									
	1950	1951	1952	1953	1954	1955	1956	1957	1958	
U. S. and Canada	56	50	53	50	38	43	51	49	44	
Latin America	8	9	9	7	9	10	7	10	12	
Continental Europe	22	24	28	31	35	28	26	24	28	
Sterling area	10	13	4	6	6	6	5	6	6	
Rest of world	4	4	6	6	11	13	11	11	10	
	Imports									
U. S. and Canada	36	44	44	31	36	25	30	38	37	
Latin America	14	11	9	23	14	22	19	16	18	
Continental Europe	34	32	35	38	38	36	27	30	30	
Sterling area	15	12	11	5	2	4	7	7	7	
Rest of world	1	1	2	3	10	13	15	9	8	

Compiled from: International Financial Statistics, Washington, D. C. :  
International Monetary Fund (several volumes).

price during the thirties and early forties resulted in the abandonment of many Brazilian plantations. However, the number of coffee trees has increased from 2.4 billion in 1952 to 3 billion in 1957. Coffee is subject not only to violent price fluctuations on consumer markets, but also to the hazards of weather conditions. For example in 1956-57, as a result of frost damage, Brazil's coffee crop totalled 18 million bags as compared to 23.5 million bags in 1955-56 and 24 million bags in 1957-58.<sup>41</sup>

<sup>41</sup> Ibid., p. 5.



With these factors in mind, government and farmers alike have been trying to diversify agricultural production, thus lessening the dependence on coffee. Furthermore, industrial development received a new impetus during World War II when foreign supplies were cut off. Industry, which is the second important economic activity, generating about one-fourth of the national income, is showing a tendency to grow. Nevertheless Brazil is still an agricultural country, farming still accounting for approximately 30 percent of its national income.<sup>42</sup>

Brazil's industrial development started, however, in the field of consumer goods such as textiles and in the food processing industry, both of which are based on indigenous agricultural produce.<sup>43</sup> Turning to capital goods, industry has made large strides in recent years, particularly in iron and steel, chemicals, cement, communication equipment, and rubber goods.

After the Second World War, industry had the benefit of strong government support, either through import controls or through a foreign exchange system which made it cheap to import raw materials or equipment for industry but expensive to import competitive products. (This will be explained in more detail later.)

#### Brazil's balance of payments

During the early years of the fifties, the persistent improvement in

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<sup>42</sup>United Nations, op. cit., 1959, p. 114.

<sup>43</sup>Much of the discussion in the following page is taken from U. S., Bureau of Foreign Commerce, op. cit., pp. 9-13.





Brazil's terms of trade helped to promote a high level of economic activity, and a perceptible rise in per capita income. The result was a rise in entrepreneurs' profits and total demand, and an enlarged capacity to import.

As has been mentioned earlier the pent-up demand after the war and the fear of shortages in foreign goods during the Korean conflict encouraged Brazilians to import heavily. In addition the increasing output of consumer goods, influenced by the rise in consumption, and the inflationary repercussions (measured by the rise in the cost of living, Table 41) which had their start in the early fifties, made themselves felt strongly in such commodities. In the course of the postwar years under study growth of income has been more or less uniform, whereas the capacity to import has been subject to marked fluctuations in the volume of exports and in the terms of trade. This growth of income caused an increase in demand for both domestically-produced and imported consumer goods in addition to imported materials and fuels required for industrialization, hence the propensity to import remained at high levels, accompanied by a rise in the domestic consumption of export commodities which led to the contraction of such crops as cotton, cocoa and others (see Table 43). These circumstances might have had a disastrous effect on Brazil's economic development in view of the high percentage of agricultural commodities going into its export trade (varying between 60 and 80 percent yearly).

It was this type of pressure, originating in the rapid rate of Brazilian economic development, that was responsible for imbalance. Most of the postwar years under study indicate the disequilibrium position of Brazil,



reaching high adverse balance of payments in the years 1951 and 1952 (see Table 46). The degree of seriousness of this disequilibrium is reflected in the capacity to import as a percentage of total imports showing a ratio of 79 and 75 in 1951 and 1952 respectively.

TABLE 46  
BRAZIL: IMPORTS AND CAPACITY TO IMPORT  
(In millions of cruzeiros at 1950 prices)

	1948	1949	1950	1951	1952	1953	1954	1955
Imports	16,376	18,305	21,980	32,370	28,200	21,704	30,274	25,793
Capacity to import <sup>a</sup>	16,043	16,091	23,182	25,486	21,044	23,479	27,951	27,441
Capacity to import as percent of imports	98	88	105	79	75	108	92	106

<sup>a</sup>"Capacity to import" here defined as payments available for imports.

Compiled from: United Nations, Department of Economic and Social Affairs, Economic Commission for Latin America, Economic Survey of Latin America, 1955 (New York, 1956), p. 14.

For Brazil's balance of payments position in later years, another United Nations survey gives the figures in current United States dollars.<sup>44</sup> The survey suggests a favorable balance of payments of \$190 million for 1956 and an adverse balance of \$200 and \$280 million for 1957 and 1958 respectively. The critical position of this unfavorable balance reached in 1958 is again shown

<sup>44</sup>United Nations, op. cit., 1959, p. 107.



by the capacity to import of only 74 percent of total imports. The ratio of gold and foreign exchange reserves to imports is indicative of the country's capacity to import. The fluctuating ratios show the degree of seriousness afflicting Brazil (see Table 47).

TABLE 47

BRAZIL: RATIO OF GOLD AND FOREIGN EXCHANGE RESERVES  
TO IMPORTS

1938	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
20.2	66.8	64.4	60.7	25.7	26.3	45.9	29.6	37.6	49.5	32.0	34.4

Calculated from: International Financial Statistics, Washington, D. C. : International Monetary Fund (several volumes).

It has been noted that the effective demand for imports, particularly of automobiles, depends to a marked degree on the buoyancy of Brazil's export income. Exports are dominated by coffee and a small number of agricultural commodities. It must be remembered that exports of these commodities, and coffee in particular, are liable to sudden and drastic changes in value as world price levels fluctuate. This factor, together with the heavy imports, have been perhaps some of the reasons why Brazil has been forced to manipulate her import and export regulations so frequently during the past few years under review.



Brazil's foreign trade regulations<sup>45</sup>

In Brazil, export licenses have been required since 1955 as well as shipping permits showing evidence of intention of converting export receipts into cruzeiros. Foreign exchange must be negotiated through the Bank of Brazil at the official rate of 18.36 cruzeiros to a dollar, or the equivalent in other currencies. In order to compensate for the overvaluation of the cruzeiros at the official rate, a bonus is to be paid to the exporter varying according to the commodity imported and the foreign currency received. The bonuses allowed in each category for exports in convertible currencies have been higher (about 4 percent) than those allowed for exports in other currencies. These bonuses are payable in addition to the official exchange rate (which for U.S. dollars is 18.36 cruzeiros) for the various currencies. Since the establishment of the system in January 1955 there have been several shifts of commodities from one category to another depending on the market condition abroad or rising costs in a domestic industry. Since the latter part of 1958, there have been three export categories: the higher the category, the higher the export bonus for which the product qualifies. The third category, comprising minor export products, may be negotiated in the free exchange market. Exchange resulting from major export products must be negotiated at the official rate through the Bank of Brazil. Since coffee is in the lowest category, it seems that the system has been designed to promote the export of other commodities and to lessen

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<sup>45</sup> For further details see U.S., Bureau of Foreign Commerce, WTIS, Licensing and Exchange Controls--Brazil, Part 2, No. 60-41, August, 1960. Much of the discussion in the next few pages is taken from the above source.





the country's dependence on a single product.

In addition to export promotion, the exigencies of the foreign exchange led Brazilian government to use various types of measures to control imports as well. The mechanics of the control system have been designed to prevent the accumulation of a payments backlog and to foster domestic industries. The system of exchange and import licensing controls which was established in 1953 resulted in the application of multiple rates of exchange. Under this complex system imports were grouped in five categories with goods considered essential in the first category and least essential in the last. The effective rate of any import has been, therefore, the official selling rate of 18.82 cruzeiros per dollar, plus an exchange tax of 10 percent in addition to the bid prices (referred to as agios or premiums) paid for the auction certificate.

Explanation of the foreign exchange system during period under treatment falls outside the scope of this study, however it is important to understand certain features that are applicable to automobile imports. Auction rates have varied widely depending upon the currency being auctioned and the category of imports. In general, the premiums for dollar certificates, in all categories, have been considerably higher than for other currencies. The effectiveness of import restrictions is partly governed by the auction of limited amounts of foreign exchange and the payment of the resulting exchange surcharges. The total exchange auctioned during 1953-58 is shown in Table 48.

The new tariff legislation of 1957 provides for the continuation of the exchange system but in a modified form. Imports have been reduced to two categories, General and Special (nonessential). The cruzeiro cost to the



TABLE 48

BRAZIL: TOTAL EXCHANGE AUCTIONED  
AND QUOTATION FOR THE DOLLAR<sup>a</sup>

	1953	1954	1955	1956	1957	1958
Millions of U.S. dollars	156	835	559	597	576	485
Average weight <sup>a</sup>	34	50	(69)(99) <sup>b</sup>	(112)(77) <sup>b</sup>	85	143

<sup>a</sup> Average weighted quotation, number of cruzeiros for the dollar, including the basic official exchange rate.

<sup>b</sup> Each figure refers to half year weighted average.

Compiled from: International Financial Statistics, Washington, D. C.: International Monetary Fund, April, 1955, p. 56; and United Nations, Department of Economic and Social Affairs, Economic Commission for Latin America, Economic Survey of Latin America, 1957 (p. 127), 1958 (108), New York: 1959.

importer is the auction premium plus the official selling rate of 18.92 cruzeiros to the U.S. dollar. Import licenses are required only for the Special category, but certificates of exchange cover are required for others.

During the latter part of 1958 premiums for foreign exchange rose substantially from about 70 and 225 cruzeiros to a dollar in the General and Special import categories respectively to about 200 and 300 cruzeiros in the same categories. Early in 1959, when the amount of foreign exchange to be auctioned was reduced, the premiums increased still further to about 280 and 400 cruzeiros for the two categories.<sup>46</sup> From the above discussion, it is clear that the combination of tariff duties and the exchange auction system

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<sup>46</sup> U. S., Bureau of Foreign Commerce, WTIS, Economic Development in Brazil, 1958, Part 1, No. 59-44, April, 1959, p. 11.



makes the importation of nonessential (luxury) goods very expensive in terms of cruzeiros. Even commodities listed as General (after several changes, automobiles have been in this category since late 1958), are almost as expensive as those listed as Special. Auctioning of foreign exchange is subject to constant study and revision; as a result there is little reason to believe that import premiums on cars will be reduced while Brazil is in the process of developing the motor vehicle industry.

#### Brazil's automobile industry

As has been mentioned earlier, Brazil has been encountering several developmental problems, among them transportation. The absence of proper transportation facilities has been perhaps the greatest impediment to the continued growth of the Brazilian economy. Among several possible causes two are particularly prominent: population dispersion and a mountainous escarpment.

Most of the population is isolated in clusters along the coastal region, primarily the northeastern corner of the country, the Rio-Sao Paulo district and the southernmost states. The escarpment which runs along the Atlantic coast from the northeast to the southwest prevents the rivers of the interior, almost without exception, from reaching the coast.<sup>47</sup> For a long time, coastal shipping was the only lateral connection between various coastal population centers, since railroads tended to fan out into the hinterland from the ports.<sup>48</sup>

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<sup>47</sup> The significance of this should be particularly clear to Canadians, who depend heavily on the Great Lakes-St. Lawrence system.

<sup>48</sup> U.S., Bureau of Foreign Commerce, op. cit., No. 58-87, p. 12.



The deterioration of the railroads and coastal shipping has encouraged reliance on the alternate forms of transportation, highways and the air, for both passenger and commercial goods transport. It was not until the end of World War II, however, that a national highway construction was envisaged. As a result highways increased from about 172 thousand miles in 1947 to approximately 300 thousand miles in 1956. More than 2,600 miles were paved by 1956, 40 percent of it in Sao Paulo and Rio de Janeiro. A five-year plan for 1956-60 called for the construction of some 8,000 miles and the paving of 3,500 miles.<sup>49</sup> The use of highway transportation has in turn been encouraged by the rapid construction of good roads between the important industrial centers.

#### Implementation of national policy

It has been indicated earlier that in the early postwar period Brazil imported a relatively large number of automobiles. The heavy imports during that period resulted in a considerable drain on Brazil's foreign exchange reserves, aggravated by the fall in the world price of coffee after the Korean conflict. When the balance of payments position became acute in 1951-52 and again in 1954, the Brazilian government was forced to limit automobile imports to a minimum by introducing a series of complex import restrictions. Table 41 illustrates the effect of such measures in the decline of automobile imports into Brazil.

Brazil has also moved to establish a domestic motor vehicle industry

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<sup>49</sup> Ibid. , p. 13.





as part of a total industrial developmental program. From 1947 to the early fifties, the development consisted simply of assembly operations. The several assembly plants provided some incentive for local auto parts manufacturers which expanded from 20 manufacturing establishments in 1948 to 300 in 1953.<sup>50</sup>

During the early fifties several government decrees were issued in connection with the establishment of the automotive industry, starting with commercial vehicles (motor trucks, jeeps, station wagons, and buses). After the imposition of strict import measures on automotive parts produced in Brazil, and the prohibition of built-up commercial vehicle imports, considerable concessions were made to automotive firms planning manufacturing facilities in the country.

For instance commercial vehicle chassis containing 65 percent of locally made components were classified as semi-manufactured products subject to an ad valorem duty of 35 percent. A local content of 80 percent, by weight, rendered the chassis duty free.<sup>51</sup>

Brazil has had rigorous restrictions on automobile imports. Quotas and foreign exchange allocations for the importation of automobiles have always been restrictive. Furthermore, high import tariff duties (up to 150 percent ad valorem on c. i. f. values), high consumption taxes (15 percent on duty-paid

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<sup>50</sup>United States Foreign Service Dispatch No. 353, Sao Paulo to the Department of State, Washington, D. C. , March 31, 1960.

<sup>51</sup>"The Brazilian Motor Industry, " Motor Business, No. 18, March, 1959, p. 31.



value) and a surtax (5 percent ad valorem on c. i. f. value) have limited automobile imports.<sup>52</sup> A more severe restriction than the tariff system has been foreign exchange control which resulted in an almost prohibitive exchange rate for automobile imports.

It can be understood readily why automobile imports suffered a setback in Brazil. The decline in the United States share in the Brazilian car market can be reasonably attributed to the fact that a large proportion of American automobiles weigh more than 1,600 kilograms (3,527 pounds) and are generally priced higher than their European counterparts. America's lightest four-door sedan weighs 2,725 pounds. Chevrolet, Ford and Plymouth weigh between 3,300 and 3,500 pounds.<sup>53</sup> Consequently the 150 percent ad valorem duty has been applied to the American cars in addition to higher exchange dollar premiums than for other foreign currencies; the result is a phenomenal initial cost.

The exchange and tariff systems are designed to protect and encourage the development of domestic industries and to preclude the creation of reserve drain resulting from the serious shortage of foreign exchange currently afflicting Brazil.

More than half of the automobiles registered in Brazil as late as January 1, 1959 was of American origin. However, continental Europe is

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<sup>52</sup> 80 percent ad valorem on c. i. f. value of automobile imports weighing not more than 1,600 kilograms and 150 percent ad valorem if weighing more than 1,600 kilograms: quoting U.S., Bureau of Foreign Commerce, "Statement of rates of import duty on Automotive Vehicles," May 27, 1958.

<sup>53</sup> "Those Economical Foreign Cars," Changing Times, July, 1957, p. 19.



making inroads in the Brazilian market. It is worth noting that only a small proportion of the European automobiles registered were from American manufacturing subsidiaries (see Table 49).

TABLE 49  
AUTOMOBILE REGISTRATION IN BRAZIL, BY MAKE  
(January 1, 1958)

Car model	Number of units	Car model	Number of units	Car model	Number of units
Austin	10,363	Hudson	7,231	Prefect-Thomas	3,333
Buick	7,849	Kaiser	3,607	Renault	6,019
Cadillac	7,631	Lincoln	5,082	Standard-Vanguard	6,736
Chevrolet	93,839	Marquess	3,343	Studebaker	11,100
Chrysler-Fargo	7,967	Mercury	16,260	Taunus-Rhein	1,218
Citroen	7,967	Morris	7,074	Vauxhall-Bedford	3,891
Consul-Zephyr	2,308	Nash	5,385	Volkswagen	5,942
De Soto	5,413	Oldsmobile	7,205	Volvo	1,596
Dodge	16,639	Opel	3,250	Willys	381
D. K. W.	4,708	Packard	5,508	Others	18,236
Ford	90,964	Plymouth	6,948		
Hillman	4,872	Pontiac	6,792	Total	395,909

Compiled from: Global Automotive Market Survey and World Motor Census (New York: McGraw-Hill International Corporation, 1958), p. 9.

European competition intensified in 1959. Brazilian car imports from the major automobile producing countries totalled approximately 28 thousand units, with West Germany providing (in round percentages) 67 percent, United States 22 percent and France 11 percent.<sup>54</sup>

<sup>54</sup>United States Foreign Service Dispatch No. 375, Sao Paulo to the Department of State, Washington, D. C., April 13, 1960.



Trend of automotive development

Under regulations issued in 1956 and 1957, the Brazilian government established the Executive Group for the Automotive Industry (GEIA) to encourage and supervise the manufacture of automotive vehicles by various foreign firms.

Since Brazil was fostering the development of the automotive industry, special arrangements were instituted to lessen the effects of the tariff and exchange control system on the importation of parts required by this growing industry. In February 1957, the Brazilian government approved a law granting thirty months' suspension of all tariffs and taxes on imports of machinery and equipment for the automotive industry under the plan approved by GEIA, in order to encourage and promote a national car industry to replace the assembly operations.<sup>55</sup>

A special exchange rate for imports of parts and accessories for the manufacture of automobiles was granted to companies with production plans approved, prior to the end of 1957, by GEIA. Such manufacturing plans require the utilization of a gradually increasing proportion of parts produced in Brazil. This special exchange rate, effective until June 30, 1959, was the official selling rate (18.82 cruzeiros per U. S. dollar) plus a surcharge equal to the weighted average of the premiums paid in the exchange category of the commodity and the currency involved, during the 6 months prior to August 14, 1957. The surcharge has gone up since then.<sup>56</sup>

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<sup>55</sup> Global Automotive Market Survey and World Motor Census (New York: McGraw-Hill International Corporation, 1957), p. 13.

<sup>56</sup> U. S. , Commerce, "Restrictions on the Importation of Assembled and CKD Automotive Vehicles," May 27, 1958.





In addition to the above, specific provision<sup>57</sup> was made to allocate \$12 million and \$8 million in foreign exchange during 1958 and 1959 respectively, for the importation of automobiles weighing not more than 1,600 kilograms and valued at no more than \$2,300 f.o.b. These automobiles were to be imported through specific exchange auctions, with the minimum cost of exchange equal to 100 cruzeiros per U.S. dollar. They could be imported by manufacturers and assemblers, provided the Ministry of Transportation and Public Works was informed. In this case the automobiles had to be imported completely knocked down (CKD), showing proof of the purchase of locally manufactured parts equivalent to the omitted items, and reductions in import duties were to be granted in proportion to the omission of weight. In other words, the more the value added in the importing country, the more the reduction in duties, as is exhibited below.

Weight omission (%)	15	25	35	45	over 45
Reduction in duties (%)	40	60	70	80	90

It must be noted, however, that of these special foreign exchange auctions, only a part was in convertible currencies. By the end of 1958, when negotiations were closed, nine automotive vehicle factories (National Motor Factory (F.N.M.), Ford, General Motors, International Harvester, Willys, Mercedes Benz, DKW-Vemag, Volkswagen, and Romi-Isetta) were in operation. Agreement had also been reached between GEIA and other manufacturers: Borgward, N.S.U., B.M.U., Simca, and Toyota. The local development of

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<sup>57</sup> U.S., Bureau of Foreign Commerce, WTIS, Licensing and Exchange Controls--Brazil, Part 2, No. 60-41, August, 1960, p. 5.

ORGANIZATION OF THE CONFERENCE

CONFERENCE PROGRAM

CONFERENCE VENUE

the automotive industry encouraged the development of the parts manufacturing industry. GEIA estimated in 1958 that 1,200 parts manufacturers were in operation, of which about 150 were operating on a large scale.<sup>58</sup> It must be recognized, however, that only a few of the nine automotive firms in operation, together with the others reaching agreement with GEIA were automobile manufacturers; though some were producing both cars and commercial vehicles, the rest were engaged in manufacturing vans, jeeps, trucks, and buses. Higher priority was and continues to be given to the manufacture of commercial vehicles, as there has been an increasing emphasis on road transportation in Brazil. Since only automobiles are here of concern, attention must be concentrated on them. According to Motor Business,<sup>59</sup> the automobile companies discussed below now have begun manufacturing in Brazil.

Brazil's first complete automobile was manufactured by DKW-Vemag during 1958. Total output for the year was 3,720 units, of which 1,600 were station wagons. Vemag, a former Studebaker-Packard selling organization, produces DKW cars, vans, and jeeps under agreement with Auto Union of West Germany. Volkswagen started production in 1959, at a daily rate of 20 units. These automobiles were, however, completely knocked down (CKD) imported under special exchange regulations (referred to earlier) for automobiles.

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<sup>58</sup> U.S., Bureau of Foreign Commerce, WTIS, Economic Developments in Brazil, 1958, Part 1, No. 59-44, April, 1959, p. 5.

<sup>59</sup> Much of the discussion on the next page on the structure of the Brazilian Motor Industry is taken from "The Brazilian Motor Industry," Motor Business, No. 18, March, 1959, pp. 32-33.



Willys Overland, which began its production of jeeps in 1957, started in 1959 to produce Aero Willys cars (similar to the ones produced in the United States until 1953). In 1959, Willys made an agreement with Renault to manufacture Dauphine cars during the same year.

The first company to start local production in Brazil was Mercedes Benz. Although this company started in 1956 with the manufacture of commercial vehicles, it expanded its operation by adding two car models during 1959.

Motor Business further indicates that Alfa Romeo, Borgward and Simca recently began to manufacture automobiles. However, no decision had been made prior to the spring of 1959 by N. S. U. and B. M. W. of West Germany as to when they would start manufacturing. By this time, the rumor was also out that the Ford Motor Company might produce an automobile in Brazil in addition to its manufacture of commercial vehicles.

The planned automobile output for 1960 as approved by GEIA for each manufacturing firm is shown in Table 50.

, Under GEIA's regulations 95 percent, by weight, of automobiles should have been produced locally by 1960. Should the automobile manufacturers fail to comply with this requirement, the Brazilian government would give no concession for the import of automotive component parts required by domestic manufacturers. The Foreign Commerce Weekly in its February 8, 1960 issue, stated that as of October 1, 1960, imports of supplementary parts and accessories for the automotive industry would be subjected to the specified tariff duty, ranging from 60 percent to 120 percent ad valorem. The variations in the range of tariff depended on the percentage level, by weight, of locally



TABLE 50

## PLANNED AUTOMOBILE OUTPUT FOR 1960

Automobile manufacturers	Automobile output
Alfa Romeo	6,000
Borgward	55,000
Mercedes Benz	12,000
N. S. U.	6,000
Romi-B. M. W. Isetta	4,300
Simca	12,000
Vemag-D. K. W.	5,500
Volkswagen	15,000
Total	65,800

Compiled from: "The Brazilian Motor Industry," Motor Business, No. 18, March, 1959, p. 33.

produced components utilized in the manufacture of automobiles.

As a result of this proposal the local motor vehicle (cars and commercial vehicles) content, by weight, rose from 60 percent in 1957 to 80 percent in 1959. Furthermore foreign investments in automotive equipment imported without exchange coverage exceeded \$200 million, and over 20 billion cruzeiros went into local expenditure.<sup>60</sup> These figures apply to the industry as a whole, since no breakdown for automobiles alone was available. The same dispatch suggested that the Brazilian participation in the total automotive parts sold in Brazil in 1959 represented 42 percent, while American firms accounted for 32 percent. Firms from West Germany accounted for 13.5

<sup>60</sup> United States Foreign Service Dispatch No. 30, Sao Paulo to the Department of State, Washington, D. C., July 24, 1959.





percent, followed by British, French and other foreign companies.

The realization of this local content objective depended on the amount of investment. At the end of 1959 investments in automotive machinery and equipment totalled some \$200 million, and were expected to exceed \$270 million by the end of 1960.<sup>61</sup> In addition, investment value of land and buildings purchased and constructed in the four-year period, 1957-60 was calculated at 8.6 billion cruzeiros. This sum of investment appears to have been short of the expansion plan. Motor Business<sup>62</sup> asserts that in adhering to the program an investment of \$800 million, of which \$400 million is to be raised in Brazil, would have been in order.

Furthermore the industry was confronted by shortages of certain raw materials, particularly steel and rubber. To overcome the shortage, import tariff duties were reduced on steel plates from 50 percent ad valorem to 20 percent, and steel plant capacity has been also increased. Even if planned mills are completed there will be a deficit in domestic production of some 2 million tons by 1965. Apparently iron and steel consumption during 1956-65 was underestimated in the plans, which anticipated a surplus after 1960.<sup>63</sup> The installation of the automotive industry, the expansion in the auto parts industry, and the new ship building sector have intensified the steel shortage.

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<sup>61</sup>United States Foreign Service Dispatch No. 353, Sao Paulo to the Department of State, Washington, D. C. , March 31, 1960.

<sup>62</sup>"The Brazilian Motor Industry," Motor Business, No. 18, March, 1959, p. 33.

<sup>63</sup>U.S., Bureau of Foreign Commerce, op. cit., No. 59-44, p. 5.



The increasing demand for tires and tubes has created periodic shortages in rubber manufactures. Consequently rubber tire manufacturers (Firestone and B. F. Goodrich) have been expanding their facilities. Supplementing these rubber manufacturers a synthetic rubber factory was installed to help alleviate the shortage.<sup>64</sup>

These factors, in conjunction with the foreign exchange difficulties as well as lack of specialized labor, might be a hindrance in the realization of GEIA's short-term plans of automobile production. In a speech to the American Chamber of Commerce for Brazil, the president of the Automotive Association of Sao Paulo outlined the major problems facing the industry: the lack of adequate credits to finance sales to the public, a deficiency of certain raw materials and a shortage of specialized labor.<sup>65</sup>

Brazil seems cognizant of the fact that it will be confronted with many problems while developing the automobile industry. In order to ensure the growth of this sector of the industry, Brazil may continue to shelter itself by its high protective barrier. Obviously then, under these circumstances companies with a higher local content per automobile will gain distinct competitive advantages. The future pattern of the Brazilian automobile industry will, therefore, be determined by the pressure on foreign-owned companies to increase the Brazilian-made content of their automobiles as rapidly as possible. The next half decade will perhaps witness a very rapid expansion in car

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<sup>64</sup>Ibid., p. 7.

<sup>65</sup>United States Foreign Service Dispatch No. 30, Sao Paulo to the Department of State, Washington, D. C., July 24, 1959.



manufacturing facilities in Brazil and a dramatic reduction in imports of the wholly-assembled units. In such expansion will lie a certain solution to both its foreign exchange problems and its need for industrialization. This expansion may be accompanied by a fierce competitive battle for the market.



Venezuela

Petroleum is the keystone of Venezuela's economy. Since 1955 this nation has ranked **first as a petroleum exporting country and second in production**, accounting for 16 percent of the free world's output. This industry provides about 75 percent of all the government's revenue and 98 percent of the total requirements of foreign exchange. The government's revenues from petroleum provide a strong support throughout the country for public work projects and other developmental programs.<sup>66</sup>

The Venezuelan automobile market

The phenomenal increase in the number of automobiles in use in Venezuela is shown in Table 51. Between 1948 and 1958 cars in use from all

TABLE 51

VENEZUELA: AUTOMOBILE POPULATION  
AND NUMBER OF PERSONS TO A CAR

	1938	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
Car population (in thousands)	18	46	51	57	70	86	109	112	140	205	222	213
Number of persons per car	190	96	88	80	71	58	48	49	40	28	27	29

Calculated from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1939, 1949-1960).

<sup>66</sup>These and other facts appearing in this paragraph are taken from U. S., Bureau of Foreign Commerce, WTIS, Basic Data on the Economy of Venezuela, Part 1, No. 57-68, August, 1959, p. 4.





sources rose from 46 thousand units to over 200 thousand units, making Venezuela the highest ranking nation in Latin America in the ratio of cars per capita. Yet this position does not really indicate that there is anything exceptional about the extent of car ownership in Venezuela: it merely suggests that this country is relatively wealthy and the ratio of car ownership is quite consistent with the level of its per capita income increase. (More about this relationship will be discussed later.)

Since Venezuela does not manufacture automobiles, the demand for automobiles is met from foreign sources. Table 52 gives the volume that the Venezuela market has absorbed during the postwar years. The same table serves to show the importance of this market to North America (United States and Canada) and to the other major automobile producing countries.

Throughout the postwar period (1948-58) Venezuela's automobile imports exceeded 250 thousand units, three-fourths of which came from the United States and Canada. It is fairly clear from Table 52 that most of the automobiles were imported during the second half of the period under review; conversely the North American share of the Venezuelan market showed a decline, reaching as low as 50 percent of market as compared to over 90 percent in the early years. It is obvious that the North American rivals penetrated the automobile market and increased their percentage shares in Venezuela.

Venezuela, the top automobile market for North America, offered a great advantage over the other countries discussed. For one thing, this nation enjoyed a high purchasing power, and for another it did not have balance of payments difficulties. The problem with which the United States even yet



TABLE 52

VENEZUELA'S AUTOMOBILE IMPORTS MARKET SHARES,  
BY COUNTRY OF ORIGIN

	U. S. & Canada	France	Italy	United Kingdom	West Germany <sup>a</sup>	Total number
1938	93.6	0.1	n. a.	n. a.	6.3	3,302
1948	93.8	0.9	--	5.2	--	14,994
1949	92.1	1.9	0.5	5.4	--	16,009
1950	89.2	1.7	0.4	8.1	0.5	17,053
1951	89.7	1.1	0.1	6.4	2.7	15,759
1952	91.1	1.4	0.2	5.4	1.9	17,331
1953	88.4	2.2	0.4	6.7	2.2	21,566
1954	87.5	1.8	1.0	5.3	4.4	25,242
1955	87.3	2.0	1.2	4.5	5.0	30,932
1956	74.9	3.4	2.9	6.2	12.7	24,209
1957	69.3	4.6	4.4	6.7	15.0	29,433
1958	49.5	9.0	3.7	12.3	25.6	39,525

<sup>a</sup>Germany for 1938.

n. a. : not available.

Calculated from: The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, 1949-59).

continues to be faced is not so much a restricted size of the automobile market (since the market has been expanding) as a declining share. In order to put in perspective the major developments in the automotive market, the preceding pattern will be followed in discussing the general setting within the framework of the Venezuelan economy.

#### The Venezuelan economy

Venezuela's national income more than doubled between 1950-58,



from approximately 7.7 billion bolivars to 17.6. Allowing for changes in the value of money, Venezuela's national income, at 1953 prices, rose from 8.3 billion bolivars to 17.1 during the same period (see Table 53). The adjusted

TABLE 53  
VENEZUELA: ADJUSTED<sup>a</sup> NATIONAL INCOME,  
PER CAPITA INCOME AND THEIR INDEXES

	National income (millions of bolivars)	Per capita income (in bolivars) <sup>b</sup>	Index (1953 = 100)	
			National income	Per capita income
1950	8,252	1,796	81	92
1951	8,692	1,743	85	90
1952	9,715	1,949	95	100
1953	10,258	1,943	100	100
1954	11,411	2,098	111	108
1955	12,622	2,252	123	116
1956	13,530	2,344	132	121
1957	15,931	2,682	155	138
1958	17,087	2,785	167	144

<sup>a</sup> Income deflated by the cost of living index in Venezuela (1953 = 100)

1950	1951	1952	1953	1954	1955	1956	1957	1958
93	100	101	100	100	99	101	98	103

<sup>b</sup> One bolivar equals United States \$0.30.

Calculated from: International Financial Statistics, Washington, D. C: International Monetary Fund (several volumes); and United Nations, United Nations Statistical Yearbook, 1958, p. 452.

income shows only a moderate change when compared with current income. This is explainable by the fact that the inflationary pressure so evident in other Latin American countries was missing in Venezuela. The cost of living



index in Venezuela remained about constant during the period under study

(see Footnote, Table 53).

Table 53 also shows that the per capita income increased from 1,796 bolivars in 1950 to 2,785 bolivars in 1958. At the conversion rate of 3.35 bolivars to one U. S. dollar, per capita income rose from \$536 to \$831 between 1951-58. The difference between growth in national and per capita incomes reflects the fast rate of the population growth. The Venezuelan population is expanding at a rate of approximately 3.66 percent annually, a rate of expansion much higher than the Latin American average, partly as a result of immigration.<sup>67</sup>

In the absence of balance of payments difficulties, the level of demand for imports of automobiles is influenced to a degree by the rate of growth of the national income. A correlation analysis of adjusted per capita income of Venezuela with the imports of automobiles shows a fairly clear correlation between the two, a coefficient of 0.7650 for the period 1950-58 (the earliest year for which comparable data are available).<sup>68</sup> This correlation probably would have been higher had the distribution of income been less concentrated.

<sup>67</sup> Ibid., p. 1.

<sup>68</sup> The equation for correlation analysis in Venezuela is:

$$r = \frac{NExy - (Ex)(Ey)}{\sqrt{[NEx^2 - (Ex)^2][NEy^2 - (Ey)^2]}}$$

Where r = correlation coefficient; x = per capita income (adjusted); y = automobile imports; N = number of years covered

$$r = \frac{9(124,748) - (1,007)(1,070)}{\sqrt{[9(116,105) - (1,007)^2][9(139,790) - (1,070)^2]}} = 0.7650$$





Although employment (46,000 in 1958) in the petroleum industry is only about 2 percent of the total labor force, the higher wages<sup>69</sup> it pays labor influences the wage standards in other sectors of the economy. Wage and salary payments of the oil and associated industries have stimulated activities in all fields. The favorable market conditions enjoyed by Venezuelan producers during the postwar period have been reflected in the sharp rise of their export sales. These undertakings have contributed to more efficient production in many industries and to the higher standard of living.

#### Foreign trade

On the trade front, Venezuelan exports more than doubled between 1948 and 1958 (see Table 54), with petroleum's share of the total exports remaining fairly constant. Imports have also increased though to a lesser degree than exports, thus improving the favorable trade business.

Venezuela's trade is and has been predominantly with the United States. During the period 1950-58, the United States and Canada combined (the latter accounts for only a small percentage of their total) took between one-third and two-fifths of Venezuela's exports by value. They have accounted for three-fifths to about three-fourths of Venezuela's imports. Table 55 shows Venezuela's trading position with the United States and Canada and the other trading areas.

The trade pattern in Venezuela has remained fairly constant, although

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<sup>69</sup>U. S., Bureau of Foreign Commerce, Basic Data on the Economy of Venezuela, Part 1, No. 57-68, August, 1959, pp. 11-12.



TABLE 54

## VENEZUELA'S FOREIGN TRADE

	Total (millions of U. S. dollars)			Petroleum as percent of total exports	Terms of trade (1953 = 100)
	f. o. b. exports	c. i. f. imports	Net balance		
1938	181	96	85	89 <sup>a</sup>	80 <sup>a</sup>
1948	1,040	727	313	96	80
1949	1,040	669	371	97	n. a.
1950	1,161	537	624	97	102
1951	1,353	642	711	96	90
1952	1,552	722	830	95	95
1953	1,518	739	779	94	100
1954	1,698	820	878	94	106
1955	1,874	975	899	96	106
1956	2,118	1,026	1,092	94	100
1957	2,367	1,668	699	92	108
1958	2,319	1,428	891	91	107

<sup>a</sup> 1937.

n. a. : not available.

Calculated from: Direction of International Trade, New York: Joint publication by the United Nations, International Monetary Fund, and International Bank for Reconstruction and Development, annual issue, Series T (several volumes); and International Financial Statistics, Washington, D. C. : International Monetary Fund (several volumes).

the years under study indicate a trend toward increased exports to and decreased imports from the United States and Canada. Increasing high earnings from foreign sales of oil, which have been strengthened in some years by the favorable terms of trade, have enabled the country to purchase more and more vital items from abroad. Venezuela, unlike most other Latin American countries, had not been plagued with dollar shortage prior to 1959. On the contrary,

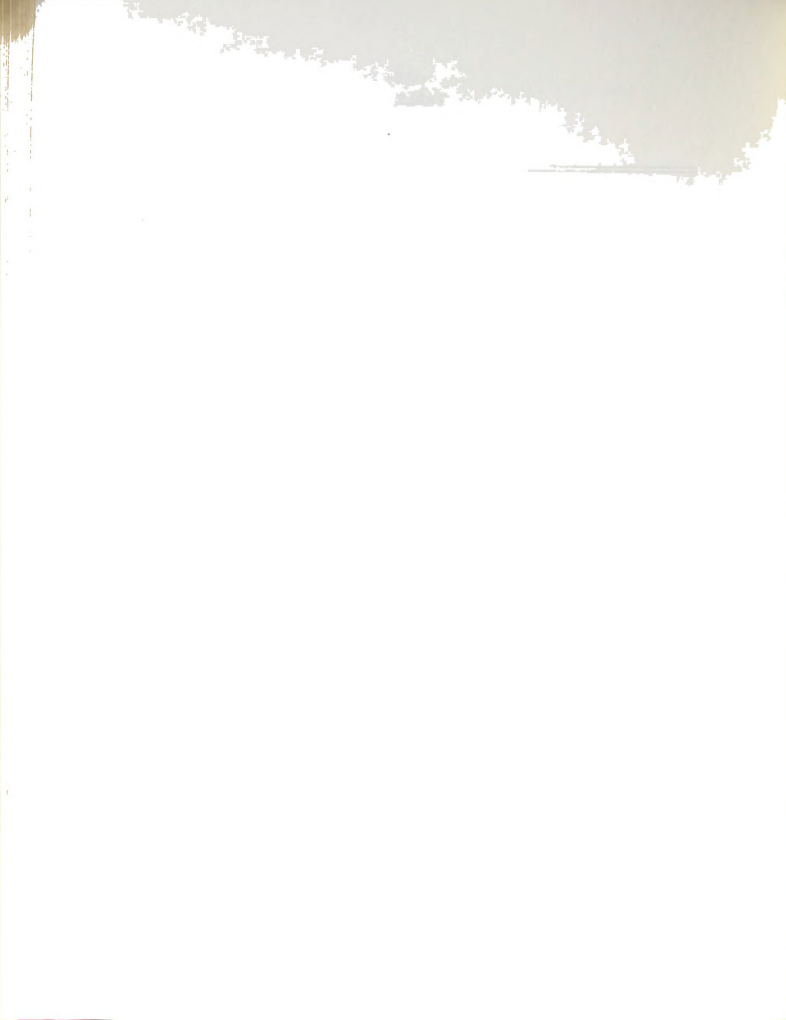


TABLE 55

VENEZUELA: PERCENTAGE DISTRIBUTION OF TRADE BY AREAS<sup>a</sup>

	Exports								
	1950	1951	1952	1953	1954	1955	1956	1957	1958
U. S. and Canada	38	31	35	39	39	40	42	44	44
Latin America	3	6	11	10	7	8	9	10	11
Continental Europe	--	--	49	44	45	44	39	33	31
Sterling area	6	5	5	5	5	7	9	11	8
Rest of world	--	6	--	2	4	2	2	2	5
	Imports								
	1950	1951	1952	1953	1954	1955	1956	1957	1958
U. S. and Canada	72	72	73	71	66	63	62	66	60
Latin America	3	2	2	2	1	1	1	1	1
Continental Europe	13	14	15	17	21	23	24	22	26
Sterling area	7	7	8	8	7	7	8	6	7
Rest of world	5	5	2	4	5	5	4	4	5

<sup>a</sup>Total may not add to 100 percent due to rounding.

Compiled from: International Financial Statistics, Washington, D. C. : International Monetary Fund (several volumes).

Venezuela's gold and foreign exchange position pointed to an unusually favorable situation as seen in Table 56. In a country where there are ample gold and foreign exchange reserves, importers can freely choose to buy from sources of supply that are most advantageous.

The Economic Survey of Latin America indicated a deficit of \$390 million for 1958 in the Venezuelan balance of payments, as compared to a



TABLE 56

VENEZUELA: GOLD AND FOREIGN EXCHANGE RESERVES<sup>a</sup>  
AND RATIO OF RESERVES TO IMPORTS

	1950	1951	1952	1953	1954	1955	1956	1957	1958
Millions of U. S. dollars	373	373	434	477	475	526	942	1,446	1,050
Ratio of reserves to imports	55.9	49.0	51.4	52.1	46.4	49.7	75.4	77.4	65.7

<sup>a</sup>Reserves refer to gross assets in gold and foreign exchange and exclude liabilities, which are difficult to calculate and in many countries are negligible.

Calculated from: International Financial Statistics, Washington, D. C. : International Monetary Fund (several volumes).

surplus of \$414 and \$495 million in the two preceding years.<sup>70</sup> Not only have the reserves declined considerably but also the reserve ratio suffered a setback in 1958 relative to 1956 and 1957, reflecting somewhat on the capacity to import. As a matter of fact imports during that year declined considerably; exports also declined moderately.

During the Suez conflict European demand for Venezuelan oil increased because of the partial cutting-off of supplies from the Middle East. The increase in petroleum exports was reflected in its percentage share of the total export figures for 1956.

Venezuela's total exports of crude petroleum and derivatives declined

<sup>70</sup>United Nations, Department of Economic and Social Affairs, Economic Commission for Latin America, Economic Survey of Latin America, 1958 (New York, 1959), p. 57.





in 1958. This decline was largely influenced by the intensification of voluntary restrictions on imports in the United States, which constitute Venezuela's biggest single petroleum market. This falling off in exports was also partly attributable to the readjustment of Venezuela's production and exports to prevailing conditions prior to the Suez crisis.<sup>71</sup> At any rate, foreign exchange reserves were at a level believed by most international economists to be sufficient for a safe margin even though they were down considerably in 1958.

#### National objectives

Too much dependence on a major export item has its obvious dangers (as has been noted with coffee in Brazil) and these have apparently been borne in mind by Venezuelan officials. The government's policy for many years has been to diversify production of all types through plowing back the oil revenue into the economy. Its objective in part is to reduce the country's dependence upon petroleum for its national income. This is especially important when approximately 50 percent of national income is derived from exports, of which petroleum accounts for over 90 percent (see Table 57).

As a part of this policy, the government has, in some cases, attempted to protect the products of local industry from foreign competition through high import duties or import restrictions. For example, rubber tires and inner tubes have carried import quotas which were changed periodically.<sup>72</sup> Protec-

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<sup>71</sup>Ibid., p. 37.

<sup>72</sup>U.S., Bureau of Foreign Commerce, Licensing and Exchange Controls--Venezuela, Part 2, No. 59-83, November, 1959, p. 2.



TABLE 57

## VENEZUELA: RATIO OF EXPORT TO NATIONAL INCOME

1950	1951	1952	1953	1954	1955	1956	1957	1958
50.7	52.2	49.5	47.2	49.6	50.2	51.9	50.8	44.2

Calculated from: International Financial Statistics, Washington, D. C. : International Monetary Fund (several volumes).

tion accorded domestic firms in Venezuela has been generally below that existing in other Latin American countries. Venezuelan import duties on noncompetitive items have been mostly moderate to nominal relative to those imposed by Argentina and Brazil. This country makes no distinction between dollar and nondollar imports in its import licensing, hence the Venezuelan market is generally very competitive. A prior license from the Ministry of Finance (Ministerio de Hacienda) is required, however, for the importation of partially assembled automobiles regardless of the kind of currency.<sup>73</sup>

The Venezuelan government has expressed its interest in developing manufacturing industries. Manufacturing employs about 10 percent of the country's total work force.

There is still virtually no machinery manufactured in Venezuela. The only manufacturing operation of notable size is the building of bus and truck bodies, yet this is relatively small when compared to imports.

Manufacturing in Venezuela has been handicapped by many factors

<sup>73</sup> Ibid., p. 1.



including high costs, uncertain production of domestic raw materials, expensive transportation, power shortage in some areas, a limited market in Venezuela, and an inadequate supply of skilled labor.<sup>74</sup> This has tended to make Venezuelan manufactured goods expensive to produce and hence difficult to market in foreign areas. Much of the progress that has been made in manufacturing has been due to protective tariffs.

About 40 percent of the gainfully employed population in Venezuela has been engaged in agriculture, including livestock raising, yet in many areas output has been insufficient to meet the nation's requirements for food.<sup>75</sup> The government has an active policy designed to promote agriculture as a means of diversifying the economy and lessening the dependence upon petroleum industry. In recent years the policy has had effect and has resulted in a reduction in the amount of agricultural produce purchased from abroad. This country yet remains a long way from being self-sufficient in food.

#### Highway network

Highway transportation has become of great importance to Venezuela because of the inadequate railroad system.<sup>76</sup> The latter system is in poor condition and suffers from lack of integration. Its mileage in 1957 totalled only 590 miles, and the traffic flow from one part of the country to the other

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<sup>74</sup> Meet Venezuela, Montreal, Canada: Mercantile Bank of Canada, 1956, p. 8.

<sup>75</sup> U. S. , Bureau of Foreign Commerce, op. cit. , Part 1, No. 57-68.

<sup>76</sup> Much of the discussion in the next two paragraphs is taken from Ibid.



is restricted because the railroad lines are disconnected and operate on different gauges. In the absence of adequate railroad systems, and the expansion of general economy, the highway network expanded as an important part of the government's developmental program. In January 1, 1959 Venezuela had some 20,000 miles of roads, of which less than 4,000 miles were paved as compared to less than 3,000 miles in 1955.<sup>77</sup>

The major portion of heavy freight moved on land is carried by truck transport. Regular truck and bus service is maintained between all important cities and towns of the country that are accessible by highways. In other words, among the Latin American countries, Venezuela has one of the most highly developed road networks, although by American standards it is still short of serving the requirements of this rapidly industrializing country.

#### Implementation of national policy

The increasingly high standard of living and the general expansion of Venezuelan economy have resulted in expanding car imports into the country. With an ample supply of dollars and other foreign currencies there are modest tariffs, but no restrictions on the importation of cars from any source and no differentiation in application by country. This means that in the Venezuelan market, automobiles from all producing countries compete on equal terms, and the market is a highly competitive one. This then is a case in which competition has played a role in the setback of the United States.

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<sup>77</sup>Global Automotive Market Survey and World Motor Census (New York: McGraw-Hill International Corporation, 1959), p. 39.





In an attempt to foster local industry the Venezuelan government has been legislating since the early 1950's to favor the importation of automobiles in unassembled form and of lighter weights. A schedule of import customs duties as a measure to implement this policy is shown in Table 58.

TABLE 58

VENEZUELA: IMPORT CUSTOMS DUTIES ON AUTOMOBILES  
(1953)

Tariff No.	Designation of goods	Duties per kilogram <sup>a</sup> (in bolivars)
320	Automobiles with bodies, weighing:	
	A. up to 800 kilograms	0.55
	B. 800 - 1,400	0.60
	C. 1,400 - 1,600	0.80
	D. 1,600 - 1,700	1.00
	E. 1,700 - 2,000	1.40
	F. More than 2,000 kilograms	1.60
	G. Completely unassembled, unpainted:	
	1. weighing assembled up to 1,800 kilograms	0.001
	2. weighing assembled 1,800 - 2,000	0.05
	3. weighing assembled more than 2,000	0.10

<sup>a</sup>Duty is calculated on gross weight (excluding tires and tubes) but with a deduction of 20 percent from the duty when import packed in the usual reinforced wooden cases.

Compiled from: Bulletin International Des Douanes, No. 30, 17th edition (Brussels: International Customs Tariffs Bureau, July 21, 1953), p. 42.

It is evident that this progressive custom duty favors the lighter automobiles while seriously handicapping the larger ones, especially those over 1,700 kilograms. Since most United States cars fall in Tariff 320 C and over (only the conventional cars are in C) this duty clearly penalizes the



American automobiles.

Furthermore, import tariffs on unassembled automobiles, which are much lower than for assembled, encourage assembly. For that reason American automobile exporters find it profitable to assemble in Venezuela, while others are finding it beneficial to set up local manufacturing operations in that country.<sup>78</sup>

A United States Foreign Service Dispatch from Caracas reports that there are two principal assembly plants in Venezuela, one operated by General Motors Corporation and one by Chrysler Corporation. In 1959, these two companies imported over 18 thousand automobiles of both assembled and CKD units. It is significant that 57 percent of this total was in the CKD condition for assembly in Venezuela. The total figures include the European-made units of these manufacturers as well.<sup>79</sup>

During 1959, Venezuela imported over 45 thousand cars from the major automobile producing countries; their respective percentage shares were as follow: United States (43 percent), West Germany (29 percent), United Kingdom (14 percent), France (14 percent), Italy (4 percent), and Canada (2 percent). Again in 1959 the United States showed a further decline in the market as compared to previous years. While more European cars are imported into Venezuela, the United States still retained 80 percent of car

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<sup>78</sup> Ibid., 1958, p. 12.

<sup>79</sup> United States Foreign Service Dispatch No. 96, Caracas to the Department of State, Washington, D. C., July 27, 1960.



registration in that country.<sup>80</sup> Taxes may also produce some adverse effect on the American position in the Venezuelan car market. According to United States Foreign Service Dispatch the government published an ordinance which provided for new taxes on automobiles, effective October 28, 1959.<sup>81</sup> The new tax was on a graduated weight basis. (See Table 59.)

TABLE 59  
VENEZUELA: ANNUAL TAXES ON AUTOMOBILES  
(1959)

Weight of car (in kilograms)	Annual tax (in bolivars) <sup>a</sup>
40 - 1,000	150
1,001 - 1,500	200
1,501 - 2,000	300
Above 2,001	400

<sup>a</sup> One bolivar equals approximately United States \$0.30.

Compiled from: The United States Foreign Service Dispatch No. 407, Caracas to the Department of State, Washington, D. C., November 16, 1959.

It can be seen from this table that the annual tax increases sharply as the weight goes up. This tax undeniably discriminates against United States automobiles, since most American cars would disqualify for the first two ranges. Since this tax is paid annually, it has cumulative influence on the

<sup>80</sup> Global Automotive Market Survey and World Motor Census (New York: McGraw-Hill International Corporation, 1959), p. 39.

<sup>81</sup> United States Foreign Service Dispatch No. 407, Caracas to the Department of State, Washington, D. C., November 16, 1959.



sale of used United States cars.

Furthermore, an ad valorem tax is levied on automobiles registered for the first time. This additional tax will be applied in the following manner (see Table 60).

TABLE 60

VENEZUELA: TAX ON FIRST REGISTRATION OF AUTOMOBILES

Value of automobile (in bolivars)		Ad valorem tax
A	Not exceeding 7,000	2
B	7,001 - 10,000	3
C	10,001 - 12,500	4
D	12,501 - 15,000	5
E	15,001 - 20,000	6 1/2
F	20,001 - 25,000	10
G	25,001 - 30,000	15
H	Above 30,000	20

Compiled from: Global Automotive Market Survey and World Motor Census (New York: McGraw-Hill International Corporation, 1959), p. 39.

This ad valorem tax also falls more heavily on the higher valued American automobiles than on the smaller European cars, and raises the prices to levels severely curtailing sales competitiveness.

Though Venezuela imposes various taxes on every automobile, these taxes as such really cannot be considered discriminatory since they are applied to all cars regardless of origin. However, when taxes are taken as a percentage of a specific price, or progressive duty rates are levied on graduated weights, the amount of the tax and duty definitely hinders the sale of higher-





priced and larger weight automobiles.

Although Venezuelan importers with a plentiful supply of dollars and other currencies are free to select from either continent, certain governmental measures, as just mentioned, have permitted a considerable competition from Europeans to penetrate the Venezuelan car market. The European small car, lighter in weight and lower in price than its American counterpart, enjoys a favorable competitive position.

### Conclusion

Three major factors--import restrictions, lack of modification of American car design for the foreign market, and competition of foreign car producers--are seen to have been of prime significance in the decline of the Latin American market for United States automobiles. It may be safely assumed that, to the extent that the large Latin American countries studied represent the total Latin American picture as well as the foreign market in general, these factors constitute a generic explanation.



## CHAPTER IV

### SECONDARY FACTORS PERTAINING TO THE DECLINE OF UNITED STATES AUTOMOBILE EXPORTS

Previous chapters indicated the primary reasons for the decline of American automobile exports to be: foreign exchange difficulties leading to trade restrictions, unsuitability of American cars (as to size, power and price) for the mass foreign market, and the effectiveness of competition of foreign producers. However, it is possible that, in addition to these basic factors, certain less clearly identifiable forces may have been at work to bring about the decline in foreign sales of American automobiles. These forces, by nature elusive and probably impossible to measure with exactitude may nevertheless have been appreciable. Pricing, market and product development, design trends, dealership pattern, advertising and sales promotion, service, and credit practices all warrant some examination. Taken alone or in some combination, these variables do constitute a substantial part of the strategic and tactical operations of American automobile firms abroad.

Unfortunately, these avenues to foreign market penetration do not lend themselves to precise research for at least three reasons. First, automobile manufacturers in the United States and abroad do not seem to compile comparable data on such subjects. Ford Motor officials recognize the difficulty here



implied and have flatly stated that there is no possibility of getting worthwhile objective information from automotive firms; the U.S. Department of Commerce holds the same view.<sup>1</sup> Second, both American and foreign companies hold confidential the data on these strategic and tactical marketing efforts since their disclosure could weaken their respective competitive positions.<sup>2</sup> Third, if the data were available they would lack comparability, for market promotion programs are commonly used to serve the purpose of encouraging sales of more than just passenger cars. For example, parts and service outlets in Latin America generally are organized to meet the needs of cars as well as commercial vehicles.<sup>3</sup>

The lack of real and comparable information does not seem sufficient grounds for their neglect. The influence of these marketing strategies and tactics, when combined with the effect of the major causes for the decline, may have been crucial. The automotive companies, both in the United States and abroad, consider these so-called secondary aspects of sufficient significance to spend much money, time, and effort on promotion and distribution.

### Pricing

Price has meaning only when viewed against the nature of the product

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<sup>1</sup>Statements of three officials of the firm made to the writer in an oral interview on July 21, 1961; Personal letter from U.S. Department of Commerce, August 9, 1961.

<sup>2</sup>Ibid.

<sup>3</sup>Global Automotive Market Survey and World Motor Census (New York: McGraw-Hill International Corporation, 1959), pp. 13, 17, 39.



bought and sold. A comparison of American and European automobiles by selected specifications (power, price and performance) shows that the latter are half as heavy, two-thirds as expensive, half as demanding of gas, and one-fourth as powerful as the American (see Table 61).

TABLE 61  
A COMPARISON OF AMERICAN AND EUROPEAN AUTOMOBILES  
BY SELECTED SPECIFICATIONS  
(1957)<sup>a</sup>

Selected specifications	Average for standard American <sup>b</sup>	Average ten leading Europeans <sup>c</sup>	European as percent of American
Curb weight (lbs)	3,564	1,924	54
Price excluding purchase tax (U. S. dollars)	2,217	1,472 <sup>d</sup>	66
Miles per U. S. gallon <sup>e</sup>	19.3	37	192
Engine cubic capacity	4,358	1,185	27
Horsepower	171	42	25
Wheelbase (inches)	115	93	81
Number of cylinders	8	4	50

<sup>a</sup> 1957 is the latest year for which comparable data are available.

<sup>b</sup> Plymouth V8 Belvedere and Ford Fairlane V8 Town Sedan.

<sup>c</sup> Constituting 80 percent of 1957 production in categories up to 1,600 c. c., or one-fourth of total production in all categories (Motor Business, June, 1958, pp. 12, 14). Entry of American compacts into the market did not begin to be felt until 1960. This new factor is discussed later in this chapter.

<sup>d</sup> Prices are converted to American dollars at the current rate.

<sup>e</sup> Mean of 30, 40 and 50 miles per hour steady speed (standard gas).

Calculated from: "Current Cars Compared," The Economist (London), October 19, 1957, pp. 12-13.





While fear is sometimes expressed that the United States is pricing itself out of the **world market**, it is noteworthy that the entry of our cars into many countries is limited by high tariffs, exchange controls and other trade barriers. At any rate, United States automobile exports have been encountering increased competition, which shows up in the substitution of West European exports for the American in third markets. Thus between 1948 and 1958 the United States share of automobile exports fell from 40 percent to 7 percent.

In export marketing, unlike domestic, two prices must be considered: the amount asked in the exporter's currency, and the amount which must be paid in the importer's currency. It is not unusual in international marketing for the price in terms of foreign exchange to be far more important than the price asked by the exporter. One illustration will perhaps suffice to give us the effect of pricing in foreign sales.

The price characteristics of American automobiles at times would seem to restrict their entry into foreign markets and especially into those where trade barriers to American automobile exports are imposed. For example, Brazil's premiums for foreign exchange in late 1958, which were 200 and 300 cruzeiros to a dollar in the General and Special (nonessential) import categories respectively, were raised in early 1959 to about 280 and 400 cruzeiros for the two categories. Automobile imports changed periodically back and forth from Special to General classifications during the fifties. Regardless of which classification was applied, automobiles of American origin suffered because of their higher price. Table 62 contrasts the prices of standard American and European automobiles as sold new in Brazil.



TABLE 62

**BRAZIL: CONTRASTING PRICE DATA FOR AMERICAN  
AND EUROPEAN AUTOMOBILES  
(1957-58)**

	Average standard American	Average leading European
Price (country of origin in U. S. \$)	2, 217	1, 472
Transport cost (est. 10% of price)	222	147
Total	\$ 2, 439	\$ 1, 619
Price in cruzeiros (85 cruzeiros per dollar)	207, 315	137, 615
Add 150% ad valorem duty (c. i. f.)	310, 973	206, 423
Total	519, 288	344, 038
Add 15% consumption tax on duty paid value	77, 893	51, 606
Add 5% surtax on c. i. f. value	10, 366	6, 881
Total dealer's price in cruzeiros	607, 547	402, 525

Calculated from: Chapter III, Table 48; Chapter IV, Table 61; U. S. Bureau of Foreign Commerce, "Statement of rates of import duty on automotive vehicles, Brazil," Special release, May 27, 1958.

It has been noted in Chapter III that American cars of heavier weight and higher price imported by Argentina, incur three times as high a surcharge as that applied to cars of European origin of lower weight. Likewise in Venezuela we have noted that tax rates on automobiles increase according to graduated weight. Such differential cost factors as these surcharges and progressive tax rates affect the American selling prices unfavorably. Tables 63 and 64 aptly show the disadvantage in price at which American automobiles are sold in Argentina and Venezuela.

Used car prices are a good indicator of short-term prospects for the



**ARGENTINA: CONTRASTING PRICE DATA FOR AMERICAN  
AND EUROPEAN AUTOMOBILES  
(1957-58)**

	Average standard American	Average leading European
Weight in pounds	3,564	1,924
Weight in kilograms	1,616	873
Price (country of origin in U. S. \$)	2,217	1,472
Transport cost (est. 10% of price)	222	147
Total	2,439	1,619
Price in pesos (40 pesos per dollar)	97,560	64,760
Add surcharges (based on weight) <sup>a</sup>	275,000	80,000
Total dealer's price in pesos	372,560	144,760

<sup>a</sup>Surcharges of 275 thousand pesos are applicable to automobiles between 1,000 and 1,500 kilograms in weight and not exceeding U. S. \$2,000; automobiles weighing over 1,500 kilograms and in excess of U. S. \$2,000 are prohibited.

Calculated from: A communication between U. S. Department of Commerce, Bureau of Foreign Commerce, and its Detroit Field Office, March 7, 1956; Chapter IV, Table 61.

sale of new automobiles. These prices are considered in relation to new car prices, inasmuch as the discounts on list prices asked for used cars are a measure of strength or weakness of a market for a specific car. It should be borne in mind that consumers in any market, *ceteris paribus*, are influenced in their effective demand for new cars by the prices they can get for their old automobiles. Used car prices for a "neutral"<sup>4</sup> country, Sweden, are selected

<sup>4</sup>A country permitting freedom of choice; see Chapter I, Table 13.



TABLE 64

VENEZUELA: CONTRASTING PRICE DATA FOR AMERICAN  
AND EUROPEAN AUTOMOBILES  
(1957-58)

	Average standard American	Average leading European
Weight in pounds	3,564	1,924
Weight in kilograms	1,616	873
Price (country of origin in U. S. \$)	2,217	1,473
Transport cost (est. 10% of price)	222	147
Total	2,439	1,619
Price in bolivares (3.3 bolivares per dollar)	8,049	5,343
Add duty (based on weight)	1,616	524
Total dealer's price in bolivares	9,665	5,867

Calculated from: Chapter III, Table 58; Chapter IV, Table 61.

to serve our purpose in assessing car depreciation (see Table 65).

Two significant features seemed to have bearing on the market for trading in cars. First, the annual rate of depreciation when trading in big cars was relatively greater than that incurred with small ones. At the end of one year, as much as 26 percent was lost on the list price of a larger car, and more than 40 percent after the third year, as compared to 20 percent and 30 percent for the small cars. Second, the heaviest fall in price appeared to be in the first year and declined at a slower rate in later years.

In the immediate postwar period when automobiles, particularly popular models, were in short supply cars were traded in more frequently since trade-in values declined very slowly. However, when 30 percent and





TABLE 65

PRICE DISCOUNT FOR AUTOMOBILES IN THE SWEDISH MARKET  
BY ENGINE CAPACITY GROUP

Models by c. c.	Percent of list price (February 1956)		
	1955	1954	1953
	(1 year old)	(2 years old)	(3 years old)
Average 9 models (800 - 1,200)	80.3	77.2	70.8
Average 8 models (1,200 - 1,500)	77.9	74.1	68.6
Average 8 models (2,000 and over)	73.6	66.2	58.0

Compiled from: "The Swedish Market for Vehicles and Tractors,"  
Motor Business, No. 6, March, 1956, p. 29.

40 percent of total list price is lost, after the third year, for the smaller and the larger cars respectively, it becomes increasingly important to evaluate the cost advantages of different sizes of automobiles in addition to their initial price. Automobile owners were, and still are, more reluctant to replace their cars as frequently as in the immediate postwar years.<sup>5</sup> Furthermore, they are likely to retain their automobiles for at least three years after which time the discount on resale or ownership cost per mile declines.

The above tendency did not hold in Latin America; however, it may become noticeable in Latin American countries when car supplies are increased. In the case of Venezuela discussed earlier, for example, the annual tax which increases with heavier cars most likely did penalize the American cars, thereby discouraging the used car market.

<sup>5</sup>Personal letter from U.S. Department of Commerce, August 9, 1961.



These and other measures, discussed in earlier chapters, which place an undue handicap on the larger, expensive, and more powerful American automobiles appear to have had a detrimental effect on United States exports. United States automobile exporters have reported continued declines from the immediate postwar period, a time at which they enjoyed with the United Kingdom a virtually duopolistic position in world markets. It was during this period also that American automobile producers failed to recognize the revival and resurgence of foreign competition particularly that of West Germany.

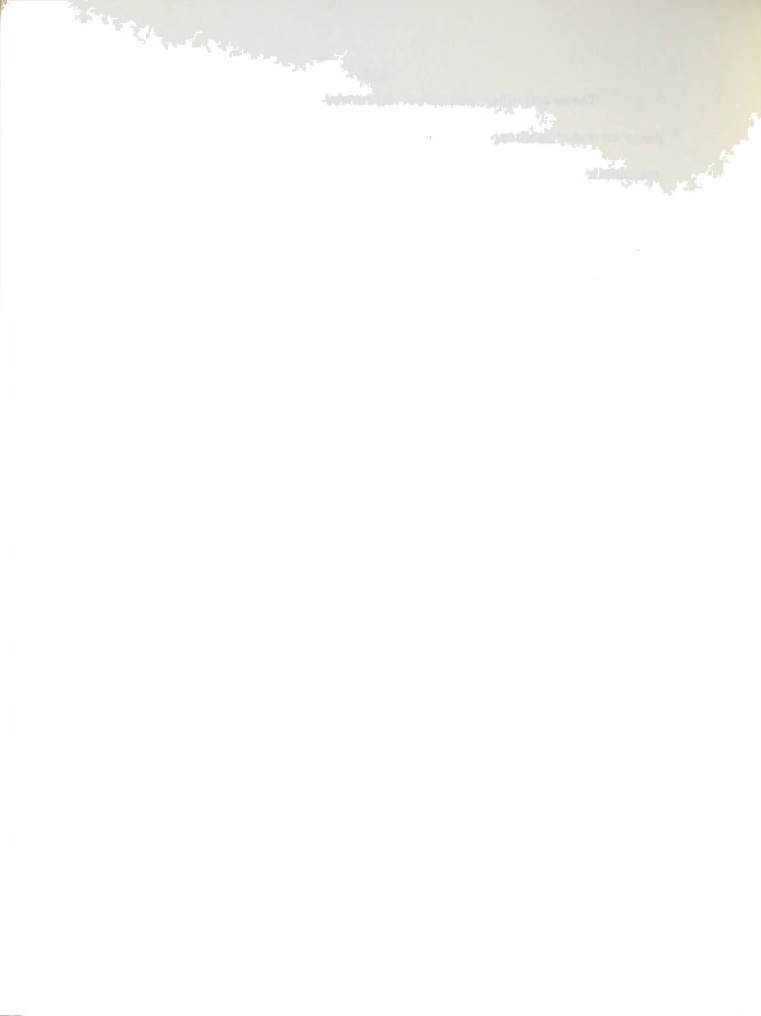
#### Revitalized competition

There has been a tendency, especially in the postwar period, for American automobile manufacturers to locate and expand their productive facilities inside foreign countries to take advantage not only of the increased demand, but also of the lower cost complex. Such a course of action helps the American exporter to mitigate the negative effect of the high price of his automobile--which of course proceeds in many cases from trade barriers as well as from high unit labor costs<sup>6</sup> and high material outlays at home.

By setting up capital equipment, manufacturing plants and assembly facilities through their foreign subsidiaries, the American manufacturers attempt to assure their market. The prospects of sharing in the growing world automobile markets by exporting capital goods necessary to make cars depend, however, upon the ability of the American to meet their European counterparts

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<sup>6</sup>U. S. Senate, Committee on Commerce, The United States and World Trade - Challenges and Opportunities, 87th Cong., 1st Sess., 1961, Report No. 446, p. 116.



in these markets.

Western Europe has experienced a substantial rise in automobile output. Modern **production methods**, including automation, have been introduced on a large scale. Returning from a tour of Europe in 1958, Mr. Ernest Breech, then Chairman of the Board of the Ford Motor Company, said: "Europeans have a great awareness today of the economies of scale, and they are fast integrating much of their heavy industry. Scarcely a day passes that you do not hear of new mergers, new joining of once small, high cost companies into bigger and more viable units."<sup>7</sup> Mr. Breech also indicated that the European countries were investing their accumulated capital in improved plant and equipment. Furthermore, he pointed out that the "old tradition" of high cost, low volume, cartelized production and pricing has been largely overcome. In short, major automobile producing countries were seen to be shifting to manufacturing and marketing methods to produce high volume low cost automobiles.

Traditionally, American automobile industry (despite its higher wages) has been able to compete with European manufacturers because of its superior plant, large capital investment, economies of scale and improved managerial methods. With the European developments cited above, the United States has partly lost this competitive advantage.<sup>8</sup>

This brings up another important question as to how significant are

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<sup>7</sup> Ernest R. Breech, A New Challenge from the Old World, an address delivered at the annual Pittsburgh Chamber of Commerce Division in the Penn-Sheraton Hotel, Pittsburgh, on December 1, 1958, p. 2.

<sup>8</sup> Ibid., p. 4.



prices in making purchasing decisions? In international as well as in domestic markets price can become important if there is a substantial price differential between the two sources of supply. Otherwise there may be other factors more important than price.

Sales successes have not been in the cheapest cars nor have they always been in those automobiles which offer the largest size, or the highest power for the price asked.<sup>9</sup> It is evident from what has been discussed that the ability to widen the market share depends more on having the right kind of automobiles, with ample push behind them than on establishing a price level below the major competitors.

The limited domestic market for most European automobile producers has indeed made it vital for the industry to export so as to reduce unit costs. This cost reduction was the result both of heavy capital investment and integration of production, as discussed in Chapters I and II. Although the inability to secure internal company data does not permit a complete analysis, it may be deduced that even with the increase in exports the automobile manufacturers would not have been able to keep their costs competitive had they not concentrated on producing as few models as possible and continuing their production over a relatively long period. This concentration in Europe on fewer models of cars is likely to prove of increasing importance as competition increases.

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<sup>9</sup> United Nations, Secretariat of the Economic Commission for Europe, Economic Survey of Europe in 1960 (Geneva, 1961), pp. 19-20.





Market and Product Development

The policy of making few models (as referred to in Chapter II) was adopted especially by West Germany, France, Italy and Sweden in the mid 1950's. Some of the manufacturers who complied with such a policy have enjoyed considerable success over the years. Volkswagen, for instance, the most popular European car, has its basic design virtually unchanged since the war, so that the company must have amortized its original tooling costs several times over and accumulated substantial reserves.<sup>10</sup>

In the United States, on the other hand, car designs change almost every year in order to stimulate consumer replacement demand and, in a measure at least, to satisfy the American urge for improved quality and different product. Needless to say, millions of dollars are allocated for the cost of designing and tooling up for a new model change. For example, Chrysler spent \$163 million for special tools, dies, jigs and fixtures in 1959, nearly double the 1958 figure.<sup>11</sup>

Furthermore, European automobile manufacturers have become manifestly interested in developing exports as well as in diversifying the markets for well over one-third of their total combined production goes abroad (as shown in Chapters I and II). Too much reliance on the home market would make the industry vulnerable in case of sharp seasonal fluctuations

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<sup>10</sup>"An Assessment of German Competition," Motor Business, No. 4, September, 1958, p. 8.

<sup>11</sup>"Vehicle Maker \$ Signs Record Another 'Comeback' Year in 1959," Ward's 1960 Automotive Yearbook (Detroit: Ward's Automotive, May 9, 1960), p. 85.



in domestic demand. Also it is vitally important for the industry to diversify its export markets as a way of offsetting a sudden downturn in one single market. It is noteworthy that the United States has been relying heavily on a relatively unstable foreign market; it has been exporting to the Western Hemisphere between two-fifths and two-thirds of its total car exports, usually around three-fifths. On the other hand its share in Europe, the most expansive automobile market, has been less than one-fifth and declining (see Table 66).

TABLE 66

UNITED STATES AUTOMOBILE EXPORTS AND THEIR COMPOSITION  
BY AREA OF DESTINATION

	Total actual number (000)	Western Hemisphere (percent)	West Europe (percent)	Asia (percent)	Africa (percent)	Oceania (percent)
1938	162	33.7	28.7	8.3	17.6	11.6
1948	218	40.8	19.9	10.6	27.7	1.0
1949	140	43.0	26.6	12.9	16.7	0.7
1950	120	55.8	27.2	7.6	8.6	0.9
1951	217	60.1	20.9	10.0	7.9	1.0
1952	141	62.6	26.5	9.6	7.7	0.7
1953	154	59.9	20.8	10.7	8.0	0.6
1954	173	53.5	26.7	9.9	8.9	0.9
1955	212	51.2	24.8	11.1	11.7	1.1
1956	175	57.4	19.4	11.3	11.4	0.6
1957	142	59.9	16.4	10.8	12.4	0.6
1958	122	63.7	14.6	9.4	11.5	0.9
1959	104	67.1	15.1	9.0	7.9	0.8

Calculated from: The Motor Industry of Great Britain (London: The Society of Motor Manufacturers and Traders, Limited, 1956-1959).



Since the mid 1950's, world markets for automobiles have been developed and strengthened by establishing manufacturing or assembly facilities in potential markets. Another method which the Europeans have followed in developing markets has been the commercial agreements with rival manufacturers. Two examples may suffice. In 1960, Renault and Alfa Romeo, for example, have concluded a commercial agreement to sell each others' products in their respective countries; Simca and Fiat made a similar arrangement in the same year. Furthermore, Renault and Simca have been strengthening their distribution system considerably, the latter making in 1960 an agreement with Krupp for the sale of Simca cars in Germany.<sup>12</sup>

The Swedish manufacturers have also taken the initiative in expanding their export sales by means of commercial agreements. In the last decade, quota restrictions were used to limit the automobile imports in Norway. In order to expand their market, Volvo and Saab manufacturers concluded an agreement with the Norwegian authorities to increase their automobile quota in exchange for specified quantities of components from Norwegian manufacturers.<sup>13</sup>

#### Product design trends

Up until the latter part of 1958, the design trends of the American automobile seemed to be on the basis of the bigger the better. Beginning in

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<sup>12</sup>"The French Motor Industry, " Motor Business, No. 22, April, 1960, p. 23.

<sup>13</sup>"The Swedish Motor Industry, " Motor Business, No. 14, March, 1958, p. 6.

1902

1903

1904

1955 the size of the American automobiles increased every year--new cars were getting **longer, wider, heavier**, albeit lower. The increase in car size necessitated more horsepower (BHP), which in turn called for enlarged engines, adding more weight, requiring heavier chassis, etc. (see Table 67).

TABLE 67  
TRENDS OF U. S. AUTOMOBILES BY WEIGHT AND POWER

	Average weight (lbs. )	Average BHP	Average engine capacity (c. c. )
1946 - 50	3,300	110	4,100
1955	3,400	170	4,500
1956	3,400	210	4,900
1957	3,500	230	5,000
1958	3,600	260	5,300
1959	n. a.	250	5,400

n. a. : not available.

Compiled from: "The United States Passenger Car Industry," Motor Business, No. 21, December, 1959, p. 36.

It is apparent from this table that the power increase seems to have reversed itself in 1959. This was partly the result of an agreement by the automobile manufacturers, in the interest of promoting highway safety, not to use engine power as an advertising theme. These powerful models were incompatible with the inadequate state of streets and roads in Latin American countries and in other areas of the world.

During the fourth quarter of 1958 the Rambler American and the





Studebaker Lark experienced a considerable success as compared to the previous quarters. In fact in 1959 Rambler's output was over 400 thousand units, nearly double the 1958 level; Studebaker's output exceeded 150 thousand units in 1959, three times the 1958 level.<sup>14</sup> In addition, the United States witnessed a substantial increase in imports of small foreign automobiles, taking 8 percent of total car registrations in that year and rising to 11 percent in 1959.<sup>15</sup> This market penetration led the big three and other American automobile manufacturers to reevaluate their sales, make intensive studies and focus attention on new car design; the result was the wholesale introduction of the compact cars in 1959.

Thus the United States has at least protected its home market, as reflected in the drop of car imports. By 1960 less than 7 percent of total American car registrations were imports, a decline from 11 percent experienced in 1959.<sup>16</sup>

Most of the "economy compacts" are lighter in weight and lower in price than the conventional American cars,<sup>17</sup> hence they would qualify for lower tariffs, surcharges, and local taxes referred to earlier in Chapter III. Ward's in 1960, after witnessing a 58 percent increase in the export of

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<sup>14</sup> "United States Passenger Car Production," Ward's 1960 Automotive Yearbook, op. cit., pp. 55-57.

<sup>15</sup> Calculated from: Automobile Facts and Figures (Detroit: Automobile Manufacturers Association, 1961),<sup>7</sup> pp. 5, 16.

<sup>16</sup> Ibid., estimated on ten month basis.

<sup>17</sup> "The Economy Compacts," Consumer Reports, March, 1961, pp. 148-49.



Ramblers between 1958 and 1959, anticipated an overall increase in the export of this type of automobile not only to Latin American countries, but also to other world markets.<sup>18</sup> Motor Business, for example, suggests that the greatest opportunity for development of exports is likely to come from the compact cars which could be priced to compete with most other automobile producing countries.<sup>19</sup>

For over half a century all but a fractional percentage of the world's automobiles have been of a basic design. The engine has been at the front, driving through a gear box located near the feet of the driver, and thence by a propeller shaft to the back axle carrying the driving wheel. The Volkswagen achieved a revolutionary departure in design. A number of original features are found throughout: the suspension, the type of engine, and, above all, its location at the rear of the car.<sup>20</sup>

The design of the Volkswagen has proved one of the success stories of the automobile industry. West Germany has been competing on every market since the end of World War II, and has outstripped all but its American rivals.

Because of European competition in their best Latin American markets,

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<sup>18</sup>"Vehicle Maker \$ Signs Record Another 'Comeback' Year in 1959," Ward's 1960 Automotive Yearbook, *op. cit.*, p. 92; and "Compact's Impact Detailed," Automotive News, Detroit: April 24, 1961, p. 2.

<sup>19</sup>"The United States Passenger Car Industry," Motor Business, No. 21, December, 1959, p. 39.

<sup>20</sup>"The Small Car In Europe," Motor Business, No. 4, September, 1955, p. 15.



the United States automobile makers were forced in the last half of the 1950's to reappraise the situation.

#### Marketing and promotion methods

Marketing methods and sales promotion efforts of the major car producing countries come first under scrutiny. Since West Germany's cars, especially the Volkswagen, are largely responsible for capturing the export trade, it is worthwhile to examine their promotion methods. Against this success it is interesting to measure the performances of other rivals in automobile exports.

#### Dealership Pattern

Starting from zero after World War II, West Germany tried to recapture export markets. As its productive capacity increased, reentry into foreign markets was facilitated by new distributive networks. Today Germany has by far the largest number of dealers, mostly for Volkswagen. In the United States alone during 1957, Volkswagen had 350 dealers of whom two-thirds had exclusive dealerships. All of them stocked a full range of parts and special tools, and maintained trained mechanics.<sup>21</sup> This policy has been followed throughout West Germany's major automobile markets.<sup>22</sup>

There is no complete breakdown for car and truck dealers in the

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<sup>21</sup>"The Market in the United States for European Cars," Motor Business, No. 13, December, 1957, p. 27.

<sup>22</sup>"An Assessment of German Competition," Motor Business, No. 4, September, 1955, p. 6.



selected Latin American countries to help us evaluate the dealership patterns. Nevertheless, as of January 1, 1959, there were in Argentina 1,400 car and truck dealers of whom 1,350 were handling American products. Many of these dealers handled multiple makes. While there are no data available for Brazil, Venezuela had on the same date at least 300 car and truck dealers, of which 190 were handling American motor vehicles.<sup>23</sup> Since these outlets handled multiple makes and many models, the dealers may have promoted the fast moving makes and models such as the small European cars, which were gaining wide popularity. Dealer cooperation is inculcated by the European car manufacturers who go to a great deal of trouble to develop their social contacts with their respective dealers, aiding them in all sorts of practical ways.<sup>24</sup>

#### Advertising and Sales Promotion

Since no reliable figures on advertising are available, it is difficult to be precise about how much effort the American businessmen have devoted to foreign advertising and sales promotion for their cars in the selected Latin American countries. Nevertheless, all types of modern advertising media seem to be used--television, radio, magazines, newspapers, illuminated signs, car cards, and billboards. In Argentina and Brazil there are several hundred advertising agencies, among them branches of several important

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<sup>23</sup> Global Automotive Market Survey and World Motor Census (New York: McGraw-Hill International Corporation, 1959), pp. 13, 17, 39.

<sup>24</sup> "An Assessment of German Competition," op. cit., p. 9.





American concerns, all using the major cities as the center of activity. It must be noted, however, that only in the past few years have similar agencies been in operation in Venezuela.<sup>25</sup>

Americans have been utilizing many types of advertising media to secure car sales in Latin American markets, especially when branches of American concerns are there at hand. Yet, the question does not appear to be one of volume or media but rather of failing to understand the mores and motivation of the people of the countries under study.

A prerequisite for creative marketing in a given country is the understanding of human behavior and motivation. The automobile has a different significance in different countries, depending on the standard of living, types of roads, extent of travel and recreation and other influences. Because of basic differences in each country, an advertisement cannot be directed effectively to all Latin American markets with the same emphasis.

The new American approach for the development of an advertising and sales campaign in Latin America was to appeal to nationalism. Faced with increasing competition from European automobile manufacturers, Kaiser of Argentina in 1960 mounted stickers on the rear window of each car, reading in Spanish "one more--yes, Argentina."<sup>26</sup> This same local promotion was

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<sup>25</sup>U. S., Bureau of Foreign Commerce, WTIS, Basic Data on the Economy of Argentina, Part 1, No. 58-73, November, 1958, p. 19; Basic Data on the Economy of Brazil, Part 1, No. 58-87, December, 1958, p. 20; Basic Data on the Economy of Venezuela, Part 1, No. 59-68, August, 1959, p. 16.

<sup>26</sup>"What U. S. Companies are Doing Abroad," U. S. News and World Report, November 7, 1960, p. 102.



introduced by Kaiser during the same year into other Latin American countries, and now is being followed by others.

While advertising may have been important, other promotional techniques have been introduced. Perhaps the most striking innovation to promote sales was the 1958 insurance scheme introduced by Swedish Volvo and still in effect. Under this scheme (which applies only to the home market so far), the Volvo car carries with it a five-year accident insurance policy free of charge. This guarantee covers all accidental damages beyond Kr. 300 and is payable by Volvo Company to the owner of the automobile. In order to reimburse the cost, the company sets aside an equivalent of \$100 per car in a special fund. If the automobile is sold the insurance is transferred too.<sup>27</sup> This of course not only enhances the second-hand value of the automobile, but also keeps the model in production longer.

Moreover, sales techniques can be questioned. An article entitled "Is the U. S. Being Priced Out of World Markets?" indicates that American firms commonly wait for foreign customers to come to them, instead of training their salesmen well enough before sending them out to secure sales orders.<sup>28</sup> As a possible reflection of a previous lassitude in the area of foreign advertising, American automobile firms are now increasing their expenditures on advertising campaigns in foreign markets.<sup>29</sup>

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<sup>27</sup> "The Swedish Motor Industry," Motor Business, No. 14, March, 1958, pp. 5-6.

<sup>28</sup> Laurence Dowd, "Is the U.S. Being Priced Out of World Markets?" in Richard M. Hill, editor, Marketing Concepts in Changing Times (Chicago: American Marketing Association, 1960), p. 185.

<sup>29</sup> An oral interview with Ford officials on July 21, 1961



### Service and Spare Parts Availability

In the immediate postwar period, when demand was far in excess of supply, many dealers (in world markets including Latin American countries) entered the car business for a quick profit, and thus service was subordinated to sales. With the growing competition, the German manufacturers, led by Volkswagen, introduced their new distribution policy of "service before sales,"<sup>30</sup> thus insuring spare parts availability and extending servicing facilities. This practice gave the German automobile industry a fine reputation with foreign buyers since customers were interested not only in purchasing a suitable car, but in ease of maintenance.

An automobile buyer in the United States will scarcely place an order with a dealer who does not maintain a stock of spare parts and render the required services. Servicing and stock availability are even more important in foreign markets. Not infrequently, when repairs or replacements are needed, the necessary parts are shipped from the United States or other manufacturing sources, resulting in a long delay." . . . the surcharge rates on parts are so extremely high it is impossible for the dealer to maintain too large a supply."<sup>31</sup>

There are several thousand motor vehicle fuel outlets in existence in these countries. Table 68 shows the number of fuel outlets, the nature of their functions, and the degree to which they sell parts or perform services. It can

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<sup>30</sup>"The German Motor Industry, " Motor Business, No. 12, September, 1957, p. 14.

<sup>31</sup>Personal letter from U.S. Department of Commerce, August 9, 1961.



be clearly seen that Venezuela has the smallest number of fuel outlets.

Although limited in its outlets, Venezuela enjoys extensive services and repairs.

TABLE 68

MOTOR VEHICLE FUEL OUTLETS IN ARGENTINA, BRAZIL, VENEZUELA  
(1959)

	Argentina	Brazil	Venezuela
Number of outlets	16,500	18,900	1,425
Percent which sell:			
no parts or accessories	10	18	10
limited parts and accessories	60	52	70
extensive parts and accessories	30	30	20
Percent which perform:			
no service or repairs	50	15	(45)
limited service and/or repairs	40	65	(45)
extensive service and/or repairs	10	20	55

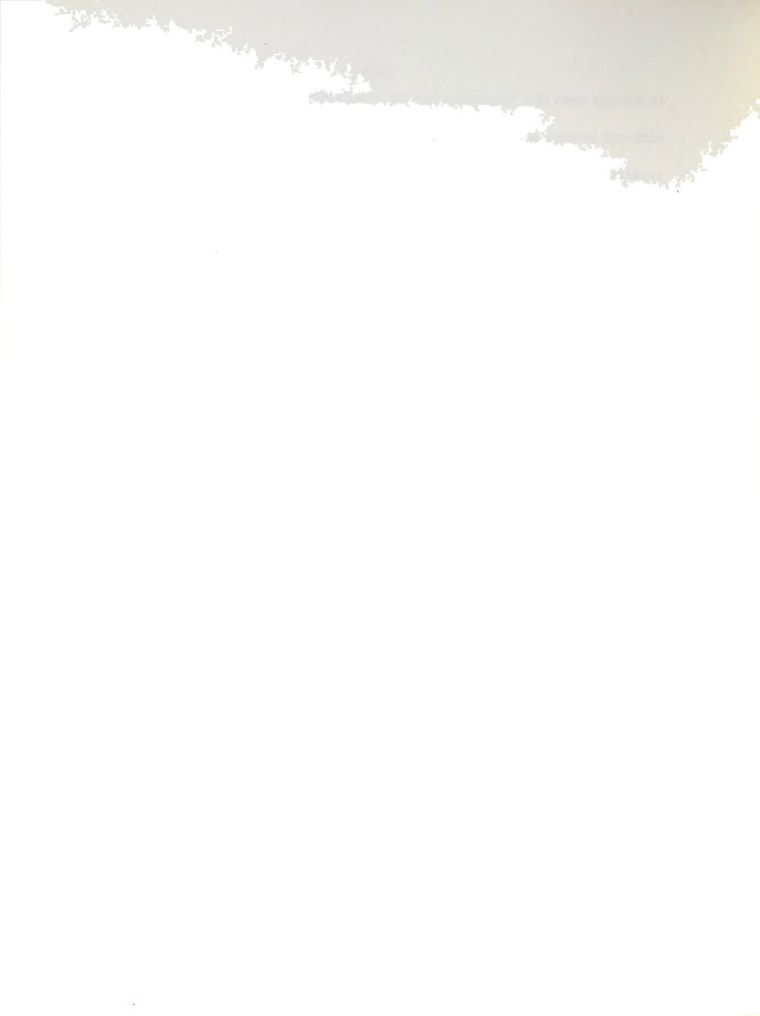
Compiled from: Global Automotive Market Survey and World Motor Census (New York: McGraw-Hill International Corporation, 1959), pp. 13, 17.

### Credit and Installment Practices

Credit is an ever-present problem in international marketing. An exporting firm has to view credit extension in a somewhat different light than in a domestic market. The importer's credit status is affected by his country's entire financial, political, and economic situation. At the outset, it is well to emphasize that the influence of these conditions varies from country to country.

Generally in Argentina as well as in Brazil much of the United States credit was extended on a documentary draft basis, or on an open-account credit





in the case of long-established relationships. With the progressive decline of gold and foreign exchange reserves in Argentina late in 1957, the United States traders came to place heavy reliance on irrevocable letters of credit, a practice still followed extensively.<sup>32</sup> Furthermore, Americans traditionally insisted upon quoting prices to foreign buyers in dollars and usually required payments in dollars too.

Argentine dealers also extend credit in the local market. It is true that dealer sales are usually transacted on a strictly cash base because of the possible difficulty in recovery. But the use of installment selling of local manufactured goods is not uncommon; in the last few years, several finance companies in Argentina have been established to underwrite such sales. For example, a finance company was established in February 1960, for the purpose of making low cost credit available for the purchase of automobiles built by Industria Kaiser Argentina (IKA). The company was formed under the auspices of IKA, which is building jeeps and three passenger cars--the Carabela, the Renault Dauphine, and the Bergantin.<sup>33</sup>

Domestic sales of parts and accessories on the installment plan were usual in Brazil as early as 1958. In fact, it is not unusual to see advertisements featuring installment payments.<sup>34</sup> Despite steady and

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<sup>32</sup>U. S. , Bureau of Foreign Commerce, WTIS, Basic Data on the Economy of Argentina, Part 1, No. 58-73, November, 1958, p. 20.

<sup>33</sup>Automotive Market Report (Pittsburgh: Automotive Publishing, Inc. , February 29, 1960), p. 4.

<sup>34</sup>U. S. , Bureau of Foreign Commerce, WTIS, Basic Data on the Economy of Brazil, Part 1, No. 58-87, December, 1958, p. 20.



considerable increases in means of payment, there are significant protests against the inadequate credit.

Dr. Garcia Filho, president of Motor Vehicle Manufacturers of the State of Sao Paulo, indicated in 1960 that one of the major problems facing the automotive industry is the lack of adequate credit to finance sales of cars to the public.<sup>35</sup> He pointed out that all nations have systems for financing the sale of durable goods to consumers. Now that the national auto industry produces its own automobiles in large volume, moderate financing of sales should not be considered unreasonable. According to Dr. Filho, the government was studying measures to increase sales of automobiles in the future.

By 1959 the United States firms selling in Venezuela usually were using widely time drafts ranging from 30 to 90 days. However, well-established Venezuelan firms ordinarily receive open-account credit from their American suppliers.<sup>36</sup> Venezuela has had ample gold and foreign exchange reserves, hence its credit standing in the past has been relatively high in contrast to that of Argentina and Brazil. Consequently, the letter of credit seldom is used since it implies some doubt as to the credit rating of the importers.

Facilities for commercial credit are provided either by local banks or by firms directly concerned in installment sales. Several firms specializing in automobile financing began operating in the mid-fifties. One such

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<sup>35</sup>The United States Foreign Service Dispatch No. 406, Sao Paulo, Brazil to the Department of State, Washington, D. C. , May 6, 1960.

<sup>36</sup>U. S. , Bureau of Foreign Commerce, WTIS, Basic Data on the Economy of Venezuela, Part 1, No. 59-68, August, 1959, p. 16.



finance company, "Venezolana de Financiamiento, S.A." (VEFISA), was formed in 1956 by American and Canadian private capital to help in financing services in Venezuela. VEFISA, which initially engaged in financing automobile dealers, later included in its services handling of installment sales and credit extension for wholesale purchases.<sup>37</sup>

During the latter part of 1958, installment terms for automobiles ranged from 20 to 24 months by almost all dealers, with some offering as many as 30 months. In December of 1958, Venezuela enacted a new statute to govern installment selling. Under this statute, the right of car ownership sold on installment credit terms remains with the seller until the final installment is made.<sup>38</sup> It is conceivable that such a statute could discourage their trading in used cars since car ownership cannot be transferred until the payments on the automobile are fully covered.

The success of West German car manufacturers in the export market is frequently ascribed to their extended credit terms. However, it is true that liberal credit policy has also forced retrenchment on the German car makers, in South America. Nonetheless, their credit terms were noticeably longer and more reasonable than in the case of British or American firms.<sup>39</sup>

West Germany saw fit to offer liberal credit terms. Most European

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<sup>37</sup> Global Automotive Market Survey and World Motor Census (New York: McGraw-Hill International Corporation, 1956), p. 21.

<sup>38</sup> U. S., Bureau of Foreign Commerce, WTIS, Basic Data on the Economy of Venezuela, Part 1, No. 59-68, August, 1959, pp. 16-17.

<sup>39</sup> "An Assessment of German Competition," Motor Business, No. 4, September, 1955, pp. 6-7.



automobile producers who were engaged directly in international marketing granted credit in many instances. United States exporters may not have used credit extension as much as they might have done in competing for foreign markets. The reason would seem to be that their foreign business constituted a much less important share of their total output than did the foreign markets of the major European car producers.

### **Latin American Consumer Buying Habits and Motives**

There are considerable differences in the extent of car ownership and buying habits in various parts of the countries in question. In Brazil, for instance, the major cities or densely populated states which comprised only 17 percent of the land area and 57 percent of the population in 1957, had 88 percent of the Brazilian automobiles in use during that year. Automobiles are kept for a few years as elsewhere in the world and then sold to groups less able to buy new cars.

At any rate, cars are kept in use for a longer time than in the United States. In Argentina, for example, over 40 percent of automobiles in use in 1958 were over 20 years old. In the absence of reliably-kept records on scrappage rates, or lack of access to such records as may exist, it is difficult to assess the automobile life. There are at least three factors that can reflect on car scrappage rate--economic conditions, automobile mileage, and durability. It is beyond the scope of this thesis to do more than glance at the effects of changing economic conditions in automobile ownership and operation in the selected Latin American countries.





There was, as early as 1957, a tendency to increase fleet cars; a case in point is Argentina's taxi fleet which increased from 7,000 to 10,000 units as a result of the abolition of the law against cars for hire.<sup>40</sup> Fleet cars in Argentina tend to be used for a long period. Furthermore, the prolongation in use of a large percentage of prewar cars can be partly explained by the fact that it was not until recent years that the supply of cars caught up with the demand, though still short in some areas. By this time the rise in prices and built-in restrictive measures such as tariffs, exchange premiums, and local taxes opened a large gap between the value of old cars and new ones. Many potential buyers could not find the necessary capital to purchase a new car, but have been able to pay the lower price for a used or a small car.

The manufacture and export of the small cars helped extend the automobile market to countries of moderate income and thus stimulated the mass demand for cheaper, more economical cars which were made available in the early fifties. What might not have been an economical proposition to buy expensive, large American cars immediately after the war, may have become so later.<sup>41</sup>

It has been noted that, as late as January 1959, automobiles in use in the Latin American countries discussed were largely of American origin. However, as the European rivals were making inroads in these countries, the

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<sup>40</sup> Global Automotive Market Survey and World Motor Census (New York: McGraw-Hill International Corporation, 1957), p. 11.

<sup>41</sup> "The Replacement Demand for Automotive Products," Motor Business, No. 17, December, 1958, p. 19.



American proportion of automobile population was on the decline. In any event, the market shares of the different countries do not directly reflect consumer preferences, since import restrictions on American cars distort the freedom of choice.

#### Evolution of Trade in American Automobiles--A Practical Strategy

##### American automobile manufacturers: awakening awareness of foreign markets

The compact car, the newcomer in the American market, is an indication of the effect of trade upon the evolution of the automobile. The American automobile exporters, on the defensive in recent years, now are moving back to the offensive both in the United States and abroad.

United States compact automobiles have checked drastically the invasion of the American market by small foreign cars. As we have seen earlier, from a record sales of 670 thousand automobiles in 1959, American imports dropped to some 450 thousand units in 1960. The European car producers are showing real concern about this setback, for the American market is one of their largest. This is evidenced by the fact that many European automobile firms cut down their production, reduced their work week, and laid off workers. It has been indicated that the American subsidiaries abroad have been particularly hurt in sales to the United States. On the other hand, Volkswagen retained its sales volume. All Europe's car makers are now reappraising their future prospects.<sup>42</sup>

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<sup>42</sup>United Nations, op. cit., pp. 17-18.

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The sales increase enjoyed by the United States is apparently due to the introduction of the compact cars. Today there are 14 American compacts, of these five are economy compacts (Corvair 700, Falcon, Lark 6 Regal, Rambler American Super, Valiant V-200) and the remaining nine are luxury compacts (Buick Special DeLuxe, Comet, Lancer 770, Lark V-8, Oldsmobile F-85 Deluxe, Rambler Classic V-8, Rambler Classic 6 Super, Tempest 4, and Tempest V-8). The Rambler Classic 6 model is the current version of the car which, more than any other, sparked the recent phases of the compact car revolution.<sup>43</sup>

The American compact, as pointed out by Ward's in 1960, has been designed primarily for the domestic market to meet the challenge of European car makers. Whether or not the American designer also had in mind foreign markets, his creation of American versions of the compact car was followed by an increase in American exports of automobiles.<sup>44</sup>

Nevertheless, the United States manufacturers, at least since 1960, seem to be moving aggressively with their compacts to capture the rapidly

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<sup>43</sup> Consumer Reports gives a useful definition of the classifications in substantially these terms: An economy compact is a car suitable for all-around family use in which relatively low initial price, mechanical simplicity--usually involving a manual transmission--and economy of operation combine to keep down ownership costs. A luxury compact is likely to be more completely equipped. The car may have automatic transmission and power steering, it may be a V-8; and though it should conform to the compact car concept of small overall size, advantageous operating economy, and easy maneuverability, it may even cost as much, or more, to buy than a full-size car. As taken from "Compact Cars," Consumer Reports, March, 1961, pp. 114, 145, 148, 149.

<sup>44</sup> "Vehicle \$ Signs Record Another 'Comeback' Year in 1959," Ward's 1960 Automotive Yearbook, op. cit., p. 69; and Automotive News, op. cit.



expanding automobile markets abroad. However, it may be assumed that competition for car markets abroad will become more rigorous. In order to compensate for lost sales in the United States, automobile manufacturers abroad may find it necessary to push harder in other parts of the world where continued growth is expected. With much of Europe enjoying unprecedented prosperity, it is the main target for all car exporters. Britain, for instance, may be influenced to try to expand its car sales in its Commonwealth as well as in its traditional markets; France, to Latin America, the Middle East, and the British Commonwealth; and West Germany, to Europe and elsewhere.<sup>45</sup>

American compacts are all increasing in Western Europe's market, especially in higher income countries such as Switzerland and Sweden.<sup>46</sup> But the compact car is still much larger and more expensive (see Footnote 43) than the small car that dominates the mass market abroad and Europe in particular, and so competition in world's car markets is still difficult.

Both Ford and General Motors considered the idea of making a small car at the end of World War II and discarded it. Postwar experience of other manufacturers tends to reinforce their view. Volkswagen, in a reverse instance, after buying a new plant in New Jersey to make its small cars, discovered that the manufacturing costs in the United States would be too

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<sup>45</sup>"French Sag in U. S. Auto Market," Business Week, October 15, 1960, pp. 134, 136; and United Nations, Economic Survey of Europe in 1960, p. 20.

<sup>46</sup>"Europe's 61 Cars in a First Look," U. S. News and World Report, October 31, 1960, p. 94.



1880-1881

1881-1882

1882-1883

high, considering the size of the car market.<sup>47</sup>

In the United States as well as in other major car producing countries, each firm attempts to maximize the degree of standardization between the parts of its various models. Because of its economic importance, this standardization is extended even to other firms, which may buy parts from independent producers. This point was discussed earlier and emphasized in the case of the United Kingdom's numerous models.

Since the manufacture of the small car departs measurably from that of existing models, it would probably entail new assembly lines and thus construction of a new plant. The costs of designing and tooling up for a new small car are considerable. It has been estimated that tooling costs in the United States, as early as 1957, for a completely new engine ran about \$50 million; total tooling costs for a small car approximated \$250 million.<sup>48</sup> With such a large investment by American producers, it is unlikely that the price for an American manufactured small car (of the Volkswagen type) would be competitive with the ones imported into the United States. To embark on such an expensive venture would necessitate a large volume of production to offset the cost differential. In any event, if a decision is made to start production of a small car in the United States, it is likely that parts such as transmissions and engines, which involve high labor cost, would initially be imported from Europe.

Manufacturing activities and the assembly operations in the Latin

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<sup>47</sup> "How U. S. Auto Makers View Small-Car Market," U. S. News and World Report, May 3, 1957, p. 35.

<sup>48</sup> "The Market in the United States for European Cars," Motor Business, No. 13, December, 1957, p. 32.



American countries discussed is another possibility to capture more sales. But it will take time before these areas can develop into adequate substitutes for a car market potential such as the one which formerly existed in the United States.

With this cost disadvantage in home production, quota restrictions, currency dislocation and other trade barriers in foreign markets, the American automobile producers were left with no recourse but to expand and modernize their overseas manufacturing and assembly facilities in order to participate in the growing market for foreign-source automobiles. As has been noted earlier, continuing development of these facilities in overseas countries has enabled the American car manufacturers abroad to increase their total business despite the decline in the American export share of the overseas market.

Automobiles manufactured by American foreign operations, like most foreign-built automobiles, have been smaller than those produced in the United States. These automobiles found acceptance not only in their domestic markets but also in other areas throughout the free world.<sup>49</sup> Furthermore, the American sales organizations abroad have been able to maintain a full range of models manufactured by the parent company and its foreign subsidiaries. Such an arrangement provides the flexibility for each subsidiary to adapt its activity to the particular conditions of its own market.

With the establishment of the automotive industry in Argentina and Brazil, various automobile firms have established production facilities there.

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<sup>49</sup> Annual Reports, Chrysler, Ford, and General Motors, 1955-1960.



The only American firm which is manufacturing automobiles in Latin America is Kaiser. Chrysler Corporation, which had considered plans to manufacture a car model in Agreement with Kaiser, abandoned the idea and withdrew. American automobile makers in Latin America, with the exception of Kaiser engage only in the production of commercial vehicles. It was rumored in 1960, however, that Ford may introduce an automobile in Brazil.

The largest automobile manufacturer in Argentina, according to 1960 figures, is Kaiser, which produces almost half of the total car output. Its share rises to about three-fifths with the inclusion of its Dauphine which is produced on license agreement with Renault. Most European automobile manufacturers are operating on license agreements, or in a joint venture with a local company. Kaiser's projected car production for 1964 would constitute only two-fifths of the total car output as compared to three-fifths in 1960.

In Brazil, Kaiser's production is confined to pick-up trucks and jeeps. While British manufacturers have no manufacturing facilities there, the other major European car manufacturers shared the planned output of some 65 thousand units in 1960.

As pointed out in Chapter III, the instability of South American economies in the past has influenced the automobile producers not to undertake car manufacturing, but to concentrate on commercial vehicles. The latter are of more importance to the underdeveloped countries and thus are favored by law,



as in Argentina, a developed nation.<sup>50</sup> This may have been unwise, since it is conceivable that the domestic car industry in Latin American countries may continue to receive a high degree of protection from foreign competition. Such a course of action may make it virtually impossible to export American automobiles to this area in the future.<sup>51</sup>

In order to get their share of the growing foreign market, United States automobile manufacturers, who once were very skeptical of small cars in general, are now not relying on exports of standard cars and compacts alone--they are contemplating the introduction of a still smaller car. Indications are that American automobile manufacturers are planning subcompact cars. Ford plans seem to envisage a Volkswagen-size car. It is expected to be priced somewhere around \$1,600 in the United States.<sup>52</sup>

Some of the American smaller car manufacturers, according to The Wall Street Journal and Ward's (both commenting in 1960), will utilize their facilities and employees abroad to manufacture at least some parts in their foreign subsidiaries. Ford is planning a small car with a four-cylinder engine, to be called the Cardinal. It has been rumored that Ford would tool up and

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<sup>50</sup> "The Argentine Motor Industry," Motor Business, No. 23, July, 1960, p. 29.

<sup>51</sup> Ibid.

<sup>52</sup> "Has the Auto Boom Moved Overseas?" U. S. News and World Report, December 12, 1960, p. 71.





build a good part of the car in its West German affiliate.<sup>53</sup> General Motors has not disclosed **any plans** for a small car, but is said to have in preparation **a somewhat similar car. The same is said about** the Studebaker-Packard Corporation. It is most likely that Chrysler and American Motors will produce similar versions.<sup>54</sup>

#### The Probable Impact of Economic Integration on Automobile Trade

World trade patterns are undergoing significant changes as presently best illustrated in Western Europe. Regional economic integration among countries such as the European Economic Community (commonly known as the European Common Market or ECM) and the Free Trade Area Association are being established. A similar approach is contemplated by the Latin American countries in order to integrate the regional economies.

In order to meet the anticipated competitive advantages which economic integration will yield non American producers, the United States automobile manufacturers have been accelerating their investments for modernization and expansion of manufacturing and assembly facilities abroad. Although no specific figures are available for the application of these investments to the Latin American market, it is likely that a considerable portion is being allocated to that area. General Motors has a big program for the immediate future; \$500

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<sup>53</sup>"Ford Confirms It May Build Part of New Small Car in Europe, but Not Before '62," Wall Street Journal, September 7, 1960, p. 2; and "Foreign Cars Vie For Larger Shares of U.S. Market," Ward's 1960 Automotive Yearbook (Detroit: May 9, 1960), p. 177.

<sup>54</sup>"Has the Auto Boom Moved Overseas," U.S. News and World Report, December 12, 1960, p. 71.



million for plant equipment and tooling in 19 foreign countries is a part of this plan. Ford Motor Company is expected to invest \$196 million during the early sixties, in addition to the \$358 million for its purchase of the remaining shares of its British subsidiary. Chrysler Corporation has wholly-owned subsidiaries in six foreign countries besides a 25 percent interest in Simca. Last but not least, American Motors Corporation is planning to start building its Rambler in Australia.<sup>55</sup>

For the American automobile manufacturers to produce the right kind of car demanded in overseas markets, manufacturing facilities abroad seem to be the best location from which to supply an acceptable product. Furthermore, the development of regional economic communities throughout the world necessitates manufacturing abroad in order to circumvent tariff barriers and other discriminatory measures imposed on United States car exports.

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<sup>55</sup>Ibid. , p. 70.



## CHAPTER V

### SUMMARY AND CONCLUSIONS

Although the postwar period was, on the whole, one of world economic prosperity, it is fallacious to think that the steady growth in transportation throughout the world led to a comparable growth in American automobile exports. The fact is that the United States automobile manufacturers suffered a set back in the world automobile export market and largely confined their exports to the Western Hemisphere. Moreover, demand for United States cars in leading Latin American countries declined appreciably especially in the decade of the 1950's.

#### Primary Reasons For The Decline

There are various underlying reasons for this decline of American automobile exports--some primary causes and some secondary factors. Three reasons fall in the primary category: the imposition of severe import restrictions against American automobile exports, the effectiveness of competition by foreign car producers, and the lack of a United States produced automobile appropriate for the foreign market in terms of size, power, price, and performance. These basic factors can be succinctly discussed through a concrete study, using the principal Latin American countries.

The effective demand for automobile imports by Latin America depends



to a marked degree upon the buoyancy of the countries' export incomes. The three countries studied in Chapter III may be divided into two groups as far as balance of payments and automobile manufacturing are concerned: Argentina and Brazil, which had and still have foreign exchange problems and possess car manufacturing facilities, and Venezuela, which had virtually no balance of payments difficulty up to 1958, nor any manufacturing facilities prior to this date, except assembly plants.

### Import restrictions

The exports of most Latin American countries are dominated by a small number of agricultural commodities or in the case of Brazil, by coffee alone. The reliance on the export of these commodities, which are vulnerable to sudden and drastic changes in value as world price levels fluctuate, has resulted in balance of payments difficulties. This situation, together with the general rise in imports, was one of the reasons why leading Latin American countries were forced to impose and manipulate import restrictions in such a manner as to discriminate against United States automobiles.

In addition to the effect of exchange problems on the effective demand for United States cars, automobile sales to Argentina and Brazil were also affected by the increase in local production. The need for motor vehicle transportation was severe in the two growing nations of great geographical expanse, and so the pressure to manufacture their own automobiles was great.

In the early postwar period car manufacturing was postponed because large foreign exchange reserves enabled Argentina and Brazil to permit the





import of cars freely. However, large imports of automobiles represented a drain on the two countries' foreign exchange reserves, as has been noted in Chapter III. When the balance of payments position became acute in the early fifties, severe restrictions were imposed on car imports. Yet these countries required a constant supply of automobiles to meet the transport needs incident to their economic development.

#### Local manufacturers of automobiles

In 1959 the automobile industries in Argentina and Brazil were still in their early stages, having been set up only a few years before. These nations soon resorted to the age-old device of protectionism in the special form of quantitative barriers erected against imports of automobiles. In order to stimulate the growth of domestic industry, further restrictions were imposed on the allocation of foreign exchange reserves for other than essential imports.

The foreign exchange quota allocation led, and continues to lead, to a very sharp reduction in the United States share of these nations' automobile market. This allocation, therefore, helped the European car manufacturers, particularly West Germany, to increase their exports to Argentina and Brazil and it also aided the incipient Argentinian and Brazilian automobile industry. Not only did the market share obtained by the major European automobile producing countries increase substantially at the expense of the United States, but the Argentine and Brazilian automobile industries also grew fast.

Domestically produced automobiles in Argentina and Brazil commanded



a figure above the prices of similar models that were imported in the early fifties. Domestic car sales may have suffered from buyers' resistance over the next few years on account of high domestic prices of automobiles.

No doubt the automobile industry in both Argentina and Brazil will have to face problems in the next half decade. The problems that confronted it during the planning period are over, however, and the industry is well on its way. Nevertheless, the car manufacturers in the two countries probably will continue to take shelter behind high protective barriers in order to insure the development of the industry.

It is likely that production costs will continue to be very high in view of the shortage in steel, energy, and skilled workers, scarcities noted in Chapter III. These costs, however, may be reduced as the level of output increases. For unit costs to be significantly reduced, the scale of production of both Argentina and Brazil must be greatly increased. In the absence of adequate terms for installment purchases and very limited exports, the only way to achieve economies of scale may be merger and concentration.

One drawback to concentration at the present time is that too many foreign firms have been encouraged to establish manufacturing plants in the area. But a large measure of concentration may come naturally, depending on the financial position of the industry. Only the larger manufacturers will be able to finance from earnings and to obtain credit for large expansion and integration programs.

To be sure, the production cost complex may become less foreboding. Efforts are being made to expand the car market. Installment buying practices



have been encouraged but are still not adequate, in view of the low per capita income. Measures have also been taken to increase car output by exporting, particularly to the neighboring Latin American countries. But in view of the high cost, export potential is a limited possibility; competition can thus be attained at present only by the use of export subsidies.

The tariff structure and local taxes of the three countries studied have very much favored the import of small cars and of completely knocked down (CKD) cars for local assembly. In one respect, however, the Venezuelan market offered a great advantage as compared to Argentina and Brazil: there was no balance of payments difficulty so that the problem with which the American manufacturers were faced was not so much a restricted size of the automobile market as a restricted share. With American assembly operations in Venezuela, imports of assembled cars may well decline further, especially if a local manufacturing industry were to be established in this nation.

With continued expansion of local manufacturing, it is likely that the American manufacturers, other than Kaiser, will suffer from not having established automobile manufacturing facilities in Argentina and Brazil. The domestic industry still may receive a high degree of protection from foreign competition through continued stringent foreign exchange control and high surcharges. As a consequence, the United States car manufacturers may be excluded from an increasingly important automobile market.

#### Size and price of American automobiles

It has been noted in Chapters II and III that the effect of tariffs and



local taxes seriously discriminates against the import of American standard cars, and that importers favor small automobiles and to some extent medium-size ones. American automobiles have become unnecessarily large, noncompetitively priced for large volume selling, and expensive to operate, especially in countries where gas prices are high.

The absolute increase in automobile sales to Latin America, as elsewhere, has been brought about by the spread of car ownership to the lower income groups and the widening of the middle income groups. The middle income groups tend to buy the smaller and the cheaper cars rather than the expensive American standard cars. Sales of American automobiles abroad, as has been noted in Chapter III, are very low and replacement demand negligible. The future Latin American demand is not likely to change radically until personal incomes have grown considerably and both prices and operating costs come within the reach of a far larger part of the population.

While the United States manufacturers have a wide range of automobiles to offer, they are in danger of losing some export opportunities by offering cars of too large a capacity and at too high a price for the world market and the Latin American countries in particular. The export potential for American standard cars appears to be limited now that foreign buyers have a wide range of choice from among the automobiles manufactured abroad.

An opportunity for developing markets for American cars might come through the export of American compact cars. These compact cars, smaller in size than the American standard product, would qualify for the lower taxes and surcharges referred to in Chapter III, and would sell in larger quantity in





Latin American markets and elsewhere if they were competitively priced. Automobile manufacturers, however, may have the alternative course in shifting to operations abroad.

As previously stated the decline in the export market for United States automobiles has been the result of a whole complex of factors of varying importance. Having discussed the primary factors we may turn to the secondary factors, principally the failures by American automobile manufacturers to use the most effective marketing policies and practices.

In the immediate postwar period, the United States and the United Kingdom were virtually the only major suppliers of the world automobile demand. During that time the car exporters were merely of order takers from a loosely run network of world-wide distributors. The reentry of European automobile manufacturers into the export market, West Germany in particular, together with their modern marketing and promotional efforts helped them get larger shares of the world automobile export market at the expense of the United States.

Although Americans have been utilizing many types of advertising media, only few American firms undertook any real advertising or sales campaign in foreign markets. Instead of sending out trained salesmen to secure orders, they commonly waited for foreign customers to come to them.

With people of moderate income, credit extension is specially essential for the purchase of a durable good as expensive as automobile. Yet, throughout the 1950's Americans usually demanded a letter of credit in advance of shipment while their competitors were granting liberal credit terms.



Furthermore, Americans selling in foreign markets continued to insist upon quoting prices to foreign buyers in dollars and also usually required payment in dollars. This was true even in the postwar period, despite the dollar shortage experienced by many countries. Consequently American manufacturers lost foreign customers to competitors who were willing to make quotations and accept payments from foreign buyers in their own currencies.

#### Alternatives Before American Automobile Producers

The opportunities of building automobile sales volume and profits from overseas business are very attractive today and profitable foreign sales should grow substantially in the years ahead. However, competition from European car manufacturers is becoming increasingly intense and must be taken into account. Many European countries must export to live. The United Kingdom and West Germany, for instance, have lost important world markets which they held before World War II, so they are now making a determined effort to establish or expand markets in Latin America. In the face of this competition, it would seem that the United States must exercise much of the same diligence and apply the same critical analysis to foreign markets as it does in its domestic activities. There is a tendency, however to adapt more and more American business practices because they are considered the most modern and efficient in the world. Such practices, however, are most effective if they are adapted to the actual circumstances of each foreign market.

What specifically must the American automobile manufacturers do to



meet the challenge? At least three alternatives can be suggested: obtaining of trade concessions, adjusting design and price to meet foreign competition, and, finally, expanding manufacturing and marketing facilities and efforts abroad.

#### Obtaining of trade concessions<sup>1</sup>

For decades, United States foreign trade policy has been directed toward the freest possible movement of goods across national boundaries in order to serve the interests of all trading nations. Under the Reciprocal Trade Agreements program, the United States has reduced import tariffs on automobiles to the lowest levels in the world. Automobile tariffs at present stand at an ad valorem duty of 8 1/2 percent.

The United States has traditionally relied on competition as the principal motivating force in its growth and development. Such competition has been based on product, price, and quality at home as well as abroad. Heavy American imports of automobiles attest to the favorable treatment accorded to foreign car makers. Yet the United States in turn has been subjected to tight import controls such as quotas, high tariffs, and other local charges, many of which are of a discriminatory nature. Although most import quotas have been abandoned and automobiles have been freed from some obstacles, there are still many trade barriers in force and new ones emerging.

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<sup>1</sup>Much of the discussion in the next few paragraphs is taken from United States Motor Vehicle Exports--Analysis and Proposals (Detroit: Automobile Manufacturers Association, April 5, 1960), pp. 1-3.



During the postwar years many countries in the world were confronted with balance of payments difficulties and wanted to restore balance in their external accounts and attain a satisfactory level of output and efficiency. In view of such a situation, the United States accepted the restraints with understanding. However, circumstances have undergone significant changes and it would seem appropriate for American automobile manufacturers to press American authorities, as they seem to be doing currently at the Geneva Gatt conference, for relaxation of foreign restraints on American automobiles. Tariff concessions will help American car manufacturers to compete in foreign markets. And, at the risk of editorializing, it may here be said that they are entitled to equitable treatment.

The theory that trade is a two-way street applies just as much to foreign competitors as it does to Americans. If the United States markets are accessible to foreign producers whose unit labor cost is lower and whose plant size and efficiency are comparable to Americans, then it would seem reasonable for the American car manufacturers to seek fairer access to foreign markets.

Trade liberalization is most desirable as it would enable free nations, whether industrialized or underdeveloped to grow faster. The long run effect could be for the United States to expand the scope of its economic activity and possibly to strengthen its economic leadership and influence in the world. In addition, trade liberalization would permit American industry as well as American consumers to reap the benefits of lower cost and more efficient production, resulting in higher levels of world trade.





The United States and the rest of the world differ in both their per capita income and automobile requirements. These differences in wealth and market provide considerable opportunities for the mass-produced cars of one area to be sold as the specialty of the other.

As referred to in Chapter IV income dictates that the poorer countries, *ceteris paribus*, want smaller automobiles than even the American compact. The European car manufacturers obtain their economies of scale in mass-production of small automobiles and so they have a cost advantage in producing them. The American consumer wants, or at least appears to want, an automobile as big as or bigger than the compact car; so American large volume production is in this line, and so is its cost advantage.

There is a wide gap in wages between American and European manufacturers. Wage competition has been met by American producers through larger capital investment, modern machinery and equipment, and managerial techniques. But now that the European producers have also obtained many of these balancing factors, the wage differential alone will become increasingly significant to American automobile manufacturing, especially in the manufacture of a small car.

#### Adjusting design and price

Trade concessions alone, however, is not an assurance for more foreign sales. The United States manufacturers should modify their car designs to give them a wider acceptance in the world market, or at least in important sections of it. The American compact manufacturers seem to have



done this only to the extent that countries with moderate incomes can afford these only relatively smaller and lower priced cars. The potential market for such a car is somewhat limited as it does not satisfy the requirements of most foreign markets.

Important Latin American markets for United States car exports are declining and will probably continue to do so, partly as a reflection of efforts to protect local manufacturing and development. Furthermore, countries throughout the world, including Latin America, are discriminating against large, expensive, and high-powered automobiles. For United States manufacturers, then, to capture a larger portion of world car markets, it would seem to be necessary for them to supplement their typical car exports by setting up or participating in manufacturing enterprises abroad. This will entail a whole new set of risks and adjustments in Latin America; this is not only a means of averting import restrictions, but it also holds the possibility of lower production costs as industrial development unfolds.

Expanding manufacturing and marketing facilities abroad

American automobile manufacturers who are already engaged in international operations can supplement their standard models from their foreign sources. Such arrangements may add considerable strength to the American car producers and help them to meet varying foreign demands on their product lines. Certain American foreign based subsidiaries are already moving toward this type of product and line diversification.

An automobile as small as the European small car is not likely to be

after the first year of the study

the second year of the study

the third year of the study

produced in its entirety at the lowest possible cost in the United States. In order to manufacture such a car, it would be feasible to import high labor content components (i.e., engines and transmissions) from foreign affiliates, taking advantage of labor cost. Such a course of action could lower the cost and hence help the car manufacturers in becoming competitive in the production of a small car suited to world markets as well as to the potential American market for small automobiles.

American car manufacturers who have limited or no manufacturing facilities abroad might well consider joining an existing foreign automobile manufacturing firm. This could be done by the American partner providing a part of the investment, with the foreign company furnishing the manufacturing base and production management. Such an arrangement could be advantageous to American firms, particularly the smaller concerns--Chrysler and American Motors. When we add to the common interest the strength of American and foreign product lines, all the elements of successful market entry--product, money, and management--appear to be available. Admittedly, there remains the problem of a joint effort in implementing the complex coordination and management.

The American auto makers can offer to the foreign partner such assistance and facilities both abroad and in the United States as are analogous to what the foreign partner can give the American manufacturers in his own country. The two manufacturers would diversify each other's product line and probably cut production costs. The exchange of specialties and component parts, as well as other cost reductions and possible sales opportunities, could



enable the car manufacturers to increase their business and ultimately their profits.

Separate marketing arrangements should be made by American automobile manufacturers to serve distinct regions of the world. Countries with disparate cultures, habits, and characteristics require particular marketing approaches as well as different products. It will be some time before even Europe can be considered a single, homogeneous market as is the United States.

Marketing as well as manufacturing facilities can be established for purposes of concentration in one country of a region, and economies of scale as well as those of organization may there be achieved. The development of the ECM and the EFTA and other trade areas will make it especially important for Americans to concentrate their marketing efforts in order to survive profitably in the face of competition. Major areas of the region could be covered by setting marketing organizations under the jurisdiction of the country used as a marketing center. A trend in this direction is already evident in the actions of American automobile manufacturers.

American automobile manufacturers would do well not to overlook the opportunities in the growing international field. Their domestic market has limits which even now may be in sight. American automobile manufacturers should widen their horizons, for international operations may soon be essential to their continued growth.





## BIBLIOGRAPHY

### Books

- Alderson, Wroe. Marketing Behavior and Executive Action. Homewood, Illinois: Richard D. Irwin, Inc., 1957.
- Brainard, Harry G. International Economics and Public Policy. New York: Henry Holt and Company, 1954.
- Fenn, Dan H., Jr. (editor). Management Guide to Overseas Operations. New York: McGraw-Hill Book Company, Inc., 1957.
- Kindleberger, Robert A. International Economics. Homewood, Illinois: Richard D. Irwin, Inc., 1958.
- Kramer, Roland L. International Marketing. Cincinnati, Ohio: South-Western Publishing Company, 1959.

### Documents and Governmental Publications

- Direction of International Trade. New York: Joint Publication, United Nations, International Monetary Fund, International Bank for Reconstruction and Development. Annual issues, Series T. 1950-1959.
- International Financial Statistics. Washington, D. C.: International Monetary Fund. 1953-1960.
- United Nations. Department of Economic and Social Affairs, Economic Commission for Latin America. Economic Bulletin for Latin America. IV, No. 1, New York, 1959.
- \_\_\_\_\_. Department of Economic and Social Affairs, Economic Commission for Latin America. Economic Survey of Latin America. New York, 1955-1959.
- \_\_\_\_\_. Secretariat of the Economic Commission for Europe. "The Motor Car Industry," Economic Survey of Europe in 1960. Geneva, 1961, Chapter I, pp. 17-22.



- \_\_\_\_\_. United Nations Monthly Bulletin of Statistics. New York, December, 1959.
- \_\_\_\_\_. United Nations Statistical Yearbook. New York, 1958.
- U. S. , Bureau of Foreign Commerce. Licensing and Exchange Controls-Venezuela. Part 2, No. 59-83, November, 1959.
- \_\_\_\_\_. United States Exports of Domestic and Foreign Merchandise. Schedule B., Report No. FT 410, Part 2. 1952-1959.
- \_\_\_\_\_. World Trade Information Service (WTIS). Basic Data on the Economy of Argentina. Part 1, No. 58-73, 1957.
- \_\_\_\_\_. WTIS. Basic Data on the Economy of Brazil. Part 1, No. 58-87, December, 1958.
- \_\_\_\_\_. WTIS. Basic Data on the Economy of Venezuela. Part 1, No. 57-68, August, 1959.
- \_\_\_\_\_. WTIS. Economic Development in Brazil, 1958. Part 1, No. 59-44, April, 1959.
- \_\_\_\_\_. WTIS. Licensing and Exchange Controls-Brazil. Part 2, No. 60-41, August, 1960.
- U. S. , Congress, Joint Economic Committee. Employment Growth and Price Levels. 86th Cong., 1st Sess., December 24, 1959.
- U. S. , Department of Commerce. Balance of Payments Statistical Supplement. 1958.
- U. S. , Senate, Committee on Commerce. The United States and World Trade Challenges and Opportunities. 87th Cong., 1st Sess., 1961, Report No. 446.

#### Articles and Periodicals

- Automotive Industries--Statistical Issue and Marketing Guide. Philadelphia: Chilton Company, Vol. CXX, 6 (March 15, 1959).
- Automobile Facts and Figures. Detroit: Automobile Manufacturers Association, 1939, 1949-1960.
- "Compact's Impact Detailed," Automotive News. April 24, 1961, p. 2.



"Current Cars Compared," The Economist (London). October 19, 1957, pp. 12-13.

Dowd, Laurence. "Is the U. S. Being Priced Out of World Markets?" in Richard M. Hill, editor, Marketing Concepts in Changing Times. Chicago: American Marketing Association, 1960, pp. 181-87.

"Those Economical Foreign Cars," Changing Times. July, 1957, pp. 19-21.

"The Economy Compacts," Consumer Reports. March, 1961, pp. 144-50.

"Europe's 61 Cars in a First Look," U. S. News and World Report. October 31, 1960, p. 94.

"Ford Confirms It May Build Part of New Small Car in Europe, but Not Before '62," Wall Street Journal. September 7, 1960, p. 2.

"French Sag in U.S. Auto Market," Business Week. October 15, 1960, pp. 134-36.

Global Automotive Market Survey and World Motor Census. New York: McGraw-Hill International Corporation, 1955-1959.

"Has the Auto Boom Moved Overseas?" U. S. News and World Report. December 12, 1960, pp. 70-71.

"How Many Cars in the Sixties," The Economist (London). October 22, 1960, pp. 359-61.

"How U. S. Auto Makers View Small-Car Market," U. S. News and World Report. May 3, 1957, p. 35.

Lee, Charles H. "Getting Your Share of Overseas Markets--New Patterns in Foreign Operations," Dun's Review and Modern Industry. November, 1956, pp. 40-41 and 116-29.

Morten, Everett G. "Foreign Car Tactics," Wall Street Journal. August 18, 1960, p. 1.

Motor Business. London: The Economist Intelligence Unit, Limited. Nos. 1-19, December, 1954 - June, 1959.

The Motor Industry of Great Britain. London: The Society of Motor Manufacturers and Traders, Limited, 1949-1959.

"Too Many Models," The Economist (London). October 19, 1957, pp. 9-10.

Ward's Automotive Yearbook. Detroit: Ward's Automotive. 1959-1960.



"What U. S. Companies are Doing Abroad," U. S. News and World Report, November 7, 1960, p. 102.

Whidden, Howard P. "Birth of a Mass Market-- Western Europe," Harvard Business Review, XXXIII, 3 (May-June, 1955), pp. 101-107.

#### Unpublished Material

Communication between U. S. Department of Commerce, Bureau of Foreign Commerce, and its Detroit Field Office. March 7, 1956 (in the files of the Department).

Personal letter from the Embassy of the Argentine Republic, Office of Economic Counselors, Washington, D. C., DM No. 760/60, October 19, 1960.

Personal letter from U. S. Department of Commerce, August 9, 1961.

U. S., Bureau of Foreign Commerce. "Statement of rates of import duty on automotive vehicles, Brazil." Special release, May 27, 1958 (in the files of the Department).

U. S., Commerce. "Brazil: Restrictions on the Importation of Assembled and CKD Automotive Vehicles," special release, May 27, 1958 (in the files of the Department).

U. S., Foreign Service Dispatch No. 30, Sao Paulo to the Department of State, Washington, D. C., July 24, 1959 (in the files of the Department).

\_\_\_\_\_. 96, Caracas to the Department of State, Washington, D. C., July 27, 1960 (in the files of the Department).

\_\_\_\_\_. 353, Sao Paulo to the Department of State, Washington, D. C., March 31, 1960 (in the files of the Department).

\_\_\_\_\_. 375, Sao Paulo to the Department of State, Washington, D. C., April 13, 1960 (in the files of the Department).

\_\_\_\_\_. 407, Caracas to the Department of State, Washington, D. C., November 16, 1959 (in the files of the Department).

\_\_\_\_\_. 406, Sao Paulo to the Department of State, Washington, D. C., May 6, 1960 (in the files of the Department).

\_\_\_\_\_. 896, Buenos Aires to the Department of State, Washington, D. C., December 15, 1959 (in the files of the Department).





\_\_\_\_\_. 1784, Buenos Aires to the Department of State, Washington, D. C., June 15, 1960 (in the files of the Department).

Other Sources

Annual Reports. Chrysler Corporation. 1956-1959.

Annual Reports. Ford Motor Company. 1955-1960.

Annual Reports. General Motors Corporation. 1953-1959.

Breech, Ernest R. A New Challenge From the Old World. An address delivered at the annual Pittsburgh Chamber of Commerce Dinner, in the Penn-Sheraton Hotel, Pittsburgh, December 1, 1958.

Meet Venezuela. Montreal, Canada: Mercantile Bank of Canada, 1956.

World Motor Vehicle Production, 1958. Special release, Automobile Manufacturers Association and U. S., Commerce, Business and Defense Services Administration--Automotive and Transportation Division, August 20, 1959.







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