CHILE'S BALANCE OF PAYMENTS, ECONOMIC DEVELOPMENT, AND FOREIGN ECONOMIC POLICY

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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The Ohio State University
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Advisor
Department of Economics
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION.</td>
<td>1</td>
</tr>
<tr>
<td>The Setting and the Problems</td>
<td>1</td>
</tr>
<tr>
<td>Scope, Objectives, and Approach</td>
<td>6</td>
</tr>
<tr>
<td>The Plan of Organization</td>
<td>3</td>
</tr>
<tr>
<td>II. THE LAND, THE PEOPLE, AND SOCIAL-POLITICAL INSTITUTIONS.</td>
<td>11</td>
</tr>
<tr>
<td>The Land</td>
<td>11</td>
</tr>
<tr>
<td>The People</td>
<td>19</td>
</tr>
<tr>
<td>Institutions</td>
<td>22</td>
</tr>
<tr>
<td>III. ECONOMIC GROWTH, THE STRUCTURE OF RESOURCES, AND CAPITAL FORMATION.</td>
<td>37</td>
</tr>
<tr>
<td>The Pace of Economic Growth</td>
<td>37</td>
</tr>
<tr>
<td>Distribution of Income</td>
<td>44</td>
</tr>
<tr>
<td>The Structure of Resources:</td>
<td>45</td>
</tr>
<tr>
<td>Capital and Labor</td>
<td>45</td>
</tr>
<tr>
<td>The Rate of Capital Formation</td>
<td>52</td>
</tr>
<tr>
<td>Summary</td>
<td>54</td>
</tr>
<tr>
<td>IV. THE BALANCE OF INTERNATIONAL PAYMENTS</td>
<td>57</td>
</tr>
<tr>
<td>The Significance of the Balance of Payments</td>
<td>57</td>
</tr>
<tr>
<td>The Meaning of Disequilibrium</td>
<td>58</td>
</tr>
<tr>
<td>General Structure of Chile's Balance of Payments</td>
<td>61</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS (contd.)

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Impact of World Depression, 1929-1932</td>
<td>62</td>
</tr>
<tr>
<td>Recovery after 1932</td>
<td>72</td>
</tr>
<tr>
<td>The Post-World War II Era</td>
<td>76</td>
</tr>
<tr>
<td>Summary</td>
<td>85</td>
</tr>
<tr>
<td>V. FOREIGN TRADE</td>
<td>87</td>
</tr>
<tr>
<td>The Capacity to Import and Economic Development</td>
<td>87</td>
</tr>
<tr>
<td>The Capacity to Import: 1925-1956</td>
<td>93</td>
</tr>
<tr>
<td>The Structure of Exports</td>
<td>96</td>
</tr>
<tr>
<td>The Contribution of the Large Mining Companies</td>
<td>100</td>
</tr>
<tr>
<td>Direction of Chile's Foreign Trade</td>
<td>103</td>
</tr>
<tr>
<td>The Structure and Volume of Imports</td>
<td>106</td>
</tr>
<tr>
<td>Summary</td>
<td>109</td>
</tr>
<tr>
<td>IV. FOREIGN INVESTMENTS</td>
<td>111</td>
</tr>
<tr>
<td>Foreign Capital and Economic Development in Chile: A Synopsis</td>
<td>111</td>
</tr>
<tr>
<td>The Nature of Capital Movements</td>
<td>115</td>
</tr>
<tr>
<td>Capital Movements and the Balance of Payments</td>
<td>118</td>
</tr>
<tr>
<td>Methodology, Valuation, and Classification</td>
<td>120</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>The Structure and Origin of Foreign Investments</td>
<td>124</td>
</tr>
<tr>
<td>Official Loans Guaranteed by the Government</td>
<td>132</td>
</tr>
<tr>
<td>Foreign Direct Business Investments</td>
<td>136</td>
</tr>
<tr>
<td>The Pacific Steel Company: A Case Study of Joint U.S.-Chilean Enterprise</td>
<td>138</td>
</tr>
<tr>
<td>Investment Climate</td>
<td>150</td>
</tr>
<tr>
<td>Public Utilities</td>
<td>152</td>
</tr>
<tr>
<td>The Foreign Investment Law</td>
<td>157</td>
</tr>
<tr>
<td>Nitrate and Petroleum</td>
<td>159</td>
</tr>
<tr>
<td>The Case of Copper: An Opportunity Foregone</td>
<td>164</td>
</tr>
<tr>
<td>Summary</td>
<td>178</td>
</tr>
<tr>
<td>VII. MONETARY-FISCAL OPERATIONS AND THE EXTERNAL SECTOR</td>
<td>182</td>
</tr>
<tr>
<td>Sources of Post-World War II Inflation</td>
<td>186</td>
</tr>
<tr>
<td>The External Sector and Fiscal Revenue</td>
<td>194</td>
</tr>
<tr>
<td>Copper and Public Finance</td>
<td>199</td>
</tr>
<tr>
<td>The Stabilization Program</td>
<td>204</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS (contd.)

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>206</td>
</tr>
<tr>
<td>VIII. FOREIGN TRADE CONTROLS AND THE ALLOCATION OF RESOURCES</td>
<td>209</td>
</tr>
<tr>
<td>The Import Tariff</td>
<td>210</td>
</tr>
<tr>
<td>Quantitative Controls</td>
<td>213</td>
</tr>
<tr>
<td>The Multiple Exchange System</td>
<td>217</td>
</tr>
<tr>
<td>Bilateral Trading Agreements</td>
<td>230</td>
</tr>
<tr>
<td>Major Objectives of Foreign Trade Controls</td>
<td>233</td>
</tr>
<tr>
<td>The Resource Allocation Effect</td>
<td>236</td>
</tr>
<tr>
<td>The Exchange Reform of April 1956</td>
<td>243</td>
</tr>
<tr>
<td>Toward A Sound Foreign Trade Policy</td>
<td>250</td>
</tr>
<tr>
<td>Summary</td>
<td>256</td>
</tr>
<tr>
<td>IX. CONCLUSIONS AND PROSPECTS</td>
<td>259</td>
</tr>
<tr>
<td>Conclusions</td>
<td>259</td>
</tr>
<tr>
<td>Prospects</td>
<td>271</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>276</td>
</tr>
<tr>
<td>AUTOBIOGRAPHY</td>
<td>279</td>
</tr>
</tbody>
</table>
# List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CHILE: ECONOMIC COMPONENTS, 1925-1953</td>
<td>41</td>
</tr>
<tr>
<td>2. CHILE: ECONOMIC COMPONENTS, 1950-1956</td>
<td>46</td>
</tr>
<tr>
<td>3. CHILE: CAPITAL STRUCTURE BY SECTORS</td>
<td>47</td>
</tr>
<tr>
<td>4. CAPITAL PER ACTIVE INHABITANT</td>
<td>50</td>
</tr>
<tr>
<td>5. CHILE'S BALANCE OF INTERNATIONAL PAYMENTS, 1929-1932</td>
<td>65</td>
</tr>
<tr>
<td>6. CHILE'S BALANCE OF INTERNATIONAL PAYMENTS, 1934-1939</td>
<td>70</td>
</tr>
<tr>
<td>7. CHILE'S BALANCE OF INTERNATIONAL PAYMENTS, 1942-1945</td>
<td>75</td>
</tr>
<tr>
<td>8. CHILE'S BALANCE OF INTERNATIONAL PAYMENTS, 1946-1957</td>
<td>79</td>
</tr>
<tr>
<td>9. CAPITAL GOODS IMPORTS AS A PERCENTAGE OF TOTAL INVESTMENT</td>
<td>91</td>
</tr>
<tr>
<td>10. CHILE: CAPACITY TO IMPORT, 1925-1929 AND 1950-1953</td>
<td>94</td>
</tr>
<tr>
<td>11. CHILE: EXPORTS OF COPPER AND NITRATE AND PROPORTION OF THESE IN TOTAL EXPORTS</td>
<td>98</td>
</tr>
<tr>
<td>12. CONTRIBUTION OF THE LARGE FOREIGN-OWNED MINING COMPANIES TO CHILE'S BALANCE OF PAYMENTS, 1955</td>
<td>101</td>
</tr>
<tr>
<td>13. CHILE: FOREIGN TRADE BY COUNTRIES, SELECTED PERIODS</td>
<td>104</td>
</tr>
<tr>
<td>14. CHILE: COMPOSITION OF IMPORTS</td>
<td>107</td>
</tr>
<tr>
<td>15. CHILE: PHYSICAL VOLUME OF IMPORTS, SELECTED PERIODS</td>
<td>108</td>
</tr>
<tr>
<td>TABLE</td>
<td>Page</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>16.</td>
<td>CHILE: MOVEMENT AND SERVICE OF FOREIGN CAPITAL</td>
</tr>
<tr>
<td>17.</td>
<td>FOREIGN INVESTMENTS IN CHILE, DIRECT AND PORTFOLIO, 1925-1956</td>
</tr>
<tr>
<td>18.</td>
<td>FOREIGN INVESTMENTS IN CHILE BY COUNTRIES, 1939, 1948 and 1953</td>
</tr>
<tr>
<td>19.</td>
<td>CHILE: DISTRIBUTION OF OFFICIAL EXTERNAL LONG-TERM OBLIGATIONS</td>
</tr>
<tr>
<td>20.</td>
<td>CHILE: RATES OF EXCHANGE</td>
</tr>
<tr>
<td>21.</td>
<td>CHILE: RATES OF EXCHANGE</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

The Setting and the Problems

Tremendous emphasis has been given by academic economists, researchers and policy makers to economic growth of the less developed nations in the period since World War II. The aspirations of leaders and the people of these countries for accelerated economic progress which has been characterized by the phrase, "The Revolution of Rising Expectations," have played a major role in this new orientation in economic thought and action. Another interesting fact is that governments have emerged as consciously active agents carrying a heavy responsibility for the success or failure of development goals.

Among Latin American countries, Chile presents an especially interesting case study involving the impact of government policy on economic processes and events. The policy of economic isolation, characterized by the expression, "desarrollo hacia dentro" (roughly translated as internal development) was born in the turbulent days of the Great Depression of 1929-1932 and emerged in the postwar period with increasing vigor. With the collapse
of world mineral markets, and the drying up of foreign
capital flows, Chile's exposed economy was jolted to the
foundations. According to the League of Nations, Chile's
international trade suffered the most severe contraction
of all nations surveyed. The economic crisis, outwardly
induced, was transmitted to the domestic economy in the
form of unemployment and a sharp fall in national income.
Moreover, these economic effects were accompanied by a
great deal of political turmoil and social unrest.

The policy of economic isolation progressively became
identified with a goal of rapid industrialization; new
government agencies were created to stimulate industrial
development, foremost among which is the Development
Corporation (generally abbreviated CORFO), organized in
1939. A system of multiple exchange controls and import
licensing, absolute prohibitions on imports, bilateral
trade agreements and other measures which were initially
applied as uncomplicated emergency measures in the
Depression, evolved into highly complex and rigorous
instruments of foreign economic policy. Essentially, then,
the Government intervened decisively to direct—by alter­
ing the free play of market forces—the movement of re­
sources into activities favored by it. Particularly was
this true of the international trade and agricultural
trade sectors.
If the quantity and quality of a country's resources provide a meaningful index for determining a potential for economic development, then Chile, when compared with many of her sister republics, holds a most favorable position. Roughly 80 per cent of the adult population is literate and, with the exception of Argentina, Chile has the best trained labor force in Latin America. The heartland of Chile enjoys a bracing climate, a light rainfall and is considered one of the rich agricultural regions of the world. Moreover, the ratio of cultivable land to population is very favorable. The country is generously endowed with mineral resources comprising important reserves of copper, sodium nitrate, iron ore, coal, petroleum, manganese, and sulphur. There exists, furthermore, a large hydro-electric potential which has been only slightly utilized. The population of about seven million persons is racially quite homogeneous and dedicated for the most part to a tradition of democratic institutions.

In view of all these assets, tangible and intangible, Chile's rate of economic progress in the years after World War II when compared with Latin America as a whole has been disappointing. Between 1945 and 1956, Chile's share in Latin America's joint gross product fell from 5.4 per
cent to 4.1 per cent, according to estimates of the United Nations. That Chile failed to share in the rapid economic growth of the other Latin American countries is particularly surprising in view of the considerable improvement of that country's terms of trade with the rest of the world.

Indeed, roughly a decade after the close of World War II, Chile's economy appeared to be in deep trouble. It was experiencing the accelerated phase of a protracted and rampant inflation. Between 1945 and 1955 the cost of living had multiplied about 14 times and Chile's balance of international payments was in a chronic state of disequilibrium. Chile, which in the inter-war period had been a net agricultural exporting country, had become since the 1940's a net agricultural importer. A widening agricultural deficit placed increasing pressure on the balance of payments; agricultural imports as a per cent of total imports increased from eight per cent in 1947-1950 to 16 per cent in 1951-1954. In the postwar decade, net investment in agriculture was apparently negative and this was no less true of such basic "social overhead capital" as railways, ports, communications and gas utilities, and private electric service. The rate of capital formation in the country between 1950 and 1953, for example, averaged only 11 per cent of gross income, a coefficient which compared unfavorably with the rest of
Latin America, and especially Peru (25 per cent), Venezuela (24 per cent) and Brazil (16 per cent).

Also, there was some question whether the long established Chilean nitrate industry would survive in the face of "...unprecedented competition from all over the world with obsolete and inadequate producing facilities and delayed development projects."

While world copper production moved ahead at a rapid pace during the postwar decade, Chile's output of copper fell from a high of 540,000 short tons in 1944 to a low of 400,000 short tons in 1954; the country's share in world production declined from 19.7 per cent in 1944 to 12.9 per cent in 1954. Having long held second place next to the United States as world producer of copper, Chile was dislodged in 1953 by Northern Rhodesia from that position.

Lastly, Chile's economy and especially the budget of the Government have continued to be highly dependent on the fortunes of a single industrial commodity -- copper-- and consequently the three postwar recessions of 1948/1949, 1953/1954 and 1957/1958 have had considerable effect on the country. In brief, Chile failed to take advantage of the excellent opportunity which emerged during an era of world prosperity, to diversify its exports.
Fortunately, in the very recent past, Chilean policy makers were undergoing a kind of "agonizing reappraisal" involving the condition of their nation's economy. The result has been a number of major policy shifts which are still in the process of crystallization. Essentially, the emerging orientation is toward giving freer play to market forces and to disentangle the intricate and irrational network of government interventions which had been built up.

Important steps have been taken in this direction and include the following: (1) the Stabilization Program; (2) the Exchange Reform of April, 1956; (3) the New Treatment Copper Law of May, 1955; (4) the Nitrate Referendum of 1957; and (5) the elimination of price control for agricultural products.

**Scope, Objectives, and Approach**

This study does not undertake a comprehensive investigation of Chile's economy. Its limits are primarily the external sector of foreign trade and foreign investment and that sector's contribution to the economic development process. Moreover, this study will emphasize the role played by foreign economic policy in directing the allocation of resources, and hence, of affecting economic development.
The structure of Chile's economy, being highly dependent on foreign trade and foreign investment, indicates that the study in its initial stage might fruitfully be approached through an analysis of the country's balance of international payments. Such an approach brings into focus a nation's internal and external economic position. Domestic problems as well as difficulties arising from the international setting find their expression in the balance of payments.

In general, the study emphasizes developments since 1945 with an anchor laid down in the interwar period as a basis for measuring subsequent changes. The need for such an analysis is suggested by the absence of any recent comprehensive treatment of the interrelationships among Chile's foreign economic policy, the country's external sector and development.

The writer has drawn heavily from the substantial body of statistical information which has been developed and analyzed by the United Nation's Economic Commission for Latin America (ECLA), the International Monetary Fund, the Development Corporation (CORFO), the Central Bank of Chile, the Economic Institute of the University of Chile, the Economic Investigation Center of the Catholic University of Chile and a number of government agencies.
Special reports on Chile's economy made by the United States Bureau of Foreign Commerce have also proved useful.

The writer was fortunate to receive a Fulbright Grant which enabled him to carry out his research in Chile, where he had access to the Chilean Library of Congress and those of the Central Bank, the Economic Commission for Latin America, the Economic Institute and the Catholic University. He availed himself of the opportunity to interview officials of the Government of Chile, officers of a number of foreign-owned companies, commercial attaches of the American Embassy, and professors and researchers and other individuals who have followed with interest the economic pulse of the country.

The Plan of Organization

Chapter II is designed to provide background material on Chile's land, people and social-political institutions. The third chapter is concerned with the estimates of various measures of the growth process, such as output, productivity and income on an aggregate and sectorial basis. Moreover, the foreign trade sector is fitted into the income accounts. The changing magnitudes of capital stock in the various economic sectors and in terms of the average worker are also presented, including a glance at the sources of savings.
The subject of Chapter IV, the balance of international payments, reveals the general structure of the country's external accounts and analyzes in detail the sources of disequilibria and the nature of the adjustments made. Chapter V deals with foreign trade and stresses the significance of Chile's need to expand the capacity to import which is closely linked with the rate of capital formation. Also discussed are the changes in the structure of exports and of imports over three decades. The following chapter provides a comprehensive analysis of the role of foreign investments in Chile's economy, including such factors as magnitude, type and origin. A case study of Chile's steel industry is presented as an interesting example of joint United States-Chilean participation at private and official levels. The last part of the chapter deals with the foreign investment climate in Chile.

In Chapter VII the reciprocal relationship between the country's monetary-fiscal operations and the external sector are studied. Included is a survey of the immediate causes behind Chile's accelerating inflation and the Stabilization Program recently initiated. The broad arsenal of foreign trade controls used to implement the Government's foreign economic policy is the theme of Chapter VIII. An appraisal of their resource-allocation
effect is included. The chapter ends with a discussion of the Exchange Reform and the elements of a sound foreign trade policy.

Finally, the closing chapter presents the conclusions reached and outlines some prospects for the future.
CHAPTER II
THE LAND, THE PEOPLE, AND SOCIAL POLITICAL INSTITUTIONS

The Land

Chile has been appropriately described by Carlton Beals as the "long land." Its coast line measures 2,900 miles while the average width of the country is only 100 miles. Constricted between the Pacific Ocean on the west and the majestic Andean mountain range to the east Chile's great length affords tremendous contrasts in topography and climate. For example, Ellsworth compares Chile with more familiar lands as follows:

If one imagined the State of Texas stretched out into a ribbon of land approximately 100 miles in width, about as long as the United States is broad, he would have a fair idea of the shape of Chile. If he then conceived it as divided into three zones of nearly equal length, the northernmost a torrid, barren desert, the central zone closely resembling our Pacific Coast, and the southern zone a replica of the Coastal area of British Columbia and southern Alaska, he would have a reasonably accurate knowledge of its topography and climate. To complete the picture, it would be necessary merely to regard this strip of land as the sea-washed shelf of an unbroken chain of towering mountains.¹

With an area of 286,000 square miles, Chile is larger than any European nation except Russia and Germany. The Andes, one of the greatest mountain systems of the world, provide a natural border between Chile and Argentina. There are some 19 peaks over 20,000 feet high in this system. The Andes range is rich in gold, copper, silver, nickel, manganese and other minerals. Running parallel with the Andes from Arica to the island of Chiloe is the Coast Range or Cordillera de la Costa. Chile has a border with Peru to the north and with Bolivia on the northeast.

High and sloping coastal cliffs face the sea in the north and the ports lie precariously in small indentations of the cliff face or on shelves of ground lifted slightly above the ocean. On the eastern side of these coastal cliffs lie the deserts which extend in desolate waves to the Andes. Within these deserts, in a field about 500 miles long, are located the great natural deposits of nitrate and copper reserves. When Chile defeated the combined armies of Bolivia and Peru in the War of the Pacific (1879-83) these nitrate deposits were ceded to Chile as a war prize; Bolivia lost her access to the sea.

The rich Central Valley of Chile lies between the coastal range and the Andes from around 33° to 42° south latitude. This longitudinal valley is about 550 miles
long and from 30 to 150 miles wide. Numerous streams
cross it at right angles and flow to the sea. A spur of
mountains separates the valley of Rio Aconcagua and valley
of Mapocho in which Santiago lies; from Santiago to
Concepcion the Central Valley is continuous. The Central
Valley, heartland of Chile, enjoys a Mediterranean climate
and a light rainfall and is also one of the richest
agricultural regions in the world.

Santiago, the capital, is the fourth largest city in
South America with a population of 1,400,000 covering
eight square miles. Standing 1,700 feet above sea level
and backed by the Cordillera of the Andes, Santiago is
the center of Chile's social, political and artistic life.
More than one half of Chile's manufacturing is done in
greater Santiago. West and slightly north of Santiago,
116 miles by rail or 90 miles by road, lies Chile's
greatest port, Valparaiso. Including suburbs it has a
population of 219,000 inhabitants and is considered the
most important commercial center on the West Coast of
South America.

From Concepcion north to Puerto Montt lie the great
forest reserves of Chile. Rains are heavy here, varying
from 99 inches on the coast to 53 inches inland. However,
there are also large clearings, the result of colonization
over the last 90 years. About one fifth of the land is dedicated to the growing of food crops, wheat, potatoes, apples, oats and hay.

South of Puerto Montt extending for more than 1,000 miles to Cape Horn lies Patagonia, the fourth zone. Representing one third of Chile's land mass, this thickly forested zone contains less than one per cent of the population. The land and climate are not favorable to agriculture; annual rainfall of 200 inches is common and it is one of the stormiest regions on earth. "South of Chiloe, for 700 miles, there is a maze of islands -- the tops of submerged mountains separated by tortuous fjord-like channels, a veritable topographical hysteria."  

To the south, the forests open upon one of the finest sheep-raising regions in the world. Winds, cold and piercing, sweep across this area at velocities up to 50 miles per hour, particularly during the Spring. The sheep flocks are estimated at 2.6 million heads. Some coal is mined to accommodate ships passing through the Straits of Magellan. Recently, oil has been found and is presently being exploited. Among the larger number of British who manage the large sheep farms, many are the sons of Scottish pioneers. On the Straits of Magellan,

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at almost equal distance from the Pacific and Atlantic oceans lies Punta Arenas, the most southerly city of Chile. Located 1,690 sea miles from Valpariso and 1,295 sea miles from Buenos Aires, it is the export center for wool, sheep skins and frozen mutton, products of the flourishing sheep industry.

Tierra del Fuego is a group of islands between the Straits of Magellan and Cape Horn; they belong to Chile except for the eastern part of the largest island which is part of Argentina.

In Chile the ratio of cultivable land to population is very favorable. Moreover, the quality of the land particularly in the Central Zone, ranks with the best in the world. The following statistics of per capita cultivable land indicate Chile's comparative advantage over most other countries: 3

<table>
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<th>Country</th>
<th>Hectares per capita</th>
</tr>
</thead>
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<td>Chile</td>
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<tr>
<td>Mexico</td>
<td>0.79</td>
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<tr>
<td>Argentine</td>
<td>1.78</td>
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<tr>
<td>India</td>
<td>0.29</td>
</tr>
<tr>
<td>Japan</td>
<td>0.07</td>
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<td>Denmark</td>
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<tr>
<td>Holland</td>
<td>0.11</td>
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<tr>
<td>England</td>
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</tr>
</tbody>
</table>

3 Instituto de Economia de la Universidad de Chile; Desarrollo Economico de Chile, 1940-1956; Editorial Universitaria. Santiago 1956, Table 60, page 106.
The way in which the land is utilized plays an important role in the production results. Only 17 per cent of the total land mass, or 31.4 million acres, is devoted to agriculture and animal husbandry. More than half of the area, or 16.8 million acres, is in pasture. Only 7.9 million acres are under crops; the remaining 6.7 million acres are fallow in natural grass.\footnote{International Bank for Reconstruction and Development and Food and Agricultural Organization United Nations; The Agricultural Economy of Chile; December 1952; page 16.}

Average annual production in the five-year period, 1950-54, was almost equally divided between livestock and derivatives (9.2 billion pesos at 1950 prices) and agricultural crops (10.7 billion pesos). About 80 per cent of the cultivated land is in cereals, principally wheat.

The pattern of landholdings which emerged in Southern Chile in the last decades of the nineteenth century was unlike that which prevailed in the Central Valley. The new pioneers, preponderantly of foreign stock, cleared the virgin forests and carved out their \textit{hijuelas} of 50 - 100 acres. However, their legal rights to these holdings often remained in doubt. By 1929 there were estimated to be 47,000 properties in the southern provinces, including more than 17,200 square miles, whose titles were in doubt.\footnote{Clissold Stephen, \textit{Chilean Scrap Book}; Frederick A. Praeger, New York 1952, page 226.} Fraud and confusion accompanied the issue of titles.
Insecurity of tenure and the encroachment of the *hacienda* (latifundismo) system in the face of doubtful titles has retarded the prosperity of the South and even led to occasional armed conflict.

The structure of Chile's agriculture is today substantially unchanged from the pattern which emerged from the Colonial Period. *Latifundismo*, the system of very large farms, has its antecedent in Spanish tradition. When roads were few, this pattern of land use was well suited to the country. Today, it impedes the optimum utilization of farm resources.

Data on land distribution indicates a tremendous inequality in landholdings in Chile: three fourths of the land was owned by 2,806 *hacendados* (1.6 per cent of all owners of land); half of the properties (37,790) owned only one half per cent of total land.  

More than 46 per cent of the cultivable land is left fallow or in natural pastures; the working population is concentrated on the remaining 54 per cent. Of the principal factors which were found to impede the better

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7 Instituto de Economia; *op. cit.* page 107.
utilization of cultivable land, lack of interest on part of the proprietors accounted for 35.5 per cent; deficiency of irrigation water, 23.7 per cent; and lack of working capital, 11.8 per cent.

The forests of Chile represent one of the most precious natural resources of the country. Apart from mining, forest industries are only great potential earners of foreign exchange. The demand for timber and other forest products in Chile is rapidly expanding in response to needs for housing and industry. Consumption of timber is expected to rise approximately as fast as food consumption. Forest plantations have increased markedly and the coastal range around the Concepcion area is especially suitable for forest plantations. The greater part of artificial forests have been planted with Insignis pine, a variety which promises high and sustained yields. Conditions are excellent for a large industry for exports of pulp from Insignis pine.

The natural forest reserve is closely related to agriculture through conservation of land, water and the use of timber in agricultural development. It is important to maintain the integrity of the forests in order to protect precious land and water resources on which Chile's agricultural output depends. Chile lacks appropriate legislation to adequately protect its forest reserve. The
value of timber burnt annually exceeds $11 million. While annual reported fellings do not reach 6 million cubic meters, the volume burnt is more than six times as great. An adequate conservation policy in Chile should be the basis of first priority legislation to avoid further erosion in the southern zone and to limit the advance of the dessert in the north.

The People

Except for the 300,000 Araucanian Indian-speaking population, the language of the Chilean people is Spanish. The Constitution of 1925 separates Church and State and guarantees complete liberty of conscience and facilitates the practice of all beliefs not opposed to morality, good custom, or public order. Ninety-five per cent of people are nominally Roman Catholic.

In contrast to the other countries along the West Coast of South America, the fusion of Spanish and Indian blood during the Colonial Period produced within a short time a fairly homogeneous population of mestizo type, and "landowner, banker, teacher, artisan and peasant all

share in varying amounts this common Araucanian-Spanish heritage. The composition of the population is approximately 97.4 per cent of Chilean origin resulting from the coexistence of the Spanish and aboriginal peoples in an estimated distribution of 25 per cent pure Spanish, 66 per cent mestizo with white predominance and 5 per cent Indian. The remainder is composed of fewer than 1.0 per cent of German origin, 0.5 per cent Italian, 0.4 per cent French, 0.3 per cent British, and less than 0.4 per cent of other nationalities. There apparently exists no Indian problem, and scarcely any mestizo problem.

Most of the German, French, Italian and Swiss immigrants came between 1846 and 1864. They were predominantly peasants and small farmers and settled south of the Bio-Bio River in the forest zone. Gold seeking Yugoslavs settled in Atlantic Chile in the far south; in the same region the British took sheep raising and commerce. Another smaller wave of immigrants, some 65,000, arrived between 1904 and 1934 of whom 40,000 were Germans. The influence of these immigrants on Chile is out of proportion to their numbers. Of particular weight is their

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influence in the southern communities of Valdivia, Puerto Montt, Puerto Varas and Osorno which have been heavily colonized by Germans. Large landholdings by the leading families have prevented colonization by immigrants in Central Chile. In the opinion of the Government Development Corporation, the Chilean population constitutes one of the most valuable elements of the national economy:

Physically apt, robust enough for the hardest labor, mentally open and flexible, the Chilean race has been able to adapt itself to the most complex situations and therefore possesses the conditions for an economic life of superior type.\textsuperscript{10}

According to the Census of 1952, the population of school age (7-14 years) reached 1,167,219 children in April of that year. Of this total, 10,714 received special instruction; 55,386 secondary instruction, and 760,061 primary instruction. The remaining 340,558 children were left without instruction of any kind, amounting to 29.2 per cent of all children of school age.\textsuperscript{11}

If we consider the post-school population of 15 years and over (63 per cent of total population) 10 per cent are illiterate in the urban areas and 36 per cent in rural areas. Within the population as a whole, the illiterates account for a little fewer than 20 per cent

\textsuperscript{10}Corporacion de Fomento, \textit{op. cit.}, page 106.

\textsuperscript{11}Economic Institute, \textit{op. cit.}, page 100.
compared with 25.3 per cent in 1940. Of every 100 students who annually begin the first year of primary instruction, more than 22 per cent abandon school at the end of the year; 52 per cent finish and fourth year and only one third finish the sixth and final year of elementary education. Among the causes explaining the early abandonment of primary education the most important are: (1) the shortage of school buildings, (2) the low level of income of some sectors which obliges children to share in provision of family income and (3) the existence, principally in rural areas, of schools which offer only three or four years of instruction. In the rural sector, the inquilino system often implies the participation of household members other than the father in permanent work.

Institutions dedicated to higher education include the University of Chile, the University of Concepcion, the Catholic University of Santiago and Valparaiso, the State Technical University and the "Federico Santa Maria" Technical University of Valparaiso. At present, advanced degrees are not offered except in medicine and dentistry.

Institutions

The economic activity of a nation is largely conditioned by the social and political forces which have their roots far in the past. In this section we shall delve
briefly into the more remote causes or variables which must be considered as relevant to the economic progress of Chile.

The tenacity of Chilean Colonial institutions cannot be overemphasized:

The frontier, the characteristics of the conquistador and the Araucanians, the hacienda system, the class structure, the political and ecclesiastical institutions of the early days—all of these, far from losing their importance with the close of the colonial period have continued as major determinants of social, economic, and political development of Chile.\textsuperscript{12}

The population of Chile is today relatively homogeneous, a product of the forced fusion of Spanish settlers and soldiers and the Araucanian women they captured. The Araucanian was culturally speaking much inferior to the civilized Incas and Mayas to the north. In a remarkably short time, the crossing of races produced a mestizo race which according to Francisco Encina "...remained in a state of civilization little superior to the middle term of the barbarian invaders of the Roman Empire."\textsuperscript{13}


\textsuperscript{13} Encina Francisco, \textit{Nuestra Inferioridad Economica}, Editorial Universitania, S. A. (Santiago, Chile, 1955), P. 64.
The traditions and traits which the Spaniards brought to Chile bear examination for our purpose. Along with his devotion to arms and to the adventurous life the Spaniard carried the feeling that work is something fit only for the lower classes, "el deshonor del trabajo." In The Economic Inferiority of Chile, the eminent Chilean historian, Francisco Encina gives us some interesting insights regarding the economic psychology of his people. Spanish tradition attributes a certain degree of superiority to the idle life. "Equal consideration is given to the inept or indolent youth who lives off his family, as to the hard working and enterprising youth."\textsuperscript{14}

The respect for idleness has serious consequences for economic development. Rich heirs become parasites in the absence of social sanctions against the idle life. Other traits which Encina finds, and which are part of the heritage, are prodigality and the propensity for ostentation which have been shown since olden times by his country's writers as one of the most evident traits in the Chilean psychological makeup. Furthermore in this tradition is to be found an individualism so pronounced that the social interest is generally sacrificed to the individual interest. Even in modern times respect for law

\textsuperscript{14}Encina Francisco, \textit{op. cit.}, page 57.
and ordinances is at a minimum. "Measures of hygiene and sanitation policy, conservation, traffic security and thousands more which have to do with public services we transgress with every step."

The Spaniard, says Encina, has always shown notable lack of capacity for cooperation. "The capacity for association in the Chilean is mediocre; the aptitudes for cooperation and collective activity in the economic terrain are little developed." One of the most firmly ingrained habits, in the opinion of the same author, is a deplorable inexactitude; disorder and the absence of all method are normal behavior patterns.

Chile's land tenure system today derives from the Encomienda system of the early colonial epoch. The land was divided into enormous estates among the Spanish officers who came to regard the encomiendas as hereditary family possessions. The hard labor on the encomienda was performed by Indian slaves, many of whom successfully revolted against their landlords during the Colonial rule. Gradually during the 17th century, the Indians were freed and slavery was replaced by a semi-feudal bondage which slowly evolved into the inquilino system. The inquilino (tenant farmer) became the backbone of the working class which at the time of the Revolution had

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15 Encina Francisco, op. cit., page 45.
already acquired the mestizo characteristics. The **Ecomienda System** set the basis for the developing feudal system with its rigid two class character. The Chilean Revolution which followed the pattern of similar uprisings against Spanish domination throughout Latin America did not change the institutional structure so carefully nurtured for three centuries. The Creole landlords assumed complete dominance in post-revolutionary Chile, their descendants ruled unopposed for almost a century and gave the country a stability which few other Spanish American nations enjoyed. During the Colonial Period industrious and enterprising Basques and northern Spaniards immigrated to Chile and many of these married into the old feudal families, so that "...the social, economic, domination of Chile fell to a mixed aristocracy, bourgeois in its formation...in its spirit of mercantilism and enterprise, sensible, prudent, of regular and orderly habits..."16

From 1830 to 1920 the oligarchy of landholders was politically supreme; legalism and constitutionalism were ingrained in the Chilean mentality. Dynamic enterprise and industry coupled with an agressive nationalism gave Chile world-wide recognition. In the words of Stevenson;

Oligarchical rule suited perfectly the conditions and necessities of the 19th century. The complete submission of the lower classes to a social hierarchy was a solid basis for peace and progress."17

Before Chile's revolt against Spain, the country formed part of the Vice-Royalty of Peru; control emanated from Lima; all trade was prohibited except with Peru. In 1810 General Bernardo O'Higgins proclaimed independence from Spain and there followed seven years of bitter war against the occupation forces. O'Higgins was the son of an Irish Viceroy of Peru and a Chilean mother and is considered as one of the most colorful actors in the drama of the South American liberation from Spain. In 1817 General Jose San Martin brought his army across the Andes from Argentina to attack Santiago from the rear. The unexpected attack helped to gain the decisive victory. O'Higgins became the first president and under him the Constitution of 1818 was drafted. His espousal of liberal reforms including the abolition of titles of nobility, initiation of land redistribution on a minor scale, the promotion of public schools, the encouragement of immigration to Protestants as well as Catholics brought on him the wrath of the aristocracy. The country revolted against his government in 1823 and he promptly abdicated.

17 Stevenson, op. cit., page 23.
after the downfall of O'Higgins, the Conservative Party became identified with the landowners and its central platforms continued to be 1) defense of ecclesiastical interests and 2) weakening of the presidential authority.

Increasingly in the second half of the 19th century the large landowners left their farms (fundos) for the pleasant life of the capital, and other cities. They gave over to hired employees the administration of their lands. An impersonal manager superceded the traditionally friendly and sympathetic patron. This spread of absentee-ownership throughout the rich valleys of central Chile has, in the judgment of Francisco Encina, been one of the most important causes in the stagnation of agricultural development. The salaried manager had little incentive to experiment with new techniques and improvements in production. The abandonment of the land on the part of individuals who had comprised the intellectual and moral leadership played havoc with the development of rural civilization leaving the inquilinos without guidance or orientation. The children of the new absentee owners never returned to the land; they had become "too elegant and refined to support the crude environment of the land and useless for business activity..." they supplied
"...an abundant contingent to professionalism and employment mania..."18

With the leisure provided by a system of absentee ownership the upper class Chilean looked more and more toward Europe for his cultural orientation and withdrew from the task of forming an indigenous cultural pattern of his own. The result left much to be desired "...we assimilated the refinements and capacity to consume of the superior civilizations, without any of the great forces, economic and moral, which constituted their nerve center..."

Furthermore, "...we learned to dress elegantly, to live comfortably, to appreciate the beauties of culture and painting, etc..., but we did not acquire at the same time the practical sense, the regular and constant application, the exactitude, the capacity for cooperation, honor in its various forms, and technical competence which allow Europe to develop an economic efficiency in harmony with the necessities created by refinement...", "...we did not assimilate private and civic virtues which elevate life and make possible democratic government."19

During his recent visit to Chile, the English writer, J. B. Priestly expressed the optimistic view that Chile

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18 Encina Francisco, op. cit., page 162.
19 Ibid., page 123.
is without doubt the world of tomorrow. However in moving toward this position, Chile "...must make herself independent in the cultural and spiritual field and find her own paths of creation, without contemplating, in excess, the European examples or of other continents."20

The famous War of the Pacific (1879-83) resulted in the defeat of the combined forces of Bolivia and Peru and established Chile as the leading nation on the Pacific coast of South America. As a war prize, Chile annexed a large piece of the northern desert which contained the newly discovered nitrate beds which for forty years to come would supply Chile with most of her government revenue. This great reliance on nitrate exports to finance government expenditures was undoubtedly a stimulus to fiscal prodigality; loose financial habits emerged in these years of plenty which could not be easily shaken off when conditions proved adverse.

The War of the Pacific had other consequences. Large numbers of inquilinos who had fought in the war had no inclination to return to the bondage of the big states; many became miners with the opening of the nitrate fields in the northern desert and the exploitation of the coal mines of the south. Here was the beginning of a conscious

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industrial class which provided the basis for a free labor movement. Other groups of *incullinos* together with foreign immigrants pushed south into the frontier lands which had recently been opened by consent of the Araucanian Indians. This new class of small independent farmers together with a growing industrial labor force applied increasing pressure for social and economic reforms. They sought to challenge the monopoly power of the traditional oligarchy.

Pressure for social political reform came indirectly through public education. While the conservatives boycotted public education, liberals and radicals gained control of nonreligious schools. Within the oligarchy there was a gradual erosion of efficiency and corruption spread. The Mexican social revolution of 1910 and the rise of power of the Communists in Russia had a tremendous propaganda effect on intellectuals and workers. The substitution of cheaper artificial nitrates in world markets for Chile's natural product had by 1920 thrown 40,000 workers out of a job in the northern nitrate region. Central Chile was deprived of its northern market for agricultural commodities.

All these factors led to the emergence of a Liberal Alliance which successfully curbed the power of the Extreme Right Wing landlords and brought into the presidency, Arturo Alessandri in 1920, and again in 1932. Although
some reforms were carried through including the legalization of civil marriage, civil registration of births and deaths and the removal of income property restrictions on suffrage, much of the program was prevented from being carried out. The Conservative majority in the Senate would not approve a single measure of Alessandri's social platform, presented for first time in 1921, including limitation on hours; prohibition of child labor; regulation of women's work; accident, health and old age insurance and the recognition of unions' right to strike.²¹

During Alessandri's term, the Constitution of 1925 was enacted and remains today the basic law of Chile. The new document broke with long tradition by abolishing parliamentary government; provincial governors and ministers would henceforth be appointed by the president subject to no interference from the Congress. The president of Chile is elected directly by universal suffrage for a term of six years. The Senate with 45 seats is elected for eight years and the Chamber of Deputies includes 147 members, elected for four year terms. The republic is divided into 25 provinces.

In 1929 a barracks revolt brought into power Carlos Ibanez. An energetic military man, he undertook an extensive public works program and financed it in large part with vast sums of United States private capital.
During his regime, the structure of Chile's educational system was thoroughly overhauled. (1) The University of Chile was granted autonomy, (2) Many normal schools were organized and (3) The construction of rural schools was greatly accelerated. By 1931 educational facilities were made available to over 600,000 students which represented a 100 per cent improvement over 1920. 21

The Great Depression inflicted grave hardships on Chile and in turn made Ibanez' position untenable. On July 26, 1932, he abdicated after a general strike of students, white collar and professional groups. Alessandri returned to power by popular acclaim and set himself to the task of reconstruction. The parties of the Left who had helped reelect him soon became disenchanted with his middle-of-the-road government and organized themselves into a Popular Front. The Instrument of Popular Front was conceived by the Soviet Comintern in 1935; Communist parties everywhere were ordered to form alliances, whenever possible, with democratic parties to oppose the spread of fascism. Shortly before the election a small group of Chilean Nazi sympathizers attempted a coup against the government. The government's brutal repression of the revolt...some thirty students were murdered after

21 Stevenson, op. cit., page 46.
surrendering....proved the turning point of the electoral campaign. Ironically the Nazis shifted their support to the Popular Front; the Front emerged victorious with a margin of only four thousand votes.

Pedro Aguirre Cerda became the new president, the first to have come from the ranks of the underprivileged. Born one of eleven children he had gone to school with the children of *inquilinos*. After the signing of the Soviet German Non-Aggression Pact, the Communists within the Popular Front followed the international party line by denouncing the United States and calling pro-U. S. Socialists "dupes of imperialism." The Socialist Party broke with the Popular Front after it had become evident that the Communist Party's policies, national and international, were contrary to the interest of Chile. During the Front's brief rule, unionized workers increased from 126 thousand to 175 thousand. Strikes, legal and illegal were more frequent in the period of Front rule (1933-39) than in the last two years of Alessandri's term.

Incompetence and dishonesty characterized the short-lived "contradictory and heterogeneous conglomeration" which was the Popular Front and it was no surprise since "...by and large, the men with the best education, technical training and widest government experience were to be
found in the more conservative parties.\textsuperscript{22} The most recent Congressional elections (March, 1957) in which the seats of 147 deputies and 20 out of 45 senate seats were at stake, brought out two noteworthy results: (1) the number of parties emerging with any sizable following was greatly reduced and (2) the parties of the center gained at the expense of the Left and the Right. The Radicals, a center party, replaced the FRAP (Communist-Socialist coalition) as Chile's most powerful party while the Liberal party (slightly right of center) and also advanced. FRAP, and the Conservative Union received serious setbacks.

Another interesting result of the election was the emergence of the Falange Nacional, a Christian Democratic group which clusters around its popular founder, Eduardo Frei. The later received the highest vote in the nation and may well become the next president. He is considered by many as the statesman of the future; he commands respect in all circles because of his intelligence and integrity.

In view of the recent riots which cost the lives of an estimated 27-70 people and caused millions of dollars damage to public and private property one must conclude that Chile's democratic - constitutional structure

\textsuperscript{22}Stevenson, \textit{op. cit.}, page 135.
remains a fragile one. The great mass of the population, characterized by the *rota* (the broken one) and the *inquilino*, is offered little opportunity for social and economic mobility.

To conclude, the words of the Economic Institute seem pertinent here: "...a program of economic development must not only treat of material investment but must also occupy itself with the necessities of institutional changes and modification of cultural attitudes to the end of making effective continued permanent increases in production. In this last respect, up to this time, little importance has been given in the governmental plans."\(^23\)

\(^{23}\)Instituto de Economia, *op. cit.*, p. 16.
CHAPTER III

ECONOMIC GROWTH, THE STRUCTURE OF RESOURCES,
AND CAPITAL FORMATION

The Pace of Economic Growth

This chapter is designed to prepare some of the groundwork for the ensuing analysis. The pace of economic growth is related to the changing structure of resources and to the rate of capital formation.

Chile, on the basis of income per capita, qualifies as a semi-developed country: it belongs to the group of countries which is classified between the high-income (typified by the United States and Canada), and low-income countries, among which India and Paraguay are noteworthy.¹ Chile's gross income per person in 1956 of $318 (in dollars of 1950 purchasing power) is well above the Latin American average. However, the country's rate of economic growth

¹A global income distribution for 1949 shows that 18 per cent of the world's people received 67 per cent of total world income or $915 per capita; the middle-income countries with 15 per cent of the population received 18 per cent of the income, or $310 per capita; and 67 per cent of the population received only 15 per cent of world income or $54 per capita. (See Ragnar Nurkse, Problems of Capital Formation in Underdeveloped Countries (Oxford: Basil Blackwell, 1953, p. 63.).)
when compared with Latin America as a whole has been disappointing. Between 1945 and 1956 Chile's share in Latin America's gross product fell from 5.4 per cent to 4.1 per cent. While the gross product of Latin America grew at an annual rate of 6.3 per cent in this period, Chile's gross product increased only at an annual 2.7 per cent. Latin America's population in this period increased at a rapid 2.4 per cent annually as compared with Chile's more modest 1.85 per cent. From this it is possible to conclude that Chile's gross product per person increased at a rate of something less than one per cent per year compared with the Latin American increase of roughly four per cent.

More significant is the trend in Chile's economy since the middle twenties. Table 1 indicates the changes in gross product and other components for selected periods. A comparison of the depression period 1930-1933 with the previous one, shows a considerable decline in gross product.

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2 Chile's population reached an estimated 6,936,000 people in 1956 according to the official publication Estadistica Chilena. For 1945, the ratio of Chile's gross product to Latin America's gross product is given in Antecedentes Sobre el Desarrollo de la Economía Chilena, 1925-1952 by the Economic Commission for Latin America (Santiago, Chile: Editorial del Pacifico, 1954) p.48. For 1956, it was calculated from data presented in the preliminary draft of the Economic Commission's Economic Survey of Latin America, 1956.

and even greater contractions in gross income. 4 Available

4 In order to analyze the rate of growth of an economy which is substantially open with respect to the world economy, it is useful to distinguish among three meaningful concepts. These are gross product, gross income, and available goods and services.

"The term gross product is an abbreviated way of expressing the concept of gross domestic product at market prices; that is, it constitutes a measure of the market value of the product attributable to the factors of production located within a country...This definition implies that the gross product is essentially a reflection of the success of the productive effort in the region under consideration." (United Nations, Economic Bulletin for Latin America, "Concepts and Methods used by ECLA" Vol. 1, No. 2 pp. 30-31.)

"For many purposes, however, a quantification of changes in the gross product does not suffice. If the economies in question exchange part of their production with other countries, the results of their domestic effort, as reflected in the gross product, may be greater or less in proportion to any modification in the terms of trade. Thus, for example, when export prices rise faster than import prices, the total volume accruing to the production factors will in effect increase, even though no changes will take place in the gross product. Similarly, an opposite movement in the terms of trade will in practice mean that part of the benefit obtained from domestic production of goods and services will be transferred abroad.

"These considerations have led to the adoption of a further concept designed precisely to reflect not only fluctuations in the gross product, but also the sum of the gross product and the terms-of-trade effect. Hence arose the definition and utilization of the concept of gross income." (United Nations, see above).

It is also necessary to take into account that a part of the goods produced and exported must cover the remittance of interest and dividends and amortization of foreign loans, thereby reducing the availability of goods in the country. The inflow of foreign capital, on the other hand, will increase the quantity of goods and services available to the inhabitants of the country analyzed. Consequently, whenever interest and dividend and amortization payments (reducing the availability of goods) exceed the inflows of new capital (increasing availability of goods), the country will have a surplus of exports over imports: the "available" income will be inferior to the gross income. This concept is termed available goods and
goods and services declined to a level roughly equal to gross income or a relative fall of about 25 per cent in real terms. In the period 1925-1929, available goods and services were almost 10 per cent below gross income because of a heavy export surplus.

It is informative to note that in the years 1900-1913, for example, Chile's available goods and services exceeded the gross income: net capital inflows were larger than the outflow of interest and dividends payments. Beginning with the decade of the twenties, however, Chile has had to maintain an export surplus to finance the large service on investments which have cumulated over the years.

Again referring to Table 1, Chile's gross product, in the period 1951-1953 reached an average annual figure of about 163 million pesos (at 1950 prices) and gross income lagged behind by 12 million pesos. The lag is accounted for by the fact that the country's terms of trade (the relation of the prices a country receives for its exports to the prices a country has to pay for its imports) had not recovered completely the 1925-1929 level.

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4(contd) services. Various terms have been used to designate this concept. It has been labelled "total available means"; Ohlin speaks of "buying power" and Alexander of "absorption". (See Gottfried Haberler, A Survey of International Trade Theory, International Finance Section, Princeton University, 1955, p. 33, footnote.)
### Table 1

**Chile: Economic Components, 1925-1953**

Annual averages, by selected periods  
(in millions of pesos, 1950 prices)

<table>
<thead>
<tr>
<th>Period</th>
<th>Gross Product</th>
<th>Gross Income</th>
<th>Available goods and services</th>
<th>Absolute Figures</th>
<th>Percentage Composition</th>
<th>Per Person in Thousands of Pesos</th>
</tr>
</thead>
<tbody>
<tr>
<td>1925-1929</td>
<td>110.6</td>
<td>110.6</td>
<td>101.6</td>
<td>16.2</td>
<td>15.9</td>
<td>4.0</td>
</tr>
<tr>
<td>1930-1933</td>
<td>81.6</td>
<td>75.7</td>
<td>74.8</td>
<td>3.8</td>
<td>11.3</td>
<td>2.0</td>
</tr>
<tr>
<td>1946-1950</td>
<td>144.1</td>
<td>127.5</td>
<td>125.8</td>
<td>15.3</td>
<td>12.2</td>
<td>2.7</td>
</tr>
<tr>
<td>1951-1953</td>
<td>162.8</td>
<td>150.5</td>
<td>146.3</td>
<td>17.1</td>
<td>11.7</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Average annual rates of change within each period  
(Percentages)

<table>
<thead>
<tr>
<th>Period</th>
<th>Investment</th>
<th>Absolute Figures</th>
<th>Percentage Composition</th>
<th>Per Person in Thousands of Pesos</th>
</tr>
</thead>
<tbody>
<tr>
<td>1925-1929</td>
<td>5.2</td>
<td>4.3</td>
<td>4.7</td>
<td>11.2</td>
</tr>
<tr>
<td>1930-1933</td>
<td>-9.6</td>
<td>-10.9</td>
<td>-10.5</td>
<td>-21.9</td>
</tr>
<tr>
<td>1946-1950</td>
<td>-0.1</td>
<td>1.0</td>
<td>1.5</td>
<td>2.9</td>
</tr>
<tr>
<td>1951-1953</td>
<td>6.2</td>
<td>7.5</td>
<td>7.4</td>
<td>5.3</td>
</tr>
<tr>
<td>(1925-1953)</td>
<td>2.6</td>
<td>1.8</td>
<td>2.2</td>
<td>1.0</td>
</tr>
</tbody>
</table>

The available goods and services of 146.3 million pesos fell below the gross income by some 4 million pesos, which is explained by the export surplus.

During the prosperous years of 1925-1929 (see Table 1) Chile's gross product, gross income, and available goods and services grew at average annual rates of 5.2 per cent, 4.3 per cent, and 4.7 per cent respectively; in the depression years of 1930-1933, however, these rates became severely negative showing declines of roughly 10 per cent annually for all three components. After World War II, in the period 1946-1950, the gross product declined at the average yearly rate of 0.1 per cent; the gross income and available goods and services increased slowly at rates of 1.0 and 1.5 per cent respectively. The increases in the gross income and available goods and services in a period when gross product declined can be traced to the favorable terms-of-trade effect. During 1951-1953, all three components grew at rapid average annual rates ranging from 6.2 per cent for the gross product to 7.5 per

The terms-of-trade effect refers to the loss or gain resulting from changes in the terms of trade relative to a base year. "It is calculated as the product of exports of goods and services expressed in constant prices multiplied by the changes in the index of the terms of trade (i.e. the ratio of the unit value index of exports to that of imports.)" (United Nations, Economic Bulletin, p. 31).
cent for the gross income. Chile's population over the 29-year period 1925-1953 grew at an average annual rate of 1.7 per cent which would indicate that gross income per capita during the period practically stagnated while gross products per capita and available goods and services per capita grew at average annual rates of only 0.9 and 0.5 per cent respectively. Finally, when comparing the rate of growth of the gross product (2.6 per cent per year on the average) with that of the increase of the active population^6 (averaging 2.2 per cent annually) the increase in productivity between 1925 and 1953 appears almost negligible.

Between 1953 and 1956, Chile's gross product measured in dollars of 1950 purchasing power, contracted from $2,132 million in 1953 to $2,083 million in 1956 (see Table 2). In view of the annual increases in the active population of 2.5 per cent (since 1940) the decline in gross product indicates an even more severe contraction in output per worker since 1953. On the other hand, the terms-of-trade effect, which continued to favor Chile between 1953 and 1956, largely offset the decline in gross

6 The active population is defined as persons who work for pay the greater part of the year. (See Corporacion de Fomento de la Produccion, Cuentas Nacionales de Chile, 1940-1954 (Santiago, Chile: Editorial del Pacifico, 1957 p. 27 footnote).
product with the result that gross income and available goods and services decreased only very slightly. It is interesting to observe that in 1954 Chile experienced a rare negative commercial balance (an excess of goods and services imports over exports) with the result that available goods and services exceeded the gross income.

**Distribution of Income**

A rampant inflation such as Chile has experienced for a number of years usually has an impact on the shares of income going to the various productive factors. Between 1940 and 1953, for example, the shares of wages and rent in national income declined while the participation of salaries, profits and interest increased. The following figures show how the average person in each group fared in real terms:

<table>
<thead>
<tr>
<th>Percentage change in real income per capita</th>
<th>1940</th>
<th>1953</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage earners</td>
<td>100</td>
<td>107</td>
</tr>
<tr>
<td>Salary earners</td>
<td>100</td>
<td>146</td>
</tr>
<tr>
<td>Self-employed</td>
<td>100</td>
<td>160</td>
</tr>
<tr>
<td>Property owners, covering dividends, interest and rents</td>
<td>100</td>
<td>164</td>
</tr>
</tbody>
</table>

7 Kaldor Nicholas, "Economic Problems of Chile" (a mimeographed paper) table 3.
Most of the burden of the inflation seems to have been carried by the wage earners (including agricultural workers) whose bargaining power, except in the foreign-owned mining operations, is relatively low. While the ratio of the average salary to the average wage was 3.4 in 1940, by 1953 it increased to 4.7, thus widening the gap between wage earners and the salaried middle class. Interest, dividend and rental income per capita measured in constant money units increased by two-thirds.

Aggregate real wages after 1950 suffered a severe setback: between that year and 1955 they fell 35 per cent. In consideration of the already low average wage in Chile existing before 1950, a continuation of this trend could lead to a complete political and social upheaval.

The Structure of Resources: Capital and Labor

The process of transformation may respond to general productivity increases, to shifting demand conditions or may be a consequence of a conscious policy decision to transform the economy.

---


Table 2
CHILE: ECONOMIC COMPONENTS, 1950-1956
(Millions of dollars, 1950 prices)

<table>
<thead>
<tr>
<th>Components</th>
<th>1950</th>
<th>1951</th>
<th>1952</th>
<th>1953</th>
<th>1954</th>
<th>1955</th>
<th>1956*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gross Product</td>
<td>1,372</td>
<td>1,862</td>
<td>1,992</td>
<td>2,142</td>
<td>2,132</td>
<td>2,142</td>
<td>2,083</td>
</tr>
<tr>
<td>Agriculture</td>
<td>281</td>
<td>269</td>
<td>312</td>
<td>323</td>
<td>311</td>
<td>316</td>
<td>303</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>320</td>
<td>294</td>
<td>316</td>
<td>380</td>
<td>366</td>
<td>351</td>
<td>362</td>
</tr>
<tr>
<td>Mining</td>
<td>109</td>
<td>125</td>
<td>120</td>
<td>116</td>
<td>96</td>
<td>107</td>
<td>113</td>
</tr>
<tr>
<td>Construction</td>
<td>54</td>
<td>47</td>
<td>55</td>
<td>73</td>
<td>64</td>
<td>74</td>
<td>50</td>
</tr>
<tr>
<td>Other</td>
<td>1,108</td>
<td>1,127</td>
<td>1,189</td>
<td>1,250</td>
<td>1,295</td>
<td>1,294</td>
<td>1,255</td>
</tr>
<tr>
<td>2. Effect of terms of trade</td>
<td>-</td>
<td>31</td>
<td>61</td>
<td>84</td>
<td>42</td>
<td>90</td>
<td>116</td>
</tr>
<tr>
<td>3. Gross Income (1 + 2)</td>
<td>1,872</td>
<td>1,893</td>
<td>2,053</td>
<td>2,226</td>
<td>2,174</td>
<td>2,232</td>
<td>2,204</td>
</tr>
<tr>
<td>4. Commercial Balance</td>
<td>+18</td>
<td>+9</td>
<td>+8</td>
<td>+5</td>
<td>-21</td>
<td>+24</td>
<td>+8</td>
</tr>
<tr>
<td>5. Available Goods and Service (3-4)**</td>
<td>1,854</td>
<td>1,884</td>
<td>2,045</td>
<td>2,221</td>
<td>2,195</td>
<td>2,208</td>
<td>2,196</td>
</tr>
</tbody>
</table>

* Figures for 1956 are preliminary.

** The writer has derived the component, Available Goods and Services, by subtracting the commercial balance (exports of goods and services — imports of goods and services) from the Gross Income. A positive commercial balance indicates a credit balance in the country's balance of international payments.

## Table 3

**CHILE: CAPITAL STRUCTURE BY SECTORS**

**ANNUAL AVERAGES BY PERIODS**

(billions of pesos, 1950 prices)

<table>
<thead>
<tr>
<th>Sector</th>
<th>1940-1945</th>
<th>1951-1953</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban property</td>
<td>57.3</td>
<td>60.0</td>
<td>4.7</td>
</tr>
<tr>
<td>Agriculture</td>
<td>45.2</td>
<td>42.4</td>
<td>-6.3</td>
</tr>
<tr>
<td>Industry</td>
<td>40.9</td>
<td>67.7</td>
<td>65.6</td>
</tr>
<tr>
<td>Transport and public utilities</td>
<td>40.8</td>
<td>56.1</td>
<td>37.3</td>
</tr>
<tr>
<td>Public works and fiscal institutions</td>
<td>34.3</td>
<td>43.1</td>
<td>33.3</td>
</tr>
<tr>
<td>Mining</td>
<td>11.0</td>
<td>12.2</td>
<td>11.2</td>
</tr>
<tr>
<td>Commerce and finance</td>
<td>4.1</td>
<td>7.0</td>
<td>76.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>234.1</strong></td>
<td><strong>293.6</strong></td>
<td><strong>25.4</strong></td>
</tr>
</tbody>
</table>


The concentration of resources in industry to the neglect of the agricultural and mining sectors in Chile did not take place in response to free market forces: government policy was the major element responsible for the shifting of resources—labor and capital—from one sector to another. The manipulation of differential exchange rates, import and price controls, and taxes were the principal official means used to influence the allocation of resources.
In the light of experience the consequences of this policy now seem fairly clear: the very industries in which Chile possessed a comparative advantage were penalized. Reference has already been made to the country's growing agricultural deficit and its implications to the balance of payments condition. The impact of government policy on investment and output in the copper and nitrate industries is analyzed in some depth in the following chapters.

Increases and variations in the composition of the gross product are closely associated with the changing structure of a nation's capital stock. Chile's capital stock (in pesos of 1950 purchasing power) increased from an average 234 billion pesos in the period 1940-1945 to an average 294 billion pesos in the period 1951-1953 which indicates a real growth of 25 per cent (see Table 3).

Within the aggregate capital structure, the various sectors showed highly differentiated rates of change. A very significant increase in capital stock in industry of 66 per cent should be compared with an actual decline of 6 per cent in agriculture, a net depreciation of capital in that important sector. Industry's relative share in aggregate capital stock increased from 17.4 per cent to 23.1 per cent while the agricultural sector's share fell from 19.3 per cent to 14.4 per cent. The percentage growth of capital stock in the transport and public
utilities sector (37 per cent), the commerce and finance sector (77 per cent), and in the public works and fiscal institutions sector (38 per cent) exceeded the percentage increase in the country's aggregate capital stock. In the mining sector and in urban property, the capital stock increased by only 11 per cent and 5 per cent respectively. The shares of the mining sector and of urban property in the aggregate capital actually decreased—from 4.7 to 4.2 per cent of the total in mining and from 25.4 to 20.4 in urban property. Attention should be drawn to the fact that during the time-span covered, world investment in mining increased at a rapid tempo.

A superior index of capital adequacy is one which relates changes in capital stock to increases in the active population. These changes are brought out in Table 4. A comparison of total capital stock per active inhabitant between 1940-1945 and 1951-1953 indicates a very unfavorable situation: the failure of capital stock to expand with the active population is an important reason for stagnation in worker productivity.

The category industry and construction showed the most notable increase (26 per cent) in capital stock per active inhabitant because of the Government's positive promotion of manufacturing. A growth of capital stock per active inhabitant in mining (15 per cent) reflects a
Table 4
CAPITAL PER ACTIVE INHABITANT
(thousands of pesos, 1950 prices)

<table>
<thead>
<tr>
<th></th>
<th>1940-1945</th>
<th>1951-1953</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>69.0</td>
<td>52.8</td>
<td>-23.5</td>
</tr>
<tr>
<td>Mining</td>
<td>116.2</td>
<td>133.4</td>
<td>14.8</td>
</tr>
<tr>
<td>Industry and Construction</td>
<td>108.5</td>
<td>136.9</td>
<td>26.2</td>
</tr>
<tr>
<td>Services</td>
<td>184.8</td>
<td>167.3</td>
<td>-9.5</td>
</tr>
<tr>
<td>Total</td>
<td>125.2</td>
<td>121.7</td>
<td>-2.8</td>
</tr>
</tbody>
</table>


A minor increase in capital and a reduction in active personnel in that sector. The contraction of capital stock per active person in agriculture of nearly 25 per cent represents an unfavorable condition of serious proportions. Finally, although the capital stock in the services sector grew by 25 per cent, the capital stock per active inhabitant in that sector fell 10 per cent because of the rapid growth of workers in that activity.

Significant changes also took place in the occupational structure of the active population. Between 1940
and 1952, when Chile's labor force increased at an average yearly rate of 2.5 per cent, much higher rates occurred in personal services (4.2 per cent), public administration (3.9 per cent), and in the category of industry, building, commerce and transport (3.1 per cent). In agriculture the active population increased only at the average rate of 1.1 per cent per year and in mining an annual decline of 0.6 per cent took place.\textsuperscript{10} It is also meaningful to differentiate the labor force by primary, secondary and tertiary activities as outlined in the figures below:\textsuperscript{11}

<table>
<thead>
<tr>
<th>Activities</th>
<th>1930</th>
<th>1952</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary activities</td>
<td>44.5</td>
<td>36.1</td>
</tr>
<tr>
<td>Secondary activities</td>
<td>20.0</td>
<td>24.6</td>
</tr>
<tr>
<td>Tertiary activities</td>
<td>35.5</td>
<td>39.3</td>
</tr>
<tr>
<td></td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The relative shift of labor from primary activities into


\textsuperscript{11}Based on data presented in \textit{Economic Survey of Latin America, 1954} p. 28. Primary activities comprise agriculture and mining; secondary activities comprise industry and construction; and tertiary activities include gas, transportation, commerce and finance, and other services.
secondary and tertiary activities would normally be associated with a healthy dynamic economy. In Chile's case, however, the conclusion drawn as intimated before must be different.

The Rate of Capital Formation

Capital formation is generally regarded as playing the strategic role in the process of economic growth. Investment partakes of two dimensions: (1) it broadens capital and (2) it deepens it. Broadening occurs when more units of similar capital goods are provided to create new opportunities for employment for "underemployed" and new workers; deepening occurs as more and more capital is added for each worker thereby increasing production per man-hour. In the last case, the capital added represents new forms—a change in technology.

On the basis of the data presented in Table 1, the rate of capital formation (investment) declined from about 16 per cent in the period 1925-1929 to something less than 12 per cent in the period 1951-1953. Investment per person, expressed in pesos of 1950 purchasing power, declined from 4,000 pesos to 2,800 pesos between the same periods which indicates an average annual decline of 0.6 per cent.
According to estimates of the Development Corporation, the rate of gross capital formation averaged only 10.3 per cent of gross national product in the years 1940-1954. If one accepts the estimated capital/output coefficient of 2.3 (that is, that 2.3 units of capital are required to obtain one unit of product) and a depreciation rate of roughly 2.5 per cent (about 6.3 per cent of gross national product), then the rate of gross capital formation prevailing in recent years is hardly sufficient to maintain constant the standard of living if one takes into account an increment of 2.0 per cent annually in population. If capital formation designed to take care of depreciation (6.3 per cent) is deducted from total capital formation (10.3), only 4 per cent is available for net formation of capital. It would appear that to achieve a continuous increase in output per capita of 2 per cent in Chile a minimum rate of net capital formation of 9.2 per cent or a gross rate of 15.5 per cent would be required.

The foregoing analysis suggests that if Chile is to attaining an adequate rate of economic growth, the country would need to convert from a 4 per cent to a 9 per cent net saver. The disparity between these two rates is an

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12 Corporacion de Fomento de la Produccion. Cuentas Nacionales de Chile, 1940-1954 (Santiago, Chile; Editorial del Pacifico, 1957), p. 28.
indicator of the efforts which the country must put forth if it is to achieve an economic "breakthrough".

Summary

The trend in Chile's economy since the latter twenties indicates that output per worker increased at an annual rate of less than one half per cent while income per capita, due to long-run adverse effect in the terms of trade, remained virtually stable.

The failure since 1940 of the aggregate capital stock to expand at a faster rate than the working population is an important reason for the near stagnation in both output and income per capita. A comparison between the periods 1940-1945 and 1951-1953 shows that capital stock per worker in the agricultural sector contracted by nearly 25 per cent as against an almost equal increase in capital stock per worker in industry and construction. In Chile, the increasing concentration since the latter thirties of resources in industry to the neglect of the agricultural and mining sectors, did not take place in response to free market forces. The combination of government policy and inflation served to bring about a shifting of resources—labor and capital—from primary to secondary and tertiary activities.
The rate of capital formation in Chile in excess of that required to replace depreciated and obsolescent facilities has probably not exceeded 4 per cent in the post war period. In view of an annual rate of population increase of two per cent since 1950, Chile would require a minimum rate of capital formation of 16 per cent of gross national product in order to raise output per capita two per cent per year.
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CHAPTER IV
THE BALANCE OF INTERNATIONAL PAYMENTS

The Significance of The Balance of Payments

This chapter undertakes an analysis of Chile's balance of international payments from 1928 to the present. Separate chapters are devoted to foreign trade and foreign investments, the major components of Chile's balance of payments.

A balance of payments statement presents in summary form the various commercial and financial transactions between a country and the rest of the world, generally for a calendar year. Claims of foreigners and claims against foreigners are brought sharply to bear in the balance of payments. Such claims may arise from the flow of trade, visible and invisible; the flow of foreign capital and its repatriation; interest and dividend payments to and from foreigners; tourist receipts; official grants; gold movements and other economic transactions.

For a relatively underdeveloped country such as Chile, important internal obstacles impending economic growth as well as difficulties resulting from its international setting are reflected in the balance of payments.
For instance, Chile's domestic inflation (an internal obstacle) and a plunge in the price of copper (an external influence) have a powerful impact on the balance of payments.

The Meaning of Disequilibrium in The Balance of Payments

Since the balance of payments must formally always balance the significant consideration is the peculiar way in which the balance is achieved. A country may experience a neutral, favorable or an unfavorable balance of payments. The non-neutral balances are more commonly called a disequilibrium in the balance and may be either short-run or fundamental in nature. Short-run or temporary disequilibrium indicates a situation during which a country is obliged temporarily to draw down its holdings of foreign bank balances and monetary gold and/or to receive short-term stop-gap loans. These loans may be either of an official nature (i.e., drawing on the International Monetary Fund) or may represent merely a credit extension on the part of exporters in other countries. Such an eventuality has also been termed a balance of payments deficit.

These movements which adjust to the balance of payments deficit (short-run disequilibrium) are termed
equalizing or accommodating short-term capital movements. These changes in equalizing short-term capital accounts represent, therefore, both the index of disequilibrium and the elements that make possible short-run adjustments to disturbances in the balance of payments. Consequently,

\[ \text{a positive algebraic sum of short-term equalizing capital movements and equalizing gold flows indicates disequilibrium in the balance of payments. The short-term capital movements and/or gold flows are the active factors in the short-run adjustment process.}^{1} \]

Autonomous short-term capital movements are unrelated to the condition of the balance of payments.

Should a country be faced with persistent balance of payments deficits eventuating in a continued loss of foreign exchange and gold reserves and short-term compensatory borrowing, it is experiencing a fundamental disequilibrium. The country is clearly living beyond its means and must retrench its position. No country can continue to lose foreign balances or gold for any length of time nor borrow indefinitely on short-term capital account. Some fundamental adjustment must be made.

\[ \text{\textsuperscript{1}Stephen Eripe and Virgil Salera, \textit{International Economics} (New York: Prentice-Hall, 19\textsuperscript{47}), p. 154.} \]
As in the case of Chile in the nineteen-thirties, a government may forcibly arrest a persistent tendency toward balance of payments deficits by imposing exchange controls and through exchange depreciation and import restrictions to restrain the demand for foreign currencies. Actions of this order would merely manifest that a condition of disequilibrium did in fact exist. Consequently, it is necessary to draw a distinction between two types of balance of payments deficits: (a) "Actual" — the actual amount of accommodating finance or equalizing movements experienced in any period of time; (b) "Potential" — the amount of accommodating finance (equalizing movements) which it would have been necessary in any period in order to avoid any depreciation in the exchange rate without the use of exchange controls, import restrictions or other governmental measures specially devised to restrict the demand for foreign currencies.

Equilibrium in the balance of payments including "forced" (a "potential" deficit) equilibrium can be obtained at an indefinite number of levels of economic activity. The nature of the choices which give rise to international transactions may range from complete

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freedom to the imposition of severe government restrictions, quantitative or qualitative.

The following sections will throw light on the types of balance of payments disturbances Chile has had to contend with since 1928 and the nature of the adjustments.

**General Structure of Chile's Balance of Payments**

The leading structural characteristics of Chile's balance of payments covering the period of 1923-1957 are summarized below:

a) A historical view of Chile's balance of payments reveals that the country has attained the status of a mature debtor: interest and dividend payments to foreigners have exceeded the net inflow of investment capital. The United States was a mature debtor between 1873 and World War I; Brazil and Argentina are contemporary examples in Latin America. Chile, in other words, must maintain an export surplus on merchandise account; her capacity to import has consistently fallen below the value of exports.

b) Chile's exports are highly sensitive to cyclical fluctuations in the leading industrial countries. These cyclical fluctuations arising outside of Chile are transmitted to that country's economy, in intensified form,

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3The *Capacity to import* may be defined as the value of goods and services a country can import without affecting its foreign exchange or gold reserves or contracting short-term debts abroad.
through the balance of payments.

c) Two major products -- copper and nitrates--have constituted between 75 per cent to 80 per cent of Chile's exports. This concentration on two unstable commodities has placed Chile's foreign trade in a particularly vulnerable position. Both minerals are apparently characterized by low price elasticities.

d) The average annual physical volume of Chile's exports in the period 1950-1956 was somewhat lower than that of the years 1928-1929.

The Impact of World Depression, 1929-1932

The Great Depression, originating in the industrial countries, was transmitted to Chile via the balance of payments mechanism with disastrous results.

An open economy, Chile exported about 40 per cent of her national product on the eve of the economic crisis. Her resources were allocated in accordance with the principle of international specialization. Foreign capital inflows figured importantly in the decade of the nineteen-twenties. A large external debt was incurred particularly in the years 1925-1930 by the Chilean Government. In the decade of the twenties, for example, $425 million in bonds were sold in the New York financial market by a number of governmental authorities. Service on these
capital inflows presented no problem for Chile so long as the world markets for Chile's principal exports, nitrates and copper, remained firm. As of today, copper and nitrates provided Chile with 75 to 80 per cent of export receipts. In the twenties nitrates assumed greater importance relative to copper; in more recent years the roles have been reversed with copper accounting for about 50 per cent on the average of Chile's export value.

With the collapse of world mineral markets in the wake of the Depression, Chilean nitrate exports took a 90 per cent plunge while copper exports fell by two thirds as the figures below indicate:

<table>
<thead>
<tr>
<th>Nitrate exports (tons)</th>
<th>1929</th>
<th>1932</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,900,000</td>
<td>250,000</td>
<td></td>
</tr>
<tr>
<td>Copper exports (tons)</td>
<td>321,000</td>
<td>103,000</td>
</tr>
</tbody>
</table>

In the same period, the price of copper decreased from 18 U. S. cents to 5 U. S. cents per pound. The League of Nations Index reveals that the value of Chile's trade suffered more than any other country in the world on a relative basis. What happened to Chile's foreign commerce can better be appreciated by viewing the following statistics:

<table>
<thead>
<tr>
<th></th>
<th>1929</th>
<th>1933</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of exports</td>
<td>100%</td>
<td>12%</td>
</tr>
<tr>
<td>Volume of exports</td>
<td>100%</td>
<td>35%</td>
</tr>
<tr>
<td>Volume of imports</td>
<td>100%</td>
<td>25%</td>
</tr>
</tbody>
</table>
Estimates of Chile's balance of payments for the period 1929-1932 are presented in Table 5. Already by 1929, an export surplus (favorable balance of trade) of about 680 million pesos was insufficient to offset completely a net outward flow (debit) on capital and service account. A loss of gold and foreign exchange from the Central Bank's reserve was required to equalize the slightly passive or negative balance of payments. In the previous year, 1928, an export surplus of 300 million gold pesos was sufficient to cover the net outflow on capital and service.\(^4\) The large mining companies whose gross contribution to the balance of payments in 1929 exceeded 2,000 million pesos actually left Chile with only about 1,200 million pesos in net foreign exchange receipts. The capital and service account reveals that a little over 800 million pesos was not returned to Chile; the non-returned value represented amortization and service of the large mining companies. These outflows contracted greatly the following year and reached a low of 55 million pesos in 1932. While foreign capital inflows continued for the account of government and other sectors through 1930, a year in which the gross inflow

\(^4\) Banco Central de Chile, Balance de Pagos, 1945, (Santiago, 1946), p. 34.
Table 5
CHILE'S INTERNATIONAL BALANCE OF PAYMENTS, 1929-1932
(in millions of gold pesos)\(^a\)

<table>
<thead>
<tr>
<th></th>
<th>1929</th>
<th>1930</th>
<th>1931</th>
<th>1932</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Credit</td>
<td>Debit</td>
<td>Credit</td>
<td>Debit</td>
</tr>
<tr>
<td><strong>Goods and Services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Exports</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large Mining Companies(^b)</td>
<td>2292.7</td>
<td>1326.3</td>
<td>324.4</td>
<td>281.8</td>
</tr>
<tr>
<td>Other</td>
<td>2024.1</td>
<td>1106.5</td>
<td>697.7</td>
<td>190.8</td>
</tr>
<tr>
<td><strong>Imports</strong></td>
<td>268.6</td>
<td>219.8</td>
<td>126.7</td>
<td>91.0</td>
</tr>
<tr>
<td></td>
<td>1617.0</td>
<td>1400.0</td>
<td>705.8</td>
<td>213.8</td>
</tr>
<tr>
<td><strong>Capital and Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large Mining Companies (net)(^c)</td>
<td>443.1</td>
<td>813.9</td>
<td>239.5</td>
<td>126.9</td>
</tr>
<tr>
<td>Government and other</td>
<td>427.8</td>
<td>682.1</td>
<td>434.4</td>
<td>54.1</td>
</tr>
<tr>
<td><strong>Loss, Central Bank Reserve</strong></td>
<td>89.7</td>
<td>106.9</td>
<td>130.8</td>
<td>--</td>
</tr>
<tr>
<td><strong>Coin and bullion (net)</strong></td>
<td>0.4</td>
<td>1.7</td>
<td>0.2</td>
<td>3.7</td>
</tr>
<tr>
<td><strong>Errors and Omissions</strong></td>
<td>32.8</td>
<td>43.1</td>
<td>73.3</td>
<td>44.6</td>
</tr>
<tr>
<td><strong>General Total</strong></td>
<td>2358.7</td>
<td>2358.7</td>
<td>2117.0</td>
<td>2117.0</td>
</tr>
<tr>
<td><strong>Service in Default</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>229.5</td>
<td>336.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>105.8</td>
<td>255.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>123.7</td>
<td>80.6</td>
<td></td>
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</table>

\(^a\)8.26 pesos = 1.00 dollar.
\(^b\)This item represents mineral exports all but a small proportion of which was produced by the large foreign companies.
\(^c\)This item includes net capital outflows and services of the large foreign mining companies, the non-retumed values.

reached nearly 700 million pesos, the amortization and interest payments were correspondingly heavy. Despite a debit of 434 million pesos on the government and other account there was a net credit of 250 million pesos in that category in 1930. Thus, while credits and debits in the capital and service account approximately offset each other, Chile in 1930 experienced an import surplus which could only be offset by again drawing down the foreign-exchange and gold holdings of the Central Bank.

In 1931 Chile realized an export surplus of 118 million pesos which, however, was grossly insufficient to meet the much larger net outflow of capital and services estimated at 324 million pesos. There resulted another loss in the Central Bank's reserve, exceeding those of previous years. In March, 1931 customs duties were substantially raised on a wide range of commodities by 20 to 35 per cent.\(^5\)

The Central Bank's gold reserves fell from an average 493 million pesos in 1929 to 213 million pesos in August, 1931.\(^6\) By the middle of 1931 Chile was obliged to abandon the gold standard to save what remained of the Central Bank's gold and foreign exchange reserve and to halt the

\(^5\)Ellsworth, \textit{op. cit.}, p. 12, footnote.

\(^6\)\textit{Ibid.}, p. 33.
drastic deflationary effects induced by the persistent balance of payments deficits. This move was accompanied by a suspension of the service of the external debt: service in default amounted to 229 million pesos in 1931 and in 1932, 336 million pesos. Both measures eased the heavy pressure to which the balance of payments had been subjected and arrested the drain on the Central Bank's reserve. Foreign loans which had reached the sum of 680 million pesos in 1930 declined to a trickle in 1932 and disappeared completely by 1933.

But even these measures proved insufficient to restore equilibrium:

By the middle of 1932 the pressure of external factors on the balance of payments reached its greatest intensity. Although the suspension of external debt service alleviated, in part, the pressure which it exercised, the foreign trade continued to have an unfavorable development to an extent that for a moment it appeared that an import surplus (an excess of imports over exports) would arise — an extraordinary phenomenon in our foreign commerce.7

It became necessary in addition to deliberately devaluate the peso in April, 1932 and at the same time to establish control over foreign exchange operations. This measure served to impede a capital flight out of

7Banco Central de Chile, op. cit., p. 37.
Chile. Thus it appears that the balance of payments was brought into approximate equilibrium in 1932 through a number of forced measures and at a drastically lower level of activity. In pesos, the level of Chile's international transactions in 1932 was one tenth of the 1929 level. The forced balance was maintained also by other means: foreign trade was moved into bilateral channels while exports themselves received stimulation through subsidies. Potentially, disequilibrium persisted as indicated by the degree of exchange control and the total value of debt service suspension.

The evidence of this forced nature of equilibrium could be seen graphically in the free exchange rates. The free market of major currencies—the pound and the dollar—reached quotations considerably higher. For example, the dollar moved from a quotation of 8 pesos in the middle of 1931 to more than 60 pesos in the middle of 1932.  

Until July, 1931 when the gold standard was abandoned by Chile, external economic forces exercised their full impact on the domestic economy. In accordance with the rules of the gold standard the outward flow of gold in response to persistent deficits in the balance of payments  

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8Tbid., p. 38.
was accompanied by contraction in the circulating media. Total means of payment declined nearly 40 per cent between the last four months of 1929 and June 1931, the low point. More significant, however, was the income effect. A severe decline in mining activities (production in 1932 contracted to less than one third the 1927-1929 average) affected other economic segments through the multiplier. The value of construction activity fell by two-thirds and agricultural output in 1932 was about 10 per cent below the 1927-1929 average. Industrial production reached a low point at one-fourth below the 1927-1929 average. Real national income declined 40 per cent between 1929 and 1932. In the latter year, the number of unemployed exceeded 130,000 persons; of 91,000 men employed in mining in December 1929, only 31,000 continued to work at the end of 1931.

The introduction of an inconvertible paper standard in July 1931 was rapidly accompanied by a conscious expansion of circulating media. This expansion was so considerable that in the course of 18 months prices rose 180 per cent, and the extreme upward movement in prices lasted until the first months of 1933. After Chile renounced the gold standard its banking system became largely isolated. The control over foreign exchange was
Table 6
CHILE'S INTERNATIONAL BALANCE OF PAYMENTS, 1934-1937
(in millions of gold pesos)

<table>
<thead>
<tr>
<th></th>
<th>1934 Credits</th>
<th>1935 Credits</th>
<th>1936 Credits</th>
<th>1937 Credits</th>
<th>1934 Debits</th>
<th>1935 Debits</th>
<th>1936 Debits</th>
<th>1937 Debits</th>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Exports (net)</td>
<td>273.6</td>
<td>308.8</td>
<td>328.9</td>
<td>394.5</td>
<td>118.0</td>
<td>164.0</td>
<td>149.2</td>
<td>185.6</td>
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<tr>
<td>Large mining co's. (net)a</td>
<td>155.6</td>
<td>144.8</td>
<td>179.7</td>
<td>208.9</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Imports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>242.0</td>
<td>295.0</td>
<td>346.7</td>
<td>429.0</td>
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<tr>
<td>Other debits</td>
<td>14.9</td>
<td>8.4</td>
<td>6.1</td>
<td>8.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-term Capital and Gold</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16.7</td>
<td>5.4</td>
<td>23.9</td>
<td>42.5</td>
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<tr>
<td>General Total</td>
<td>273.6</td>
<td>273.6</td>
<td>308.8</td>
<td>352.8</td>
<td>328.8</td>
<td>352.8</td>
<td>352.8</td>
<td>437.0</td>
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</tbody>
</table>

aRepresents the net contribution of the large foreign-owned mining companies to Chile's balance of payments. This includes the two major "returned values" (which remain in Chile): 1) the local costs of production and 2) taxes paid in Chile.

Source: Adapted from Banco Central de Chile, Balance de Pagos, 1945 (Santiago, 1946), p. 42.
given to the Exchange Control Commission, an agency which thus came to determine the major components of Chile's balance of payments. These measures combined with a severe devaluation acted to neutralize the secondary effects of contraction in the internal economy. All these events set the stage for a new policy -- **desarrollo hacia dentro** (internal development), characterized by a strong drive toward industrialization, which became Chile's new economic orientation.

Between 1933 and the early months of 1936 the balance of payments reached equilibrium only to turn negative once again in the latter part of 1936 and in 1937. Table 6 presents a brief summary of the leading components of Chile's international accounts. Of notable interest is the increase in the value of net exports of the large mining companies from 118 million pesos in 1934 to 186 million pesos in 1937. Other exports also expanded, from 156 million pesos in 1934 to 209 million pesos in 1937, but at a slower rate. Imports, however, increased sharply from 242 million pesos in 1934 to 429 million pesos in 1937 resulting in balance of payments deficits of 24 million pesos and 43 million pesos in 1936 and 1937 respectively.
Recovery after 1932

The fall in world market prices came to an end in 1933 and thereafter began a gradual recovery. In response to the strengthening in the markets for minerals, the physical volume of Chile's exports climbed to 68 (1927-1929 = 100) in December 1933. The increase took place almost entirely in nitrates and copper. The index of mining output showed the following changes: (1927-1929 = 100).

<table>
<thead>
<tr>
<th>Year</th>
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<tr>
<td>1932</td>
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<td>1934</td>
<td>62.5</td>
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<td>1936</td>
<td>72.2</td>
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<td>1937</td>
<td>100.0</td>
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This increase in mining production reflected such factors as (1) the natural recuperation of the nitrate market, stimulated through extension of the Compensation and Clearing Agreements; (2) the elimination of restrictions on copper production; and (3) government stimulus to the small gold mines (Lavadores de Oro).

Even while the global balance of payments was in equilibrium within the constraints of exchange control, quotas, and higher tariff duties, there emerged serious bi-lateral inbalances with some countries — particularly

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9 Ellsworth, op. cit., p. 23.

10 Banco Central de Chile, op. cit., p. 41.
with the United States -- which served as Chile's principle markets. The problems facing Chile derived from the reduction of multilateral trade are covered in another chapter.

By 1935 the Chilean economy had achieved an imposing recovery as a consequence of improvement in world markets and of the various measures of isolation which spurred domestic manufacturing and stimulated building activity. Unemployment was at the low figure of 8,000 compared with 130,000 in 1932. Building activity was three times that of 1931; industrial production exceeded 1931 level by 50 per cent; agricultural output expanded a moderate 12 per cent in the same period.

Following a brief recession in 1938 the Chilean balance of payments showed a marked tendency toward persistent surpluses -- a fundamental disequilibrium on the active side throughout the duration of World War II. The European conflict stimulated the export of strategic products (copper and nitrates) in the course of 1939-1941 and this was accentuated by the entry of the United States into the War in December, 1941. Chile's copper output, for example, reached a historic peak in 1944 with 550,000 short tons a figure which exceeded the 1929 output by 100,000 tons.
Table 7 presents the available data on the balance of payments between 1942 and 1945. For every year under analysis, there was an excess of exports over imports. In 1944 and 1945 the visible (merchandise) trade balances were especially favorable. The combined movement of capital and service shows a net debit for every year reflecting in part the resumption by Chile of its foreign debt service; in 1945 the net outflow on capital and service account exceeded $40 million dollars. Due to the shortage of shipping and goods available for export to Chile, the country's imports remained lower than justified by the export proceeds.

The result was a persistent and rapid accumulation in the central bank and commercial banks of gold and foreign exchange holdings (largely dollars) reflecting the heavy purchases of copper, nitrates and other minerals by the United States. Net foreign exchange accumulations were $14 million in 1945. Chile at the end of World War II had greatly increased its international liquidity. The accumulation of gold and foreign exchange balances caused the monetary authorities serious problems in this period. This phenomenon is explored more thoroughly in another chapter.
<table>
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<td>Credit</td>
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<tr>
<td>Visible</td>
<td>145</td>
<td>127</td>
<td>174</td>
<td>132</td>
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<tr>
<td>Invisible</td>
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<td><strong>Errors and Omissions</strong></td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td>165</td>
<td>165</td>
<td>209</td>
<td>209</td>
</tr>
</tbody>
</table>

Source: Banco Central de Chile, Balance de Pagos, 1945 (Santiago, 1946), p. 54.
Chile, it should be noted here, ratified the International Monetary Fund Agreements in December 1944.

The Post-World War II Era

The Central Bank of Chile has collected and analyzed Chile's balance of payments in detailed fashion since 1944. Table 8 presents the components of Chile's international accounts adapted to the significant classifications previously laid down. Considering the post-war years, 1946-1957 there were current account deficits during eight years, surpluses in only four years. Except for the year 1949 when Chile experienced a trade deficit, the current account deficits reflect the large service charges on capital which increased from 38 billion dollars in 1946 to nearly 100 million dollars in 1956.

With the exception of 1949 the share of merchandise credits exceeded the share of merchandise debits, a reflection of Chile's traditional merchandise export surplus. The invisible items, other than service on capital, include private transactions, transportation and official transactions. Their combined effect on the balance of payment seems to reveal a definite pattern: of the twelve years under study the invisible items show a net deficit during seven years and a net credit during
five years. It appears therefore, that the overwhelming and traditional positive item in the current account is the merchandise export surplus while the debit on capital service is the significant negative item.

An examination of the long and medium-term capital account covering the twelve year period shows a net inflow for all years with the exception of 1946 (an outflow of 45 million) and 1948 (an outflow of 7 million), and 1950 (an outflow of 5 million). These flows of investment capital are associated principally with investments of the large mining companies and loans of the Export-Import and World Banks. For the most part they take the tangible form of commodity imports, generally capital equipment.

Within the capital account, the equalizing short-term accounts (equalizing movements) have the most analytical significance. They comprise changes in gold and foreign exchange balances held by the central bank and other financial institutions and includes short-term financing and accommodating changes in the compensation accounts that Chile has with some countries. When foreigners increase their net short-term claims on Chileans they effectively extend credit (an inflow of short-term capital). Such an operation would appear as a credit. Whenever
there occurs a net contraction in the foreign-exchange and gold holdings of Chilean banks to finance a balance of payments deficit, the transaction would appear as a credit. Thus the net movements of the equalizing short-term accounts becomes the index of Chile's actual balance of payments position.

Again taking the period 1946-1957, balance of payments deficits occurred in five years, surpluses in four years and approximate neutrality in three years. In 1946 net short-term claims of foreigners were paid but at the cost of drawing down heavily on Chile's gold and foreign exchange reserves to the extent of $45 million. In the following year Chile again experienced a deficit of equal magnitude. In view of the negligible effect provided by long and medium-term capital flows in 1947, the disequilibrium in the balance of payments almost precisely reflected the current account deficit of nearly $50 million. A current account surplus appeared in 1948 largely because of the firm price of copper which in that year was double the 1945 price. Notwithstanding a net outflow of investment capital of $7 million, the balance of payments was moderately favorable. Exports fell sharply in 1949 when the price of copper fell because of the first postwar recession. The sizeable current account deficit
### Table 1

#### CHILE'S BALANCE OF PAYMENTS

(in millions of U.

<table>
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<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
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<tr>
<td>Goods and services</td>
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<td></td>
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<td></td>
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<tr>
<td>Merchandise exports</td>
<td>237.7</td>
<td>261.9</td>
<td>344.4</td>
<td>276.5</td>
</tr>
<tr>
<td>Merchandise imports</td>
<td>201.4</td>
<td>206.2</td>
<td>275.2</td>
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<tr>
<td>Servicing of capital</td>
<td>37.6</td>
<td>57.5</td>
<td>0.2</td>
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<tr>
<td>Other services</td>
<td>28.3</td>
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<td>32.6</td>
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<td>201.4</td>
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<td>57.5</td>
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<td></td>
<td>256.0</td>
<td>261.5</td>
<td>358.3</td>
<td>369.5</td>
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<tr>
<td>Surplus (+) or deficit (-) on current account</td>
<td>+4.5</td>
<td>-43.3</td>
<td>+21.3</td>
<td>-52.9</td>
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<td>2. Capital Account</td>
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<tr>
<td>Long and medium-term capital movements</td>
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<td>Equalizing short-term accounts</td>
<td>47.9</td>
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<td>Total</td>
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<td>61.4</td>
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<tr>
<td>Credit (+) or debit (-) on capital account</td>
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<td>4.6</td>
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<tr>
<td>Grand Total</td>
<td>327.8</td>
<td>327.7</td>
<td>399.2</td>
<td>441.0</td>
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Sources:
For 1956: Banco Central de Chile, Boletin Mensual (Santiago, 1957), No. 353, p.488.
For 1957: Banco Central de Chile, Boletin Mensual (Santiago, 1957), No. 358, p. 911.
* First semester (Jan.-June)
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<tbody>
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<td>Cr.</td>
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<td>650.3</td>
<td>650.3</td>
<td>355.9</td>
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Table 8: International Payments, 1946-1957

Notes of U.S. Dollars

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<th>Year</th>
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<th>1951</th>
<th>1952</th>
<th>1953</th>
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<td>43.1</td>
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</table>

Notes: pp. 12-29.
of $63 million was fortunately offset by an important inflow of long and medium-term capital and the balance of payments was left neutral. At the height of the Korean War in 1952 the price of copper reached an average of 32 cents per pound in New York, a figure which exceeded the 1945 price by nearly 200 per cent. The value of exports reached a new high of $470 million or nearly $90 million above the year before. A current account surplus combined with a net inflow of investment capital gave Chile a balance of payments surplus of nearly $30 million. Chile's exports in the following year (1953) fell $100 million when the post-Korean recession brought in its wake lower raw material and minerals prices. A new plateau in copper prices in 1955 (an average price of 39.1 cents per pound in New York) combined with a sharp expansion in the volume of copper exports provided the impetus for the large increment of $110 million in the value of exports between 1954 and 1955. In the latter year there was also a modest net inflow of investment capital. Which on top of a surplus on capital account made for a very favorable balance of external payments. Although the year 1956 produced an ample surplus on merchandise account (nearly $110 million) unusually large debits in capital service (96 million) and in the other services resulted in a
slight deficit in the current account. The balance of payments emerged slightly favorable, however, because of a counteracting net inflow of long and medium-term capital.

Preliminary balance of payments data for the first six months of 1957 (see Table 8) indicates that the country was experiencing a deficit in its external accounts. The condition is largely a reflection of a strongly negative balance on current account which exceeded $50 million for the half-year period. Certainly a major factor in this unfavorable turn was the rapid fall in the price of copper from an average 45.04 cents per pound in the first six months of 1956 to 30.18 cents in the corresponding period of 1957. Other factors which contributed to the formation of the decidedly negative current account were (1) a decline in the price and volume of nitrate exports, (2) a reduction in industrial exports, and (3) an important increase (within the "other services" category) in official expenditures abroad. The negative balance in the current account was to a large degree offset by a record high (on a yearly basis) net inflow of long and medium-term capital.

---

11 Banco Central de Chile, Boletín Mensual (Santiago, 1957), No. 358, p. 912.
The most recent information available indicates that Chile's exports exceeded imports by the narrow margin of only $17 million for the entire year of 1957. On the reasonable assumption that the service of capital was roughly $100 million it is possible to estimate conservatively that the current account deficit probably exceeded $80 million for the whole year. Finally, it is significant to point out that Chile's terms of trade fell 22 per cent in 1957 with respect to the previous year which in effect wipes out the gains made by that country since 1952 in its terms of trade with the rest of the world.

The single most important disequilibrating influence in Chile's balance of payments has been the country's chronic inflation which moved at an accelerated pace after 1952 and reached its peak intensity in 1955. Chile's money income and outlay fed by loose credit and fiscal policies greatly exceeded the country's capacity to produce. To the extent that the increased spending made possible by excessive credit was directed toward import goods, the balance of payments came under pressure: the inflated domestic market could absorb great quantities of imports at what ineffect were bargain prices. Persistent inflation has placed the Chilean Government in an anomalous

12 Banco Central de Chile, Boletín Mensual (Santiago, 1958), No. 361, p. 251.
position: to ease complaints about the rising cost of living and avoid periodic increases in wage rates, "necessity" imports, until very recently, were in effect subsidized through preferential rates of exchange. This further encouraged demand for imports. Basic food prices were kept artificially low by price control and by placing food imports in a favored exchange category.

Up to now, the analysis of Chile's international accounts has proceeded on a global basis. A few words should be said about the method of balancing deficit areas against surplus areas through multilateral adjustments. In 1955 Chile's transactions with the United States and Canada represented the greater share in the total balance of payments: credits made up 49 per cent and debits constituted 54 per cent of the global balance. It is important to note that Canada's transactions with Chile were negligible compared with those of the United States. An export surplus of $28 million proved insufficient to offset a net outflow on capital and service account of nearly $70 million. Equalizing movements of foreign exchange and short-term capital could only fill a small part of the dollar gap. The dollar gap of $38 million was closed through the mechanism of multilateral adjustments.
Of the $92 million receipts used for multilateral adjustments, $81 million came from sales of copper to non-dollar areas. The United Kingdom, which paid for three-fourths of its copper purchases in dollars, supplied $55 million and Continental Europe bought $26 million of copper with dollars.

Of the $60 million in payments involved in the multilateral adjustments, $9 million went to Europe, $27 million went to Peru and the remaining dollars were dispersed in payments to a large numbers of countries. A summary of Chile's dollar payments position in 1955 vis-a-vis each area is given below: (millions of U. S. dollars)

<table>
<thead>
<tr>
<th>Dollar Deficits</th>
<th>Dollar Surpluses</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States and Canada</td>
<td>37.8</td>
</tr>
<tr>
<td>Latin America</td>
<td>28.0</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>54.6</td>
</tr>
<tr>
<td>Continental Europe</td>
<td>16.3</td>
</tr>
<tr>
<td>Rest of the World</td>
<td>12.7</td>
</tr>
<tr>
<td></td>
<td>78.5</td>
</tr>
<tr>
<td>Errors and Omissions</td>
<td>7.6</td>
</tr>
<tr>
<td>Total</td>
<td>78.5</td>
</tr>
</tbody>
</table>

Thus, it appears, that through the multilateral payments mechanism the dollar deficits of Chile with the United States, Latin America and with the "rest of the
world" were offset by the dollar surpluses which Chile experienced with the United Kingdom and Continental Europe.

As a final note, in the consideration of Chile's balance of international payments it should be emphasized that the balance does not render a completely correct reflection of the actual movements in foreign exchange. For example, such items as the "non-returned values" of the large mining companies and the imports of these companies with their own exchange do not reflect movements of foreign exchange. Many of these items constitute merely an accounting operation.

Summary

An analysis of Chile's international economic accounts over the considerable span of thirty years revealed three periods that were particularly marked with instability. An externally induced disturber, the World Depression of 1929-32 played havoc with Chile's balance of payments. The initial adjustments took the form of a persistent drain on the Central Bank's gold and foreign exchange reserve and internal deflation. Through the multiplier, real national income also contracted. Finally, exchange control, the abandonment of the gold standard, suspension of foreign debt service, and devaluation of the peso
were measures instituted to isolate the Chilean economy from the disturbing forces.

The repeated accumulation of gold and foreign exchange balances by the Chilean banking system during World War II reflected the positive disequilibrium in the balance of payments. Inflation was a counterpart of these increments in Chile's liquidity.

In the postwar period, the country's explosive inflation, internally induced, has been the major disturbing element in the balance of payments. Short-term variations in the price of Chile's export commodities, especially copper, and dislocations in the world trade markets caused by World War II have also injected instability in the balance of payments.

The next chapter will deal with Chile's foreign trade and its close involvement in economic growth.
CHAPTER V
FOREIGN TRADE

The specialized nature of Chile's resources and a relatively small market dictate that for a considerable period Chile's economic growth will be strategically linked with foreign trade.

The first point to be considered is an analysis of the crucial relationship existing between Chile's capacity to import and economic development. The major determinants of Chile's capacity to import are examined, particularly the very considerable contribution of the large foreign mining operations to Chile's global export value. Furthermore, the impact of industrialization on the structure of imports is reviewed.

The Capacity to Import and Economic Development

A country's capacity to import is determined fundamentally by the physical volume of its exports and certain other factors. These are (1) the change in the terms of trade (2) the net outflow of interest and dividend payments, and (3) the net inflow of investment capital.

Chile's economic growth has been retarded by the failure of the capacity to import to expand. It is
striking to note that Chile's physical volume of exports in 1955 was no greater than in 1923. Furthermore, the real purchasing power of a representative unit of Chile's exports in 1953-1955 was only about two-thirds of what it had been in the period 1928-1930. A recent publication of the Pan American Union\(^1\) estimated the average per capita exports of Chile as follows:

\[
\begin{array}{|c|c|}
\hline
\text{Year} & \text{Average Per Capita Exports} \\
\hline
1950 & 50 \\
1926-1930 & 90 \\
1921-1925 & 75 \\
1911-1915 & 89 \\
1906-1910 & 85 \\
\hline
\end{array}
\]

In Chile imports have a special significance. They provide the key components of investment - capital equipment for transportation and power facilities, for farm mechanization, for factories and mines. Furthermore, industrialization in Chile has meant increasingly heavier demands for certain imported raw materials and fuels. Chile, with its seven million inhabitants and specialized resources cannot produce (or cannot produce economically) all of its capital equipment and raw materials domestically. A rational policy of industrialization must import substitution changes rather than reduce the demand for imports.

...in the long run, particularly if it is successful in raising standards, lead to greater imports. As industrialization proceeds, the opportunities for further substitution must diminish. The limit to the pace of industrialization is therefore set by the extent to which the capacity to import can be expanded.

Resources in Chile currently devoted to producing certain high-cost luxury items would undoubtedly yield greater benefits to the nation if they were liberated from their present uses and shifted to export industries. A given unit of resource X might indeed "save" let us say, $6,000 annually by producing goods previously imported; however, unit X would be more effective economically if it were applied to produce export goods returning, let us say, $10,000 annually.

The contraction of Chile's capacity to import in the post-war period relative to the twenties has had an inhibiting effect on capital formation. To analyze this relationship, the writer has constructed an index of capital equipment imports as shown below:

---

2 United Nations Economic Commission for Latin America, Preliminary Study of the Effects of Postwar Industrialization on Import Structure and External Vulnerability in Latin America. (Taken from a preliminary draft.)

3 Adapted from raw data received from the Statistical Section, United Nations Economic Commission for Latin America. Capital equipment imports included transportation, agricultural, industrial, mining and office equipment. The increase in the active population was estimated as 37 per cent between the two periods.
Almost 90 per cent of the total investment in machinery and equipment is represented by imported capital goods.\(^4\) The substitution of home-produced capital equipment, although increasing, is still in a rudimentary stage in Chile.

The composition of imported capital goods in Chile's total capital investment has been very significant (see Table 9). During the war years, imported capital goods comprised only one-third of total investment due to the restriction placed on capital goods exports by the United States. In the postwar period, capital goods imports have constituted the predominant share in Chile's total capital formation.

The heavy contraction of nearly 50 per cent in capital equipment imports per active inhabitant, as shown above, must be a fundamental explanation for the slow pace in the

country's economic growth. Chile's economic expansion is closely associated with capital equipment and machinery imports in the present stage of development. The correlation between capital imports per active inhabitant and per capita real exports is a very significant one: the former declined 48 per cent, the latter fell by 44 per cent during approximately the same time spans.

Table 9
CAPITAL GOODS IMPORTS AS A PERCENTAGE OF TOTAL INVESTMENT

<table>
<thead>
<tr>
<th>Periods</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1925-1929</td>
<td>47.9</td>
</tr>
<tr>
<td>1930-1933</td>
<td>44.6</td>
</tr>
<tr>
<td>1934-1939</td>
<td>39.8</td>
</tr>
<tr>
<td>1940-1945</td>
<td>33.0</td>
</tr>
<tr>
<td>1946-1950</td>
<td>57.6</td>
</tr>
<tr>
<td>1951-1953</td>
<td>61.3</td>
</tr>
</tbody>
</table>


Note: These figures have been evaluated in accordance with the purchasing-power parity formula. (See Economic Survey of Latin America, 1951-1952, final note in Chapter I.)
Short-term fluctuations in the capacity to import also act as an inhibiting factor in financing development. This instability derives from the wide price fluctuations of copper and nitrates in world markets and the consequent variations in Chile's foreign trade value. When quantitics exported move in the same direction as prices, export proceeds become especially erratic and undependable. "Development requires stable financial resources, and in particular, the steady import of capital goods over considerable periods."

In Chile, the price of copper holds tremendous importance for development. Dr. Grunewald, Director of the Economic Institute, University of Chile, put it this way:

The level of investment will continue to depend to a very large extent upon copper. A one cent change in the price of copper alters the country's balance of payments by about eight million dollars. Such a change will obviously affect investments since it will increase or decrease the possibility of importing capital goods. Public investment also depends heavily upon copper since one-quarter of all government revenues derived from copper production and exports.

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6 Joseph Grunewald, *Chile's Economic Future*, Address to the American Society of Chile (Santiago, Chile, February 21, 1957). (Mimeographed.)
The Capacity to Import: 1925-1956

In this section we will trace the effects of changes in the physical volume of exports and in the terms of trade on Chile's capacity to import. The other determinants of the capacity to import -- the net inflow of investment capital and outflow of interest and dividends -- will be analyzed in the following chapter. The Economic Commission for Latin America summarized Chile's experience for the period 1925-1953 as indicated in Table 10.

A comparison between the two periods yields some very striking conclusions. First, Chile's capacity to import relative to available goods and services was reduced by nearly two-thirds. Secondly, although there was some expansion in the physical volume of exports, the terms of trade were so unfavorable to Chile that the value of exports (measured in constant peso units) declined 40 per cent between the late twenties and the early fifties.

The deterioration in the terms of trade can be traced to the secular weakening of Chile's nitrate markets. For example, between 1925 and 1952, the terms of trade of Chile's nitrate fell 67 per cent. The impact of this fall in Chile's nitrate prices on the country's total terms of trade has been considerably lightened as
<table>
<thead>
<tr>
<th>Periods</th>
<th>Exports</th>
<th>Terms of Trade Effect in Relation to 1950&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Capacity to Import&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Value</th>
<th>Percentage of Available goods and services&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1925-1929</td>
<td>27,700</td>
<td>27,100</td>
<td>54,800</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>1950-1953</td>
<td>29,200</td>
<td>3,600</td>
<td>32,800</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>Profit and loss arising from variations in the terms of trade in relation to 1950. Defined as the product of the export value at 1950 prices by variations in the terms of trade index in relation to that year.

<sup>b</sup>For lack of complete data, the net inflow of capital has been excluded.

<sup>c</sup>Available goods and services is defined as the gross product plus imports less exports.

a consequence of the increasing importance of copper (in tons and in value) in Chile's export trade. In the period 1925-1929 nitrates contributed 48.9 per cent of Chile's export value, while copper constituted 29.9 per cent and in the postwar years copper's role has increased to 50-60 per cent while nitrates comprised less than 20 per cent of the country's export receipts.\(^7\)

It is informative to consider the changes in the value and physical volume of Chile's exports, terms of trade and capacity to import between 1923 and 1956. Although such a comparison indicates a more than doubling in the value of exports, a secular decline in Chile's terms of trade and stagnation in export volume has resulted in contraction in the capacity to import.\(^3\) The data also reveal the consequences of the Great Depression to Chile. Between 1929 and 1932 Chile's capacity to import fell from 282 (1947 = 100) to 50, a decline of over 80 per cent reflecting (1) a deterioration in the terms of trade in excess of 40 per cent, and (2) a contraction in export volume by more than two-thirds.

\(^7\)Comision Economica para America Latina, Antecedentes Sobre el Desarrollo de la Economia Chilena, 1925-1952 (Santiago, Chile: Editorial del Pacifico, S. A., 1954), Table 5, p. 29.

\(^8\)Banco Central de Chile, Balance de Pagos, 1955 (Santiago, 1956), and unpublished data.
During World War II the most important factor influencing Chile's terms of trade was an agreement between that country and the United States to stabilize the price of copper at 11.7 cents per pound. In this period, the volume of exports reached that of the twenties. In the postwar period, 1946 to 1954, a gradual contraction in the volume of exports was accompanied by a definite improvement in the terms of trade. Since 1955, general improvement in the investment climate for the foreign copper companies has resulted in a trend toward expansion of export volume. Chile's terms of trade in 1956, the highest figure since the twenties, was the result of an all-time high in the price of copper in the New York and London markets. Beginning with the early part of 1957, however, the terms of trade have taken a severe setback in the face of a world-wide fall in copper prices.

The Structure of Exports

The most notable feature of Chile's export structure over a span of three quarters of a century has been the predominant position of one or two minerals and the small volume of agricultural and pastoral exports. In the period 1900-1913, nitrate accounted for 75 per cent
of all Chilean exports, while copper constituted only 5 per cent; by 1955, however, exports of copper represented 66 per cent of the value of all exports whereas nitrate had declined to 12 per cent.

Table 11 illustrates the changing significance of nitrates and copper in Chile's export value. Clearly, in the late twenties, nitrate still held the dominant position in Chile's export trade constituting nearly one half of export value. In the postwar years, copper has assumed the principal role accounting for more than one half of Chile's export receipts. Other exports have surpassed nitrates in importance accounting for about 30 per cent of Chile's exports while nitrate has fallen to less than one-fifth in importance in the composition of the country's receipts from exports.

A major drawback of the Chilean economy, as emphasized in an earlier chapter, has been its excessive dependence on the world market position for a single product.

Chile's virtual nitrate monopoly became threatened during World War I when a German scientist discovered a process for producing nitrate artificially through nitrogen fixation. During the first decade of the century,

Table 11

CHILE: EXPORTS OF COPPER AND NITRATE AND PROPORTION OF THESE IN TOTAL EXPORTS

(Percentages in current value of exports)

<table>
<thead>
<tr>
<th>Year</th>
<th>Copper</th>
<th>Nitrate</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1925-1929a</td>
<td>29.9</td>
<td>43.9</td>
<td>21.2</td>
<td>100</td>
</tr>
<tr>
<td>1945-1949a</td>
<td>52.6</td>
<td>16.8</td>
<td>30.6</td>
<td>100</td>
</tr>
<tr>
<td>1950-1955b</td>
<td>50.7</td>
<td>17.8</td>
<td>31.5</td>
<td>100</td>
</tr>
</tbody>
</table>

Source:  

bBanco Central de Chile, Balance de Pagos, 1955 (Santiago, 1956).

Chile supplied about two-thirds of the world supply of nitrates. By the late 1920's Chile's share was one-fourth of the world's output; today Chile supplies 4-5 per cent.10

Another outstanding feature of the country's export structure is the heavy contribution of the large foreign mining companies to Chile's export receipts. These companies, generally referred to as La Gran Mineria, have

10United States Department of Commerce, Bureau of Foreign Commerce, Basic Data on the Economy of Chile (World Trade Information Service), part 1, No. 55-87.
been responsible for between 85 and 66 per cent of Chile's gross export value over the period 1928-1956.\textsuperscript{11} In the depth of the Great Depression (1932-1933) the large mining companies' share fell to two-thirds; the small and medium-sized mining companies, agricultural and industrial exports all expanded their relative share. A comparison of the postwar years with the period 1928-1930 in export composition reveals the following trends: (1) a slight contraction in the relative importance of the large mining companies, (2) a 100-200 per cent increase in the small and medium-sized mining companies' relative contribution, (3) a slight increase in the relative importance of agricultural exports, and (4) roughly a 200 per cent increase in the percentage share of industrial products of total export value.

Another interesting comparison can be made by relating the changes in dollar value of the major components in Chile's exports to changes in the physical volume of these components. A comparison of two prosperous periods 1928-1929 and 1955-1956 establishes the following trends: (1) while the dollar value of total exports doubled, the

\textsuperscript{11} Banco Central de Chile, op. cit., p. 61 and unpublished data.
volume of exports declined somewhat; (2) the decline in the volume of exports is due to a shrinkage of exports of agricultural products and of the large mining company exports; (3) important increases in volume and especially value is shown for industrial products and exports of the medium-small mining companies.

The Great Depression (1932-1933) affected Chile's exports in differential ways. Exports of the large mining companies suffered the most severe setback in value and quantum; the medium-small mining companies expanded their volume of exports but suffered a contraction in value. The export value of industrial commodities fell 50 per cent and the volume of exports suffered an equal decline; the value of agricultural exports decreased to one-third but volume fell less than 30 per cent.

The Contribution of Large Foreign Mining Companies

Exports of the large foreign mining companies producing copper, nitrates and iodine and iron-ore have, as previously indicated, provided Chile with about three-fourths of her gross export income. In this section, the net contribution of these enterprises to Chile's balance of payments will be analyzed. Table 5 summarizes the relevant data for the year 1955. The table is divided into two segments: (a) the returned values, and (b) the
Table 12
CONTRIBUTION OF THE LARGE FOREIGN-OWNED MINING COMPANIES TO
CHILE'S BALANCE OF PAYMENTS, 1955
(In thousands of U. S. dollars)

<table>
<thead>
<tr>
<th></th>
<th>Copper</th>
<th>Iron Ore</th>
<th>Nitrate</th>
<th>Total</th>
<th>Per cent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a. Returned Values</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal cost of production</td>
<td>42,433.5</td>
<td>50.0</td>
<td>23,775.0</td>
<td>71,263.5</td>
<td></td>
</tr>
<tr>
<td>Imports own exchange</td>
<td>21,457.2</td>
<td>311.4</td>
<td>13,290.0</td>
<td>35,058.6</td>
<td></td>
</tr>
<tr>
<td>Taxes and duties</td>
<td>115,106.9</td>
<td>1,409.9</td>
<td>--</td>
<td>116,516.8</td>
<td></td>
</tr>
<tr>
<td>Overprice taxes</td>
<td>40,967.1</td>
<td>--</td>
<td>5,100.0</td>
<td>46,067.1</td>
<td></td>
</tr>
<tr>
<td>Various</td>
<td>6,738.2</td>
<td>74.3</td>
<td>--</td>
<td>6,312.5</td>
<td></td>
</tr>
<tr>
<td><strong>Total a</strong></td>
<td>226,707.9</td>
<td>1,845.6</td>
<td>47,165.0</td>
<td>275,713.5</td>
<td>74.2</td>
</tr>
<tr>
<td><strong>b. Non-Returned Values</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profits</td>
<td>54,421.4</td>
<td>1,336.8</td>
<td>7,944.3</td>
<td>63,752.3</td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td>10,426.3</td>
<td>--</td>
<td>2,200.0</td>
<td>12,626.3</td>
<td></td>
</tr>
<tr>
<td>Provision for payments of taxes</td>
<td>5,630.5</td>
<td>754.4</td>
<td>--</td>
<td>4,926.1</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>12,985.2</td>
<td>--</td>
<td>1,730.3</td>
<td>14,715.4</td>
<td></td>
</tr>
<tr>
<td><strong>Total b</strong></td>
<td>83,513.2</td>
<td>632.4</td>
<td>11,925.0</td>
<td>96,070.6</td>
<td>25.8</td>
</tr>
<tr>
<td><strong>Total a + b</strong></td>
<td>310,221.1</td>
<td>2,473.0</td>
<td>59,090.0</td>
<td>371,739.1</td>
<td>100.0</td>
</tr>
</tbody>
</table>

non-returned values. Returned values include all types of taxes paid locally; the companies' local expenditures for goods and services (including factor income); and imports financed with their own exchange. Non-returned values include the outflow of profits and interest, depreciation allowances, provision for Chilean income tax, administrative expenses and other items.

In 1955, of total returned and non-returned values (1372 million) 276 million or 74 per cent were returned to Chile. Of this returned sum, the copper companies provided 226 million, the nitrate companies 47 million and the iron-ore companies roughly 2 million.

The large foreign-owned copper companies in the period 1944-1956 returned an average 75 per cent of the aggregate returned and non-returned (a + b) values.12 These returned values were in the form of direct taxes, "overprice" taxes, exchange differentials, wages and salaries, purchases in Chile and imports with their own exchange. A more detailed analysis of these items will be presented in the chapter on foreign investments. It is important to note here that the category "legal cost of production" contains a hidden tax of considerable importance.

12 Banco Central De Chile, op. cit., p. 47 and unpublished data.
These foreign-owned copper companies alone contributed in the quinquennium, 1950-1954, between 7.3 and 9.9 per cent of Chile's gross income.\(^{13}\)

In the thirteen year span, 1944-1956, the nitrate companies returned an average 32 per cent of total returned and non-returned values leaving 13 per cent for outflow of profits, amortization and other items.\(^{14}\)

**Direction of Chile's Foreign Trade**

The direction of Chile's foreign trade has undergone considerable change because of the influence of World War II. The war seriously dislocated the pre-war pattern of trade; Chile's trade became primarily hemispheric, and this trend has continued in the postwar years. The United States (see Table 13) now plays the predominant role in Chile's trade and Latin America has partially displaced Europe (including the United Kingdom) as a source of some Chilean imports.

An examination of the prewar and war years yields some striking results. During 1935-1939 the United Kingdom and Continental Europe together purchased 46 per cent of Chile's exports; the war years, 1940-1945, reduced

\(^{13}\)United Nations, Economic Bulletin for Latin America (January, 1956), Table II, p. 47.

\(^{14}\)Ibid., p. 55 and unpublished data.
Table 13

CHILE: FOREIGN TRADE BY COUNTRIES, SELECTED PERIODS

(percentage in current value)

<table>
<thead>
<tr>
<th>Countries</th>
<th>Exports</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Imports</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>21.0</td>
<td>65.3</td>
<td>54.9</td>
<td>42.0</td>
<td>28.4</td>
<td>44.9</td>
<td>49.6</td>
<td>52.2</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>17.3</td>
<td>3.0</td>
<td>6.8</td>
<td>14.7</td>
<td>11.4</td>
<td>7.5</td>
<td>7.3</td>
<td>5.6</td>
</tr>
<tr>
<td>Continental Europe</td>
<td>27.9</td>
<td>1.7</td>
<td>19.5</td>
<td>33.0</td>
<td>36.9</td>
<td>4.6</td>
<td>16.3</td>
<td>23.6</td>
</tr>
<tr>
<td>Latin America</td>
<td>2.6</td>
<td>8.8</td>
<td>13.2</td>
<td>14.7</td>
<td>12.1</td>
<td>35.7</td>
<td>20.0</td>
<td>15.4</td>
</tr>
<tr>
<td>Other</td>
<td>30.7</td>
<td>21.2</td>
<td>5.6</td>
<td>1.9</td>
<td>11.2</td>
<td>7.3</td>
<td>6.3</td>
<td>3.2</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

a January - November.

the share to 5 per cent. Almost one half (48 per cent) of Chile's imports in 1935-1939 were provided by Continental Europe and the United Kingdom; during 1940-1945 the proportion fell to 12 per cent. The United States, which took 21 per cent of Chile's exports in the prewar period absorbed 65 per cent of Chile's imports during the war; Chile's imports from the United States increased from 28 per cent to 45 per cent in the comparable periods. The share of Chile's imports provided by Latin America trebled between the immediate prewar and war periods displacing Europe as major source of Chile's purchases. In the postwar years, Latin America, as a source of Chile's import, although not as important as during the war, has contributed about one-fourth of Chile's global imports.

Comparing the postwar with the prewar period, other countries (non-European, non-hemispheric) have diminished greatly as a market for Chile's exports and source of imports.

In addition to the United States and the United Kingdom, Chile's important trading partners are Germany, Argentina, the Netherlands, Peru, Italy, France and Brazil.
The Structure and Volume of Imports

In the decade before the Great Depression, Chile's economy conformed to the prevailing pattern of international specialization and relative free trade. More than one-half the country's gross product was placed on world markets in exchange for a large flow of consumer goods externally manufactured and other imports. Table 14, for example, illustrates that 50 per cent of Chile's imports in 1928-1929 were consumer goods; in the postwar years the share has been reduced to less than 30 per cent. Raw materials and fuel imports accounted for one-third and capital goods for only 13 per cent of global imports in 1928-1929; in the postwar years this pattern has radically altered. Raw materials alone have made up more than one-third of all imports while the proportion of fuel imports has doubled; capital goods have constituted about one-fourth of the total value of imports.

The figures for 1955-1956 denote a continuation of this tendency: consumers goods imports fell to 26 per cent while capital goods increased their participation in the total to 31 per cent.

The relative growth of the raw materials, fuels and capital goods components has been achieved clearly at the expense of consumers goods imports. The Depression of
Table 14

CHILE: COMPOSITION OF IMPORTS
(Per Cent)

<table>
<thead>
<tr>
<th>Period (Average Annual)</th>
<th>Consumer Goods</th>
<th>Raw Materials</th>
<th>Fuels</th>
<th>Capital Goods</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1928-1929</td>
<td>50.0</td>
<td>27.0</td>
<td>5.0</td>
<td>13.0</td>
<td>100.0</td>
</tr>
<tr>
<td>1930-1933</td>
<td>41.0</td>
<td>30.2</td>
<td>8.5</td>
<td>16.5</td>
<td></td>
</tr>
<tr>
<td>1934-1939</td>
<td>37.5</td>
<td>35.7</td>
<td>8.3</td>
<td>18.5</td>
<td>100.0</td>
</tr>
<tr>
<td>1940-1945</td>
<td>35.3</td>
<td>39.0</td>
<td>11.2</td>
<td>14.5</td>
<td>100.0</td>
</tr>
<tr>
<td>1946-1950</td>
<td>30.2</td>
<td>37.5</td>
<td>9.3</td>
<td>23.0</td>
<td>100.0</td>
</tr>
<tr>
<td>1951-1954</td>
<td>30.0</td>
<td>33.0</td>
<td>11.0</td>
<td>26.0</td>
<td>100.0</td>
</tr>
<tr>
<td>1955-1956</td>
<td>26.0</td>
<td>33.0</td>
<td>10.0</td>
<td>31.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Adapted from Table 22, p. 66, Banco Central, Balance de Pagos, 1955, and unpublished data for 1956 from the Bank.

1929-1932, the isolation of Chile's economy from external industrial competition during World War II, and a concerted public policy have together greatly altered the distribution of resources in the direction of import-replacing industries.

Of equal interest is the change in the physical volume of imports of the major components between the periods 1928-1929 and 1955-1956 (see Table 15). In the depth of the Great Depression, 1932-1933, the physical volume of imports contracted 75 per cent; the volume of
Table 15

CHILE: PHYSICAL VOLUME OF IMPORTS, SELECTED PERIODS
(Base: 1947 = 100, average annual)

<table>
<thead>
<tr>
<th>Period</th>
<th>Consumer Goods</th>
<th>Raw Materials</th>
<th>Fuels</th>
<th>Capital Goods</th>
<th>Total Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1928-29</td>
<td>230.2</td>
<td>204.0</td>
<td>32.4</td>
<td>152.0</td>
<td>192.3</td>
</tr>
<tr>
<td>1932-33</td>
<td>42.7</td>
<td>59.0</td>
<td>27.2</td>
<td>3.4</td>
<td>40.1</td>
</tr>
<tr>
<td>1951-54</td>
<td>91.2</td>
<td>113.6</td>
<td>123.5</td>
<td>129.3</td>
<td>111.3</td>
</tr>
<tr>
<td>1955-56</td>
<td>36.2</td>
<td>119.6</td>
<td>145.7</td>
<td>183.6</td>
<td>125.4</td>
</tr>
</tbody>
</table>

Source: Adapted from Table 42, p. 110 Banco Central, Balance de Pagos, 1955, (Santiago, 1956) and unpublished data for 1956 from the Bank.
consumer goods imports fell more than 80 per cent; and
capital goods imports practically disappeared. During the
early fifties, 1951-1954 the volume of consumer goods
imports represented only 40 per cent of the 1923-1929
level; the volume of raw material imports had fallen 45
per cent; the volume of fuels imports increased 50 per
cent; and capital goods, on the basis of import volume,
were still 14 per cent below the 1923-1929 level.

In the period 1955-1956, the volume of all imports
remained one-third below the 1923-1929 level but the
physical volume of capital goods imports exceeded that
level (for the first time) by roughly 20 per cent.

**Summary**

The contraction in Chile's capacity to import in the
postwar years relative to the twenties had an inhibiting
effect on capital formation. The deterioration in the
capacity to import can be traced to a severe fall in the
terms of trade of Chile's nitrate exports and to the
failure of the physical volume of exports to expand.

About 90 per cent of the total investment in machinery
and equipment is represented by imported capital goods,
and since capital equipment imports per worker fell by
nearly 50 per cent between the periods 1925-1930 and
1949-1952, it was suggested that this represents one
reasonable explanation for the slow pace in the country's economic growth.

The most notable feature of Chile's export structure over a span of three quarters of a century has been the predominant position of one or two minerals.

In the decade before the Great Depression, Chile's economy conformed to the classical pattern of international specialization and trade; probably a third of the country's gross product was placed on world markets in exchange for a large flow of goods, mainly consumer goods. The ratio of exports to gross product declined in the postwar years to roughly 20 per cent, and raw materials, fuels and capital goods became increasingly important in the percentage composition of imports.
In chapter III attention was called to Chile's low rate of gross capital formation which in the period 1940-1954 corresponded to only about 10 per cent of gross national product. The volume of investment relative to gross national product would have to expand by at least 50 per cent to provide an annual increase in per capita incomes of 2 per cent. Indeed, a substantial and sustained increase in output per person must depend largely on an increase in real capital resources per head of population.

The supply of capital funds available for investment during a period is derived from four sources: (1) the new savings of the period (2) the amortizations of the period (the funds set free, previously embodied in capital goods), (3) new bank credit (additional purchasing power created by commercial banks) and (4) new foreign borrowing or decreased lending to foreigners.

The magnitude of foreign capital's contribution; direct and portfolio, to Chile's economy can be appreciated
from the fact that its share of gross capital formation amounted to 28 per cent in the period 1946-1953.1 Although foreign investment declined from an average 36 per cent of total capital existing in the period 1925-1929 to 21 per cent in the period 1946-1951, its participation remains one of the highest in Latin America.2 Thus, slightly over one-fifth of Chile's capital stock is attributable to foreign investments.

Direct business investment in Chile has been instrumental in incorporating modern technology and up-to-date managerial methods, the essentially qualitative elements of a dynamic economy. Roughly three-quarters of the country's gross export proceeds can be attributable to the operation of foreign-owned enterprises, principally the large mining companies involved in the extraction of copper, nitrates and iron-ore. The large copper companies in the period 1944-1956 returned 75 per cent of export value to Chile in the form of taxes, exchange differentials, wages and salaries, and purchases in Chile; in the same period the large nitrate companies returned 82 per cent of their export proceeds to Chile.


The foreign-owned copper companies alone contributed in the period 1950-1954 between 7.3 and 9.9 per cent of Chile's gross income and an average of 7.5 per cent of gross product. 3

Foreign capital in Chile also has a large stake in those activities producing goods and services that have become import saving (foreign exchange economizing). The participation of foreign capital in Chile's steel industry and in the manufacture of a host of consumer items illustrate this point.

A very considerable share of Chile's governmental revenue has been derived from the external sector. Approximately 86 per cent of governmental income was derived between 1920 and 1930 from taxation applied to this sector. More recently, during the period 1945-1955, the external sector furnished the Treasury with 50 to 60 per cent of total tax receipts. Taxes levied on the foreign-owned copper and nitrate companies over the eleven year span accounted for about 30 to 40 per cent of tax revenue. 4


According to a recent publication of the United States Department of Commerce, American companies operating in Chile produced sales of $483 million in 1955 of which $140 million were local sales and the remaining $343 million represented Chilean export receipts.\(^5\) Salaries, wages, and other payments made by these companies operating in Chile totalled $350 million in the same year and were distributed as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and wages</td>
<td>$89,000,000</td>
</tr>
<tr>
<td>Taxes</td>
<td>187,000,000</td>
</tr>
<tr>
<td>Materials, supplies and equipment</td>
<td>59,000,000</td>
</tr>
<tr>
<td>Other</td>
<td>16,000,000</td>
</tr>
</tbody>
</table>

The companies employed 44,000 individuals of which fewer than 1,000 were United States personnel. Furthermore, by far the largest proportion of the 4,000 supervisory, professional and technical employees was composed of Chileans. Braden Copper Co. (the affiliate of Kennecot Copper Co.), for example, had on its staff 53 Americans out of a total of about 7,000 employed persons in 1956.\(^6\)

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\(^6\)Information supplied to the writer by Braden Copper Company.
The Nature of International Capital Movements

Foreign capital movements into Chile ultimately must take the form of an inflow of goods or services, be they capital goods or consumer goods. This transfer of goods to Chile allows for an expansion of the margin for capital formation either directly by (1) providing Chile with more concrete capital goods or (2) by providing Chile with more consumer goods, thereby allowing resources in that country to be shifted from the production of consumer goods and services to formation of real capital (i.e. bridges, buildings, irrigation canals, roads). An import of machinery into Chile by one of the foreign-owned mining companies illustrates the first case. Two agreements have been executed with Chile for sale of United States Agricultural surpluses (consumer or near consumer goods) totalling nearly $40 million. Of the proceeds from these sales, over $33 million (in pesos) are being loaned to the Chilean Government to help finance a number of economic development projects. This represents the second type operation.

Thus, a capital inflow taking the ultimate form of goods (or services) is transformed into real capital in the receiving country; Chile has been able to step up its rate of capital formation. This has been made possible by the peculiar service rendered by the investors in
their willingness to forego immediate consumption. In the pure and abstract sense, then, the provision for real capital is achieved through waiting or postponement on the part of investors. That is, there takes place a transfer of "waiting" or as Iversen terms it, "capital disposal" for the mobility of capital "...refers not to concrete capital goods, but to the productive factor for the services of which interest is the price, and that is precisely waiting or capital disposal."  

Waiting acquires different qualitative dimensions depending on the length of commitment (short versus long-term lending) and the degree of risk involved. International capital markets are centers where free capital disposal are available; the productive factor which moves across national boundaries is free capital disposal. "For what takes place when capital moves from country to country is exactly that part of the supply of waiting or capital disposal in one country is put at the disposal of people in another country."  

Once capital disposal becomes embodied in concrete or fixed form it is set free again

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only gradually over a considerable period of time through amortization.

As indicated, capital can only be definitely transferred from country to country in the form of goods or services. Usually, however, the first step in an international movement of capital consists of a transfer of disposal over monetary purchasing power from inhabitants in one county to inhabitants in another. For example, as a typical operation in the twenties, a group of United States investment bankers float a loan for the Government of Chile which needs the proceeds to build up its port facilities. American investors subscribe to the loan by transferring their bank deposits to the issuing houses. The amount of the loan (derived from the bond issue) is placed at the disposal of the Chilean Government in the form of a deposit in one of the New York banks. Momentarily, Chile's balance of international payments shows an inflow of long-term capital exactly offset by an outflow of short-term capital (the Chilean deposit held in the New York bank represents the equalizing item). When the Chilean Government begins to disburse its disposable funds by drawing checks against the New York account in payment for real goods, the connection between the monetary and real transfer is made.
It must be strongly emphasized that the country which exports capital to Chile need not necessarily be a direct exporter of commodities corresponding to the capital flow. Such a direct relationship is quite immaterial. Through the mechanism of multilateral exchange the capital export from the given country may likely result in exports from third countries to the capital receiving country. The Chilean Government in the above case, may spend part of the proceeds from the New York loan on structural steel from Sweden and another part on bulldozers produced in England. However, in either instance, the Swedish and British sellers of these commodities, or someone else to whom they pass the dollar drafts with which they are paid, must ultimately use the dollars to purchase something in the United States.

**Capital Movements and the Balance of Payments**

The net inflow of foreign long-term capital into Chile reached something less than $200 million in the ten year period 1947-1956. The figures below give a summary of these flows: (in millions of United States dollars)

---

<table>
<thead>
<tr>
<th></th>
<th>Inflow</th>
<th>Amortization</th>
<th>Net</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private direct</td>
<td>267.6</td>
<td>181.6</td>
<td>36.0</td>
</tr>
<tr>
<td>Official loans</td>
<td>264.9</td>
<td>129.0</td>
<td>135.9</td>
</tr>
<tr>
<td>External Public Bonded Debt</td>
<td>_____</td>
<td>31.5</td>
<td>-31.5</td>
</tr>
<tr>
<td>Total</td>
<td>532.5</td>
<td>342.1</td>
<td>190.4</td>
</tr>
</tbody>
</table>

It is interesting to note that the gross inflows of private capital and official loans were almost equal in the period. The inflow of private direct investment is associated principally with the large mining companies, the Compañía Chilena de Electricidad (a subsidiary of American and Foreign Power Co.), and new manufacturing firms. These figures fail to give the complete picture on foreign investments as they do not include profits reinvested in the Chilean operations.

Chile's Government Development Corporation (CORFO), the Pacific Steel Company, the State Railways, the National Airlines and the State Collective Transportation System were the chief beneficiaries of the official loans. The Export-Import Bank and to a lesser degree, the International Bank, were sources of these loans. The Public Bonded Debt of the Government was incurred largely in the twenties and consists principally of large bond issues sold largely in the New York financial market by
a number of Chilean public agencies. The proceeds were applied to the financing of public works including port facilities, water works, irrigation systems, etc.

Table 16 indicates that the combined balance of payments effect of foreign capital movements and their service is strongly negative. For every year, with the exception of 1949, there resulted a negative balance. In the period 1947-1956 when net long-term investment flows amounted to $190.4 million, the service of capital reached $614.5 million or more than three times the capital inflow.

Methodology, Valuation and Classification

In attempting to evaluate the extent of foreign investments in Chile, all values constituting a claim of the exterior on the country have been included. These items, in other words, constitute a potential charge (debit) on Chile's balance of payments in the form of obligations, amortization and repatriation of capital. The writer has made an exception to the criterion given above: the bonded debt outstanding has been evaluated at par rather than at the much lower market value. Only by utilizing the par or nominal value of the outstanding bonds is it possible to measure their real participation in Chile's capital stock.
<table>
<thead>
<tr>
<th>Year</th>
<th>Movement of Capital</th>
<th>Service of Capital</th>
<th>Total</th>
<th>Movement of Capital</th>
<th>Service of Capital</th>
<th>Total</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947</td>
<td>29.2</td>
<td></td>
<td>29.2</td>
<td>24.0</td>
<td>57.5</td>
<td>81.5</td>
<td>-52.3</td>
</tr>
<tr>
<td>1948</td>
<td>40.5</td>
<td>0.1</td>
<td>40.6</td>
<td>47.6</td>
<td>63.7</td>
<td>111.2</td>
<td>-70.6</td>
</tr>
<tr>
<td>1949</td>
<td>94.5</td>
<td></td>
<td>94.5</td>
<td>34.4</td>
<td>43.2</td>
<td>60.6</td>
<td>12.0</td>
</tr>
<tr>
<td>1950</td>
<td>43.1</td>
<td></td>
<td>43.1</td>
<td>43.5</td>
<td>52.2</td>
<td>95.7</td>
<td>-57.6</td>
</tr>
<tr>
<td>1951</td>
<td>57.4</td>
<td></td>
<td>57.4</td>
<td>30.1</td>
<td>65.5</td>
<td>95.6</td>
<td>33.2</td>
</tr>
<tr>
<td>1952</td>
<td>95.4</td>
<td></td>
<td>95.4</td>
<td>56.7</td>
<td>65.6</td>
<td>122.3</td>
<td>-26.9</td>
</tr>
<tr>
<td>1953</td>
<td>98.0</td>
<td></td>
<td>98.0</td>
<td>44.7</td>
<td>40.4</td>
<td>84.8</td>
<td>=12.9</td>
</tr>
<tr>
<td>1954</td>
<td>84.6</td>
<td></td>
<td>84.6</td>
<td>33.6</td>
<td>44.3</td>
<td>127.9</td>
<td>-43.3</td>
</tr>
<tr>
<td>1955</td>
<td>97.4</td>
<td>2.2</td>
<td>99.6</td>
<td>36.6</td>
<td>30.3</td>
<td>167.4</td>
<td>-67.3</td>
</tr>
<tr>
<td>1956</td>
<td>88.1</td>
<td></td>
<td>88.1</td>
<td>93.3</td>
<td>96.3</td>
<td>189.6</td>
<td>-101.5</td>
</tr>
</tbody>
</table>

Direct business investments involve not only financing by foreigners but also control by them. They are defined for our purpose as the sum of capital owned by foreign residents invested in companies which operate in Chile and which are controlled by enterprises, corporations, companies and individuals resident outside the country and the obligations of these enterprises with the latter. The debts of these companies with other enterprises located outside of Chile have also been included under the classification of direct. The consolidated and non-consolidated debts of these enterprises are included in the classification of direct since they are subject to the management and control of foreigners. Consolidated debts comprise bonds or debentures issued by the enterprises outside the country; non-consolidated debts include all debts of an enterprise held abroad which do not possess a regular service (i.e., debts for merchandise on consignment). Control and management of an enterprise, the criterion for direct investment, is acknowledged to be in the hands of foreigners whenever 50 per cent or more of the shares is held by them.

10 Banco Central de Chile, Inversiones Extranjeras en Chile (Santiago, 1955), p. 20.
11 Banco Central, Ibid., p. 35.
In the valuation of equity in direct investments, the writer has followed the methodology of Chile's Central Bank. Because of the persistent increase in price levels since the pre-World War II period, the liquidation value of assets (after depreciation) is above the book value (after depreciation charges). Consequently, to get the best approximation of current investment value, the Central Bank's recent study added the annual reserves for depreciation. The following items have been included in the modified book valuation as developed by Chile's Central Bank:

1. Paid-in capital
2. Legal reserves: reserves for depreciation, for future dividends and others (with exception of those destined for payments of taxes)
3. Accounts with central office
4. Undistributed profits

Portfolio investments in Chile include all investments made by foreigners in that country over which they have no legal control. A very small fraction of portfolio investments is held by foreigners whose stock ownership in Chilean private enterprises does not constitute a sufficient equity for control. The overwhelming share of

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Our United States Department of Commerce, when comparing book and market values of United States direct investments in Latin America, has actually stated that "the market value of direct investments could be more than double their book value." See Survey of Current Business, August, 1956, p. 15.
portfolio capital is represented by the external debt of the public and corresponds to the use of credit by the Government, or by public institutions which have the guarantee of the Government and is expressed in the currencies in which the various obligations are contracted. The long-term External Public Debt is divided into the "external direct debt" and the "external debt guaranteed by the Government". The former corresponds to the outstanding nominal value of bonds issued by public entities abroad; the debts guaranteed by the Government include the credits contracted by public entities in which the State has an interest or participation, social or economic. These guaranteed debts are mainly with the Export-Import Bank and the International Bank. Finally, the External Public Debt includes a small sum of short-term official obligations which may be classified as portfolio investments.

The Structure and Origin of Foreign Investments

According to estimates of the writer, total foreign investments in Chile reached a value of $1,200 million at the end of 1956 of which roughly $850 million was in direct business investments and the remainder in portfolio investments. The portfolio investments were distributed
among official loans outstanding ($172 million), external public bonded debt ($166 million), and private portfolio investments ($14.7 million). From the data given for 1953, it is evident that the preponderant share of equity capital was invested in mining ($523 million) and to a lesser degree, in services ($73 million). Other equity investments in 1953 were divided as follows: industry, $33.6 million; commerce, $36.1 million; finance, $5.3 million and agriculture, $1.5 million. Of the total direct investments of nearly $730 million in 1953, roughly $100 million consisted of loan capital.

Foreign investments in Chile (see Table 17) reached their highest plateau in 1934 with a figure of nearly $1,300 million; thereafter, they declined steadily to the lowest level in 1943 ($760 million) and have since increased to a post-World War II height comparable to the 1934 record. The external bonded debt reached its high point in 1934 and from that time has undergone almost continuous liquidation. In 1956 direct investments for the first time exceeded the pre-World War II peak of $840 million in 1936. Within the portfolio classification, the growing official loans outstanding since 1939 have largely offset the steadily shrinking bonded debt.
### Table 17
FOREIGN INVESTMENTS IN CHILE, DIRECT AND PORTFOLIO, 1925-1956
(millions of United States dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>Portfolio Investments</th>
<th>Direct Investments</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bonds$^a$</td>
<td>Official Loans$^b$</td>
<td>$\text{Official Loans} + $\text{Bonds}</td>
</tr>
<tr>
<td>1925</td>
<td>188</td>
<td>535</td>
<td>723</td>
</tr>
<tr>
<td>1926</td>
<td>282</td>
<td>531</td>
<td>363</td>
</tr>
<tr>
<td>1927</td>
<td>316</td>
<td>609</td>
<td>925</td>
</tr>
<tr>
<td>1928</td>
<td>376</td>
<td>641</td>
<td>1,017</td>
</tr>
<tr>
<td>1929</td>
<td>407</td>
<td>649</td>
<td>1,056</td>
</tr>
<tr>
<td>1930</td>
<td>457</td>
<td>646</td>
<td>1,103</td>
</tr>
<tr>
<td>1931</td>
<td>446</td>
<td>786</td>
<td>1,232</td>
</tr>
<tr>
<td>1932</td>
<td>404</td>
<td>702</td>
<td>1,106</td>
</tr>
<tr>
<td>1933</td>
<td>423</td>
<td>761</td>
<td>1,184</td>
</tr>
<tr>
<td>1934</td>
<td>453</td>
<td>824</td>
<td>1,277</td>
</tr>
<tr>
<td>1935</td>
<td>433</td>
<td>828</td>
<td>1,261</td>
</tr>
<tr>
<td>1936</td>
<td>420</td>
<td>841</td>
<td>1,261</td>
</tr>
<tr>
<td>1937</td>
<td>387</td>
<td>738</td>
<td>1,175</td>
</tr>
<tr>
<td>1938</td>
<td>343</td>
<td>765</td>
<td>1,108</td>
</tr>
<tr>
<td>1939</td>
<td>331</td>
<td>729</td>
<td>1,060</td>
</tr>
<tr>
<td>1940</td>
<td>307</td>
<td>12</td>
<td>658</td>
</tr>
<tr>
<td>1941</td>
<td>304</td>
<td>12</td>
<td>503</td>
</tr>
<tr>
<td>1942</td>
<td>301</td>
<td>17</td>
<td>466</td>
</tr>
<tr>
<td>1943</td>
<td>300</td>
<td>17</td>
<td>442</td>
</tr>
<tr>
<td>1944</td>
<td>294</td>
<td>30</td>
<td>470</td>
</tr>
<tr>
<td>1945</td>
<td>287</td>
<td>61</td>
<td>499</td>
</tr>
<tr>
<td>1946</td>
<td>264</td>
<td>67</td>
<td>530</td>
</tr>
<tr>
<td>1947</td>
<td>253</td>
<td>63</td>
<td>562</td>
</tr>
<tr>
<td>1948</td>
<td>243</td>
<td>78</td>
<td>617</td>
</tr>
<tr>
<td>1949</td>
<td>206</td>
<td>116</td>
<td>598</td>
</tr>
<tr>
<td>1950</td>
<td>198</td>
<td>110</td>
<td>627</td>
</tr>
<tr>
<td>1951</td>
<td>190</td>
<td>116</td>
<td>675</td>
</tr>
<tr>
<td>1952</td>
<td>184</td>
<td>103</td>
<td>733</td>
</tr>
<tr>
<td>1953</td>
<td>190</td>
<td>142</td>
<td>778</td>
</tr>
<tr>
<td>1954</td>
<td>186</td>
<td>177</td>
<td>765</td>
</tr>
<tr>
<td>1955</td>
<td>181</td>
<td>170</td>
<td>811</td>
</tr>
<tr>
<td>1956</td>
<td>178</td>
<td>172</td>
<td>850</td>
</tr>
</tbody>
</table>

$^a$The figures correspond to the nominal value of outstanding foreign bonds issued by public agencies and include since 1953 $\$15$ million in privately issued portfolio holdings held abroad.

$^b$These include the credits of the Export-Import Bank and International Bank.
Table 16 reveals that the United States participation in 1953 was 30 per cent of total foreign investments in Chile as compared with Great Britain's 13 per cent. In 1939 Britain's share was nearly 40 per cent and the United States held 56 per cent while ten years later, in 1948, the latter country's participation already exceeded two-thirds and Britain's share had declined to one-fourth of the total. Investments in Chile by residents of countries other than the United States and Great Britain have played a very minor quantitative role as indicated by table 18.

Total United States investment contracted from $600 million in 1939 to $536 million in 1948 and then climbed back to reach over $800 million in 1953; United Kingdom investments underwent persistent liquidation from over $400 million in 1939 to only $128 million in 1953.

The foreign debt of the Chilean Government was initiated with the contraction of a loan in the London market for the sum of one million pounds sterling shortly after the country's independence from Spain. By 1900 a total of 22 loans had been contracted by the Government for a total of 31 million pounds sterling. The proceeds of these loans were utilized for the construction of railroads, port installations, roads and other public works—
Table 18
FOREIGN INVESTMENTS IN CHILE BY COUNTRIES, 1939, 1948 AND 1953

<table>
<thead>
<tr>
<th>Country</th>
<th>(millions of United States dollars)</th>
<th>(percentage of total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>1939: 600.0</td>
<td>536.0</td>
</tr>
<tr>
<td></td>
<td>1953: 319.3</td>
<td>313.1</td>
</tr>
<tr>
<td></td>
<td>1939: 56.0</td>
<td>67.6</td>
</tr>
<tr>
<td></td>
<td>1953: 79.7</td>
<td>79.7</td>
</tr>
<tr>
<td>Great Britain</td>
<td>1948: 410.0</td>
<td>193.4</td>
</tr>
<tr>
<td></td>
<td>1953: 127.7</td>
<td>127.7</td>
</tr>
<tr>
<td></td>
<td>1939: 38.0</td>
<td>33.0</td>
</tr>
<tr>
<td></td>
<td>1953: 25.0</td>
<td>25.0</td>
</tr>
<tr>
<td>Other Countries</td>
<td>1948: 65.0</td>
<td>50.1</td>
</tr>
<tr>
<td></td>
<td>1953: 54.6</td>
<td>54.6</td>
</tr>
<tr>
<td></td>
<td>1939: 6.0</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>1953: 6.3</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>1939: 5.3</td>
<td>5.3</td>
</tr>
<tr>
<td>International Institutions</td>
<td>--</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>1953: 25.1</td>
<td>25.1</td>
</tr>
<tr>
<td></td>
<td>1939: --</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>1953: 1.1</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>1939: 2.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>


Note: In estimating the participation of the various countries, the Central Bank of Chile evaluated the foreign bonds at market rather than at par value.
basic social-overhead facilities paralleling the economic
development of the country. Between the turn of the
century and World War I, another 24 million pounds were
made available to the Government of Chile. The service
of the debt was maintained except for the brief period
1880=1893 when, due to the War of the Pacific, amortiza-
tion was temporarily suspended. The interest rates on
these loans varied from a low of 3 per cent to a peak of
7 per cent; the median rate was about 5.5 per cent.

During World War I, foreign borrowing by the Chilean
Government was suspended. In 1921 borrowing abroad was
resumed with a bond issue floated in the United States,
the first contracted in that country. From that date
until 1931, external financing was realized principally
through the issue of more than $300 million in bonds on
the New York market. Between 1922 and 1929, the Chilean
Government also sold several issues of sterling bonds
totalling 11 million pounds in the London market.

Almost the entire direct external debt was built up
prior to 1931 and most of it in the period 1925-1931.
The proceeds from these heavy loans were used mainly in
the financing of public works including roads, sanitary
installations, waterworks, ports, railroads and irrigation
systems.14

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14Panorama Economico (Santiago, Chile), March 18, p.106.
In the Twentieth Century, then, the bulk of loans was concentrated in the short period 1925-1930: the Chilean public foreign debt increased from $138 million at the end of 1925 to $457 million at the end of 1930 (see Table 18).

The Great Depression had profound repercussions on Chile's balance of payments as noted in a previous chapter. With the collapse of Chile's export market and the drying up of foreign loans, the country's income and tax revenue fell sharply. The government was unable to mobilize the peso equivalent necessary to service the external debt, or to convert into foreign exchange. On July 16, 1931 the Minister of Finance announced "the transitory suspension of service on the external debt in foreign currencies". Some partial payments were effected in 1931 and in 1932; in 1933 and 1934 none were made. Foreign exchange control, it will be remembered, was established in 1931.

Between 1935 (when service on foreign debt was renewed) and February 1949, foreign service earmarkings reached $105 million of which $50 million was paid in interest, signifying a rate of 1.5 per cent on the nominal value of the bonds. Debt amortization was interrupted in 1939 when earmarked funds were temporarily allocated to finance the reconstruction of the Concepcion zone which
was devastated by an earthquake. About $25 million of these funds were invested in the reconstruction until the renewal of debt service in 1946.

Following a period of successful negotiations with committees representing foreign bondholders, the Chilean Government initiated in December, 1943 a new plan of debt settlement.15 Through the plan, the direct and indirect bonded debt of the Government was converted into new obligations for which the Government assumed sole responsibility. Unlike the unilateral 1935 plan, outlays on interest and amortization are not limited by the amount of governmental revenue from the foreign nitrate and copper companies. The new plan provided for the conversion of bonds outstanding, largely six per cent issues, into new securities of equal par value. The owners of the new issues were to forego interest on unpaid coupons; interest on the converted bonds rose from 1½ per cent in 1948 to 3 per cent in 1954 and thereafter as established by the plan. The maturity dates were extended 46 years, but the Government has reserved the right to apply additional sums to amortization and repurchases.

From 1937 to the middle of 1957, Chile's external public bond debt was reduced from a par value of $344 million to $162 million which corresponded to a nominal reduction of $182 million. In the same period, total interest paid on these obligations reached $35 million.

Official Loans Guaranteed by the Government

Official loans outstanding in 1954 for the first time exceeded the nominal bonded debt of the Government. These official credits, derived largely from the Export-Import Bank and to a lesser extent, the International Bank, have acted to fill the role formerly played by the issue of bonds in foreign financial markets. They have contributed notably to the capitalization process in Chile.

Chile received its first credit from the Export-Import Bank in 1940 for a sum of $12 million. The total loans granted Chile by this institution between that year and 1956 reached $190 million.\(^\text{16}\) Chile was the first country in which the International Bank made loans for economic development. Seven International Bank loans have been granted Chile as of July of 1957, totalling $74 million. These loans were made "...to support a long-range

\(^{16}\text{La Nación, July 12, 1957, p. 1.}\)
program for the development of electric power services, to
finance the private manufacture of paper pulp and news-
print, to increase coal production and to aid in increas-
ing food production."17

Finally, three loans were made to the Government
Development Corporation (CORFO) for the sum of $1.1
million by the Credit Institute for Italian Workers
Abroad (ICLE). The objective of this Institute has been
to finance and foster Italian emigration to Chile and
locate these immigrants on tracts of land.13

Table 19 presents a distribution of the Guaranteed
Loans from 1951 to 1955. At year end 1955 CORFO had an
outstanding debt of $62 million, the State Railways $27
million, the Pacific Steel Company had an outstanding
principal of $52 million while the category other showed
a debt of about $10 million.

The State Railways have received important sums from
the Export-Import Bank, the International Bank and from
suppliers in order to renovate and expand railroad
equipment. As of December 31, 1955 the State Railways

17 International Bank for Reconstruction and Develop-
ment, World Bank Activities in Latin America (Washington

18 Banco Central de Chile, Boletin Mensual (Santiago,
Chile), No. 342, p. 439.
Table 19

CHILE: DISTRIBUTION OF OFFICIAL EXTERNAL LONG-TERM OBLIGATIONS
(millions of United States dollars)

<table>
<thead>
<tr>
<th>Long-term</th>
<th>1951</th>
<th>1955</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct obligations (nominal value)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dollar bonds</td>
<td>112.3</td>
<td>101.0</td>
</tr>
<tr>
<td>Sterling bonds (dollar equivalent)</td>
<td>57.1</td>
<td>46.2</td>
</tr>
<tr>
<td>Swiss fr. bonds (dollar equivalent)</td>
<td>20.9</td>
<td>19.1</td>
</tr>
<tr>
<td>Total, direct debt</td>
<td>190.3</td>
<td>166.3</td>
</tr>
<tr>
<td>Guaranteed official loans (principal)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State railroads</td>
<td>5.5</td>
<td>26.9</td>
</tr>
<tr>
<td>Development Corp. (CORFO)</td>
<td>43.5</td>
<td>61.6</td>
</tr>
<tr>
<td>Pacific Steel Co.</td>
<td>48.7</td>
<td>52.1</td>
</tr>
<tr>
<td>Other</td>
<td>---</td>
<td>9.5</td>
</tr>
<tr>
<td>Grand total</td>
<td>288.0</td>
<td>316.4</td>
</tr>
</tbody>
</table>

Source: Adapted from Banco Central de Chile, Boletin Mensual (Santiago, 1956), No. 342, p. 437.

Note: Sterling bonds were converted into dollars at the rate of exchange U.S. $2.80; the obligations in Swiss francs were converted at the rate U. S. $0.2336.

were in debt only with suppliers for a balance of $27 million. Of this sum, only $10 million was guaranteed by the Government. Among the State Railways' suppliers have been United States, German, French, Japanese, Belgian and Swiss equipment firms.

Between the time of its incorporation in 1939 and December 31, 1955 CORFO received credits totalling $176
million from foreign sources as indicated below: $19 (in millions of dollars)

<table>
<thead>
<tr>
<th></th>
<th>Credits authorized</th>
<th>Credits utilized</th>
<th>Amortized</th>
<th>Principal outstanding (Dec. 31, 1955)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eximbank</td>
<td>68.0</td>
<td>67.4</td>
<td>49.6</td>
<td>17.8</td>
</tr>
<tr>
<td>International Bank</td>
<td>37.3</td>
<td>20.5</td>
<td>4.3</td>
<td>15.7</td>
</tr>
<tr>
<td>Suppliers</td>
<td>69.3</td>
<td>64.2</td>
<td>37.3</td>
<td>26.9</td>
</tr>
<tr>
<td>I.C.L.E.</td>
<td>1.2</td>
<td>1.2</td>
<td>0.1</td>
<td>1.1</td>
</tr>
<tr>
<td>Total</td>
<td>175.8</td>
<td>153.4</td>
<td>91.8</td>
<td>61.6</td>
</tr>
</tbody>
</table>

Official loans granted to CORFO are exclusive of credits made available to the Pacific Steel Company in which CORFO has an interest. The $68 million in credits granted CORFO by the Export-Import Bank carried maturities ranging from two to seven years; interest rates ranged from 3.5 to 4 per cent. They were utilized chiefly for the purchase of equipment and machinery for CORFO and its subsidiaries as well as for some private enterprises whenever the credits were guaranteed by CORFO. The principal outstanding, $18 million, represents the difference between credits utilized and amortization as of December 31, 1955.

International Bank loans to CORFO totalled $37 million as of December 31, 1955 of which $20.5 million was utilized.

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19 Banco Central de Chile, Boletin Mensual (Santiago, 1956), No. 342, p. 438.
and $13.9 amortized, leaving an outstanding balance of $15.7 million. On November 1956, another loan was granted CORFO'S subsidiary, ENDESA for expanding electric power capacity.

The Pacific Steel Company's principal outstanding on official loans was $52 million at the end of 1955 which represented the Company's debt to the Export-Import Bank. Other phases of the Company's capitalization are discussed in another section.

Foreign Direct Business Investments

Direct investments by foreigners were not particularly important until the 1880's. In the latter part of the 19th century British capital began flowing into the northern deserts of Chile where it developed the great nitrate industry and its ancillary facilities, including railroads and electric plants. Ten years before the turn of the century foreign capital, chiefly British, represented nearly 90 per cent of the investment in the Chilean nitrate industry.

British direct investments also became important in telephone service and in sheep farms in the extreme south of the country. A French firm acquired a concession right to the "El Tofo" iron-ore deposit in 1908; also, a small steel industry was started by French capital early in the
20th Century. German capital was invested in electric energy and municipal transportation service in Santiago and this was followed by investments in manufacturing, commerce and finance. In recent years some Italian capital has been accompanied by immigration and the establishment of colonies.

American business investments began taking on importance just shortly before World War I. Direct investments of United States citizens increased from an estimated $2 million in 1897 to $180 million in 1914. Of this sum, $170 million was invested in copper and iron mines. In 1913 a French firm leased the high-grade iron ore deposit "El Tofo" to a subsidiary of the Bethlehem Steel Corporation. The lease expired in 1943 and was renewed for a period of thirty years.

Following World War I, United States investments expanded steadily and reached $423 million in 1929. In that year the direct investments continued to be heavily concentrated in mining ($332 million) and in public utilities ($67 million). American interests by that time had already come into possession of the leading nitrate producing companies which were formerly held by the British. The Anglo-Lautaro Nitrate Company, controlled

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by the Guggenheim group, and the Nitrate Company of Tarapaca and Antofagasta, also an American firm, for a considerable period have jointly produced three-fourths of Chile's nitrate. United States interests also acquired the major stake in telephone service by purchase from the former British owners.

Today 90 per cent of the investment in the large foreign-owned mining companies producing copper, nitrate and iron-ore, is of American origin.

The Pacific Steel Company: A Case Study of Joint U.S.-Chilean Enterprise

The formation of a steel industry in Chile represents one of the most interesting examples of joint U.S.-Chilean cooperation, private and governmental.

In April 1946, under the auspices of CORFO, the Pacific Steel Company was organized for the purpose of erecting and operating an integrated steel mill in Chile. Huachipato, site of the company's mill (and by which name the company is commonly referred to) is located about 280 miles south of Santiago on San Vicente Bay. It is only three miles west of Concepcion, the country's second industrial city. The company was established with a capital stock of $15 million divided almost equally between Chilean Government agencies and private investors,
most of them Chileans. About 60 per cent of the initial capital of $30 million, however, was provided by the Export-Import Bank. An initial credit of $28 million in 1945 was increased to $48 million in 1948 carrying a maturity of 20 years at 4 per cent interest. Subsequently, an improvement loan of $10 million was made in 1951 and an additional credit of $2.3 million was granted for the joint development with Bethlehem Chile Iron Mines Co. of the "El Romeral" iron fields and shipping facilities. The Company began operations in 1949.

The technical and managerial knowledge was provided by the Koppers Company, Inc., an internationally known United States firm which acquired nine per cent of Pacific Steel's equity capital. An additional fifteen per cent of the equity was purchased by other United States companies or their Chilean subsidiaries, chiefly the copper and nitrate companies. Total American private participation in the ownership of the Company, then, comes to 24 per cent.\(^{21}\) Export-Import Bank credits received the guarantee of the Chilean Government which also contributed a loan amounting to 30 per cent of the total cost.

Of the fifteen-man board of directors, eight were appointed by the private shareholders and the remaining seven by the Government. For a brief period in 1954, the Government seriously considered converting its loan participation into a straight equity basis, an act which would have given it control and in effect nationalized the Company.

During the past several months, however, the Government has taken unilateral action to interfere with and prevent normal administration of the Company's affairs by its board of directors. Resignation of senior personnel has been requested by Government representatives without reference to the board. Under the threats of the State taking over control of all sales, the board has been forced to adopt sales policies which the majority considers harmful to the company, but which are advocated by the Government.22

Such types of official intervention controverted the understanding between the Export-Import Bank and the Chilean Government to the effect that the company was to operate as a private enterprise. In fact, Export-Import Bank credits were granted on this presumption. The Government's claim to a larger equity interest, it is interesting to note, was based on the consideration that it supplied or guaranteed 90 per cent of the company's

capital while private interests had provided only 10 per cent of total capitalization.

Since then, however, the Government has reversed its policy by giving greater participation to private interests. When the Pacific Steel Company was established 53.3 per cent of its capital was controlled by private investors and the remaining 46.3 per cent by CORFO and other official agencies. Subsequently in 1956 the company, in order to expand its operations, increased its authorized capital from $15 million to $30 million. Private shareholders now hold 65 per cent of the company's stock and Government's share has been reduced to 35 per cent.23

In this way CORFO complies with its essential mission of organizing basic activities for the development of the national economy, so that once these enterprises so created are in condition to march by themselves, it concentrates its activity on the promotion of new operations which require its technical and financial aid.24

Of the 7,150 private shareholders, nearly one half (3,172) are members of the company's staff.

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23 Based on information given to Mr. Joseph Newman, Latin American correspondent for the New York Herald-Tribune by the Chilean Central Bank. The writer cooperated with Mr. Newman on several articles about Chile's economy.

The company has recently embarked on its second stage of expansion and modernization program which, when completed, will enable the Huachipato mill to convert 450,000 tons of steel ingots into finished products. The largest share of the expansion cost of about $26 million will be undertaken by the Export-Import Bank which in 1957 granted a $16 million credit directly to the company. The loan will finance the acquisition of United States equipment and technical personnel needed for the installation and operation of the new equipment and will be amortized in fifteen equal installments beginning in 1961 when the new installations will be in operation.

Significantly, this credit and a prior one for $3.5 million in 1956 were granted without a Government guarantee. The waiver in effect establishes a precedent for Chile: the solvency of the company has been considered a sufficient safeguard. A continuation of such a policy by the Export-Import Bank would gradually weaken any future government's pretext for nationalization of the steel industry. Export-Import Bank loans made to the company now total $75.6 million. As of December 31, 1956 the total investments in the Pacific Steel Company reached $115.4 million.25

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25 Joseph Newman, as cited.
With the exception of about one-third of its coal requirements, all major raw materials are of indigenous origin. San Vicente Bay, on which the Huachipateo mill is located, is a natural deep water harbor. Cheap, high-quality ore, and ocean transport of all materials except domestic coal, have resulted in low assembly cost of raw materials, and makes possible production of pig iron at cost no higher than those of many United States steel works. The company obtains its iron ore by ship from the "El Romeral" deposits of the Bethlehem Chile Iron Mines Company, located 450 miles to the north. The mill's limestone comes from the island of Guarello in the archipelago of Madre de Dios, 900 miles to the south. The domestic coal comes from the Arauco field in the vicinity of Huachipato and is supplemented by annual purchases of high grade coking coal from the United States. Adequate power supply is derived from ENDESA, the electric power subsidiary of CORFO. Raw material inputs in 1955 included 275,000 metric tons of domestic coal; 140,000 tons of imported coking coal and 370,000 tons of iron ore.

Production increases of Huachipato have been very favorable. Between 1951 and 1956 the output of iron

26 United States Congress, Senate Committee, op. cit. p. 196.
increased 48 per cent, from 220,000 tons to 325,000 tons; steel output expanded 114 per cent, from 173,000 tons to 331,000 tons. The output of plates, sheets and tinplate in the same period increased 164 per cent, 205 per cent, and 67 per cent respectively. These extraordinary production responses were due fundamentally to two factors: expansion of production capacity and increased efficiency of operating personnel.

The Pacific Steel Company has continued in cooperation with Koppers Company, Incorporated to improve its organization and administrative controls. In addition to supervising the engineering and construction of the plant, the Koppers Company has provided other services as "participating manager". While possessing no executive authority in the Pacific Steel Company, Koppers has been in close association with the company management in all phases of the company's activities. As the Chilean technicians became more expert in the operation of the steel plant, the company was able to reduce the number of its expert United States technicians from 130 in December, 1950 to 22 in December, 1956.27 Job evaluation programs, time and motion studies, and production incentives have

27 New York Herald-Tribune, July 21, 1957, Sec. 11 p. 7 (Special edition on Chile's economy).
been notable features of the company's efforts to augment efficiency.

In 1956 the Pacific Steel Company shipped products with a total value of $55 million. Of these, $44 million were absorbed at home and the remaining $11 million was exported to Argentina, Bolivia, Brazil, Canada, Colombia, Cuba, Ecuador, the United States, Japan, Panama, Peru, and Uruguay. Of the 104,000 tons of steel products exported, 42,000 tons were bought by Latin American countries. Buyers from other regions included Japan (20,259), Canada (14,800), the United States (14,770), and the United Kingdom (2,160).28

In view of the strategic importance of achieving economies of scale in steel manufacturing, it would seem that very serious efforts should be undertaken to develop Latin American regional coordination of production and trade in this line. Besides Chile, the South American countries of Brazil, Argentina and Colombia already have integrated iron and steel plants; Peru and Venezuela have theirs under construction.29 To develop low unit costs


in steel manufacturing it would seem economically prudent to hold the number of steel plants to a minimum while broadening markets through interregional Latin American trade.

The erection of an integrated steel mill in Chile has resulted in important net savings of foreign exchange. These net savings during the years 1951-1956 reached $102 million, a significant balance of payments contribution. The major dollar requirements were for purchases of materials and supplies and for loan services to the Export-Import Bank and United States suppliers. The cost of imported technical services averaged about $15 million annually. Huachipato, unlike its counterparts in Brazil and Mexico, operated from the very outset at a capacity which exceeded domestic requirements which permitted exports to be made.

Net profits of the Pacific Steel Company averaged $4.2 million per year over the period 1952-1955. On the basis of an equity investment of $15 million this indicates a rate of return of 28 per cent, a very generous figure for a new enterprise. Since the capitalization of the company exceeds $100 million, the shareholders are trading very heavily on the equity. Even after the recent additional $15 million increase in authorized stock, the equity/loan capital leverage remains strong.
The establishment of Huachipato has had a powerfully stimulating effect on the metallurgical industry in Chile. The presence of an integrated steel complex in the country has removed all the uncertainties previously connected with world market supply. Imports of steel products, prior to Huachipato, were short of requirements as a result of World War II and were subject to periodical shortages due to fluctuations in foreign exchange resources.

A host of more than 200 new complementary steel consuming factories have been established in the wake of Huachipato. While national industrial output expanded 112 per cent between 1940 and 1954, the output of the metallurgical industry increased 312 per cent representing an average annual rate of increase of 15.5 per cent. In 1940 metallurgy represented 12 per cent of the value industrial production and 1.5 per cent of national income; by 1952 these figures grew to 23 per cent and 4 per cent respectively.\textsuperscript{30}

The Association of Metallurgical Manufactures (commonly called ASIMET) which represents 90 per cent of Chile's metallurgical output, expanded its membership from 25 firms in 1938 to 126 in 1945, and in 1956 membership

\textsuperscript{30}Joseph Newman, as cited.
exceeded 300. The number of workers employed by these companies increased from 19,000 in 1945 to 36,600 in 1956. The Chilean metallurgical industry manufactures over 10,000 different products ranging from thumbtacks to railway equipment. In several lines, the industry has an installed capacity greatly in excess of the domestic market requirements and are engaged in exporting to neighboring countries. This is the situation with the plants producing wire, soldering irons and electrodes, metal furniture steel bathroom equipment, railway equipment, metal boxes, etc.\textsuperscript{31} The import content of these products is very light since steel and copper, the principal inputs, are produced locally.

Chilean industry in the present stage appears to be oriented toward three principal branches: chemicals, woodpulp and paper, and metallurgy. The establishment of an integrated steel plant in Chile has been a crucial factor in the advance of the metallurgical trades. In order to insure that these industries stand on a firm economic basis, it becomes increasingly imperative that proposals for a common regional market, presented by Chilean leaders at the recent Buenos Aires Conference, become realized.

\textsuperscript{31}\textit{La Nacion}, January 14, 1957, p. 139.
Upon termination of the expansion and modernization stages, the Pacific Steel Company is expected to sell its products at price levels similar to other advanced steel producing countries. "That is to say, it will be possible to sell the products in the internal market at prices not exceeding the CIF cost of the imported products—thus making tariff protection unnecessary." It has been the company's policy to sell its products in the domestic market at prices that are lower than the prices of equivalent imported products. Recently, the company has sold its products in the domestic market at prices which averaged 13.5 per cent less than prices (including duties) of similar imported products. "This is proportionately equivalent to a reduction in the prevailing tariff of 55 per cent (for iron and steel products) to approximately 24 per cent."  

A positive policy of lowering costs and prices promises to aid the steel consuming metallurgical industry in competition for exports of manufactured products in neighboring countries.

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33 Ibid.
**Investment Climate**

A number of measures taken in recent years by the Chilean Government have considerably improved the climate for foreign investment. In response to this changing investment orientation, new foreign capital is flowing into Chile with present commitments exceeding $300 million. Most prominent of these commitments are the investments being carried out by the large copper mining companies exceeding $130 million. Measures designed to attract foreign capital include the Stabilization Program, Exchange Reform, the "New Treatment" Copper Law of 1955, the Nitrate Referendum of 1956 and the Foreign Investment Law. Legislation now pending is designed to increase the investments and capacity of the foreign-owned public utility firms which provide electric and telephone service.

Certainly a major cause behind the unfavorable investment climate prevailing before enactment of these measures was the run-away inflation and its consequences—balance of payments disequilibria and obstacles in the transfer of earnings of foreign investors. Foreign investors encountered prolonged delays in obtaining applications for remitting interest and dividend payments. The multiple exchange system, designed in part to alleviate the effects of inflation, inhibited the very export
industries in which Chile has comparative advantage. Penalty rates on the purchase of local currency by the foreign companies to meet their expenses in Chile were nothing more than hidden taxes on the cost of production and the net effect was to inhibit investment in the all-important export industries. For a brief period the government was actually considering nationalizing certain foreign-owned enterprises, a policy which if carried out would have shut off the inflow of foreign funds. Also, the low rates applied by Chilean authorities in public services, in the face of rising costs, culminated in disinvestment in foreign-owned public utilities and a serious shortage of service.

Periodic foreign exchange shortages combined with foreign exchange control meant that a large number of enterprises, domestic as well as foreign-owned, were unable to bring in equipment and parts to replace depreciated facilities. Whenever licenses were issued and exchange provided for these imports, high duties were generally applied.

The earning of United States private investments in Chile reflect the poor investment climate that prevailed until recently. In comparing the experience of American investments in Chile with that of the other Latin American
countries in the years 1950-1951, Chile shows (with the exception of Argentina) the lowest rate of return. Earnings of direct investments were 3.9 per cent in Chile compared with the average for Latin America of 14.9 per cent. In the five-year period 1950-1954, when major obstacles to foreign investments still prevailed, the earnings of private investors in Chile averaged 7.6 per cent on the basis of a greatly undervalued equity investment.

Public Utilities

The foreign-owned public utility companies have fared rather poorly in Chile. The major difficulty has been that rates have been grossly inadequate to maintain pace with Chile's inflation. The Compania Chilena de Electricidad de Chile is a case in point. A subsidiary of American and Foreign Power Company, the company distributes electric power to 300,000 customers in the three central provinces which contain nearly one-half of the country's population. Between 1940 and 1956, the cost of living in Santiago multiplied 45 times; during the same period the average price index of electric energy increased

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United States Department of Commerce, quoted in Banco Central de Chile, Inversiones Extranjeras en Chile (Santiago, 1955), p. 77.
from 100 to 2,096 per cent or less than one half of the increase in the cost of living.\textsuperscript{35} Wage and salary raises, the cost of fuels and of materials have greatly outstripped electric rates. Investors in the 13-year period 1935-1953 received only one per cent on their investment in the company.\textsuperscript{36}

The result of all this has been a permanent shortage of electric energy a condition which threatens to deteriorate in the near future. Since 1946, the central provinces which are served by Compañía Chilena de Electricidad have been subjected to rationing and restriction in the supply of electricity. The electricity deficit was estimated at 60,000 K.W. in 1956 and will reach 120,000 K.W. by 1959.\textsuperscript{37} The shortage of electricity has impeded the general economic development of the country and has imposed as a temporary solution, the necessity to restrict its use for users during the six months of the year. The Engineering Institute of Chile commented on the situation as follows:

\textsuperscript{35}Asociación de Empresas de Servicio Público, \textit{Hacia la Solución del Problema Eléctrico} (Santiago, Chile, 1957), Section 1.

\textsuperscript{36}United States Congress, Senate, \textit{op. cit.}, p. 168.

\textsuperscript{37}Asociación de Empresas, \textit{op. cit.}, section 1.
...the problem has not been solved and the available energy becomes more scarce every day to meet the always growing demands on the part of new consumers. This signifies that not only will the restrictions and rationings increase each time more severely during the present years and in the years 1958 and 1959 in the provinces of Santiago, Valparaiso, and Aconcagua, but that the new important zones of the country, which up to now have had sufficient electric potential, will very soon be affected with a shortage of electricity, resulting in creating a national problem of the most extra-ordinary gravity.3°

Because of the absence of proper incentives, domestic and foreign capital cannot be mobilized to build up sufficient plant capacity and thereby end the critical shortage of electric power.

Legislation is pending in the Chilean Congress which would provide for the Company's expansion. Under the proposed plan, the Company's fixed investment would be evaluated at a figure of $74 million as of December 1955. (This is an agreed-on value for purposes of rate and profit determination; replacement value is said to exceed $100 million.39) The Company would have the right to receive an annual return of ten per cent on the agreed-on

38 Asociacion de Empresas, op. cit., section 4.

39 Based on private interview with officials of the Company.
valuation of assets plus all new investments over and above depreciation. Rates would be adjusted automatically in accordance with an index of costs including wages and salaries, fuels, cost of purchased energy, and taxes. The value of the fixed capital of $74 million would be converted into pesos and adjusted periodically according to the changes in the index of wholesale prices.

Furthermore, should the proposed law become effective, the Company is committed to expand generating capacity by investing roughly $70 million over a period of seven years. These capital outlays would take the form of a new thermic plant with a minimum capacity of 120,000 K.W., transmission lines, substations, distribution facilities and other facilities.

Compania de Telephonos de Chile (a subsidiary of I.T.T.) which supplies Chile with nearly all of its telephone service, has fared only a little better than the electric utility. Between 1928 and 1956, for instance, when the cost of living multiplied 94 times, telephone rates for residential use increased from 23.30 to 1,320 pesos per month or 57 times.\(^4\) In the 26-year period 1930-1955 earnings have averaged less than three per cent.

\(^4\) La Nacion, January 14, p. 126.
on invested capital according to Mr. Demetrio Pena, Managing Director of the Company. While on leave from the University of Chicago, Dr. Arnold Harberger made these interesting comments about the telephone situation in Chile:

One of the biggest bargains here is the telephone service. If one has the luck to receive a telephone, one pays about $2.00 monthly for unlimited service, and in public telephones, about one cent per call. In the United States the monthly cost of a telephone is about $6.00 and every public call costs ten cents. These rates (the Chilean rates) are totally unrealistic; they reflect a lag on the part of the rate making authorities with respect to inflation and represent a veritable expropriation of the investors in the telephone industry.

Although the number of telephones in service has increased from 112,000 in 1946 to 149,000 in 1956, the supply remains woefully inadequate to meet the demand at existing and considerably higher rates. Before the appearance of the new approach to foreign investment, there were indications that the Telephone Company would be nationalized in the event that it did not expand its operating capacity sufficiently.

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42 Memorandum on Chile (a mimeographed paper).

43 United States Congress, Senate, op. cit., 167.
The acute shortage of phones should be alleviated within a few years pending the outcome of a bill now before the Chilean Congress which authorizes higher rates. If and when the new rates are approved, Compañía de Telephonos de Chile will greatly expand its service capacity in the country.

The Foreign Investment Law

The Foreign Investment Law of 1954 (modified by Law 12,034 of August 18, 1956) governs the conditions under which foreign capital enters the country. Under its provisions foreign investors may secure special privileges from the Chilean Government providing they can fulfill certain requirements. The Foreign Investment Committee passes on all applications except those involving the large mining companies which do not come under its jurisdiction.

As of the middle of 1957, the Committee approved total investments amounting to $52 million comprising 110 applications. Of the approved investments $28 million went into manufacturing, $12 million into mining, $2.6 million into agriculture, $1.1 million into fishing enterprises, $4.4

44 Based on mimeographed material received from the Committee.
and the remainder entered other activities. United States investors provided the largest share of these capital funds.

Foreign capital brought into Chile in the form of foreign exchange, raw materials, or equipment, when invested in approved enterprises, is accorded the following guarantees and exemptions: (1) repatriation of capital after 5 years in annual quotas not exceeding 20 per cent per annum of the value of the investment; (2) transfer abroad of earnings on the investment, for a period of at least 10 years, and possibly up to 20 years; (3) exemption from all customs duties and charges on capital imported in the form of equipment and machinery; (4) a guarantee that all applicable taxes will not be changed for at least 10 years; (5) freedom for 10 years or more from price-fixing regulations and from controls affecting industries in which the investments are made; (6) the right to reassessment of the capital for tax purposes in accordance with fluctuations in the rate of exchange from year to year. Earnings on such capital, if reinvested in Chile, are accorded the rights and exemptions indicated under (2) and (6) above. Capital is granted favorable treatment when invested in export industries which can compete on the international market without government
assistance. Favorable treatment is also given when
capital is invested in plants which produce goods for the
domestic market which at present must be imported, also
without government assistance; or in industries using a
proportion (at least 80 per cent) of national raw materials
for the production of goods for the domestic market at
reduced cost to the consumer. 45

A tax exemption covering a ten year period (Law 12,084
of August 18, 1956) will be granted only to those
industries considered fundamental and which do not exist
in the country. 46

 Nitrate and Petroleum

It has been said that Chile's nitrate industry had to
defend itself on two fronts--at home and abroad. Until
very recently official policy served to hinder rather than
aid the industry in its attempt to solve the fundamental
problem of lowering costs and thereby maintain its
competitive position against world-wide encroachment by
the synthetic product.

The situation in the Chilean nitrate industry before
1956 was indeed bleak. Most of the installations had

45International Monetary Fund, Seventh Annual Report
46Foreign Investment Committee, Approving Regulations
Concerning New Foreign Capital Investments in Chile.
reached complete obsolescence while even the most recently constructed plants had been in operation for over twenty years. Protracted labor disputes seriously hampered operations of the foreign-owned companies.

It was stated that the nitrate industry is so large and employs so many people that a strike in that industry becomes very shortly a national issue and that pressure is put upon the company to settle any dispute upon labor's terms. 47

The Nitrate and Iodine Sales Corporation (COSACH)--a government monopoly organized in 1932 to control production, marketing, and prices of nitrate and iodine--absorbed 25 per cent of the value of the producers' sales in lieu of a tax on income. Furthermore, as in the case of the large copper mining companies, the nitrate firms were also burdened with penalty rates on foreign exchange which in effect served as a hidden tax on the cost of production. Between the nitrate years of 1948/1949 and 1952/1953, this tax was calculated at $64 million. 48

The Chilean Government by the use of penalty rates of exchange siphoned off a large proportion of the industry's earnings. In 1951, for example, when the exports of the medium and small mining industry and of manufacturers could be converted at the rate of 90 pesos per dollar, the

47 United States Congress, Senate, op. cit., p. 188.
48 COSACH, Salitre, p. 5.
foreign-owned nitrate firms were required to surrender dollars at the considerably less favorable rate of 50 pesos per dollar to cover their local expenses. Thus the industry was left "...facing the unprecedented competition from all over the world with obsolete and inadequate producing facilities and delayed development projects."\(^4\)

It is estimated that if the nitrate industry had failed, some 30,000 men would have lost their jobs. They together with their families would have been displaced to other parts of Chile.

Out of these extreme difficulties facing the nitrate industry came an agreement between the government and the foreign-owned firms which was concluded in December 10, 1954 and finally approved by the Chilean Congress in 1956. As a result of this legislation (the so-called Nitrate Referendum) the foreign-owned producing companies now benefit from the use of the free banking rate of exchange (the rate applicable to all other exports) and they are


permitted to amortize capital investment over a shorter period of time. Investments are also encouraged by import duty exemptions on machinery, spare parts, accessories and chemical materials. The Referendum also provides that the Nitrate and Iodine Sales Corporation is to retain 40 per cent instead of 25 per cent of the export proceeds for payment to the government of its share of the companies' profits. The rise in the government's direct share, however, is expected to be more than offset by the change in the basis of cost computation (increased amortization allowances) and the termination of the penalty rate of exchange.

The Nitrate Referendum has brought new hope to the nitrate industry in Chile: expansion and modernization plans are underway. The major producers have been granted loans totalling $27 million by the Export-Import Bank which will be used to finance the capital facilities so essential if costs are to be reduced and capacity expanded. It is estimated that these expansion plans when realized will raise the annual production capacity from the current 1.6 million tons of nitrate to 2.0 million tons.51 A major technological innovation—the utilization of solar

energy—will become an important element in attaining the goal of increasing productivity in the nitrate industry.

Petroleum exploration, production and refining activities have been carried out exclusively by the National Petroleum Corporation, a government enterprise. In accordance with Law 5124 of May 16, 1932 petroleum is considered property of the State and only that institution is legally entitled to produce and refine it. Thus, for 25 years private enterprise, foreign and domestic, has been barred by Chilean law from engaging in this field.

A petroleum bill was submitted to the Chilean Congress on November 26, 1956 which if enacted into law would permit private capital, Chilean and foreign, to participate in the exploration and development of Chile's oil reserves. In the opinion of informed individuals, however, it is doubtful whether the provisions of the proposed law provide sufficient incentives to attract private venture capital.52

A major reason for the lack of sufficient incentives can be found in the Government's stand to exclude private companies from the Magallanes area, the only proven reserve area. Magallanes lies in the extreme south of

52On the basis of a confidential interview.
Chile and comprises three million hectares of promising structure. In the absence of significant information about other possible petroleum areas, it is unlikely that private capital would take the high risks involved under the proposed law.

Among the provisions of the legislation, about whether or not it should be enacted, are the following:

1. a split of the profits on a fifty-fifty basis between the private companies and the Government,  
2. concessions for exploration of properties, plots of 50,000 hectares, half of which would return to the Government after four years  
3. a lease of thirty years for production operations subject to renewals for a ten-year period, and  
4. a depletion allowance of 15 per cent of gross production.

Estimates show that the Chilean demand for petroleum will double over the next eight years and if this is not offset by heavy increases in domestic output, the resulting deficit will mean progressively heavier strain on the country's balance of payments.

The Case of Copper: An Opportunity Foregone

The official treatment accorded the large foreign-owned copper mining companies in Chile in the years following World War II was so inimical in its effect on
the Chilean economy that it could well serve in the annals
of foreign investment policy, as a kind of classical
blunder.

In response to a high rate of growth in the price of
copper in the postwar era, reflecting a rapidly expanding
market for the red metal, world copper production, exclud­
ing Latin America, increased at an annual rate of 6.3
per cent in the period 1945-1955. By contrast, Chile's
output of copper fell from a high of 540,000 short tons
in 1944 to 400,000 tons in 1954; the country's share in
world copper production fell from 19.7 per cent in 1944
to 12.9 per cent in 1954. Chile which had long held
second place (next to the United States) as world producer
of copper was dislodged in 1953 by Northern Rhodesia for
that position. Between 1944 and 1954, the output of
Northern Rhodesia advanced from 246,000 short tons to
411,000 tons, and that of Belgian Congo from 182,000 short
tons to 236,000.

The Chilean copper industry was marching
rapidly toward its own destruction and
it was clearly indicated that in the not
too distant future, the country would
face a general economic crisis resulting
from the drastic reduction in foreign
exchange income.

53Francis Masson, The Postwar Setting of Mining Enter­
prise in Latin America (1945-1955) (A preliminary paper of
the Economic Commission for Latin America).

54Banco Central de Chile, Balance de Pagos, 1955,
(Santiago, 1956), p. 45.

55"La Industria Del Cobre Rivive (contd on page 167)
In view of a negative physical production response by Chilean copper in the decade 1945-1954 against a setting of opportunities (the price index for copper showed an average annual rise of over seven per cent) offered by an expanding international demand for copper, it is evident that Chile sacrificed a sizeable addition to her foreign exchange income.

Government taxation, exchange penalties, and official control of sales provided an economic environment which led to contraction in copper output and exports. Apparently it was taken for granted by important segments of the population and the government, that the foreign-owned copper companies in Chile constituted an inexhaustible source from which taxes could be extracted without seriously affecting output and investment. Very possibly, the high taxes applied were in some measure a reaction against the relatively small benefit which actually accrued to Chile from the value of copper exports in the decade of the twenties. Certainly, in former periods, the share of the value of copper exports which was incorporated (the so-called "returned values") into the Chilean

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55(contd) Gracias a la Nueva Legislacion", Boletin de la Sociedad Cientifica de Chile (Santiago, Chile, 1956), No. 5.
economy was actually very small: only 30 per cent, for example, in 1929 compared with 70-30 per cent in recent years.\textsuperscript{56}

By means of a number of measures discussed below the government was successful in retaining a rapidly expanding proportion of the value of copper exports. The incidence of these measures on profits of the copper companies logically resulted in their increasing investments in marginal mines in the United States rather than in Chile. In the early nineteen-fifties, taxes (including hidden taxes) levied on the foreign-owned copper companies exceeded 80 per cent of net profits and constituted the highest tax imposed on the mining industry anywhere in the world.\textsuperscript{57} Before analyzing the nature of these taxes, in Chile, it would be interesting to compare the effective taxes on copper mining in other countries in the same period of time. The following rates are the maximum and include all taxes levied:\textsuperscript{58}

\begin{table}[h]
\centering
\begin{tabular}{|l|c|}
\hline
Union of South Africa & 30 \\
Northern Rhodesia & 37.5 \\
Belgian Congo & 18.75 \\
United States & 52 \\
Canada & 49 \\
\hline
\end{tabular}
\end{table}


\textsuperscript{57}Saul Arriola, Text of a talk delivered to the international Rotary Club on January 19, 1955.

\textsuperscript{58}Braden Copper Company (mimeographed material.)
During this time, and especially in the United States and Canada, incentives were created to stimulate new copper investments through favorable amortization and depletion allowances. In the United States certain new installments considered as "emergency" types could be charged off over a period of only five years. The Chilean Government on the other hand did not grant such facilities.

Chilean taxation on the foreign-owned copper companies, in 1952, included the following: (1) an income tax of 60 per cent levied on the difference between the sales price in New York and the cost of copper delivered to that market; (2) customs duties; (3) a special tax on sales, established in May 1952, which authorized the Government to retain the proceeds of sales over and above a price of 24.5 cents per pound and; (4) an implicit or hidden tax on the costs of production. The latter tax represented the difference between the price at which the Chilean Treasury purchases dollars from the copper companies and the resale price. Theoretically it would more adequately represent the difference between the sale price and the purchasing power parity rate. More of this later.

The sales of foreign exchange (generally dollars) to the Treasury may be considered roughly equal to the companies' local expenditures for wages, social security
payments, salaries and supplies connected with mining operations. Between 1935 and 1951, the purchase rate was frozen at 19.37 pesos per dollar; thereafter, it was applied to only part of the purchases. The average rates were 23 for 1952, 34 for 1953 and 62 pesos for 1954. In the postwar years the exchange rates prevailing for the great mass of imports increased rapidly, reflecting the continuous depreciation of the peso; by contrast, the 1937 rate became increasingly unrealistic. "Basically, it was nothing more than a hidden tax on the cost of production internally, whose yield kept rising with the growth of inflation, affecting the peso expenditures of the companies, which were obliged to return a greater proportion of value from their export sales." 59 The penalty rate of 19.37 pesos per dollar should be contrasted with the general import rate of 60 pesos per dollar in 1951 and with the calculated purchasing-power parity rate of 96.6 pesos 60 per dollar for that year. Clearly then, the forced surrender of copper dollars at this fictitious rate to the Government carried with it an implicit tax on


the local cost of production amounting to roughly 80 per cent. The implicit exchange tax whose yield continued to rise with the growth of inflation was essentially a penalty on labor utilization and on purchases effected by the companies in Chile. Between 1945 and 1954, for instance, employment in the foreign-owned copper mines declined from 17,385 workers to 11,057 workers.

Under 1952 conditions, and with the copper industry working only at a percentage of its capacity, the average production costs were estimated by the United Nations, as follows:61

<table>
<thead>
<tr>
<th>Exchange rates (pesos per dollar)</th>
<th>United States cents per pound of copper</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.37</td>
<td>21.6</td>
</tr>
<tr>
<td>50.0</td>
<td>14.2</td>
</tr>
<tr>
<td>100.0</td>
<td>11.8</td>
</tr>
<tr>
<td>150.0</td>
<td>9.4</td>
</tr>
</tbody>
</table>

In view of a true exchange rate of 115 pesos per dollar as determined by the purchasing-power parity formula, the application of the 19.37 penalty rate converted Chile from one of the lowest-cost producers to one of the highest-cost copper producers in the world.

One economist estimated the total tax bill paid by the large foreign-owned copper companies in 1952 at $126 million comprising the implicit exchange tax ($52 million), the income tax ($41 million), and the "overprice" tax ($33 million). The implicit exchange tax was calculated on the basis of the difference between the amount of dollars which the companies actually had to pay to cover local costs in Chile and the amount of dollars they would have turned over had they received the rate of 110 pesos per dollar. On the basis of Lastra’s calculations, total taxes levied on the companies reached 82.3 per cent.

The considerable improvement in the terms of trade of copper experienced in the pastwar period was totally appropriated by the Chilean Government and consequently did not act as a stimulus to investment in the copper industry. While on the one hand the Government derived a larger share of revenue from the foreign companies through its onerous tax policy, these very measures over a number of years, served to contract the essential base on which the taxes were applied: the policy was inherently self-defeating, and Chile was the loser.

In an effort to unilaterally improve Chile's terms of trade with the rest of the world, the Government in 1953-1954 attempted an operation which has been aptly described as "monopoly on a shoestring." By a series of decrees, passed in 1952 and 1953 the Central Bank of Chile was given control over the sales price of copper exports. As already indicated, any excess of the price of copper over 24.5 cents per pound was siphoned off by the Government; the copper companies received a fixed price for their product regardless of the actual world price. Since the Central Bank was given control of the price at which Chilean copper would be marketed, it proceeded to set the price unilaterally at 36.5 cents per pound until October 1953. Apparently there was an adequate world supply of copper at lower prices; supply exceeded the demand at the Central Bank's price; Chile's copper sales were hampered and unsold stocks accumulated as the months went by, in spite of the cutback in Chilean output. The large copper companies operated at 66 per cent of production capacity in 1953: capacity amounted to 470,000 tons, but due to a rapid cutback in sales and strikes, output in that year reached only 314,000 tons.63 Notwithstanding

the fall in production, at the end of the year 110,000 tons of copper remained unsold.

The Chilean Government apparently overestimated the degree of market power it could wield in world copper markets. With Chile's share of world copper production not exceeding 13 per cent, the elasticity of demand for Chilean copper obviously was far greater than unity and therefore could not be relied on to exercise a monopolistic pressure; Chile's leverage in this respect was woefully insufficient. Other considerations should also be borne in mind. Even if the Central Bank had temporarily succeeded in its price-raising operation, the United States and Britain could have neutralized, at any time, Chile's efforts to maintain at a high level the international price of copper through release of vast supplies of copper from their accumulated strategic reserves into the world market. Furthermore, a unilateral intervention such as attempted by Chile, even if successful in the short-run, risks the dangerous long-run prospect of competing countries expanding their capacities to produce the relatively scarce metal. Even Brazil, whose international market power in coffee is enormous, has been faced with similar consequences in the wake of price-rigging schemes.
Fortunately, the critical situation involving the status of the large mining companies was reversed by passage of the law of "New Treatment" in May, 1955. The new legislation, so instrumental in reviving the industry, places primary emphasis on profit taxes and provides genuine incentive to the expansion of output. It eliminated the discriminatory exchange treatment accorded the foreign-owned companies and restores to them the control over sales previously exercised by the Central Bank; the companies receive the entire sales price.

A single profits tax replaces the cumbersome system prevailing before and is composed of two components: (1) a basic tax of 50 per cent on profits and, (2) a variable surtax which diminishes from 25 per cent as output increases beyond the base output level. The surtax is applied in full to profits on production equal to the base output level (95 per cent of the average output during the years 1949-1953) which is established by law for each of the large companies. The variable surtax is so calculated that it will disappear when the base production has been doubled, leaving only the 50 per cent tax in effect. In the eventuality of a reduction of output below 80 per cent of the base production figures (without extraordinary cause) an 80 per cent tax on profits will apply. While as a result of the new law the companies
regain control over the sale of their product, the export of copper produced by them is subject to the supervision of the newly created autonomous Copper Department which is nominally a part of the Central Bank. The managing board of the Copper Department represents the various interests connected with Chilean copper production and trade and is made up of individuals from the Government, the Central Bank, the National Mining Society, the producing firms, and the industry's employees and workers.

In place of a penalty exchange rate formerly applied to the large copper companies, the new legislation specifically provides that they will liquidate their dollars at the free banking rate of exchange. Other provisions particularly designed to encourage modernization of facilities and new investment include: (1) a tax of only 50 per cent of profits on newly established enterprises in the great copper mining industry; (2) permission for the President of Chile to grant special amortization privileges covering new investments by the producing companies; (3) tax reduction to encourage the refining of copper in Chile prior to export; (4) the extension of all the benefits of the Foreign Investment Law; and (5) the offer of tax advantages for the improvement of social conditions in the copper industry.64

The response to the law of "New Treatment" was immediate and positive: ambitious plans for expansion of capacity are under way. Output of the large mining companies which averaged 357,000 short tons in 1953-1954, the two years prior to the "New Treatment" law, expanded to an average 460,000 short tons in the years 1955-1956. This represents an increase of over 100,000 tons annually or 29 per cent and indicates the presence of considerable idle capacity before 1955. Intensive prospecting operations were initiated by Anaconda's affiliate which led to the discovery of the "El Salvador" ore body containing 300,000,000 tons averaging 1.6 per cent copper. This copper deposit alone will yield a yearly output of 100,000 tons of copper and the investment now being carried out will reach an estimated $82 million. All import duties on the machinery and equipment for the project were waived and, in addition, the cost of developing and equipping the property may be amortized for income taxes over a five-year period after the commencement of operations. The same firm has begun building a 230-bed hospital which when completed will be "the finest private hospital in

66 Anaconda, ibid., p. 19.
Chile." Altogether, the affiliates of Anaconda Company and Kennecut Copper Company are carrying out new investments exceeding $130 million. Corro de Pasco Corporation which has behind it a history of successful accomplishments in Peru is expected to invest conservatively from $40 million to $50 million in Chilean copper production pending a successful outcome of its exploration activities presently being carried on.

It is confidently expected that the smaller "returned value" to Chile from each ton of copper exported, resulting from the new legislation, will be offset by a more than proportional expansion in the volume of tons exported as well as by rising investments in the industry. In the two years prior to the new legislation, 1953-1954, Chile received a "returned value" of 31 per cent from the export of copper as against a "returned value" of only 72 per cent in the period 1955-1956; however, the average yearly dollar "returned value" in the latter period amounted to roughly $227 million as compared with a yearly average of only $153 million in the period 1953-1954. The law of "New Treatment" has been good for Chile in yet another way:
The discriminatory exchange rate which raised the value of its local purchases up to ten times made it impossible for the large copper companies to acquire their supplies in the country. Having eliminated this factor, an immense market for national industry has been opened up. 67

Summary

The magnitude of the contribution of foreign capital, direct and portfolio, to Chile's economy can be appreciated from the fact that its share of gross capital formation amounted to 23 per cent in the period 1946-1953. Roughly three-fourths of the country's gross export proceeds can be attributed to the operation of the foreign-owned enterprises, the large mining companies involved in the extraction of copper, nitrate, and iron-ore. The large copper companies alone contributed in the period 1950-1954 between 7.3 and 9.9 per cent of Chile's gross income.

The combined balance of payments effect of foreign capital movements and their service is strongly negative: in the decade 1947-1956 when net long and medium-term investment flows into Chile amounted to $190 million, the service of capital reached $614 million or more than three times the net capital inflow.

67"La Industria del Cobre Revive Gracias a la Nueva Legislacion," Boletín de la Sociedad Científica de Chile December, 1956, No. 5.
The writer estimates that total foreign investments in Chile reached a value of $1,200 million at the end of 1956 of which roughly $850 million was held in direct business investments and the remaining $350 million in portfolio investments. The largest share of direct investments was in mining ($523 million) while investments in public utilities ($73 million) held a distant second place. The participation of the United States in aggregate foreign investments (including portfolio) in Chile reached 80 per cent at the end of 1953 compared with Great Britain's share of 13 per cent. Official credits, derived almost exclusively from the Export-Import Bank and to a lesser extent, the International Bank, have filled the role formerly played by the sale of large quantities of bonds in foreign financial markets.

The formation of a steel industry in Chile represents one of the most interesting examples of joint United States-Chilean cooperation, private and official. The Koppers Company, an American firm, supervised the engineering and construction of the plant and has provided its services as "participating manager." The establishment of an integrated steel mill in Chile has resulted in important net savings in foreign exchange which in the period 1951-1956 exceeded $100 million, a significant balance of payments contribution. Moreover, the establishment of
the Pacific Steel Company has had a powerfully stimulating effect on the metallurgical industry in Chile; a host of more than 200 new complementary steel consuming factories has been created now that basic supplies of steel could be assured without interruption. In the near future the Pacific Steel Company is expected to sell its products at price levels which will be competitive with other world producers.

Certainly a major cause behind the unfavorable investment climate prevailing in Chile after 1945 was the runaway inflation and its consequences—balance of payments disequilibria and obstacles in the transfer of earnings by foreign investors. The multiple exchange system, designed in some measure to alleviate the effects of inflation, inhibited the very export industries in which Chile has a comparative advantage. The large foreign-owned mining companies were forced to surrender foreign exchange at penalty rates in order to cover their local costs of operation and the net effect of this was to materially raise their costs of production, lower their profits and dampen the incentive to expand. The most flagrant case of adverse foreign investment policy and one which on balance deprived Chile of considerable foreign exchange earnings was the official treatment
accorded the large foreign-owned copper companies. Suffice it to mention that as a result of it Chile's share in world copper production fell from 19.7 per cent in 1944 to 12.9 per cent in 1954. A policy of low rates applied by Chilean authorities to foreign-owned public utility services in the face of rapidly rising costs has culminated in critical shortages of electric power and telephone service.
CHAPTER VII
MONETARY-FISCAL OPERATIONS AND THE EXTERNAL SECTOR

Traditionally in Chile there has existed an intricate reciprocal relationship between the country's monetary-fiscal operations and the external sector. An examination of these interactions is the subject matter of this chapter.

With the collapse of world mineral markets and the cessation of foreign loans to Chile's Government agencies in the Great Depression, the country's public finance structure faced a grave crisis.

Suffice it to recall that in 1929, 53 per cent of government revenue accrued from sources directly affected by external factors; this proportion dropped to 27 per cent in 1932. The maintenance of government expenditure at a higher level than the revenues resulted in a fiscal deficit which at least had the virtue of stimulating the reabsorption of unemployed productive factors by the economy.¹

Until July 1931, when the gold standard was abandoned by Chile, external economic pressures exercised their full impact on the domestic economy. The outward flow of

gold in response to chronic deficits in the balance of payments, was accompanied by contraction in the circulating media. Total means of payments declined nearly 40 per cent between the last four months of 1929 and June 1931, the low point.

After the abandonment of free convertibility and with introduction of exchange control, the country's banking system became largely isolated from the world economy. The control over foreign exchange was given over to the Exchange Control Commission, an agency which thus came to determine the major components of Chile's balance of payments. These measures in conjunction with a severe devaluation of the peso operated to neutralize the secondary effects of contraction in the internal economy. Because in 1931 Chile's external financial obligations, public and private, exceeded 250 million gold pesos, a sum which represented double of the country's gold and foreign exchange reserves, the Government declared a moratorium on its external debt, while simultaneously adopting exchange control to check an outward capital flight.

The execution of all these measures set the stage for a vigorous expansionary fiscal policy financed chiefly through central bank credits. The resultant expansion of
treasury deficits mounted from 76 million pesos in 1930 to 245 million pesos in 1931; in the following year the figure was 190 million pesos. Central bank emissions to the treasury nearly doubled between 1931 and 1932; after that, the increase was relatively mild until 1939. Wholesale prices between 1931 and 1933 more than doubled and this was followed by moderate increases until World War II.

The stimulus to the export of strategic minerals (copper and nitrates) in the course of 1939 and 1940 was accentuated by the direct involvement of the United States in World War II. Due to a shortage of shipping and goods available for export to Chile, increasing amounts of dollars derived from export of copper and nitrate could not be spent for imports with the result that the Central Bank and commercial banks accumulated sizeable sums of gold and foreign exchange holdings (chiefly dollars). A by-product of this abnormal dis-equilibrium between the supply of and demand for foreign currencies was inflation.

The Central Bank of Chile was legally obligated to absorb the surplus of foreign exchange which did not find

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outlets in the market. Monetary reserves which at the end of 1939 amounted to only $33.2 million, increased nearly $100 million to reach $131.4 million at the end of 1945.\(^3\) These net foreign exchange accumulations or purchases of the Central Bank had their counterpart in central bank credit and provided the basis (legal reserves) for multiple expansion of commercial bank credit. The Central Bank purchased dollar exchange from the large mining companies against pesos to cover their local cost for labor, raw materials, etc. The Government likewise sold its large revenues of dollars derived from the large mining companies to the Central Bank for national currency to meet its expenditures. In both cases, these central bank emissions represented new "high-powered" money. A doubling of central bank credit (emissions) between the end of 1941 and 1945 produced a great inflow of reserves to banks and served to bring about credit expansion at that level. The total money supply more than doubled in this period, expanding from 3,850 million pesos in 1941 to 8,023 million pesos at the end of 1945.\(^4\)

\(^3\)Banco Central de Chile, \textit{Balance de Pagos, 1945} (Santiago, 1946), p. 55.

\(^4\)Banco Central, \textit{Memoria}, p. 52.
In the face of this rapid expansion in the circulating media, the availability of goods and services in the domestic market changed little; import goods particularly were seriously affected by the dislocations produced by the war. Between the base period 1936-1938 and the end of 1945, the indices of the cost of living and wholesale prices increased 150 per cent and 112 per cent respectively.\(^5\)

Throughout the period 1941-1945 there arose fiscal deficits, and as they were financed by central bank credit, they added to an already inflationary condition. However, for the most part, central bank credit derived from foreign exchange operations constituted the dynamic element in creating a growing supply of circulating media and therefore of inflation.

**Sources of Post-World War II Inflation**

Until the initiation of the Stabilization Program in late 1955, Chile's post-war monetary experience was characterized by a rampant and accelerating inflation unmatched, with the exception of Paraguay, by any country in Latin America. The average annual increase in the cost of living between 1946 and 1956 was 35.7 per cent. By the middle of 1957 the cost of living index had risen

\(^5\)Banco Central, *ibid.*, p. 47.
to over 25 times its 1946 level. The rate of inflation reached its peak in 1955. From January 1955 to January 1956 the cost of living rose by 93 per cent. "During the 1952-1955 period, no fewer than seven Ministers of Finance tried to cope with the problem--each with a new anti-inflation program."7

Before surveying the major sources of this inflationary pressure, it is worthwhile to take a glance at the structure of the country's banking system. In Chile the banking system comprises the Central Bank of Chile, the commercial banks and the State Bank of Chile. The Central Bank is charged with the conduct of monetary policy, particularly with regulating the emissions of reserves (central bank credit) which sustain the creation of bank deposits of the commercial banks and the State Bank. Both quantitative and qualitative controls can be exercised by the Central Bank. While nominally autonomous in its determination of monetary policy, in practice, the Central Bank has followed the desires of the Government as interpreted by the Ministers of Finance. Due to the peculiar


composition of its Board of Directors and the quorum required for agreements, the Central Bank has been largely subservient to the Chilean Treasury.

Until the Great Depression, the Central Bank guided its actions in accord with the rules of the gold standard. Following abandonment of free convertibility in 1931, and as a consequence of a number of laws, the Bank was directed to provide emissions in favor of the treasury and various public institutions. A policy of providing the public sector with generous quantities of central bank credit has been an important factor in feeding Chile's accelerated inflation.

The commercial banks receive deposits and make loans for periods not exceeding one year to provide working capital for enterprises. They comprise twenty national banks and four foreign banks and the former provided in 1955 about 90 per cent of loans outstanding. Organized in 1953 by joining together the National Savings Bank, the Institute of Industrial Credit, the Bank of Agricultural Credit and the Mortgage Credit Institute, the State Bank of Chile enjoys rediscounting privileges with the Central Bank. The State Bank, in addition to making short-term

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loans, is empowered to make intermediate and long-term loans. In the decade 1946-1955, the commercial banks and the State Bank were able to maintain increasingly large debt balances with the Central Bank.

As a starting point in analyzing the major sources of inflationary pressure, it is useful to begin with the data on the money supply. The figures given below are extremely revealing:

<table>
<thead>
<tr>
<th></th>
<th>1946</th>
<th>1955</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand deposits</td>
<td>6.1</td>
<td>76.2</td>
</tr>
<tr>
<td>Currency in circulation</td>
<td>2.2</td>
<td>40.0</td>
</tr>
<tr>
<td>Total</td>
<td>9.3</td>
<td>116.2</td>
</tr>
</tbody>
</table>

In the decade 1946-1955 the total supply of money was multiplied 12.5 times, an enormous expansion. The fundamental element in this expansionary process was central bank credit which multiplied over ten times between 1946 and 1955: without this amplification in the reserve base there could have been no increase in currency nor in demand deposits. It is informative to study briefly the data pertaining to the creation of "high-powered" money or bank reserves through central bank credit operations. In the decade 1947-1956 the principal credit operations of the Central Bank consisted of emissions in favor of (1)

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9 Banco Central, Memoria, Appendix Table No. 7.
the Treasury and Official Institutions and (2) rediscounts and loans to banking institutions. The relevant figures for every other year are given below, in millions of pesos:  

<table>
<thead>
<tr>
<th>Year</th>
<th>Treasury and Official Institutions</th>
<th>Rediscounts and Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947</td>
<td>3.133</td>
<td>1.249</td>
</tr>
<tr>
<td>1949</td>
<td>3.403</td>
<td>2.639</td>
</tr>
<tr>
<td>1951</td>
<td>5.362</td>
<td>3.569</td>
</tr>
<tr>
<td>1953</td>
<td>14.561</td>
<td>6.741</td>
</tr>
<tr>
<td>1955</td>
<td>25.083</td>
<td>20.637</td>
</tr>
<tr>
<td>1957</td>
<td>31.463</td>
<td>46.956</td>
</tr>
</tbody>
</table>

In the decade the Central Bank's emissions to the Government multiplied nearly twelve-fold; rediscounts and loans to banking institutions multiplied nearly 24 times. Central bank liabilities, as in the United States, comprise currency and commercial bank (also State Bank) reserve deposits. The latter, of course, provide the basis for a multiple monetary expansion. From the standpoint of reserve deposit creation, it is a matter of indifference whether central bank credit expands in the direction of rediscounts or whether it is used to finance a treasury deficit—either operation expands bank reserves.

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10 Banco Central De Chile, Boletin Mensual (Santiago, 1958), No. 36, p. 24.
It is evident that if inflation is to be halted in Chile, restraint must be applied at the central bank level on the volume of rediscounts as well as in the area of deficit financing. In an atmosphere of persistent and rapid inflation it is impossible to float important public bond issues at interest rates satisfactory to the treasury except through the Central Bank.

In addition to the rapid expansion of money as the cause proxima in the rising level of prices in Chile, it is also necessary to take into consideration a notable increase in the transactions-velocity of demand deposits. The ratio of total bank debits (current account) to average annual demand deposits increased from 29.7 in 1946 to 37.0 in 1955. Both the increments in supply of money, then, and its rate of turnover provided the occasion for Chile's inflation.

There has been much controversy in Chile over whether the inflation should be attributed to a "cost-push" (from the wage sector) or to a "demand-pull". In view of the evidence presented in Chapter III, which pointed to the declining share of wages in the disposable personal income...

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11 Instituto de Economia, op. cit., p. 47.
since 1946, a wage cost-push could not have been a factor in the increase in prices.

...that is full employment could have been maintained without inflation and all of the additional objectives of the Chilean Government, such as the financing of its very substantial disbursements, could have been achieved as clearly without inflation as with it.12

The next step is to inquire whether these vast increases in the means of payments were created principally to finance a government deficit, a persistent favorable balance of payments, or to favor those groups of the community who have easy access to credit and which benefit from the lag between wages and prices. Bank loans in favor of the treasury and the semi-fiscal institution, whether made by the Central Bank, the commercial banks or the State Bank, result in the creation of new money. In a given year, these creations of new money would roughly equal the treasury deficit plus the deficits of the fiscal institutions.

Loans made to the private sector on the part of the same commercial banks, the State Bank, and the Central Bank likewise are money-creating. Finally, the third major category giving rise to additional means of payment

consists of the foreign exchange operations through which the Central Bank and the commercial banks acquire foreign exchange holdings against creation of new money.

Dr. Martin Bailey, of the University of Chicago, while doing research in Chile was interested in determining the degree of the direct contribution of each of the general sectors—the Treasury and semi-fiscal institutions, the private sector, and foreign exchange operations— to the growth of the total money supply. He arrived at the following conclusions: (1) there was a pronounced reduction in foreign exchange operations as a source of money creation during the years 1945-1947; (2) in the period 1947-1951 there occurred a considerable expansion in the private sector at the expense of the public sector, the former increasing from 59 per cent to nearly 73 per cent as a contributor to the supply of money, while the latter fell from 34 per cent to 21 per cent. (It may be concluded, then, that during this period the inflationary pressure derived principally from the private sector.) (3) Between 1951 and 1953 the roles changed, and the public sector increased from 21 per cent to nearly 30 per cent in the supply of money while the private sector fell from nearly 73 per cent to 58 per cent (and the foreign exchange operations increased from 6 to 12
per cent); and (4) the roles were again reversed from 1953 forward as the public sector contracted to 24 per cent in 1956 and the private sector expanded to more than 73 per cent in its contribution to the total money supply.

On the basis on his analysis, it may be concluded that with the exception of the period 1951-1953, when strongly rising government deficits led to a large relative expansion in circulating media, the principal cause of inflation in the period 1946 to 1956 were the bank loans made to the private sector. Furthermore, he points out, that since rediscounts in this period equalled or exceeded the net reserves of commercial banks, the liquidity of the commercial banks is determined generally by the Central Bank.

This apparent lack of prudence among the commercial bankers and, particularly the lack of firmness on the part of those who determine central bank policy, appears to be— with great probability— the most important contributing factor, social or institutional, which may be identified with the inflationary process in Chile.14

The External Sector and Fiscal Revenue

The fundamental and striking characteristic of the system of public finance in Chile is the heavy dependence

13 Bailey, Ibid., p. 19.
14 Bailey, Ibid., p. 19.
of taxation on the external sector\textsuperscript{15} and in particular on a single unstable commodity—copper.

A breakdown of total government income from taxation shows that during the period 19\textsuperscript{4}5-1953 the external sector contributed 52 per cent which was made up of import duties (16 per cent) and taxes levied on the large foreign-owned mining companies (36 per cent of aggregate taxes).\textsuperscript{16}

In tracing the evolution of Chile's fiscal dependence on foreign commerce, it is possible to differentiate three unique periods, each of which has been closely linked with the country's economic development. The first period extended from the birth of the Chilean Republic to the War of the Pacific (1880-1883). The economic orientation was geared toward internal development; the government limited itself to traditional functions including a few public works. The very conservative expenditures were financed through duties covering a wide range of agricultural and mineral export commodities and through the levy of domestic taxation. Although the dependence of public revenue on foreign trade was relatively high in this

\textsuperscript{15}For our purposes in this section, taxation on the external sector includes import duties and taxes levied on the large foreign-owned mining companies.

period (roughly 60 per cent), in absolute terms it was practically insignificant because the low level of government taxes. Moreover, the revenue derived from the external sector attained a fairly stable character since it was based on a list of diversified exports.

The second period began with exploitation of the natural Chilean nitrate for world consumption. During the first decade of the Twentieth Century, Chile supplied about two-thirds of the world's nitrate consumption and in this heyday of the country's nitrate boom, the problem of public finance was radically changed and assumed great simplicity. Domestic taxes lost their significance and the fiscal apparatus became tied to the fortunes of nitrate. The collection of the nitrate tax was easy and the problems of mining and marketing nitrate fell mainly on the foreign-owned (mostly British) companies. In 1895, for example, the external sector produced 95 per cent of the government's revenue. The country's economic orientation was clearly toward world markets--specialization and international trade was the prevalent pattern of resource allocation. The first threat to Chile's virtual monopoly position in this vital raw material came during

\[17\] Instituto de Economia; *op. cit.*, p. 180.
World War I, when a German chemist developed the nitrogen fixation process allowing for synthetic production of nitrates. By the late twenties Chile's share in supplying the world's nitrate consumption had shrunk to one-fourth. As Chile's nitrate experienced increasing difficulty in competing with the synthetic product taxes derived from nitrate also began to shrink. In this period, in order to broaden the tax base and thereby reduce the treasury's dependence on the fortunes of international commerce, the Government introduced a progressive income tax and a land tax. Despite the growing importance of the foreign-owned copper companies as a new source of taxation, the treasury incurred a number of budgetary deficits which it managed to finance in large measure with the proceeds of generous bond issues in foreign financial markets, notably in New York City. In the period 1925-1930, particularly, the proceeds from these foreign bond issues replaced the rapidly falling nitrate taxes—a precarious substitution. By 1929, the year which marked the end of this period, the relative importance of the external sector in meeting Chile's tax burden had declined to 67 per cent.

Out of the severe foreign commercial crisis incident to the Great Depression, there emerged in Chile a new economic orientation aimed at the maximum possible economic
isolation characterized by the phrase desarrolllo hacia dentro (internal development). The new policy became increasingly crystallized, after the creation of CORFO in 1939, as a desire for intensive industrialization. This orientation persisted for about a decade following the end of World War II. Greater government intervention was accompanied by an expanding budget relative to national income. Although new forms of taxation were added, the external sector continued, as noted earlier, to finance over one-half of the country's tax income; on a relative basis its share has diminished when compared to the previous period.

Fluctuations in receipts from the external sector, despite the stabilizing influence of internal taxation, provoke serious instability in Chile's public revenue. Aggregate tax revenue has followed a trend roughly parallel to that of receipts from copper: "It fell from 18.6 billion pesos (at 1950 prices) in 1945 to 18.49 billion in 1946; from 24.5 billion in 1948 to 23.4 billion in 1950; and from 31.6 billion in 1952 to 28.3 billion in 1953."18

The effects of the present recession in the United States which has contributed to an already weakened copper market, have been imparted to the fiscal budget situation in Chile. On December of 1956 the Chilean Government approved a planned foreign exchange budget for 1957 in which receipts from the external sector were estimated (on the basis, in part, of an average price of 35 United States cents per pound for copper) at $130.5 million. Actual foreign exchange receipts turned over to the Treasury, however, proved far short of the original estimate—they came to only $84.8 million, a discrepancy of $45.7 million.19 The reduced foreign exchange income of the Treasury of about $85 million in 1957 should be compared with that of the previous year when it equalled about $130 million. In 1955 the Treasury's share of taxes on the external sector reached a peak figure exceeding $160 million or nearly twice the foreign exchange income it received in 1957.

Copper and Public Finance

It is a well known fact that the price of copper fluctuates widely with business cycles which are generated in the leading industrial countries, especially

19 Banco Central de Chile, Boletín Mensual (Santiago, 1958), No. 361, p. 180.
the United States. "This is not abnormal since more than half of copper in highly-industrialized countries is used for construction, electrical and communications equipment, machine tools and other heavy industrial components, whose output plays a leading role in economic cycles."\(^20\)

Considering that taxes levied on the great copper mining industry have brought in roughly 30 per cent of aggregate revenue, (in 1952 the figure was 37.5 per cent) this sensitivity in the price of copper along with changes in the volume of production is imparted, in a milder degree, to the fiscal budget. Fiscal receipts from the great copper mining industry decreased from 6.3 billion pesos (at constant 1950 prices) in 1945 to 6.0 billion pesos in 1946; they then rose to 9.4 billion in 1948 and fell to 7.7 billion in 1949, after which they increased to 14.7 billion by 1952, but fell sharply to 9.8 billion in 1953.\(^21\)

According to estimates of the Chilean Copper Department, the average sales price of Chilean copper, which in 1956 was 40.3 cents per pound, fell to an average 27.5 \(^20\)United Nations, Economic Commission for Latin America, *United Nations Economic Survey of Latin America, 1955* (Santiago, 1956), p. 70.

cents per pound in the following year. Consequently, fiscal revenues from the great copper mining industry fell from $126.6 million in 1956 to an estimated $72.5 million in 1957, a fall of over $54 million (a percentage decline of 43 per cent). A decline in the average price of copper of about 13 cents per pound thus meant a loss to the Treasury of over $44 million for each one cent decline in the value of the red metal.

The sharp downward movement in fiscal income from the great copper mining industry in 1953 was a key factor in accelerating the already pronounced inflation which Chile was then experiencing. Compared with 1952, when fiscal revenues from copper reached $114 million, in 1953 and 1954 these revenues fell to $71 million and $68 million respectively. Aside from the sharp decline in the price of copper incident to the recession of 1953-1954, the Chilean Government's unsuccessful experiment of holding out for a higher price for the sale of the country's copper brought on these considerable contractions in fiscal returns from copper exports.

The severe decline in budget receipts in 1953 placed an unusually great strain on the monetary mechanism: the

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22 Banco Central de Chile, Boletín Mensual (Santiago, 1958), No. 359, p. 3.
fiscal deficit of 10.4 billion pesos—nearly twice the size of the previous year's deficit and equal to almost one-fourth of aggregate taxes—was financed substantially by the banking system. The sharp increase in central bank credit for account of the Treasury and the semi-fiscal institutions rapidly became, in the form of new commercial bank reserves, the basis for an accelerated expansion in the money supply and hence, of the level of prices. Moreover, a general contraction in Chile's foreign exchange receipts led to an estimated average devaluation of 70 per cent. The direct impact of this was to greatly raise the cost of imports in local currency and thereby increase the level of prices in Chile. Simultaneously with the devaluation, which had the effect of increasing the price of many vital consumer goods, wages and salaries were adjusted upward. Chilean businessmen, faced with increased labor costs and additional direct tax levies had recourse to commercial bank credit. They were thus able to maintain their customary profit margins and pass the added costs on to the consumers in the form of higher prices.

A major problem confronting the Government in 1957 was how to meet its expenditures in the face of an operating deficit and at the same time to minimize the inflationary consequences of financing these expenditures.
First of all, the Government trimmed a number of postponable commitments. Secondly, the increment in central bank credit made available to the Treasury was amply neutralized through a reduction in the Central Bank's accumulated foreign exchange reserve. In effect, the sale of a part of these reserves on the foreign exchange market absorbed an equal amount of bank reserves. "In consequence, from this point of view, it may well be said that during the past year (1957) central bank credit in favor of the Treasury was not translated into a monetary expansion."\(^2\)

To finance the major part of the fiscal deficit for 1957 of 17.3 billion pesos the Government received, through the efforts of the United States Ambassador in Chile, stop-gap loans from the Federal Reserve Bank of New York ($0.5 million) and from the Export-Import Bank ($12.5 million). In addition, Chile made use of $13.5 million from the $75 million Stand-by Agreement with the International Monetary Fund and a number of United States commercial banks.\(^2\)

\(^2\)Banco Central de Chile, Boletín Mensual (Santiago, Chile, 1958), No. 361, p. 179.

\(^2\)Banco Central de Chile, Boletín Mensual (Santiago, Chile, 1958), No. 359, p. 12.
The Stabilization Program

In following the recommendations made by the Klein-Saks Mission, the Chilean Government launched a comprehensive attack on the country's rampant and accelerating inflation in the last few months of 1955. The Stabilization Program emphasized the general anti-inflationary measures of credit control, budget austerity, and limitations on the automatic readjustment of wages and salaries.

Monetary authorities have implemented a policy of prudent limitations of credit expansion through the practice of assigning maximum quotas for the growth of bank loans. The following data indicate the effectiveness of monetary control:

<table>
<thead>
<tr>
<th></th>
<th>1955</th>
<th>1956</th>
<th>1957</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central bank credit</td>
<td>61.3</td>
<td>41.3</td>
<td>25.5</td>
</tr>
<tr>
<td>Money supply</td>
<td>65.7</td>
<td>42.9</td>
<td>27.9</td>
</tr>
<tr>
<td>Cost of living</td>
<td>83.3</td>
<td>37.7</td>
<td>17.3</td>
</tr>
</tbody>
</table>

Notable progress has been made in the effort to break the rate of increase of prices. As shown above, the rate of increase in the cost of living which reached a peak in 1955 (34 per cent) was held down to 38 per cent in the following year and to 17 per cent in 1957.
Many other reforms proposed by the Klein-Saks Mission, however, have not gained the acceptance of the Chilcan Congress.

Congress refused to authorize a 20 per cent cut in government staff. Instead of a planned 10 per cent drop in 1957, government expenses rose. Congress balked at an antitrust bill, and monopolistic, inflationary profiteering goes on in the lumber, paper, cement, pulp, tobacco, meat and backed-goods industries. Government pensions, which dangerously sap the economy, continue to increase. The government, for example, spends almost three times as much on pensions for retired army non-coms and officers as it does for those in actual service. The armed services waste money; Chile still keeps in commission the Almirante Latorre, probably the only ship still afloat from the 1916 Battle of Jutland, where it was a British dreadnought. The government hesitates to tighten collections of income taxes, which are high in theory but evaded in practice, and jail evaders, as the Klein-Saks Mission urges.

It is interesting to note that the Chilean Treasury itself became a victim of inflation because on the one hand expenditures were constantly readjusted (i.e., wages and salaries) while on the other, not all revenues could be readjusted at an equal pace. Another notable fact is that the cost of national defense makes up 28 per cent of the budget.

Some of the economic sectors which expanded rapidly during the rampant inflationary era are now faced with a considerable readjustment. Construction, for example, fell 30 per cent in 1957 compared with the previous year. The application of comprehensive quantitative restrictions on credit "...when the excess of demand over supply and production capacity is not the same in different activities," when bringing about equilibrium in one sector could at the same time cause "...unnecessary restriction of production in other activities where the excess of demand is substantially less." This has been a major problem facing the Stabilization Program.

Summary

Traditionally in Chile there has existed an intricate reciprocal relationship between the country's monetary-fiscal operations and the external sector. During World War II, for example, Chile's monetary reserves increased by nearly $100 million due to persistent balance of payments surpluses. A counterpart of these increases in gold and foreign moneys was a doubling of central bank credit which in turn provided a larger reserve base from which the commercial banks could expand credit. Thus,

Banco Central de Chile, Boletín Mensual (Santiago, 1953), No. 359, p. 8.
central bank credit derived from foreign exchange cooperations constituted the dynamic element in creating a larger supply of circulating media and therefore of inflation.

In the decade of 1947-1955, the principal credit operations of the Central Bank of Chile consisted of emissions in favor of the Treasury and Official Agencies which multiplied twelvefold, and rediscounts and loans to banking institutions which multiplied 24 times. The fundamental and basic characteristic of the system of public finance in Chile is the heavy dependence of taxation on the external sector and in particular on a single volatile export commodity—copper. A breakdown of total government income from taxation shows that during the postwar years, the external sector contributed about one half of all taxes paid, and the large copper companies about 30 per cent. A sharp downward movement in fiscal income derived from the large copper companies in 1953 was a key factor in accelerating the already pronounced inflation because the Treasury was forced to resort to heavy deficit financing through the Central Bank.

In following the recommendations made by the Klein-Saks Mission, the Chilean Government launched a comprehensive attack on the country's rampant inflation in the last few months of 1955. The Stabilization Program has
emphasized the general anti-inflationary measures of credit control, budget austerity, and limitations on the automatic readjustment of wages and salaries and has thus far achieved notable progress in breaking the rate of increase of prices.
CHAPTER VIII
FOREIGN TRADE CONTROLS AND THE
ALLOCATION OF RESOURCES

In April of 1956 the Chilean Government effected a fundamental policy change portending profound economic consequences. It scuttled the cumbersome and very complex multiple exchange system prevailing before that time. A key recommendation of the Klein-Saks Economic Mission, the exchange reform essentially reintroduced a considerable degree of freedom into Chile's foreign trade: a structure of discriminatory multiple rates and import licensing requirements was replaced with a free fluctuating exchange market for all commodity transactions, while a free brokers' market continued to be applicable to private capital transactions and some invisibles. The exchange reform was accompanied and coordinated with a comprehensive program of monetary and fiscal measures directed toward economic stability.

Introduced in 1931, Chile's trade controls had evolved from a relatively loose and simple form into a rigorous and highly complicated system. Tariffs, which prior to 1928 were only slightly protective, became after 1932 excessively protective. The control pattern comprised
in addition, (1) multiple rates of exchange as well as a fluctuating free market rate, (2) absolute prohibitions against the importation of a significant list of commodities, (3) exchange licensing quotas combined with designation of sources from which commodities may be imported, and (4) an annual national exchange budget formulated by the Government in anticipation of the coming year's receipts and payments.

The purposes to which these controls were directed were legion and, depending upon the circumstances and the time period, included the following: (1) to maintain an overvalued peso in the exterior, (2) to check capital flight, (3) to control trade, (4) to protect domestic industries and promote industrialization, (5) to safeguard other domestic programs including the subsidization of lower-income groups through exchange rate manipulation, (6) to stimulate marginal export industries, (7) to conserve gold reserves, and (8) to acquire large revenues for the government.

The Import Tariff

The Chilean tariff before the Great Depression (as was the case with most Latin American countries) had the characteristic of being only slightly protective. However, between 1929 and 1932 it became distinctly protective
and reached its greatest height in 1934. Most commodities entering Chile have been subjected to customs duties. For this reason, the ad valorem equivalents on total value of imports and on the value of imports subject to duties are roughly comparable. In 1928 the value of Chile's imports was taxed at an average rate of 21 per cent; thereafter, the ad valorem duties increased sharply, reaching 72 per cent of total import value and thereafter declined to a low of 25 per cent in 1945 (31 per cent on the basis of imports subject to duties) and increased to 32 per cent of the value of all imports or 33 per cent of the value of dutiable imports. ¹ When considering these percentages, it is important to bear in mind that ad valorem duties are not the only ones applied; most goods have also been subject to specific duties. The basic duties applied on the great mass of Chilean imports are specific and ad valorem; the former are assessed on the unit (the kilo, the meter, the liter, etc.) and the latter are assessed on the duty-paid value of the goods (i.e., the c.i.f. value, plus the specific duty on the goods).

In the case of specific duties, low rates apply to goods considered essential while progressively higher

¹United Nations, Economic Commission for Latin America, Tendencias del Comercio Internacional y de la Politica Comercial en los paises de la America Latina (Santiago, Chile, 1950), tables 36 and 37.
rates apply to goods of lower priority. The yield from these duties is closely related to the physical volume of imports and their composition.

The *ad valorem* duty, as indicated, is applied after the specific duty, and therefore rests on a large base. Until April 1956, when multiple exchange rates were still applied, the duty was assessed on the value of the commodity as expressed in the relevant exchange rate, whether preferential or penalty. "Since the tax is *ad valorem*, its yield is related to the costs of acquisition, the quantum of imports, the composition of these, and principally to the rate of exchange applied to the commodities."²

As with specific duties, the *ad valorem* tax varies with the essentiality of the import:

Goods regarded as prime necessities are subject to an excise import tax of 3 per cent of the duty-paid value; general merchandise is subject to an import tax of 28 per cent of the duty-paid value; and luxury goods are subject to an import tax of 55 per cent of the duty-paid value (on those goods which Chile has granted concessions under the terms of the General Agreement on Tariffs and Trade this tax is reduced to 48 per cent for GATT signatories).³


Conscious tariff liberalization has been increasingly important in recent years; the Chilean Executive may reduce import duties to 50 per cent in some cases.

Despite the relatively high duties which have characterized the Chilean Tariff since 1929, other forms of trade restrictions have certainly overshadowed the traditional tool of protection. The inflation of the middle thirties and of the World War II period in Chile served to considerably neutralize the effects of the tariff. In fact, beginning with 1939, quantitative restrictions against imports began to assume the major burden of balancing Chile's international accounts, and protecting local industry.

**Quantitative Controls**

In contrast to tariff systems which influence the international price mechanism indirectly through cost, quantitative controls are highly arbitrary and generally direct in their effects. In Chile, quantitative restrictions have ranged from licensing quotas to absolute prohibitions or "zero" quotas.

Import quotas in Chile have predominately taken the form of licensing in conjunction with a system of exchange control. Import licensing unlike quotas which limit the physical quantity of goods entering a country, represents
an indirect restriction upon importation; the foreign exchange needed to pay for imports is restricted rather than imports as such. Import licensing has two features which make it very attractive to the officials who administer it. First, it allows a considerable amount of flexibility in the restriction of imports; secondly, it is a means by which a government can exercise control over relatively scarce foreign exchange. Quotas have generally been used to confine within predetermined limits the aggregate value of imports. Until their elimination under the exchange reform law, they were used, with varying degrees of success, in the promotion of balance of payments equilibria and for protection.

As early as 1933, Chile established a system of preferential import licenses; this was followed in 1939 by a requirement that prospective buyers of exchange acquire an import license prior to such purchase. Furthermore, the receipt of such a license did by no means guarantee that exchange would be made available. The administration of licensing when combined with quotas was entrusted to the Exchange Control Commission, a function which was later taken over by the National Foreign Trade Council (CONDECOR).
In 1946, upon the resumption of normal trade flows, the system of prior licenses was placed under tremendous pressure with the result that imports exceeded the disposable exchange receipts by $80 million. To avoid a recurrence of this condition, the Government established in the following year an Annual Exchange Budget under which licenses were granted in accordance with quotas fixed on the basis of the exchange income forecasted. The Budget was prepared by CONDECOR subject to the approval of the President of the Republic. Nevertheless, in 1947 imports exceeded the amount allotted on the Exchange Budget by 17 per cent with the result that the current account closed with a deficit of 50 million dollars, or more than three times the deficit forecast in the Budget. The country was obliged to draw on $34 million of its none too abundant reserve of gold and foreign exchange to finance the deficit. On the basis of this exchange budget, licenses were issued to established importers up to the limit of their individual quotas and according to the supply of the various types of exchange and, particularly, on the basis of trade agreements.

"Since 1947, there is no doubt but that rigorous restrictions, quotas, and prohibitions have diminished the
relation between imports and national income." Absolute prohibitions against some luxury goods and against commodities of a type produced domestically represented another feature of quantitative controls. A list of such goods, applying generally to all counties, was published every year as "merchandise for which no import license will be issued." Items which were not mentioned in the foreign exchange budget or its supplementing regulations were also prohibited importation. However, this latter implicit prohibition was not absolute; CONDECOR could grant exceptions.

Licenses covering the importation of certain luxuries were granted contingently upon the exchange income derived from the export of wine and newly produced gold. A rather interesting arrangement, authorized by CONDECOR, provided that the National Association of Importers and the Association of Wine Exporters could jointly "allocate" the use of exchange receipts from wine exports.

Under the old exchange system, the chief purpose of export licensing was to assure that the exchange receipts were returned through the banks for allocation by CONDECOR. At present, export licenses continue to be required for

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all exports excluding those of the large foreign mining companies (copper, nitrates and iodine, and iron ore).\textsuperscript{5} However, the copper companies must obtain approval from the Copper Department of the Central Bank for their shipments; exports of iron ore are authorized globally by the Foreign Exchange Commission which replaced CONDECOR; all nitrate is marketed by the public agency, the Nitrate and Iodine Sales Corporation (COSACH). The export of some specific agricultural commodities is prohibited.

The Multiple Exchange Rate System

Initially designed to meet an emergency condition, the exchange control system of Chile introduced in 1931 evolved into an increasingly complex pattern, directed to purposes very different from the ones for which it was originally created. The exchange system reached its most complex form in 1952; thereafter, it was gradually simplified, culminating in the exchange reform of April 1956. Without a doubt, this system, until its demise, operated as a formidable instrument of economic policy.

The Chilean system, with a few minor exceptions, centralized all international transactions under the

authority of a single official board, the Exchange Control Commission whose functions in 1942 were absorbed by the National Foreign Trade Council, and thus established government domination over the foreign exchange market. As indicated in the previous section, control of foreign exchange was accompanied by export licensing to safeguard against evasion and import licensing to direct the scarce foreign currencies according to a set of priorities. After 1931, the system was characterized by increasing proliferation of rates, both on the buying and selling side, including "mixing" rates. Finally, in the case of countries with which Chile had concluded clearing or compensation agreements, a unique set of exchange rates prevailed for each country, adding to the difficulties of an already complex system. Countries with which Chile traded on a multilateral basis, were the United States, Canada, Mexico, Colombia, Cuba and Bolivia (and until the end of 1940, the Sterling Area). Minor transactions could be transacted through a legal fluctuating free market rate.

A striking feature of a differential exchange rate system is that each rate will become arbitrary in its

\[6\text{ Mixing rates result from the combination of two or more basic rates in varying proportions.}\]
effect: some rates will be undervalued; others will be overvalued with reference to the equilibrium rate provide varying subsidies to imports and impose taxes or penalties of varying severity on exports. Thus it was with the Chilean system. As of the end of 1951, for example, the Chilean multiple exchange mechanism operated with a total of nine basic buying rates and eight basic selling rates. The situation is summarized in Table 20. The buying rates derive from the various sources or receipts of exchange; the selling rates are applied to various uses or payments. In our example, the official par value rate was 31 pesos (established by decree in July 1942 and approved by the IMF in 1946) and this was not changed until December 31, 1953. However, as the table indicates very few transactions were handled through that rate; with the passing of years this rate became increasingly insignificant. At this rate (31.10) certain basic necessities and some government imports alone were permitted, constituting in effect a subsidy to these favored import goods. At the other extreme of the demand or import side, there existed the rate of 135 pesos per dollar which constituted a severe penalty on designated luxury goods. Between these two rates (a range of over 100 pesos per dollar) stood others, through the use of
which the bulk of payments were made. The purchasing power parity rate for 1951 was calculated at 96.6 pesos per dollar and this gives some indication of the arbitrariness of Chile's exchange system.7

Imports of semi-public institutions, of basic raw materials and fuels (raw cotton, rubber, jute, cellulose, crude oil, gasoline, etc.) of medicines and medical appliances, and other "necessities" were all brought in at favorable rates of 50.10 and below. Certain ultra-luxury items such as washing machines, perfume oils, and watches, were permitted to enter at the "Fluctuating Gold Market Rate" in which exchange was derived from the exportation of domestically produced gold. Other designated luxury imports could enter at the slightly lower "Wine Rate", their volume being limited by exchange derived from the sale of wine abroad. Tourists were required to buy pesos at the "Fluctuating Free Market Rate" of 93 pesos per dollar. Amortization of private capital, after November 21, 1950, could be effected through this same rate providing, of course, that the proper amount of exchange could be acquired.

Continuing with the situation as of December 31, 1951, we may note that receipts of foreign exchange could be

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7The 1937 free exchange rate was selected as base, and the parity exchange rates for the subsequent years were estimated as a function of the base parity (contd p.222)
Table 20
CHILE: RATES OF EXCHANGE
(as of December 31, 1951; pesos per U.S. dollar)

<table>
<thead>
<tr>
<th>BUYING (source of exchange)</th>
<th>SELLING (use of exchange)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.37 Sale of exchange by large mining companies (copper and iron) to cover local currency expenses in the country; sale of 2% of proceeds of exports of nitrate and iodine.</td>
<td>31.10 Imports of drugs, antibiotics, sugar, newspiring, tallow, wheat flour and certain government imports. Certain invisibles.</td>
</tr>
<tr>
<td>31.00 Liquidation of certain insurance.</td>
<td>43.00 Exports of copper scrap. Certain invisible foreign trade items.</td>
</tr>
<tr>
<td>43.00 Exports of copper scrap. Certain invisible foreign trade items.</td>
<td>43.10 Imports of raw cotton articles and appliances for medical and dental use, certain imports of public and semi-public institutions.</td>
</tr>
<tr>
<td>50.00 Exports of nitrate and iodine.</td>
<td>50.10 Imports of crude oil, gasoline, tea, yerba mate, paraffin, antibiotics, kerosene, rubber, jute, cellulose, ships, etc. Certain invisibles.</td>
</tr>
</tbody>
</table>

7(continued) of the relative variations in the cost of living in Chile and of the implicit deflator of the United States gross income. See United Nations, Economic Bulletin for Latin America, (Santiago, Chile, 1956), Vol. 1, No. 1, p. 52, table 10.
<table>
<thead>
<tr>
<th>BUYING</th>
<th>SELLING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(source of exchange)</strong></td>
<td><strong>(use of exchange)</strong></td>
</tr>
<tr>
<td>60.00 Exports of certain ag. products</td>
<td>60.10 General import rate. Certain foreign-trade invisibles.</td>
</tr>
<tr>
<td>(barley, kidney beans, timber). Sale of</td>
<td></td>
</tr>
<tr>
<td>exchange by large mining companies</td>
<td></td>
</tr>
<tr>
<td>(copper and iron) to cover local</td>
<td></td>
</tr>
<tr>
<td>currency expenses for new investments.</td>
<td></td>
</tr>
<tr>
<td>90.00 Designated exports (products of</td>
<td>90.20 Designated non-essential imports.</td>
</tr>
<tr>
<td>medium and small mining industry,</td>
<td>Invisible items not authorized at other</td>
</tr>
<tr>
<td>manufacturers, petroleum, certain ag.</td>
<td>exchange rates.</td>
</tr>
<tr>
<td>products). (&quot;Free Market Rate&quot;)</td>
<td></td>
</tr>
<tr>
<td>92.60 Fluctuating Free Market Rate.</td>
<td>93.00 Other invisible foreign trade items,</td>
</tr>
<tr>
<td>Invisibles; receipts on a/c of capital.</td>
<td>including tourism and private capital</td>
</tr>
<tr>
<td></td>
<td>movements.</td>
</tr>
<tr>
<td>110.00 Exports of wine. (Wine Rate)</td>
<td>110.20 Designated luxury imports.</td>
</tr>
<tr>
<td>135.00 Exports of newly-produced domestic</td>
<td>135.00 Designated luxury imports.</td>
</tr>
<tr>
<td>gold. Fluctuating Gold Market Rate)</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** International Monetary Fund, Third Annual Report on Exchange Restrictions (Washington, D.C., 1952).

Other effective buying rates result from a mixing arrangement applied to certain export proceeds combining variable proportions of the 31 and 60 peso rates. These exports consist of certain agricultural commodities, including bran, hides, wax, wool, lentils, frozen meats and chick peas.
converted into any one of nine possible rates, extending over the wide range of 19.37 to 135 pesos per dollar. The extreme penalty rate of 19.37 pesos per dollar was confined to sales of exchange by the large foreign mining companies whose exports have provided Chile with the bulk of foreign income. These exports (not including nitrates) typically have a comparative advantage and, in the case of copper, Chile has historically held a strong supplier position in world markets. (However, under operation of the penalty rate, the large copper companies were placed in the position or producing at comparative dis-advantage.) The 19.37 rate—which prior to 1952 had been the official rate and, during the early thirties was probably not too far removed from a theoretical equilibrium rate—became in the latter forties and early fifties completely unrealistic. Only a minor share (2 per cent) of the proceeds of exports of nitrate and iodine had to be sold at the lowest rate; the remainder of nitrate proceeds were converted at the rate of 50 pesos per dollar. In view of the nitrate industry’s weak competitive position vis-a-vis other world suppliers, these rates were hardly realistic.

To stimulate certain marginal products and give them a competitive position in world markets, the Government
created the special "wine" and "gold" rates whose effect was to indirectly subsidize these exports. The "Wine Rate" of 110 pesos and "Fluctuating Gold Market Rate" of 135 pesos per dollar represented the most favorable preferential rates. Exports of Chile's manufactures, of the products of the medium and small mining industry, of petroleum and of some agricultural products were converted at the "Free Market Rate" of 90.00 pesos per dollar. While being denied the extreme favoritism shown the wine growers and gold miners, the rate gave relatively favorable treatment when compared to penalty rates applied to certain agricultural products (barley, kidney beans, timber) and to the exports of the large mining companies. The large foreign-owned copper and iron mining companies had to convert their dollar receipts at the 60 peso rate to cover local currency costs connected with making new investments. This rate combined with the 19.37 peso (operating expenses) rate did not provide a favorable climate for the expansion of mining capacity. Finally, other capital imports could enter Chile at the "Fluctuating Free Market Rate" of 92.60 pesos per dollar—indicating considerable improvement over the rate at which capital could be converted into local currency the previous year (43 pesos per dollar).
In the wake of rampant and now accelerating inflation, the Chilean Government subjected the exchange system to partial devaluation along the entire structure of rates. On October 5, 1953, the official par value of the Chilean peso was changed from 31 pesos to a more realistic 110 pesos per dollar.\(^8\) The "wine rate" was changed from 20 pesos over the free banking rate to 60 pesos over the par value rate. Although quantitative restrictions were maintained, the exchange structure underwent considerable unification at the rate of 110 pesos per dollar (the official par value rate approved by the IMF earlier in the year).

While the official rate and the other rates were readjusted upward all along the line, the 19.37 rate was rigidly maintained to the detriment of the large mining companies, and to the benefit of the Government which resold the relevant dollars at several times their purchase price.

The Copper Law of May 1955 marked a major policy change in the Government's treatment of the large foreign copper companies. Among other measures, it terminated the discriminatory 19.37 rate; the companies were now entitled to receive 200 pesos per dollar in order to cover local expenses.

By January 1956 (just prior to the exchange reform law) Chile's exchange system had attained greater simplicity: there now existed only four buying rates and five selling rates with exports, imports, and invisibles concentrated within the 300 peso "Free Banking Rate" (see Table 21). The 19.37 rate applied only to a very small part of sales from nitrate exports and subsequently was eliminated. Tourist exchanges and private capital transactions were negotiated at the "Fluctuating Free Brokers' Rate"; the export of fish and fish products also benefited from this rate. Wine exporters continued to receive favorable treatment at the preferential "Special Area" rate of 573 pesos per dollar along with other minor exports. On the demand side, the "Special Area" rate served as a penalty device to limit the importation of specified "less-essential" goods and of some invisibles. Further devaluation between 1953 and 1956 left the par value official rate (110 pesos per dollar) with the residual function of applying only to "a few outstanding commitments". Indirect subsidies were maintained via the "Banking Rate" of 203 pesos for government imports and payments and for the purchase of raw sugar, kerosene and some antibiotics in foreign markets—commodities which figured heavily in the standard of living of the lower-
Table 21

CHILE: RATES OF EXCHANGE
(as of January 24, 1956; pesos per U. S. dollar)

<table>
<thead>
<tr>
<th>BUYING</th>
<th>SELLING</th>
</tr>
</thead>
<tbody>
<tr>
<td>(sources of exchange)</td>
<td>(uses of exchange)</td>
</tr>
<tr>
<td>19.37 Sales of exchange</td>
<td>110.00 Applies only &quot;to a few</td>
</tr>
<tr>
<td>from nitrate exports up</td>
<td>outstanding commitments.&quot;</td>
</tr>
<tr>
<td>to $0.50 per ton.</td>
<td></td>
</tr>
<tr>
<td>203.00 (Banking Rate)</td>
<td>203.00 Government imports and</td>
</tr>
<tr>
<td></td>
<td>payments. Imports of raw sugar,</td>
</tr>
<tr>
<td></td>
<td>kerosene, and some antibiotics.</td>
</tr>
<tr>
<td>300.00 (&quot;Free&quot; Banking</td>
<td>303.00 (&quot;Free&quot; Banking Rate)</td>
</tr>
<tr>
<td>Rate) Most exports and</td>
<td>Most imports and invisibles.</td>
</tr>
<tr>
<td>invisibles</td>
<td></td>
</tr>
<tr>
<td>519.00 (Fluctuating Free</td>
<td>529.00 (Fluctuating Free Brokers'</td>
</tr>
<tr>
<td>Brokers' Rate) Other</td>
<td>Rate) Other invisibles, including</td>
</tr>
<tr>
<td>invisibles, including</td>
<td>travel expenses.</td>
</tr>
<tr>
<td>travel receipts</td>
<td>Private capital.</td>
</tr>
<tr>
<td>Exports of fish and fish</td>
<td></td>
</tr>
<tr>
<td>products. Private</td>
<td></td>
</tr>
<tr>
<td>capital.</td>
<td></td>
</tr>
<tr>
<td>BUYING</td>
<td>SELLING</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>(sources of exchange)</td>
<td>(uses of exchange)</td>
</tr>
<tr>
<td><strong>573.00</strong> (&quot;Special Area&quot; Fluctuating Rate)*</td>
<td><strong>583.00</strong> (&quot;Special Area&quot; Fluctuating Rate)*</td>
</tr>
<tr>
<td>Exports of wine and crystalised nitrate.</td>
<td>Specified less essential imports.</td>
</tr>
<tr>
<td>Percentages of some other exports, e.g. iron ore from small mining</td>
<td>Some invisibles.</td>
</tr>
<tr>
<td>companies. Some invisibles.</td>
<td></td>
</tr>
</tbody>
</table>


*This rate is essentially the brokers' rate, but generally it is moved only once per week and is based on the average brokers' market quotation of the previous week. Other effective buying rates result from a mixing arrangement applied to certain export proceeds, all or part of which receive the benefit of the "special area" fluctuating rate, with the balance at the "free" banking rate.*
income groups in Chile. As of October 1955, the large copper companies were entitled to convert at the 300 peso "Free" Banking Rate.

Since the large foreign mining companies have been foreign-exchange earners, they have always been able to freely remit interest, dividends, and amortization payments on invested capital up to the amount of their exchange receipts not required for meeting local operational costs and payment local taxes. Significantly, all proceeds from the export of copper and iron-ore have had to be received in U. S. dollars.

To the degree that multiple rates reduce the demand for imports and other foreign payments, they operate as cost restrictions on exchange transactions. Fluctuating exchange rates adjust the demand for foreign exchange to the supply available in the partial market, thereby providing automatically the requisite degree of restrictiveness. The fluctuating free market rate and the "wine" and "gold" rates performed this function. Insofar as the import rates for necessities were always inadequate to fulfill the demand (overvalued rates) quota licensing had to be resorted to. Many luxury goods also required quantitative restrictions since, even at the extreme import penalty rates, the demand for exchange to pay for them occasionally exceeded the supply.
Bilateral Trading Arrangements

After Chile imposed exchange control in the middle of 1931, the country's trade gradually became splintered into a number of isolated markets: bilateral arrangements replaced free multilateral trade. By imposing exchange control and licensing the country's prices, costs, and income were no longer in harmony with other economies of the world. The inevitable result was that some currencies, particularly the U. S. dollar, became increasingly scarce while the currencies of some other countries became relatively more abundant. When confronted with this condition, the Exchange Control Commission became more liberal in its allocation of abundant currencies and more restrictive in the allocation of relatively scarce currencies.

The inflationary consequences of a powerful compensatory fiscal policy resulted in the overvaluation of the peso relative to the dollar and other scarce convertible currencies. Chile's customary markets in these currencies became increasingly constricted as the country's exports abroad became overpriced at controlled overvalued rates and imports became underpriced in terms of pesos. It became necessary to pinch off possible deficits with hard currency countries since they could not be financed with
surpluses which Chile maintained with many soft currency countries (mostly countries that had also imposed control over their international transactions). In order to reestablish trade at higher levels, Chile's Government had to seek new outlets for exports and locate new sources for imports. The answer was to negotiate bilateral agreements to enhance trade without the accumulation of uncleared balances since the latter would have to be settled in hard currencies.

By the end of 1934 Chile had negotiated clearing or compensatory agreements of a varying degree of formality with Switzerland, Belgium, Germany, Holland, Austria, Brazil, Denmark, Spain, and Czechoslovakia. The typical arrangement worked as follows: Chile would establish in its central bank an account through which all payments for exports and imports with, let us say, Argentina would be cleared. Chileans exporting to Argentina would be paid in local currency previously deposited to this account by Chileans importing from Argentina. Exporters in Argentina would be paid in their own currency from the balances deposited by Argentine importers in the Argentine Central Bank. The important thing to note is that under these exchange clearing agreements, transactions between the two countries are settled in terms of local currency.
No problems arise as long as exports and imports between two countries are in balance so that clearance is complete.\(^9\)

Chilean bilateral trade has also taken the form of a number of important semi-private compensation arrangements. Previously alluded to were the special compensation arrangements in effect between gold and wine exports on one hand and a list of specified luxury items on the other. The Government Nitrate and Iodine Sales Corporation has at various times entered into special compensation arrangements with Belgium, Denmark, Italy, the Netherlands, Portugal, Spain, and Sweden in order to provide (in the face of strong competition from synthetic nitrates) international outlets for these commodities.

\(^9\)Should Chile's claims against Argentina exceed Argentina's claims against Chile, several alternative actions are possible (1) the Central Bank of Chile may grant a short-term credit to Argentina under the assumption that balance is in prospect if the time is extended; (2) Chile may ease its licensing of imports as applicable to purchases in Argentina, while Argentina may tighten its licensing of imports from Chile, until accounts again are in balance; (3) Chile may allow its claims to continue until the clearing agreement expires, and may be carried forward under terms of a new agreement; or (4) the difference may be settled through a payment by Argentina in gold dollars, or other acceptable exchange. The commonest method followed by Chile has been to establish "swing" credits through the Central Bank of a fixed amount with each country (a type of international "line of credit" arrangement)
Major Objectives of Foreign Trade Controls

Official controls affecting international payments were directed to a variety of major and minor objectives. Trade restrictions applied in the years of the Great Depression were intended to reduce Chile's international payments to a level consistent with declining exchange receipts. They served to isolate Chile's economy sufficiently to enable the Government to pursue an expansionary monetary-fiscal policy while at the same time safeguarding the country's hitherto dwindling gold and foreign exchange reserve. The application of controls also acted to hold in check an impending large-scale capital flight induced by foreign investors and domestic resident. Toward the latter thirties, and especially after the creation of the Government Development Corporation (CORFO) in 1939, protection of domestic industries and the fomenting of industrialization became major objectives toward which commercial policy was oriented. To the extent that exchange restrictions served these ends, they were not primarily motivated by balance of payments considerations.

In the postwar era the various foreign trade controls were mobilized to defend the balance of payments--to keep a "potential" deficit from becoming an "actual"
one. Notwithstanding the checks imposed by rigorous exchange controls, quantitative restrictions, and occasional piecemeal devaluations, Chile was facing a long-run balance of payments crisis. The culprit, of course, was the rampant inflation which in 1953 began to accelerate in vigor, culminating in a near doubling in the cost of living in 1955. Rather than take the highly unpopular "classical medicine"--appropriate monetary-fiscal measures and thereby remove the excess demand which had been the root cause of trouble--trade controls, periodic devaluations, and occasional compensatory borrowing were adopted to give temporary relief. To Chile applied the following comment made by the Staff of the International Monetary Fund:

"In their efforts to satisfy the competing claims of divergent social and economic objectives, many countries have adopted economic and monetary policies which have meant that they were attempting to live beyond their means... Measures which it is feared will be unpopular are either not taken at all or taken only after long delay and then not pursued far enough."10

As outlined in the previous chapter, since 1956 the Chilean Government has pursued a comprehensive stabilization program designed in part to eliminate the long-lived balance of payments disequilibrium.

Chile, of course, has also been confronted with temporary balance of payments disequilibria associated with the postwar recessions of 1948-49, 1953-54, and 1957-1958, during which periods the price of copper fell considerably. In attempting to counteract these externally induced effects, the Chilean Government mobilized its arsenal of quantitative controls to full force.

As long as the Government was disinclined to attack inflation at its source, exchange control allowed Chile to overvalue its currency in relation to the currencies of other nations. The capability to overvalue the peso (undervaluing foreign currencies) afforded Chile a number of advantages: (1) the real burden of debt service (amortization and interest) was eased to the degree that service had to be met in fixed money values; (2) Chile's terms of trade could be restrained from turning against her; and (3) to the extent that devaluation could be avoided by applying exchange control, a rise in import prices attributed to devaluation could not add fuel to the country's inflation.

Discussion of the other two major objectives toward which foreign trade controls were directed--resource allocation and subsidization of lower-income groups--will be taken up in the following section.
The Resource Allocation Effect

The multiple exchange system in Chile led to consequences in the allocation of resources from which the country will not completely recover for several years. There can be no doubt that through the extreme use of penalty and preferential rates of exchange such basic sectors as agriculture, the copper and nitrate mining industries, and a number of potential export industries were negatively affected. Furthermore, the system provoked an exaggerated demand for imports (at preferential exchange rates) and so helped to deteriorate an already chronic balance of payments situation. Apart from the preferential treatment given to an important list of consumer goods which figured importantly in the cost of living index, the industrial sector received a considerable indirect subsidy through preferential rates given to raw materials, fuels, and some capital goods.

Exchange policy with respect to agriculture was oriented primarily toward social welfare objectives rather than output increases. It should be remembered, for example, that agricultural output increased only at the annual rate of 1.6 per cent while food consumption increased at the annual rate of 2.3 per cent in the period 1940-1952. Chile, which before World War II maintained
a net agricultural export position, turned into a net agricultural importing country. Prices of many agricultural commodities such as wheat, flour, cattle, butter and powdered milk were kept artificially low through price control and by placing imports of these commodities in a preferential exchange category. Because these products sold in the Chilean market at prices considerably below the world market level, the local incentives to produce and invest in agriculture were sharply dampened. Net investment in agriculture, it will be remembered, was negative in the postwar years.

In the foreign investment chapter it was pointed out that the exports of the large copper companies supported almost the entire burden of local currency overvaluation. The rapidly rising prices paid for copper in the years after World War II were not allowed to act as a stimulant to production and investment in the industry. Rather, the use of the "returned value" rate of exchange of 19.37 pesos per dollar (carrying extreme penalty) the Government systematically was able to appropriate these increases in the value of copper exports: in effect, what took place was a large transfer of income from the great copper mining industry to other sectors of the economy. Thus, the very considerable improvement in the copper terms of
trade failed to provide the impetus for growth in contrast to the rest of the world, in the great copper mining industry of Chile.

To comprehend better the magnitude of resource shifting that took place between the great copper mining industry and other sectors, one should again be reminded of the enormous discrepancy in productivity between the large copper companies and other activities. During the period 1950-1954, average productivity in the export sector of the great copper mining industry was

...eleven times greater than that of the economy as a whole, about thirteen times that of the industry and almost twenty times that of agriculture. In these great disparities lies the fundamental reason why copper plays such an important role in the Chilean economy.11

The mechanism by which the great disparity between the productivity of the copper sector and the rest of the economy was absorbed by the Government was described in previous chapters. In the period 1950-1954, the large copper companies provided the Treasury with about 30 percent of tax receipts from all sources. However, less than one-third of this income was absorbed by the public

sector itself; the remainder was utilized, through the use of preferential exchange rates, to subsidize a large list of imports that the Government favored for one reason or another. Out of total government expenditures in 1952, for example, exchange rate subsidies for imports reached the extraordinary figure of 26.4 per cent. The income appropriated from copper was used principally to subsidize imports as shown by the following data covering the period 1950-1953:12

<table>
<thead>
<tr>
<th>Exchange rate subsidy as a percentage of import price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer goods</td>
</tr>
<tr>
<td>Raw materials</td>
</tr>
<tr>
<td>Fuels</td>
</tr>
<tr>
<td>Capital goods</td>
</tr>
</tbody>
</table>

The above figures indicate that consumer goods received the highest exchange subsidy which was equal to almost one-half of the import price. Since consumer goods made up nearly 30 per cent of all imports in that period and real public investment failed to rise, the growing export proceeds from copper which were surrendered to the Government were, to an important degree, dissipated

12United Nations, "Some Aspects...," op. cit., p. 49. Table 5. The subsidized imports comprise more than 85 per cent of total imports exclusive of imports effected by the large copper-mining companies with their own foreign exchange.
on current consumption. Thus, it appears that the Government failed to realize the opportunity of channeling the growing dollar receipts from copper into capital formation.

Appropos the principle of government taxing away increments in export proceeds (due to the terms of trade effect), Nurkse makes the following comment which is especially applicable to Chile:

It is a very effective method but, in my opinion, rather unfair. Why penalize particularly the producers of export commodities? The supply of these commodities may remain unchanged in the short run, but before very long the producers are likely to turn away to other lines of production. Serious damage may be thus inflicted upon a country's most efficient source of foreign exchange.  

Penalty exchange rates applied to the exports of nitrate similarly drained resources away from that industry and placed them at the disposal of the Government. Although the importance of the nitrate industry in terms of productivity and as a source of foreign exchange receipts cannot be compared with that of the great copper mining industry, nevertheless from the standpoint of numbers employed in the northern provinces, it is of considerable significance. In making the conversion of

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foreign exchange into local currency unfavorable to the large nitrate firms, and thereby artificially raising the cost of production, in terms of foreign exchange, the nitrate industry was deprived of the resources for carrying out crucial modernization and expansion plans which were absolutely imperative if the industry was to survive.

On the positive side, the multiple exchange system together with import licensing, outright prohibitions, and, the tariff, served as an instrument to concentrate resources in manufacturing industry as part of the broad policy of "internal development." Sheltered from the competition of imports, investment in manufacturing expanded rapidly onward from the thirties; prices were not regulated for the most part as they were in agriculture. Furthermore, costs in the manufacturing sector were held down artificially through the exchange subsidies averaging roughly 40 per cent of import prices, granted to raw materials and fuels and to capital goods (which averaged nearly one-fourth of import prices). This was made possible, as shown before, by the appropriation of income from copper. Generally, less effort was made in facilitating the importation of machinery and equipment for agricultural use than for industrial use.
Finally, the granting of highly preferential treatment to certain marginal exporters such as the wine producers and small gold miners, in the form of rates of exchange far better than received by the other exporters, undoubtedly led to inefficient operation in these activities and to the impounding of resources which under different circumstances would have moved into other industries.

Certainly the bureaucratic apparatus required to administer a cumbersome and complex system such as developed in Chile could not but produce uncertainty, favoritism, injustice and inefficiency Dr. Jacob Viner cites the difficulties to which such a system leads:

If government regulation of foreign trade goes beyond the application of ordinary tariffs the paper work mounts: delays in obtaining licensing or allocations add to the cost of doing business; costly ways of escaping the controls are constantly being resorted to, and costly ways of preventing such escape are introduced by government; the sharp wits of the businessmen are directed to negotiating with or circumventing the controller, instead of being applied to the skilled search for better markets, better products, better distribution facilities, or better manufacturing processes.14

The Exchange Reform of April 1956

General norms, the replacement of direct with indirect controls, and simplicity,—these represent the philosophy upon which the new exchange system rests.

In one of the preliminary evaluations of the former exchange system, the Klein-Saks Economic Mission to Chile summarized the situation as follows:

The desire to protect the consumer from rising prices has led to the maintenance of low rates for imports and this in turn to a stepped-up demand for goods from abroad at artificially low prices, at the expense of the budget. A backlog of unfilled orders has been built up abroad, payments have been delayed and Chile's reputation has been harmed. Rates for exports on the other hand have remained undervalued and the legitimate exports severely handicapped with the result that production at home and foreign trade have been distorted and the disequilibrium of the balance of payments has grown progressively worse.15

The Mission presented the following most important advantages for a freely fluctuating exchange system:

(1) the exchange rate automatically adapts itself to changes in the internal price level, relative to that of other countries. Exporters unable to compete in the international markets at the freely fluctuating exchange rate, would have to improve efficiency in their operations

15Exposition for the Central Bank, July 28, 1955 (Mimeographed).
if they wanted to continue in business. Chilean industry and agriculture competing with imports from abroad, would no longer be subject to pressure from foreign goods imported at artificially overvalued rates for the peso. There would result a creation of real incentives for the expansion and diversification of the country's export industries. (2) Exporters and other Chilean business firms would have a real inducement to repatriate funds now held by them abroad, once they become convinced that the exchange rate has begun to represent the real value of the peso. (Estimates for these potentially repatriable funds range from $100 million to $300 million.) (3) Exchange rate determination would be removed from the direct influence of political pressures, particularly import restrictions. Direct controls that give rise to political manipulation, corruption and grave administrative errors would be replaced by a system of indirect controls. (The amount of work falling upon CONDECOR in connection with the granting of licenses has become so heavy that serious delays have resulted to the detriment of Chile's foreign trade. There has been a lack of confidence in CONDECOR.)

The Mission recommended that every importer, upon ordering goods from abroad, make a local currency deposit
with the Central Bank, its size depending on the nature of the goods imported. The list of permitted imports should receive very careful consideration. Such a prior deposit system could be used as a measure to curtail the demand for imports and it would act as a powerful indirect brake on the extent of bank credit. It is anti-inflationary because, to the extent that importers draw on their accounts in commercial banks, the latter's cash reserves and general capacity to lend would diminish. The prior deposit system would be an important means for regulation of various types of imports and would be characterized by administrative simplicity. The Mission emphasized that exchange reform measures could be successful only if they form part of an over-all plan which included anti-inflationary measures in the fiscal, wages, price and credit areas.

The new exchange system which emerged in 1956 is patterned substantially after the Klein-Saks Mission recommendations. The previously existing multiple exchange system was replaced with a freely fluctuating banker's rate for all commodity transactions, while the brokers' free market rate continued to apply to private capital transactions and to some invisibles. Import licensing was replaced by a published list of some 1,200
items (initially) which could be freely imported by anyone in any quantity upon the temporary advance deposit of a certain percentage of the value of the goods with the Central Bank. However, many goods—chiefly luxury goods in "sufficient domestic supply to meet the demand"—have been prohibited entry into Chile. Depending on the essentiality of the commodities, importers were required to make advance deposits of from 5 to 200 per cent of the value of goods. A copy of the deposit receipt must be sent to the exporter for presentation to the Chilean consul abroad at the time of legalization of the document. The amount of the advance deposit is fixed from time to time by the Foreign Exchange Commission. Important categories, however, are exempt from these requirements as indicated below: 16

1. Imports of the large foreign mining companies effected with their foreign exchange

2. Imports by governmental departments and agencies

3. Imports under loans or credits from the Export-Import Bank or the International Bank

4. Imports under the Surplus Agricultural Commodities Agreement with the United States


5. Imports of capital.
The Chilean Government, with the introduction of the new system, negotiated a Standby Agreement with the International Monetary Fund, the United States Treasury, and eight United States commercial banks for a $75 million Stabilization Fund to offset excessive fluctuations in the new rates.

Due to the fall in the price of copper in 1957 and the corresponding reduction in foreign exchange income, the Foreign Exchange Commission moved on February 26 of that year to raise the advance deposit percentages and thereby indirectly increase the cost of importation. With copper prices continuing their downward plunge into the first quarter of 1958, Chile tightened import restrictions to near-embargo levels. The Foreign Exchange Commission recently approved a big increase in the advance deposits covering imports up to 100 times their value, or a deposit requirement of 10,000 per cent.\textsuperscript{18}

On the basis of an average two-month wait for the arrival of the shipment of goods, during which time an advance deposit is required, the explicit (or implicit) interest charge, depending on the percentage deposit required, can add considerably to the \textit{real} import rate of exchange.

\textsuperscript{18}The \textit{New York Times}, Sunday, June 22, 1958, Section 3, p.1 F.
During 1956 and the early part of 1957, a reduced group of imports—kerosene, tea, sugar, yerba mate, vegetable oil, gasoline—continued to enjoy an exchange subsidy through the re-embursement that the Government made to importers covering the difference between the rate of 300 pesos per dollar and that which they effectively paid (the free bankers' rate) in the free market. The Government spent $30 million in 1956 to subsidize these imports; the burden, however, fell on the large copper mining companies since they had agreed to surrender an equal sum of dollars at the lower rate of 300 pesos (in effect, a penalty rate for them). The prices of these goods, which figure importantly in the lower-income groups' standard of living, continued to be controlled in local markets. Toward the end of 1957, however, the special preferential exchange rate was ended and price controls were lifted. Simultaneously, the Government moved to raise the "family allowance" (a type of direct subsidy) for workers.

The advantages and disadvantages of the new exchange system were analyzed by the Dr. Felipe Herrera, Manager of the Central Bank, at a luncheon given by the University Club of Chile. In his talk, Dr. Herrera pointed out that the Chilean exchange reform coincided with the general
movement of South American countries to simplify and better adjust their exchange systems to the needs imposed by economic development. Before the exchange reform, he pointed out, Chile had been classified in last place by the Federal Reserve Bank of New York for promptness in meeting foreign commitments; following the implementation of the new system, Chile moved to among the first five or six countries in Latin America.

Efforts are being made, he continued, to gradually eliminate the outstanding bilateral trade agreements which had been negotiated before the reform. He conceded that through these agreements, the economic allocation of resources was poorly served: "Chile's commerce must aim at getting the best imports at the lowest prices." The accumulated exchange balances with some of these agreements countries would be liquidated within a reasonable time. Furthermore, Dr. Herrera felt that since the new exchange system eliminated preferential exchange rates on the exportation of such marginal products as sulphur, wine, and fish, the stimulation of these exports should proceed in a more rational manner. Her added that the requirement of advance deposits covering imports had restricted circulating media and created an immediate responsibility on the Central Bank that exchange would
always be available for the importer. He indicated that for the first time in the past 25 years, a true bankers' market in foreign exchange had been created subject only to an important intervention in this market by the Central Bank. Dr. Herrera concluded that although exchange reform is only a part of a sound global economic policy, "nevertheless, an inefficient exchange regime is a grave brake on the economic progress of any community; in this sense, the reform of April of the past year contributes to the improvement of the conditions of foreign trade and of economic growth." 19

**Toward a Sound Foreign Trade Policy**

The analysis in this chapter indicates that Chile's foreign trade policy, as it emerged in the post war era, played a heavy hand in distorting the allocation of resources into a lopsided development path. It was a policy inimical to Chile's sound economic growth.

Certainly the return to realistic exchange rates which more adequately reflect the production costs of export goods under conditions of competition has been a major victory for proponents of a viable Chilean economy.

19 The writer was present at the luncheon.
Many of the distorting influences in the price structure have been eliminated. Considering what already has been accomplished, what are the leading ingredients of a sound foreign trade policy for Chile? First, one must ask, "A policy for what purpose?" The answer would appear to be, "A standard of optimum economic growth." This is a rate of growth consistent with longrun equilibrium in the external accounts and with a large measure of freedom, and consumer sovereignty in particular.

The guiding principle underlying foreign trade policy would be the following: Resources—land, capital, enterprise, labor—will be directed to the sectors where they yield the largest marginal return consistent with a reasonable program of protection (employing highly selective standards for promising "infant" industries).

Now that Chile does have a free exchange rate in the sense that it is the result of a free interplay of buyers and sellers in the market, the next question must be asked, "Are tariff duties, the percentage deposit requirements and outright prohibitions all of which keep prospective buyers off the market, serving the best interests of the Chilean economy." Obviously, the exchange rate at any moment of time reflects the existing barriers to imports which act to curb demand for foreign currencies.
By reducing the degree of protectiveness, the demand for exchange will increase and the exchange rate will rise.

Here is the key to the protection problem. On its way up, the rate of exchange would provide protection for more and more local industries, and would surely convert some of them into export industries. It would furthermore protect first those with the greatest competitive position, and would exclude only those with the poorest competitive position.20

Dr. Harberger continues: "Resources would be freed from industries essentially unsuitable for this economy, but there would be a new demand for resources in the export industries which would develop under a higher rate of exchange."

Exchange rate depreciation, to be effective in this task would have to be accompanied by monetary-fiscal restraints sufficiently potent to wipe out any previously operating inflationary pressures and in addition to neutralize the inflationary consequence deriving from depreciation.

Chile's constricted market for a great many manufactured products now produced in the country—judging from their prohibitive prices—indicates that optimal scale of operation for these is still a long way off.

20Arnold C. Harberger, "Memorandum on Chile".
As the domestic market expands, better opportunities for the production of these commodities will present themselves. It is estimated that the population of Chile will reach nine million persons by 1970. Furthermore, over 60 per cent of the population lives in urban centers.

The implication of this for a potential mass market is obvious. Nevertheless, Chile's relatively large urban population does not yet constitute an industrial market. A great part of these people live in slums or near slum conditions and their income levels are so low that they do not have an effective demand for manufactured goods.

One of the brightest prospects for broadening the domestic market lies in substantial increases in product per man-hour on Chile's farms, an opportunity which was sadly neglected until very recently.

All the evidence available—a narrow domestic market; specialized resources; a critical dearth in foreign exchange resources needed for the servicing of foreign investments and the financing of the necessary imports of capital equipment, raw materials and fuels, and vital consumer goods—indicates what is required: A powerful thrust in the direction of exports involving the expansion of traditional export industries and the urgent

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21 "Chile's Economic Future" an address by Joseph Grunwald, Director, Economic Institute, University of Chile (at a luncheon in Santiago, Chile, February 21, 1957).
development of new export lines. A radical change in the structure of Chile's resource use is in prospect. Chile's economy can no longer afford to conform to what Kindleberger labelled the "lagging export model." Rather, the present situation demands the implementation of the "balancing export model" where the emphasis is on autonomous increases in exports, brought about by supply pushes.²²

The autonomous supply pushes can come from two directions. First, as previously indicated, some reduction in the degree of protection (through lowering tariffs, reducing the prior deposit percentages and a liberalization of outright prohibitions) will depreciate Chile's currency in world markets and thereby create new incentives for traditional and potential exports. Secondly, on the positive side, intensive market research is in order if Chile is to find openings in world markets. Export opportunities may not appear obvious immediately. Furthermore, a new product always faces an elastic demand. "One important purpose of these market studies should be to give rational guidance to the diversification of their (underdeveloped countries) exports. One important interest in spreading the exports over a wide range of commodities is naturally to even out risks."²³

As Cecil Aubrey has suggested, a growth in export industries is uniquely suited to provide foreign exchange resources with which a progressive diversification of the economy can be financed. Exports, then, make it possible to reduce gradually the relative overdependence on world markets without sacrificing the standard of living. Rising incomes per capita attributable, in part, to a conscious and uncomplicated program of export promotion will broaden the domestic market thereby creating increasing opportunities for the expansion of industry.

Chilean government officials have been promoting the idea of a common market for South American in the pattern now emerging in Europe. The subject was actively pursued at the annual conference of the United Nations Economic Commission for Latin America at La Paz, Bolivia, and at the Inter-American Economic Conference in Buenos Aires in August 1957. Chile would have much to gain from the creation of a regional common market encompassing, perhaps, the southern countries of South America. The elimination of barriers to trade and payments among these nations could conceivably provide Chile with a secure market of near continental proportions for its woodpulp and paper, chemical, iron ore, coal, steel, and metallurgical industries. When the domestic market
approaches a condition of saturation for the moment, it is natural to look to markets in the immediate region, where the advantage of location should be greatest. In view of the large capital investment required in these heavier industries, a broad market is needed to support economical production.

Summary

Introduced in the time of the Great Depression, Chile's foreign trade controls had evolved from a relatively loose and simple form into a rigorous and highly complicated system which comprised multiple rates of exchange, absolute prohibitions against the importation of many goods, exchange licensing quotas and an annual exchange budget formulated the Government in anticipation of the coming year's receipts and payments.

The purposes to which these controls were directed were legion, and, depending upon the circumstances and the time, included the following: (1) to maintain an overvalued peso in the exterior, (2) to check capital flight, (3) to control trade, (4) to protect domestic industries and promote industrialization, (5) to safeguard other domestic programs including the subsidization of lower-income groups through exchange rate manipulation, (7) to conserve gold reserves, and (8) to acquire large revenues for the Government.
A brief review of Chile's multiple exchange system indicates that preferential import rates were granted to basic raw materials and fuels in which the country is deficient and which are strategically linked with its industrialization goals. Relatively favorable treatment was accorded the importation of certain basic necessities such as drugs, antibiotics, sugar, powdered milk, and wheat flour and to certain government imports. Chilean tourists going abroad had to convert into dollars, pounds sterling, etc., at relatively unfavorable rates while tourists visiting Chile could buy pesos at preferential rates. Designated luxury imports (generally "non-essential" commodities not produced in Chile) entered under penalty rates ranging from the "Fluctuating Free Market Rate" to the extremely high "Gold Market Rate." The large foreign mining companies carried the major burden of the system since they were forced to surrender large quantities of dollars at the extreme penalty rate of 19.37 pesos per dollar and at lesser penalty rates. Exports of wine, and particularly exports of newly-mined gold, were subsidized by the Government to the degree that the relevant rates exceeded the purchasing-power parity rate. Exports of manufactured goods, of products of the domestically-owned mines and of some agricultural
commodities received moderately preferential treatment in the foreign exchange market. Most agricultural exports, however, were penalized.

The multiple exchange rate system in Chile led to consequences in the allocation of resources from which the country will not completely recover for several years. There is no question but that through the use of extreme penalty and preferential rates of exchange, such basic sectors as agriculture, the copper and nitrate mining industries and a number of potential export industries were negatively affected. On the positive side, the multiple exchange system together with import licensing, outright prohibitions, and the tariff jointly served as an instrument to concentrate resources in manufacturing industry as part of a broad policy of "internal development." The importation of a list of consumer goods which figured importantly in the budgets of lower-income groups was also heavily subsidized through the use of preferential rates of exchange.

The Exchange Reform of April 1956 abolished the multiple exchange system and thereby removed a major obstacle in the path of Chile's future economic expansion.
Conclusions

In recent times, and especially since the end of World War II, governments in the economically less developed countries of the world have emerged as consciously active agents carrying a heavy responsibility for the success or failure of development goals. Among Latin American countries, Chile presents an especially interesting case study involving the impact of government policy on economic processes and events. The outstanding conclusion emerging from this study is that Chile's foreign economic policy, as it developed in the postwar era, was inimical to the country's economic growth.

A comprehensive investigation of Chile's economy was not undertaken; instead, the study was limited primarily to an analysis of the external sector of foreign trade and foreign investment and to the role of foreign economic policy in directing the allocation of resources, and hence, of affecting economic development. First a review of the importance to the Chilean economy of the balance of payments, foreign trade and foreign investment is in order.
The analysis of Chile's international accounts, over the considerable span of thirty years, revealed three periods that were particularly marked with instability. An externally induced disturber, the World Depression of 1929-1932, played havoc with Chile's balance of payments. The initial adjustments took the form of a persistent drain on the Central Bank's gold and foreign exchange reserve, and internal deflation. Through the multiplier, real national income and employment fell sharply. Finally, exchange control and import licensing, the abandonment of the gold standard, suspension of foreign debt service, and devaluation of the peso were measured instituted to isolate the Chilean economy from the disturbing external forces.

During World War II, as a by-product of persistent surpluses in the balance of payments, Chile's monetary reserves increased nearly $100 million. A counterpart of these accumulations of foreign exchange and gold was a doubling of central bank credit which in turn provided a larger reserve base from which the commercial banks could expand credit. Thus, in this period, central bank credit derived from the foreign exchange operations (positive disequilibrium in the balance of payments) constituted
the dynamic element in creating a larger supply of circulating media and thereby generating inflation.

In the postwar period the country's explosive inflation, for the most part internally induced, has been the major disturbing element in the balance of payments. As a starting point in analyzing the major sources of inflationary pressure, it is informative to observe that a fundamental factor in this expansionary process was central bank credit which multiplied over ten times between 1946 and 1955. Chile's complex system of foreign trade controls was mobilized to defend the balance of payments—to keep a "potential" deficit from becoming an "actual" one. Rather than take the highly unpopular "classical medicine" of appropriate monetary-fiscal measures and thereby remove the excess demand (which had been the root cause of trouble) a combination of trade controls, periodic devaluations, and occasional compensatory borrowing were adopted to give temporary relief.

The chapter dealing with Chile's foreign trade revealed that the contraction in Chile's capacity to import (i.e. the combined effect of the physical volume of exports and the terms of trade compared with a base period) in the postwar years relative to the late twenties had
an inhibiting effect on capital formation. This is explained by the fact that about 90 per cent of the total investment in machinery and equipment is represented by imported capital goods, and the composition of these in Chile's gross capital formation has averaged nearly 60 per cent in recent years. The writer calculated that a large contraction in capital equipment imports per worker of nearly 50 per cent occurred between the periods 1925-1930 and 1949-1952. This suggests one reasonable explanation for the slow pace in the country's economic growth. The rate of capital formation in Chile in excess of that required to replace depreciated and obsolescent facilities has probably not exceeded four per cent in the postwar period, and this is reflected in the failure of the country's capital stock to expand at a rate faster than the working population. In view of the annual rate of population increase of two per cent since 1950, Chile would require a minimum rate of gross capital formation of 16 per cent of gross national product in order to raise output per capital two per cent annually.

The deterioration in the capacity to import between the late twenties and the postwar years can be traced to the secular weakening of Chile's international nitrate market (e.g., the terms of trade of nitrate fell by over
60 per cent from 1925 to 1952) and to the failure of the physical volume of exports to expand.

The magnitude of the contribution of foreign capital, direct and portfolio, to Chile's economy can be appreciated from the fact that its share of gross capital formation amounted to 28 per cent in the period 1946-1953. Roughly three-fourths of the country's gross export proceeds can be attributed to the operation of the large foreign-owned mining companies involved in the extraction of copper, nitrate, and iron-ore. Significantly, the large copper companies in the period 1944-1956 left 75 per cent of the total value of copper output in Chile. Over the same period, the foreign-owned nitrate companies left 82 per cent of the value of total nitrate sales in the country. In the period 1950-1954, the large copper companies alone contributed between 7.3 and 9.9 per cent of Chile's gross income.

American companies operating in Chile in 1955 employed 44,000 individuals of which fewer than 1,000 were United States personnel. By far the largest proportion of the 4,000 supervisory, professional and technical employees on the staffs of these companies were Chileans.

The net balance of payments concerning foreign capital movements and their service (interest and dividend payments) is strongly negative: in the decade 1947-1956 when
net long and medium-term investment flows into Chile amounted to $190 million, the service of capital reached $614 million, or more than three times the net capital inflow. It is interesting to note that the gross inflows which exceeded $530 million were almost equally divided between private capital and official loans.

The writer estimates that the total foreign investments in Chile reached a value of $1,200 million at the end of 1956 of which roughly $350 million was held in direct business investments and the remaining $350 million in portfolio investments. The largest share of direct investments was in mining ($528 million) while investments in public utilities ($73 million) held a distant second place. The participation of the United States in aggregate foreign investments (including portfolio) in Chile reached 80 per cent at the end of 1953 compared with Great Britain's share of 13 per cent. Official credits, derived almost exclusively from the Export-Import Bank and to a lesser extent from the International Bank, have filled the role formerly played by the sale of large quantities of bonds in foreign financial markets. These two institutions have contributed notably to the capital-supply process in Chile.
The development of a steel industry in Chile represents one of the most interesting examples of joint U.S.-Chilean cooperation, private and official. The establishment of the Pacific Steel Company's integrated steel mill in the country has resulted in important net savings of foreign exchange and brought in its wake a host of more than 200 new complementary steel consuming factories now that basic supplies of steel could be assured without interruption. With the exception of about one-third of its coal requirements, all major raw materials are of indigenous origin. Upon termination of expansion and modernization stages, the company is expected to sell its products in the domestic market at prices not exceeding the CIF cost of similar imported products—thus making tariff protection unnecessary.

The external sector is closely linked with the system of public finance in Chile. A breakdown of total government income from Taxation shows that during the period 1946-1953 the external sector (taxes levied on the large foreign-owned mining companies and import duties) contributed over one-half of all taxes paid. The copper companies alone supplied Chile's Treasury with about 30 per cent of aggregate tax revenue. Fiscal revenues from the copper companies fell from $127 million in 1956 to an
estimated $73 million in 1957, or a decline of 43 per cent. A fall in the average price of copper between 1956 and 1957 of about 13 cents per pound was translated into a loss to the Treasury of over $4 million for each one cent drop in the value of the red metal. The extreme instability in Chile's public revenues, which adversely affects public capital formation, is largely due to the failure of the country to take advantage of the excellent opportunity which emerged during an era of world prosperity, to diversify its exports.

Having reviewed the role of the external sector in Chile's economy, the next step is to summarize the salient conclusions concerning the consequences of Chile's foreign trade and foreign investment policies.

The multiple exchange system together with import licensing, outright prohibitions against some imports, and the tariff served as instruments to concentrate resources in manufacturing industry as part of the broad orientation of "internal development." Sheltered from the competition of imports, the manufacturing sector expanded rapidly after the thirties. The prices of manufactured goods were not regulated for the most part as they were in agriculture and costs in the manufacturing industries
were held down arbitrarily through the granting of preferential rates of exchange on the importation of raw materials, fuels, and capital goods destined for manufacturing activities. In effect, these exchange-rate subsidies averaged about 40 per cent for imported raw materials and 25 per cent for imported capital goods.

On the other hand, there is no question but that through the manipulation of multiple exchange rates, such basic sectors as agriculture, the copper and nitrate mining industries, and a number of potential export industries were adversely affected. Prices of many agricultural commodities such as wheat, flour, cattle, butter and powdered milk were held considerably below world market levels through price control. This control was facilitated through the importation of large quantities of these commodities at highly preferential rates of exchange. Consequently, local incentives to produce and invest in agriculture were sharply dampened; net investment in agriculture was negative in the postwar years. A comparison between the periods 1940-1945 and 1951-1953 indicates that capital stock per worker in agriculture contracted nearly 25 per cent.
The multiple exchange system inhibited the very export industries in while Chile has a comparative advantage. The large foreign-owned mining companies were obliged to surrender foreign exchange at penalty rates in order to cover their local costs of operation and the net effect of this was to raise appreciably their costs of production in dollars, lower their profits, and inhibit the incentives to expand. This form of exchange discrimination deprived the nitrate industry of the resources for carrying out crucial modernization and expansion plans which were imperative if the industry were to survive.

The most flagrant case of adverse foreign economic policy, and one which on balance deprived Chile of considerable foreign exchange earnings and of employment opportunities, was the official treatment accorded the large foreign-owned copper mining companies. Suffice it to mention that as a result of this policy Chile's share in world copper production fell from 19.7 per cent in 1944 to 12.9 per cent in 1954. The requirement that these companies surrender dollars at the extreme penalty rate of 19.37 pesos per dollar when the general rate was five to six times higher, converted Chile from one of the lowest-cost copper producers to one of the highest-cost
copper producers in the world. The large copper companies carried the principal burden of the multiple exchange system. Moreover, the considerable improvement in the terms of trade of copper experienced in the postwar years was totally appropriated by the Chilean Government and consequently did not act as a stimulant to investment in the copper industry.

In effect, what took place was a massive transfer of income from the large copper mining companies to other sectors of the economy. In part the magnitude of resource shifting that took place between the great copper mining industry and other sectors is indicated by the fact that productivity in the former was eleven times greater than that of the economy as a whole. Less than one-third of this income was absorbed by the public sector itself; the remainder was utilized, through the use of preferential rates of exchange, to subsidize a large list of imports favored by the Government for one reason or another. Consumer goods, including agricultural commodities, received the highest exchange subsidy in the period 1950-1953, equal to almost one half of the import price. Since the export proceeds from copper which were surrendered to the Government were increasingly dissipated in subsidization of consumer goods imports, it appears that the
Government failed to realize the opportunity of channeling the growing dollar receipts from copper into internal capital formation.

Finally, a policy of low rates applied by Chilean authorities to foreign-owned public utility services in the face of rapidly rising costs has culminated in critical shortages of electric power and telephone service.

Fortunately, in the very recent past, there has been a major policy shift which is still in the process of crystallization. Essentially, the emerging orientation is toward giving freer play to market forces and to disentangle the intricate and irrational network of governmental interventions which had been built up. The policy shift is reflected in a number of concrete measures including the Stabilization Program, the Exchange Reform (in which the multiple exchange system and import licensing system were abandoned) the "New Treatment" Copper Law, the Nitrate Referendum, and the elimination of price control for agricultural products. In response to an improving economic climate in Chile, new foreign capital is flowing into the country with present commitments exceeding $300 million. Most prominent of these commitments are the investments now being carried out by the large foreign-owned copper companies which amount to about $130
million. Output in the large copper mines increased 30 per cent in the two years after the passage of the "New Treatment" law compared with the two years prior to the new legislation.

In following the recommendations made by the Klein-Saks Mission, the Chilean Government launched a comprehensive attack on the country's rampant and accelerating inflation in the last few months of 1955. Notable progress has been made in the effort to brake the rate of increase of prices. The rate of increase in the cost of living which reached a peak in 1955 (84 per cent) was held down to 38 per cent in the following year, and to 17 per cent in 1957.

Prospects

In view of Chile's imperative need to broaden and deepen the export base, the results of recent investigations are exceedingly encouraging. The truly outstanding export opportunity resides in Chile's woodpulp and cellulose potential.¹ An investment of $200 million applied over the next ten years to a pulp and paper industry

¹This information is based on data received by the writer from Mr. Arne Sunderlin, Chief of the Pulp and Paper Advisory Group for Latin America, sponsored by the Food and Agricultural Organization, the Economic Commission for Latin America, and the United Nations Technical Assistance Administration.
could provide the country with an estimated annual net foreign exchange income of $80 million or about one-fifth of the country's current commercial exchange receipts. The projects, involving the installation of eight additional paper and pulp mills, would present Chile with a new source of net foreign exchange second only to copper.

These proposed outlays are critically needed if the present investments in plantations of Insignis Pine covering over 500,000 acres and estimated at a current value of $70 million is to be saved. The creation of this industry would provide an estimated 18,000 jobs, a number which compared favorably with employment in the mining operations of the large nitrate companies.

The projected demand situation for wood pulp and paper in Latin America is extremely favorable. Annual consumption of paper products in Latin America shows the following dimensions:

<table>
<thead>
<tr>
<th></th>
<th>1956</th>
<th>1965 (projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newsprint</td>
<td>0.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Other paper products</td>
<td>1.2</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1.8</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Over a decade, the demand for paper products in Latin America is expected to more than double. At present,
the region must import over 40 per cent of its total needs from North America and Europe. With planned increases in production within the region, the estimated deficit for 1965 is not less than 1,250,000 tons. Such a deficit would involve a foreign exchange drain of roughly $500 million (dollars of 1956 purchasing power) in 1965.

Of the needed capital resources of $200 million, $140 million represents the foreign exchange component. The paucity of local capital funds and, in particular, of foreign exchange needed for the purchase of equipment indicates the need for a considerable foreign investor participation. A rapid expansion of the pulp and paper industry is now vital to Chile's economic future.

Certain agricultural products, particularly barley, lentils, beans, and dried and fresh fruits also promise to play a more important role in Chile's export list. The expanded sales on world markets of some manufactured commodities such as iron, steel, copper and glass products as well as nitrate-derivative chemicals offer good prospects.

The investment projects of the foreign-owned copper mining companies now being realized in Chile will expand the country's copper output capacity by over one-third. It is, of course, to the best interest of
Chile that the increments in government revenue derived from the country's leading export industry are ploughed back into basic internal development rather than dissipated in current expenditures.

Along Chile's 2,300 mile coast line exists an abundance and variety of sea fauna. It is possible that with adequate technical and financial help, Chile could become one of the leading producers of fresh, frozen and canned fish and shellfish. Another resource which has been exploited only to a very modest extent is the grandeur of Chile's lake region and ski resorts.

Chilean government officials have been among the leaders in promoting the idea of a common South American market in the pattern now emerging in Europe. The elimination of barriers to trade and payments within a regional market encompassing, perhaps, the southern countries of South America, could conceivably provide Chile with a secure market of near continental proportions for the products of its wood pulp paper, chemical, coal, iron ore, iron and steel, and metallurgical industries.

The combination of a narrow domestic market, specialized resources, and a critical shortage of foreign exchange suggests that Chile's brightest hope for an
economic "breakthrough" lies in the expansion and diversification of exports, and in a comprehensive agricultural program. A vigorous agricultural expansion presents in Chile a most promising area in which import substitution (foreign exchange saving) can proceed economically. To help in the achievement of these programs so crucial to Chile's economic future, foreign capital, private and official combined with technical and managerial "know-how" must continue to exercise for a limited period a decisive role.
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AUTOBIOGRAPHY

I, Eric Nicolas Baklanoff, was born in Graz, Austria, December 9, 1925. I received my formative education in Montreux, Switzerland, and at the German Gymnasium in Mexico City, and my undergraduate training at Antioch College and at the Ohio State University. In June, 1950, I received the Master of Arts degree from the Ohio State University in the fields of international economic relations and Latin American history. While completing the requirements for the degree of Doctor of Philosophy, I held a number of teaching positions within the Department of Economics, the Ohio State University. In 1957 I received a Fulbright Scholarship which enabled me to study nine months in Chile and carry on research in connection with my dissertation. I was appointed Instructor in the Department of Economics for the academic year 1957-1958.