CHILE

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CHILE

AN OUTLINE OF ITS GEOGRAPHY, ECONOMICS, AND POLITICS

by

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ROYAL INSTITUTE
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PREFACE

THIS study of Chile is the first of a series on the Latin American republics which is designed to provide background material for a composite survey of those countries. A brief analysis of modern tendencies, in regard both to the internal situation and the external relations, forms an integral part of the study, and the historical basis of present social, economic, and political conditions is treated in so far as it is necessary for an understanding of modern trends.

Many details which would have contributed towards a fuller exposition of many of these tendencies have been sacrificed for the sake of keeping the survey within reasonable limits, and, therefore, some statements may appear to be supported by limited evidence. An effort has been made, however, to build up an objective study of the Chilean scene in 1950, based on the material available. In this connexion the author is indebted especially to the publications of the Chilean Statistical Department and of the Statistical Office of the United Nations, and to much previously published information of which the major sources are listed in the bibliography. A sojourn of five years in the republic, living and working with its people, and enabling him to visit all but three of the country's twenty-five provinces, makes him appreciative of a host of Chilean friends for those day-to-day impressions which clothe such material with added reality and permit deductions of greater value. Further, the author wishes to record his gratitude to Señor J. Alvaro Muñoz, Sir Ronald Fraser, Mr Kenneth Grubb, and Professor R. A. Humphreys for reading the typescript of his book and for their helpful comment on several points.

Latin America as a whole still remains somewhat of a *terra incognita*, and many impressions built on sensational news items of strikes, riots, and earthquakes take long to die. Chile particularly seems hidden behind the Andean barrier, and public attention is focused on this South American democracy only when disaster or misfortune in one shape or another strikes its people. In the intervening periods Chile pursues its course of development and progress, and if this study makes that aspect better known to a wider audience than the Latin American experts its object will have been achieved.

CHAPTER I

THE LAND

To attempt to glean an accurate impression of the Chilean scene and the economic, social, and political conditions prevailing there without a basic understanding of the physical geography of the country is more difficult than is the case with other more homogeneous national units. A brief survey, therefore, of its extent, strategic position, physical structure, climate, and natural environment will give the foundation on which the varying natural regions of the country are built, and which is fundamental to an appreciation of its history, development, and problems, past and present.

EXTENT

Its great length (2,600 miles) contrasted with its narrow width (110 miles) is the familiar and unique conception, although the realization of the fantastic length of this ribbon is often obscured by numerical quotations only. Stretching from 18° S. to 56° S., two comparable expanses, both in length and equivalent variety of climatic change, are from Manzanillo in western Mexico to Sitka in Alaska, or from St Louis on the Senegal river of French West Africa to Glasgow.

With an area of 286,000 square miles it is greater than any European State except Russia and Germany, but, compared with its continental neighbours, it is dwarfed by the vast areas of Brazil and Argentina, and only Uruguay, Paraguay, Ecuador, and the Guianas are smaller.

FRONTIERS

Its frontiers are the natural barriers of the Andean mountain wall in all except the extreme north and south. In the north, the *Linea de la Concordia,* six miles north of the Arica-La Paz railway, gives a Peruvian-Chilean frontier definitive only since 1929 and based on American arbitration. In the south, where Chilean possession of the Strait of Magellan opens a window on the Atlantic for this otherwise exclusively Pacific State, the frontier with Argen-

tina is also an artificial one, mainly of latitude and longitude, settled during the period 1881–1902 by joint Chilean-Argentine negotiation aided by British arbitration. Throughout the remaining 2,000 miles of national territory the great mountain barrier and the inhospitable coasts give a natural strategic defence and lessen the dangers inherent in such an extensive areal sprawl.

Of greater international significance is, undoubtedly, Chilean sovereignty over Magellan's Strait, a comparatively sheltered inter-oceanic route open to the navigation of all nations, and demilitarized by Argentine-Chilean consent. The fact that it featured in the naval struggle of Coronel-Falklands in the First World War reflects its strategic value, and its importance as a relatively safe route during the Second World War, particularly after Japan's entry into the conflict, was by no means insignificant.

Strategically, Chilean possession of Juan Fernández[1] and Easter Island[2] cannot be ignored, nor, to a lesser extent, the tempestuous waters of Drake Strait separating the southern extremities of Chile from its claims in Antarctica, and forming one of the three inter-oceanic links between Atlantic and Pacific.

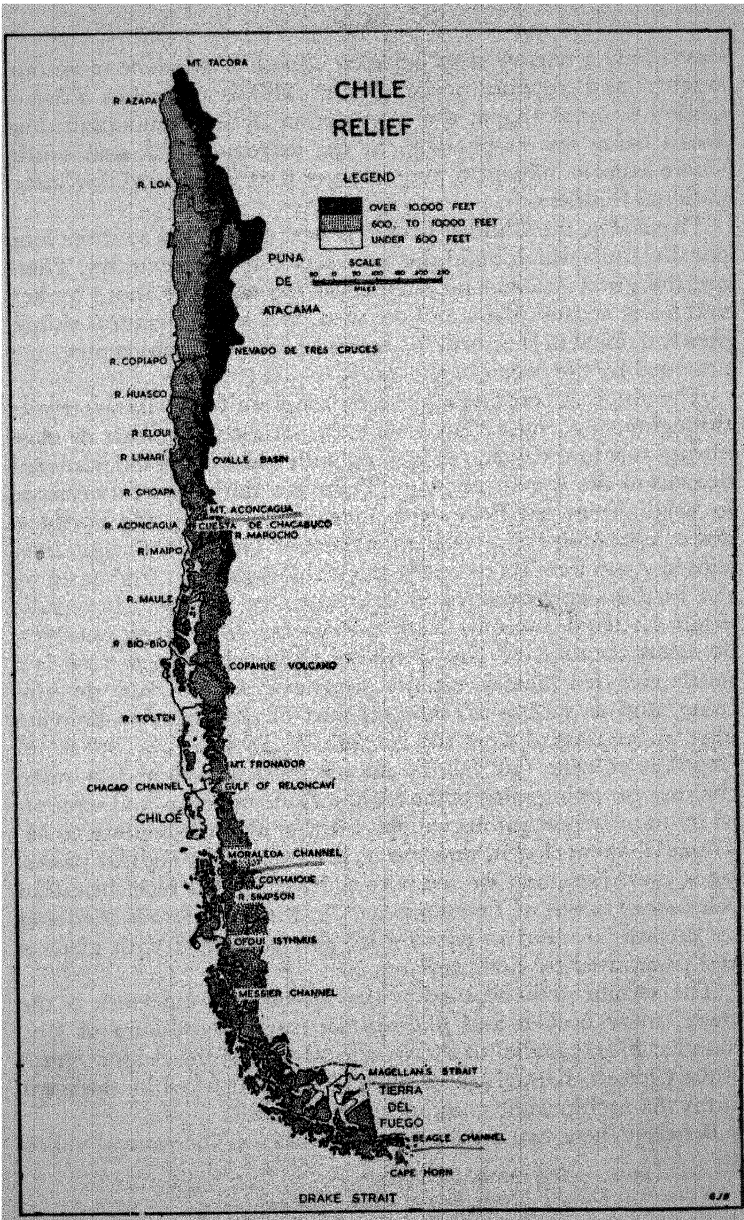
PHYSICAL STRUCTURE[3]

Approached from the sea, the country falls into two most contrasting sections, the northern and central continental coast, and the archipelagic southern third. In the former, only where rarely prominent indentations break its monotonously regular outline is some shelter provided for the growth of a port. Of these the most important are Iquique bay, the Mejillones peninsula, Coquimbo bay, Arauco bay, and the Gulf of Reloncaví.

In the south the reverse is true, for the continent has been invaded by the sea and only the peaks of mountains stand out from a tortuous maze of channels as a bewildering host of islands, flanking one of the world's most broken coasts. Here the Moraleda, Messier, Magellan, and Beagle channels provide a sheltered route comparable to the Alaskan Inland Waterway or the Norwegian fiords.

The ribbon-like character of the republic is primarily the result of the physical framework of this western part of the continent. The proximity of the Andean cordillera to the Pacific Ocean south of the Tropic of Capricorn, and its barrier-creating quality

[1] 440 miles west of Valparaiso. [2] 2,300 miles west of Caldera.
[3] See map on p. 3.


CHILE
RELIEF
LEGEND
OVER 10,000 FEET
600. TO 10,000 FEET
UNDER 600 FEET
SCALE
MILES
MT. TACORA
R. AZAPA
R. LOA
PUNA
DE
ATACAMA
NEVADO DE TRES CRUCES
R. COPIAPÓ
R. HUASCO
R. ELQUI
R. LIMARÍ
OVALLE BASIN
R. CHOAPA
MT. ACONCAGUA
R. ACONCAGUA
CUESTA DE CHACABUCO
R. MAPOCHO
R. MAIPO
R. MAULE
R. BÍO-BÍO
COPAHUE VOLCANO
R. TOLTEN
MT. TRONADOR
CHACAO CHANNEL
GULF OF RELONCAVÍ
CHILOÉ
MORALEDA CHANNEL
COYHAIQUE
R. SIMPSON
OFQUI ISTHMUS
MESSIER CHANNEL
MAGELLAN'S STRAIT
TIERRA
DEL
FUEGO
BEAGLE CHANNEL
CAPE HORN
DRAKE STRAIT

leaves only a narrow strip between almost inaccessible mountain heights[1] and abysmal ocean depths. This is the *raison d'être* of Chile's unusual shape, the constriction between mountain and ocean being less emphasized in the extreme north and south, where historic influences play a larger part in determining international frontiers.

Physically, the Chilean ribbon is best considered as three long parallel units which build the basic skeleton of the country. These are the great Andean mountains on the east, the more broken and lower coastal plateau of the west, and a great central valley, poorly defined in the north, of decisive precision in the centre, and drowned by the ocean in the south.

The Andean cordillera possesses some uniform characteristics throughout its length. The mountain backbone presents its most abrupt side to the west, contrasting with a more gradual eastward descent to the Argentine plain. There is a fairly general decrease in height from north to south, peaks overlooking the northern desert averaging 15,000 feet while those of Tierra del Fuego rarely exceed 2,000 feet. Its recent geological formation is evidenced by the earthquake frequency characteristic of it and the volcanic peaks scattered along its length. Regional differences, however, do assert themselves. The cordillera in its northern portion is a sterile elevated plateau usually designated as the Puna de Atacama, and as such is an integral part of the Peruvian-Bolivian meseta. Southward from the Nevado de Tres Cruces (27° S.) to Copahue volcano (38° S.) the meseta gives way to high parallel chains, containing some of the highest Andean peaks, and separated by narrow precipitous valleys. Further south extending to Mt Tronador these chains, now lower, are broken through by passes, lakes, and rivers and strewn with some of Chile's most beautiful volcanoes.[2] South of Tronador (41° S.) the cordillera is bordered by the sea, covered in part by ice sheets, fringed with glaciers and penetrated by sinuous fiords.

The second great feature of the mountain framework is the lower, more broken and plateau-like coastal cordillera of low, rounded hills, parallel to the structural unit of the Andes. South of the Chacao channel (42° S.) where it is inundated by the sea it forms the archipelagic coast of southern Chile.

Between these two axial mountain lines lies the central valley

[1] Aconcagua, 22,863 feet is the highest.

[2] Villarrica, Llaima, Lanín, Osorno, and Calbuco.

which assumes widely different characteristics from north to south. In the north it consists of extensive plateaux, some 3,000 feet high, separated by the deep *quebradas*[1] of intermittent rivers. South of this meseta zone the central unit consists of transverse valleys, separated by mountainous spurs[2] which link the Andes to the coastal cordillera, and crossed by the rivers Copiapó, Huasco, Elqui, Limarí, Choapa, and Aconcagua.

From the Cuesta de Chacabuco (33° S.), which limits this transverse valley zone on the south, to the Gulf of Reloncaví the central valley is perfectly developed, and is sometimes known as the longitudinal valley, being approximately 600 miles long and 45 miles at its widest part. South of the Gulf of Reloncaví, except for the isthmus of Ofqui (47° S.) the valley is submerged under the longitudinal channels already mentioned.

CLIMATE AND NATURAL REGIONS[3]

This structural division, while of fundamental importance, is dominated by a climatic division which influences to a phenomenal extent the whole economic life of the nation. Rainfall is the operative factor. The north is rainless; the south suffers from an excess of rain; and the centre shares the climate of both, rainy in winter, dry in summer. As the northern extreme aridity gives way transitionally to the southern extreme raininess, so temperatures decrease from tropic heat to sub-Antarctic cold.

The interlocking of the structural units with the transverse climatic divisions combines to integrate the republic's pattern of existence, and it is almost possible to classify from the resulting gridiron pattern, in systematic order, the nine structural-climatic regions of Chile most and least favoured by nature to contribute to the nation's economic life, from the luscious core of the central valley to the bleak windswept and ice-capped Andes cordillera of the south.

As these three major climatic regions form the most satisfactory basis of the study of the distribution of the population and the economic activities of Chile, it is necessary to outline their main characteristics, and contrasting natural environments.

DESERT CHILE

This region, stretching from the Peruvian-Chilean frontier to

[1] Gorge-like valleys, e.g. Azapa, Taltal, etc.
[2] e.g. Doña Ana, Doña Rosa, etc. [3] See map on p. 7.

the latitude of Coquimbo (30° S.), constitutes the provinces of Tarapacá, Antofagasta, and Atacama and includes the area acquired from Bolivia and Perú in the War of the Pacific, 1879–83. Climatically it is one of the world's hot deserts, and its arid character is so absolute that in some areas no rainfall has ever been recorded, while in others the total for several decades only equals that of a summer thunderstorm in Britain.

Cut by the Tropic of Capricorn, temperatures are high throughout the year, but there are marked regional differences between coastal locations and the interior. Proximity to maritime influences produces greater relative humidity along the coast,[1] while the cloudy conditions associated with the cool Humboldt or Peruvian current lead to reduced insolation and radiation, which in turn results in more uniform seasonal temperatures generally. Inland the skies are cloudless, relative humidity is low,[2] and large seasonal and diurnal ranges of temperature are experienced.

Increasing rainfall and decreasing temperatures associated with the southern margins of the region are clearly indicated in the following statistics:

Town	*Lat.*	*Mean Annual Rainfall (mm.)*	*Mean Annual No. of Days with more than 1 mm. Rainfall*	*Mean Annual Temp. (°F.)*
Arica	18° S.	1	0	66
Iquique	20° S.	2	1	63
Antofagasta	24° S.	9	1	62
Caldera	27° S.	28	5	61
La Serena	30° S.	114*	10	58

* Approximately 4½ inches.

Throughout the region the coast rises like a pink, scalloped, 3,000-foot wall from the Pacific, and for 600 miles the rugged and barrier-like defence offers no harbour or protected anchorage. Even the coastal towns such as Pisagua, Iquique, Tocopilla, Mejillones, Antofagasta, Taltal, and Caldera have been sited on the only favourable footholds, the narrow, wave-cut terraces which have emerged geologically recently from the deep Pacific waters.

These bare cliffs are the seaward edge of the coastal plateau which is really a rim of rounded hills broken by shallow dry

[1] Iquique 81 per cent. [2] Calama 48 per cent.

CHILE
NATURAL REGIONS

LEGEND

PROVINCIAL BOUNDARIES
REGIONAL BOUNDARIES

TYPICAL RAINFALL REGIME OF EACH REGION INDICATED BY BAR GRAPHS

SCALE

DESERT CHILE

IQUIQUE

MEDITERRANEAN CHILE

VALPARAISO

FOREST CHILE

PUERTO MONTT

ATLANTIC CHILE

PUNTA ARENAS

20° S.
30° S.
40° S.
50° S.

PROVINCES

1 TARAPACÁ
2 ANTOFAGASTA
3 ATACAMA
4 COQUIMBO
5 ACONCAGUA
6 VALPARAISO
7 SANTIAGO
8 O'HIGGINS
9 COLCHAGUA
10 CURICÓ
11 TALCA
12 MAULE
13 LINARES
14 ÑUBLE
15 CONCEPCIÓN
16 BÍO-BÍO
17 ARAUCO
18 MALLECO
19 CAUTÍN
20 VALDIVIA
21 OSORNO
22 LLANQUIHUE
23 CHILOÉ
24 AYSÉN
25 MAGALLANES

ravines, all utterly barren of vegetation and littered with screes of sand and rock fragments.

Inland are the gigantic, saucer-shaped depressions which separate this coastal range from the Andes. These *bolsones* or dry basins appear like old lake floors, sometimes fifty miles wide, which, because of increasing aridity, have now been revealed. They contain the numerous layers of *caliche* or raw nitrate which forms one of the main sources of Chile's wealth. Enormous alluvial fans, spreading from the Andes far to the west, invade these depressions and in places almost reach the coastal plateau. Few perennial streams drain these fans but occasionally a green oasis forms a contrasting nucleus to the surrounding barren desert rock. Most rivers rising in the Andes, however, disappear long before the coastal plateau is reached, and, excluding the southern margins, only the Loa, in the desert proper, persists to the Pacific.

The complex of mountain ranges forming the Andes in this region fronts the plateaux of Bolivia and Argentina, their highest peaks reaching 20,000 feet. The generally high level of these adjacent mesetas, however, permits relatively easy access to and from both neighbours.

MEDITERRANEAN CHILE

The partially enclosed basins of Ovalle, Choapa, and Aconcagua form a transitional region in which desert gives way, almost imperceptibly, to a dry *matorral*[1] vegetation interspersed with sand dunes. Here the winter rainfall régime is both short in duration and small in quantity, but south of the Chacabuco spur the transition continues, rainfall increasing both in winter duration and total amount, and giving rise to the truly Mediterranean vegetative environment of the Valparaiso-Santiago zone. The Bío-Bío river (37° S.) is the generally accepted southern limit of this winter rain region, for beyond this line the typical Mediterranean summer drought is seldom operative.

Differences between coastal locations, the central valley, and the Andes assert themselves as is the case in Desert Chile. The misty freshness and equable temperatures of Valparaiso and Constitución are replaced first by the drier and slightly more extreme climate of Santiago and San Fernando, and eastward by the perpetually snow-covered summits of the Andean cordillera. The

[1] Xerophytic scrub and bush.

following statistics summarize the extent and nature of these differences:

Town	*Lat. Position*	*Mean Annual Rainfall (mm.)*	*Mean Annual No. of Days with more than 1 mm. Rainfall*	*Mean Seasonal Temperature Range °F.*
Viña del Mar	33° S. Coastal	482 (19″)	30	15
Santiago	33° S. Inland	362 (14″)	29	26
Constitución	35° S. Coastal	982 (39″)	60	20
San Fernando	35° S. Inland	792 (31″)	45	21
Talcahuano	37° S. Coastal	1,163 (46″)	85	14
Angol	38° S. Inland	957 (38″)	83	22

The coastal hills in this region are lower than in the desert, but the unbroken nature of the shoreline is retained, promontories helping to create the only semblances of good harbours at Valparaiso and Talcahuano. The perennial rivers fed by the Andean snows, in their passage westward break the coastal cordillera into seven or eight irregularly shaped blocks seamed with maquis-clothed *quebradas*. These blocks provide a startling contrast to the very gently sloping plains of the central valley, which are really an aggregation of extensive alluvial fans built up by the rivers Mapocho, Maipo, and Maule, and devoted to the Mediterranean-type agricultural and pastoral activities of the Chilean *fundo*.[1] Soil deposited in vast thicknesses becomes finer to the west as the coastal hills are approached, while in the Andean foothills stony *chaparral*[2]-type country passes eastward into precipitous mountain slopes, snow-covered above the 12,000 feet level and forming the permanent reservoir of the irrigation water for the plain below. This Mediterranean region, particularly the central valley component of it, is the most typical Chilean region. It was from the earliest days of European settlement the nucleus of the nation-to-be, enclosed in its sixteenth-century formative period by desert, ocean, mountain, and forest, fertile in its lands, and blessed with a climate familiar to its Spanish colonists, and favourable to human settlement and progress. For over three centuries this birth-region was Chile for all practical purposes, and the ribbon has only grown northward and southward in the last seventy years, until the expansive process has stretched well beyond the tropic and to the last habitable rocks of the continent.

[1] Farm-estate. [2] Mediterranean vegetation types.

FOREST CHILE

South of the Bío-Bío river the cloudy and rainy conditions associated with the passage of migratory depressions from the west remind one of the British climate. No longer is summer drought the salient feature, but an increasing rainfall and a generally cooler temperature régime, until in the southern archipelago rain falls on two out of three days throughout the year, and enormous totals make this one of the world's rainiest areas.

The more exposed coastal portions of the region contrast sharply in respect of rainfall with interior locations, but differences in temperature conditions are less marked than those of Mediterranean Chile. The following statistics summarize these climatic features:

Town	*Lat. Position*	*Mean Annual Rainfall (mm.)*	*Mean Annual No. of Days with more than 1 mm. Rainfall*	*Mean Seasonal Range °F.*	*Mean Annual Temp. °F.*
Temuco	39° S. Inland	1,360 (53″)	135	21	53
Valdivia	40° S. Coastal	2,511 (99″)	155	17	53
Puerto Montt	41° S. Inland Coastal	1,906 (75″)	187	14	52
Puerto Aysén	45° S. Coastal	2,865 (113″)	197	14	48

Structurally, the northern portion of this region, the area between the Bío-Bío river and the Gulf of Reloncaví, is a continuation of the physical framework of the Mediterranean region, except that glacially dammed valleys have been filled with lakes and a group of volcanoes border the Andean foothills. The central valley is less continuous, and the coastal hills lower.

The climate, however, has imposed a vastly different natural vegetation cover, and increasingly dense woods, predominantly of beech, cover the landscape, until the literally impenetrable forests of the west coast of Chiloé island effectively bar human settlement. This is the frontier region of Chile, settled only in this last century, and revealing an economic and social pattern considerably different from its Mediterranean counterpart north of the Bío-Bío river.

The southward archipelagic extension of this zone from Chiloé island to Cape Horn is an almost uninhabited wilderness of channels, islands, rocks, glaciers, and ice sheets. The forest deteriorates in quality and the resources of both the islands and the Andean mainland area appear to be minimal.

ATLANTIC CHILE

There is a fourth region which, both structurally and climatically, stands apart from the three major natural regions of the Chilean ribbon as outlined in the previous sections. This is probably best referred to as Atlantic Chile, and consists of the territory on both sides of Magellan's Strait to the east of the Andean cordillera, and so including the plains of northern Tierra del Fuego and southern Patagonia, adjoining Argentina. In many aspects it is more orientated to the Atlantic and to Argentine economic life, although the political connexion with Chile is a strong one.

Climatically, the region is in the rain shadow of the Andes, and the great contrast in rainfall amounts compared with the archipelago is outstanding, as these statistics indicate:

Meteorological Station	*Lat.*	*Mean Annual Rainfall in mm.*	*Mean Annual No. of Days with more than 1 mm. Rainfall*	*Mean Seasonal Temperature Range °F.*
Evangelistas Is.	52° S.	2,755 (109″)	313	3
Punta Arenas	53° S.	431 (17″)	117	6·5
Punta Dungeness	52° S.	250 (10″)	83	6·4

Temperatures approximate to those experienced in the north of Scotland, the equable effect of the penetrating seas producing only small seasonal differences.

Structurally it is comparatively low, undulating, glacial-morainic country spreading eastward and northward from the Andean foothills of the mainland and Tierra del Fuego respectively, clothed with grassland in its lower and drier extensions, and forested in its wetter and higher western and southern areas.

A small detached portion of this same natural region, structurally and climatically, is the Coyhaique district (45° S.) of Aysén province, where the international frontier leads to the inclusion of a similar area within Chile. This isolated Simpson river basin and the main Magallanes area give rise to the only important population nuclei of southern Chile.

The approximate extent of these four natural regions of Desert, Mediterranean, Forest, and Atlantic Chile, together with the provinces included in each, is indicated in the map on page 7, and will serve the regional consideration of the Chilean scene covered in the following chapters.

CHAPTER II

THE PEOPLE

RACIAL ELEMENTS

NATIVE Indian populations appear to have occupied what is now Chile for a very long period. At the time of the Spanish conquest it was evident that long-continued settlement had been a feature of the most suitable environmental areas of the country, although total numbers and population densities were probably not great. Estimates vary considerably but the map (page 17) probably gives a fair estimate of the distribution of Indian population in the mid-sixteenth century.

In the far north, the Atacameño occupied the oasis of Calama and utilized the neighbouring punas for grazing. Along the forbidding coast, Chango tribes eked out an existence where infrequent, partially sheltered locations permitted the gathering of shell-fish, and Arica, Pisagua, and Taltal appear to have been occupied in this way. In the semi-desert provinces of Atacama and Coquimbo, Diaguita tribes, who had infiltrated from north-west Argentina, had a restricted development within the limitations of that terrain, and probably were considerably more numerous than the Atacameño to the north. These desert tribes, however, largely because of their small populations, appear to have influenced only slightly the composition of the present population of that region, and, as pure racial types, they have long been extinct.

The desert region and most of Mediterranean Chile fell under the sway of the Incas from the central Andes in the fifteenth century. While the southern limit of their domain was the river Maule, effective control diminished considerably south of the Maipo river, and their most flourishing occupation appears to have been the Aconcagua valley, which they described as the 'Vale of Chile'. In the process of this conquest the Araucanian Indians who occupied Mediterranean Chile were either subdued or driven south into forested Chile. Those who remained subject to Inca influence differed considerably in culture from those south of the Bío-Bío river, and appear to have practised irrigation, while those

of the forest adopted a slash and burn technique of shifting agriculture.

The forested region was densely peopled compared with all other regions of Chile, the environment proving highly suitable for Araucanian defence. From Inca times to the late nineteenth century this remained the core zone of the Mapuche, as they are known in their own land, and the stiff resistance of these fierce and organized fighters continued there until 1887. Even now the area between the Bío-Bío and Toltén rivers contains 95 per cent of the indigenous pure-blood Indian population of Chile of 100,000 persons, with another 200,000 linguistically and socially allied, and largely of Indian stock. In the second half of last century great reductions took place as a result of war, feuds, and small-pox and cholera epidemics, but in this century they appear to have increased in number.

South of the Toltén, Huilliche, or the south Araucanian people and culture, were much less important, and the agricultural economy characteristic of them passed into the primitive fishing and gathering culture of the Chono, Alacaluf, and Yahgan tribes of the archipelago. These latter probably never exceeded 5,000 and are now entirely or almost extinct. Atlantic Chile partook of the Argentine Indian hunting environment and the Tehuelche and Ona peoples have similarly fallen before the European colonization of this region in the last century.

Into this basic Indian population came the Spanish conquerors, chiefly Andalusian and Basque men who intermarried with Araucanian women, and so originated the typical Chilean *mestizo,* which is the predominant and fairly homogeneous racial type of Chile today. Social stratification cuts completely through this *mestizo* type, and landowner, banker, teacher, artisan, and peasant all share in varying amounts this common Araucanian-Spanish racial heritage.

The only other national elements to enter into the composition of the Chilean population have been small numbers of Germans, French, Italians, Swiss, Yugoslavs, and British who came chiefly to the pioneer regions being developed in the nineteenth and twentieth centuries.[1] Pioneer agriculture and industry brought the Germans, French, Italians, and Swiss as peasants and small farmers into the forest zone north of the Gulf of Reloncaví during

[1] The International Missionary Council reports that there are 25,000 Jews in Chile.

the 1846–64 period. The lure of gold, 1880–1900, brought the Yugoslavs from the Dalmatian coast into Atlantic Chile, and sheep farms and commercial activities brought the British to the same region, and to the chief ports and mineral areas of the north. The most conspicuous grouping of these foreign elements is the German settlement of the Valdivia, Puerto Montt, Puerto Varas, and Osorno areas, where a minority of some 30,000 constitutes the only large homogeneous national group in the country, and even here admixture with the Chilean is by no means insignificant.

The influence, disproportionate to their actual numbers,[1] which these foreign elements have exerted in all fields of Chilean life sometimes gives a false impression. Immigration into Chile in the past, and at the present time, has been on a small scale and has shown none of the characteristics of the mass migratory invasions which Argentina and Brazil received. The anthropological influence of the immigrants in the making of the Chilean people is, therefore, not a large one, but in areas where the immigration was concentrated the fair-haired, blue-eyed, or tall Dinaric type Chileans are frequent evidence of exceptions to that statement.

LANGUAGE

Omitting the 300,000 Araucanian Indian-speaking population and the small partially bi-lingual foreign groups, the language of the Chilean people is Spanish as officially recognized by the law of the republic. Even the Araucanians and other scattered Indian remnants speak and understand Spanish, the tendency being for the European language to become among the younger generation of these indigenous people the principal and often the only language spoken.

The purity of Castilian Spanish has suffered somewhat in its new environment and, while less adulterated and less carelessly spoken than in Argentina, it lacks the purer qualities of urban Peru. Regional differences are also clearly discernible. As an example the contiguity of Atlantic Chile to Argentina is reflected in the speech of that region, with a plentiful infiltration of English and Yugoslav from those national elements domiciled there. In the same way the provinces acquired from Peru and Bolivia exhibit linguistic characteristics inherited from their past association with those countries.

[1] Less than 80,000 foreign-born Europeans in 1907.

RELIGION

The homogeneity of language is reflected in the religious position. Ninety-five per cent of the people are nominally Roman Catholic, the remainder being some Indians who still follow their indigenous religion,[1] and Protestant groups of many denominations. The Constitution of 1833 established the Catholic Church as the official State Church and prohibited the establishment of any other Church within Chile, but from those early days its relationship to the State never sank far into the background of the political arena. Slowly but steadily its influence was reduced, particularly during Santa María's presidency,[2] when, among other similar measures, the civil registration of births, marriages, and deaths was made compulsory. This curtailment of the Church's power was taken a step further by the 1925 Constitution which not only separated Church and State[3] but guaranteed complete liberty of conscience and facilitated the practice 'of all beliefs not opposed to morality, good custom, or public order'. In spite of this legal disestablishment the association of Church and State is still very strong and it is in every sense the national Church. There is a cardinal-archbishop in Santiago, sixteen bishoprics, churches in every community of any size, and many schools and hospitals in the care of various religious orders.

The Mediterranean region with its homogeneous *mestizo* population appears to be the most traditional and orthodox in its adherence to the Church, while the populations of the more recently and more heterogeneously settled northern mineral zone, the forest region, and Atlantic Chile indicate a weaker attachment to organized religion. It is in these regions that the strongest agnostic and atheistic tendencies assert themselves, the loosening of Roman Catholic ties often being replaced by no organized religion. This phenomenon has its national aspect for it is increasingly evident that apart from a considerable loss of social power the Church no longer guides thought very strongly, and youth particularly is lacking in leadership in moral ideas and spiritual values. Protestantism has also made but very small headway in filling the vacuum. Both Catholic and Protestant missions have tried to

[1] A belief in a Supreme Being, associated with Shamanistic and magico-religious practices.

[2] 1881–6.

[3] A transitory disposition obliged the State to deliver to the Archbishop of Santiago 2 million pesos annually for five years for investment in Chile for the needs of the Catholic Church.

proselytize the Indian communities but such activity is now almost entirely confined to Araucania, chiefly in the form of educational and vocational training.

The Anglican Church has churches in some of the larger cities and is a part of the diocese of the Falkland islands.

DISTRIBUTION OF POPULATION[1]

Chile is fortunate in possessing a statistical bureau which both in detail and in fundamental objective analysis is unrivalled in the continent. In no branch of study of the country and its society is this more valuable than in an analysis of demography.

The last census was in 1952, and the population of the whole country was then 6,032,376. This indicates that in the last half-century it has more than doubled,[2] and if present trends persist the total will grow by a million inhabitants during the decade 1952–62. Relative to the populations of its neighbours the Chilean figure is approximately twice that of Bolivia, one-third of that of Argentina, and two-thirds of that of Peru.

Spread over the entire country, this gives a density of approximately twenty persons per square mile, but in a nation of such varied regions this average is of little value. Of far greater importance is an analysis of its distribution based on the natural regions already delineated.

The desert north contains only 395,000 people. Thus this region comprising more than one-third of the country contains only 6½ per cent of the population with a density of less than four persons per square mile.

In contrast, the adjoining Mediterranean region, although covering only 18 per cent of the national area, has 65 per cent of the total population with a density of seventy-six persons to the square mile. This concentration of over 3,900,000 Chileans in the heart zone can scarcely be over-emphasized, and only in the transitional province of Coquimbo does the density fall below twenty-five to the square mile. The three provinces of Valparaiso, Santiago, and O'Higgins contain no less than 45 per cent of the whole Chilean population concentrated in no more than 4 per cent of Chile.

The forest region has two widely different areas of population density. The mainland area adjoining the Mediterranean zone is

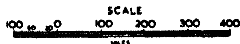
[1] See map on p. 17.

[2] 1875, 2 million; 1903, 3 million; 1927, 4 million; 1940, 5 million.

CHILE
DISTRIBUTION OF POPULATION 1950

LEGEND

- EACH DOT REPRESENTS 5,000
- CITIES WITH POPULATION 20,000 - 30,000
- CITIES WITH POPULATION 30,000 - 40,000
- CITIES WITH POPULATION 40,000 - 50,000
- CITY WITH POPULATION 80,000
- CITY WITH POPULATION 100,000
- CITY WITH POPULATION 230,000
- CITY WITH POPULATION 1,250,000



IQUIQUE
ANTOFAGASTA
LA SERENA
VIÑA DEL MAR
VALPARAISO
SANTIAGO
SAN BERNARDO
RANCAGUA
CURICÓ
TALCA
TALCAHUANO
CONCEPCIÓN
LOTA
CHILLÁN
LOS ANGELES
TEMUCO
VALDIVIA
OSORNO
PUERTO MONTT
PUNTA ARENAS

PROBABLE MID-16TH CENTURY INDIAN POPULATION

EACH DOT 5000

the second most densely populated region of the country, although its concentration of thirty-eight persons per square mile is exactly half that of Mediterranean Chile. The archipelagic zone of Forest Chile, is, however, an area of extremely small population, totalling only some 110,000 people of whom 90 per cent are in the island of Chiloé, and the bulk of the remainder in the small, settled area of the Simpson valley. The vast expanses south of the Guaitecas islands are practically uninhabited, and, including the Chiloé and Aysén peopled areas, the density is only slightly over one person per square mile. The whole of the forest region, both mainland and insular, is the largest region of Chile, representing 40 per cent of its area and containing 28 per cent of its people, but a more accurate impression is gained by realizing that the area north of the Gulf of Reloncaví and south of the Mediterranean zone comprises about 13 per cent of the country with 26 per cent of its population.[1]

Atlantic Chile has only 60,000 people or 1 per cent of all Chileans scattered over 7 per cent of the area of the country,[2] and most of these are concentrated in the southern metropolis of Punta Arenas.

The map on page 17 summarizes the characteristics of this very unevenly distributed population, which is considerably influenced by the pattern of economic development. Of some importance are the changes in this distributional pattern which have taken place in the past decade, and which are, therefore, presumably still operative today.

Between 1940 and 1952 the total population has grown by one million. Most of this growth is reflected in the total increase of 690,000 in Santiago province, which has added 54 per cent of its 1940 population in twelve years. Other less important increases have taken place in the provinces of Valparaiso (120,000), Concepción (85,000), Antofagasta (58,000), and Valdivia (17,000), but they all combine with Santiago to emphasize the significant urbanization of the Chilean population in these provinces which contain nearly all the major cities of the country.

The decreases over the same period recorded in the provinces of Cautin (63,000), Ñuble (20,000), Aconcagua (4,000), Chiloé (6,000), and Maule (8,000) indicate this same tendency of move-

[1] Approximately 1½ million people.

[2] Taking into account the occupied areas of this zone an average of three persons per square mile would be a correct mean of population density.

ment to the cities, for all are predominantly agricultural and rural provinces.

The share of the three central provinces (Santiago, Valparaiso, and O'Higgins) of the Chilean population has thus grown in the last decade from 38 per cent to over 45 per cent of Chile's 6,032,000 people. The magnetic attraction of Santiago and Valparaiso in this urbanization movement is tending to increase the dominance of the Mediterranean zone and its cities in the demographic picture, and decrease the relative importance of the more rural forest region, while the urban-concentrated populations of Deseıt and Atlantic Chile remain relatively unchanged.

VITAL STATISTICS[1]

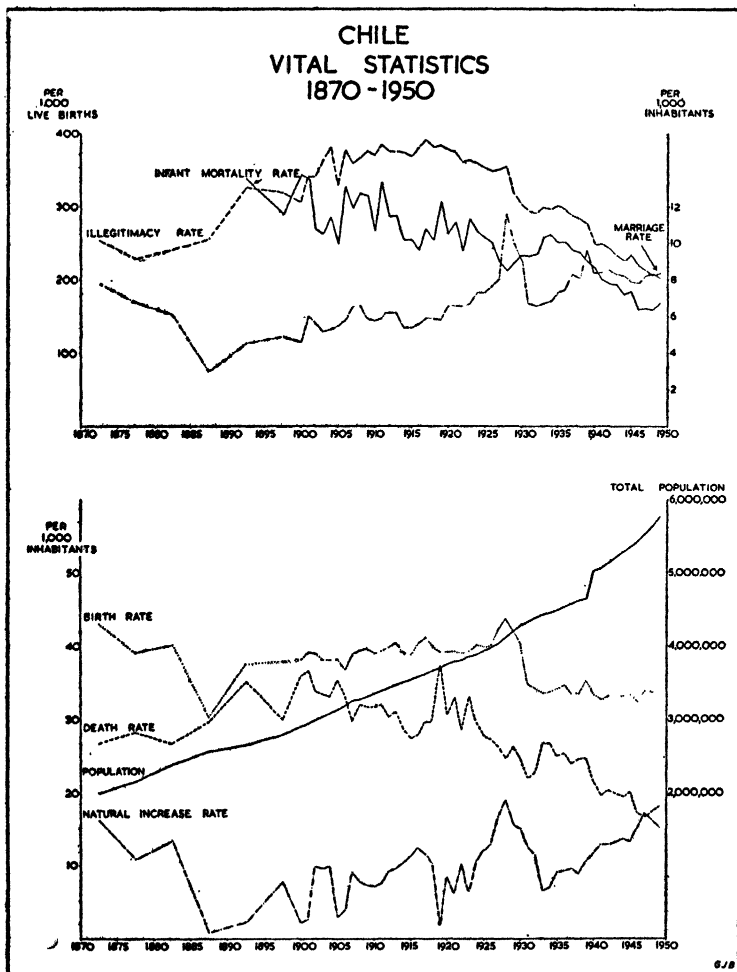
1. *Birth-Rate.* The high birth-rate of the Chilean population appears always to have been a most notable feature, and, since statistics have been available, there has been only a small change in the prolific reproduction-rate. The 1951 figure of 32·4 per 1,000 appears to be exceeded only by Mexico, Costa Rica, Venezuela, Dominican Republic, Puerto Rico, Guatemala, and Ceylon, and is double that of the United Kingdom. Before 1930 there were only minor fluctuations, the average birth-rate for the 1920–9 decade being almost identical with that for the decade 1870–9.[2] Since 1930, a slow decline appears to have set in which has been maintained, with small irregularities, throughout these two decades, the 1946 and 1951 index of 32·4 being the lowest recorded in this century.

The high birth-rate shows a decided emphasis in the urban areas of the country, for of the twenty cities exceeding 20,000 in population only six have birth-rates of less than 50 per 1,000 inhabitants. The average index for these cities in 1951 was 41·6 per 1,000 compared with 27·2 for the rest of the country. Santiago (which accounts for almost half the births) and Valparaiso have indices only slightly in excess of the national average, 35·2 and 37·0 respectively. The highest reproductive rates are in the forest zone cities of Los Angeles (105·5), Osorno (85·3), and Puerto Montt (79·0). This feature of Forest Chile is again demonstrated in an analysis of birth-rates on a provincial basis, the four highest indices relating to the provinces of Concepción (41·1), Arauco (40·6), Llanquihue (39·5), and Bío-Bío (37·3). The areas

[1] See Diagram on p. 20.

[2] The 1885–90 period appears to have been very exceptional.

subject to considerable influence from the outside world and containing foreign minorities, Magallanes (26·4), Valparaiso (28·1), and Santiago (27·8) all have indices less than that of the country as a whole.



Summarizing these zonal birth-rates on the basis of the four natural regions the pattern outlined is reflected thus:

Desert Chile	32 per 1,000 inhabitants
Mediterranean Chile	31 per 1,000 ,,
Forest Chile	38 per 1,000 ,,
Atlantic Chile	26 per 1,000 ,,

A feature of the high birth-rate is the large number of illegitimate births. Although the index has always been high, there appears to have been, in the past seventy-five years a definite increase followed by a larger decrease. Approximately 25 per cent of recorded births in the eighteen-seventies were illegitimate. This proportion increased, especially in this century, to a peak of 39·1 per cent in 1917. Since that date a progressive decline has set in, which has become quite accelerated in the last decade to a record low index of 19·7 per cent in 1951,[1] compared with 26·7 per cent at the outbreak of the Second World War. The increase was probably due to a more efficient system of registration of births and a weakening of strict religious control, the subsequent decrease probably being attributable to the wider spread of education in the last quarter century. This decrease is evident both in urban and in rural communities, being most pronounced in Atlantic Chile (12·9 per cent), where European influence is strong, and in the Mediterranean region were seven of the eleven provinces have illegitimacy indices less than 19 per cent, Santiago's being 18·4 per cent. The cities with the lowest rates in 1951 were Lota (12·3 per cent), Osorno (12·9 per cent), and Punta Arenas (11·8 per cent). The desert region is consistently the zone with the greatest illegitimacy, Coquimbo (37·4 per cent) and its city La Serena (32·2 per cent) regularly registering the highest indices.

2. *Death-Rate.* In death-rate statistics the general world improvement is reflected in Chile, and the 1951 figure of 15·7 per 1,000 is less than half of that at the opening of the century, the index showing a progressive decline throughout the fifty years. There is, however, considerable progress yet to be made if a comparison is made with Canada's death-rate of 9·0, or that of the United Kingdom of 11·3. There seems to be no doubt that the Chilean figure is an accurate index of the country's mortality-rate, whereas the much lower indices recorded by some other Latin American countries ignore great sections of their populations.[2]

[1] United Kingdom 5·0 per cent.

[2] Dr E. Cruz Coke, a Chilean public health expert has declared that Chile's death-rate is only exceeded by that of Egypt, but statistics published by the United Nations also show higher indices for Mexico and Guatemala.

The congested urban populations show the highest death-rates, registering in 1951 an index of 19·8 per 1,000 compared with 13·4 for the rest of the country. Eleven of the country's twenty largest cities had a death-rate exceeding 30 per 1,000, which in some cases reached alarmingly high figures, such as Los Angeles 51·8, Curicó 49·6, Osorno 46·8, and Chillán 45·9. Santiago's and Viña del Mar's indices of 15·0 and 11·0 respectively indicate a much healthier state of affairs and the more modern sanitary conditions prevailing.

The highest provincial rates occur in two blocks of territory, one embracing the south Mediterranean provinces of Maule, Linares, and Ñuble, and the transitional province of Concepción, and the other including the forest provinces of Malleco, Cautín, Osorno, Llanquihue, and Chiloé, in all of which death-rates exceed 19 per 1,000. In the former group, humidity and temperature conditions are high in combination, giving an environment favourable to many epidemic diseases, while in the latter group, the combined incidence of low winter temperatures and heavy precipitation gives a favourable environment for tuberculosis, in which mortality statistics do not reveal any great improvement.

The drier and more modern housing conditions of the provinces of Magallanes (12·6), Aysén (12·8), Santiago (11·7), Aconcagua (13·7), and Tarapacá (12·9) are reflected in their low death-rates, all considerably below the national average.

The regional pattern of the differential distribution of the Chilean death-rate can be summarized thus:

Desert Chile	13·9 per 1,000	inhabitants
Mediterranean Chile	15·2 per 1,000	,,
Forest Chile	19·5 per 1,000	,,
Atlantic Chile	12·6 per 1,000	,,

In spite of the increasing population there has been an absolute decline in the number of deaths, from 114,000 in 1939 to 93,000 in 1951. As in most other countries cancer is an increasing cause of death, and the number of deaths connected with childbirth has steadily declined. Tuberculosis still accounts for 10 per cent of the mortality, pulmonary complaints for another 20 per cent, and no less than 5 per cent are classified as 'violent deaths'.

Infant mortality,[1] always notoriously high in Chile, still ac-

[1] Under one year of age.

counts for 149 of every 1,000 live births,[1] and is the highest in rural communities. This figure, however, is approximately half of what it was in the early years of this century, and the improvement since the nineteen-thirties has been most marked.[2] The death-rate has fallen from 223 per 1,000 in 1939, and the absolute number of infant deaths has fallen in the same period from 37,000 to 28,000 annually. Even now expectation of life at birth is less than forty years, if this high mortality-rate is included. Unsatisfactory housing and sanitation, malnutrition, and other economic causes are undoubtedly responsible for this state of affairs.

In the provinces of Malleco and Bío-Bío, and the south forest zone of Osorno, Llanquihue, and Chiloé the rate still exceeds 190 per 1,000 births, contrasted with only 81 per 1,000 in Magallanes. The difference is even more marked between two cities of these contrasting regions, Punta Arenas with an infant mortality-rate of 65 per 1,000 and the coal-mining town of Lota where one-fifth of the babies born die before they reach one year of age. The regional indices are Desert 130, Mediterranean 140, Forest 186, and Atlantic Chile 81.

3. *Marriage-Rate.* Improved communications, increasing efficiency of registration, and changes in the country's social structure have led to recent increases in the marriage-rate recorded. Until the close of the First World War the rate had varied only slightly, with some small increase over the period 1880–1920, to an average of 5·8 per 1,000. Since 1920, however, the rate has increased to 7·8 per 1,000 which is comparable with that of the United Kingdom (8·2), France (7·5), or Belgium (7·9), and which contrasts strongly with that of Peru (2·6), or Mexico (6·0). This increasing marriage-rate is, naturally, one of the causes of the progressive improvement in the illegitimacy percentages over the last thirty years already outlined.

The provincial averages show few outstanding differences, except the high index of Magallanes province (10·4), but there is a noteworthy difference between rural and urban districts, the rate for the latter being twice that of the former (11·9 : 5·6). There is no city with a marriage-rate less than 8 per 1,000, and this would again seem to indicate the generally more efficient supervision and fulfilment of the registration law which is possible.

4. *Immigration.* The excess of immigration over emigration has

[1] United Kingdom, 30 per 1,000 (1951).
[2] A close correlation with the decline in illegitimacy is also evident.

been small, and while it has contributed, in a few periods, to a useful increase in total population, the growth of numbers by immigration in peak years has rarely contributed more than 10 per cent of the total population increase, and it has more usually been less than 5 per cent. Migration statistics have reflected world conditions. During the six years of the Second World War there was a net increase by immigration of only 2,983 over the whole period, and in the mid-war years 1941–3, emigrants actually exceeded immigrants by nearly 6,000. During the post-war period there was a correspondingly great increase, and 1948 showed a net gain of 14,707, a figure which is still not of great significance in the population growth of Chile. The Government has sponsored several efforts at selective immigration, particularly to secure agriculturalists for Chiloé, but the territory available for settlement is not very attractive compared with the settled regions of the country, and immigrants of the type required are not always available.

5. *Growth of Population.* If the small addition by immigration is ignored, the natural growth of population is, obviously, the relation between the birth- and death-rates already analysed. This rate of natural increase has varied, therefore, very greatly, falling as low as 0·8 per 1,000 inhabitants during the period 1885–9, and rising to 18·9 per 1,000 in 1928. The period 1922–32 was a time of large natural growth as this was the period of the highest birth-rate, and the improvement in the mortality index had already set in. As this latter tendency became even more marked after 1939 the rate of increase has grown progressively from 10·6 per 1,000 in that year to 16·7 per 1,000 in 1951. So long as the death-rate continues to fall at a faster pace than the birth-rate, which is the prevailing tendency at present, the increase of population by excess of births over deaths will mean additions to the present population of approximately 100,000 annually. This rate of increase is similar to that of Canada, but twice that of Spain, and four times that of the United Kingdom.

The cities of the forest region record the greatest natural increase of population, in every case exceeding 24 per 1,000 inhabitants. This rate of growth is also shown by some cities of the Mediterranean zone, but the indices of Valparaiso, Viña del Mar, and Santiago are less than the urban average.

The provinces with the greatest natural increase are those of the northern areas of the forest region,[1] some Mediterranean pro-

[1] Concepción, Arauco, Bío-Bío, Malleco.

vinces,[1] the desert province of Atacama, and the more pioneer areas of Llanquihue and Aysén. There appears to be little significant pattern in this distribution, and in any case it is considerably masked by the migratory trends of the population to the cities and to the Mediterranean area, which have been described already, and which account for the present regional population adjustments taking place.

In respect of this increasing urbanization of the Chilean population, both by natural growth and migration, Concepción, Santiago, Talcahuano, and Viña del Mar are now growing most rapidly in proportion to their population, while Valdivia, Valparaiso, Talca, and Chillán have shared least in the tendency. The mining cities of Iquique and Antofagasta lost population in the period 1930–40, reflecting the depressed state of the nitrate export trade of those years. The greater prosperity resulting from developments in the mineral industry in the following decade has more than restored their population. Of striking dimensions has been the growth of Santiago since 1885, from a city of under 200,000 to its present population of 1,413,000. Contrastingly in the same period, Valparaiso has only slightly more than doubled in size from 105,000 to 222,000. Even if Viña del Mar's rapid growth as a suburban appendage be added to this latter figure the total population of the two cities barely exceeds 310,000. The Concepción-Talcahuano urban district shows more spectacular growth in this period 1885–1952 from 30,000 to 196,000.

The following statistics indicate the principal Chilean cities today, and their relative growth in the last twenty years:

City	*1930 Census Population*	*1952 Census Population*	*Per cent increase*
Santiago	762,000	1,413,000	85
Valparaiso	196,000	222,000	13
Concepción	81,000	134,000	65
Temuco	72,000	91,000	26
Viña del Mar	53,000	88,000	66
Osorno	49,000	75,000	53
Antofagasta	55,000	73,000	33
Chillán	57,000	67,000	18
Talca	55,000	64,000	16
Talcahuano	38,000	63,000	66
Iquique	47,000	56,000	19
Valdivia	34,000	50,000	47
Punta Arenas	24,000	36,000	50

[1] Colchagua, O'Higgins, Aconcagua, Coquimbo.

EDUCATION

Chilean education in the colonial period was limited and carried on by the Church, although the Instituto Nacional was founded as early as 1813 and still ranks as one of the leading secondary schools. With the coming of independence, education was recognized as of primary importance, the aim being to provide a school for every village. In 1842 the eighteenth-century University of San Felipe was remoulded into the present University of Chile, the first teacher-training college was set up, and within the next two decades a system of public education was organized. The general prosperity of the eighteen-eighties permitted a programme of school building which was continued in this century. It was not until 1920 that primary education between the ages of seven and fifteen was made compulsory. Particularly in the last quarter century, each administration has done much to increase the number of schools throughout the country, and a conspicuous feature of even the most backward regions is a new school, often the finest building in the town, usually well designed and with modern facilities. This work still goes on at the rate of over one hundred new schools annually, but there are still insufficient to accommodate all children of school age, and, in view of the high birth-rate, the building programme is only slightly overtaking the actual increase in numbers of the population of school age. Analysis of the last census returns and subsequent calculations indicate the number of children between seven and fifteen years of age to be at least 1,200,000, of which at least 350,000, or approximately one-third of the total, receive no systematic educational training. The lack of schools and qualified teachers are important causes of this absenteeism, but economic factors such as difficulties of communication, lack of education among the parents, and the utilization of the children to augment family income also enter into the condition. Magallanes province records the lowest percentage without school instruction (19 per cent), followed by the desert provinces of Tarapacá (25 per cent), and Antofagasta (29 per cent). The agricultural provinces of Malleco (52 per cent), Cautín (51 per cent), and Bío-Bío (49 per cent) have the highest indices of school absenteeism and indicate the demands of the farm environment on these children.

Considerable progress has been made, however, in recent years. From 1900 to 1920 the number of elementary schools rose from 1,547 to 3,148, and total enrolment from 111,000 to 335,000. By

1947 these figures had increased to 5,635 schools with 713,000 pupils.

The educational system exists at the three levels of primary, secondary, and university standard. A highly centralized national system dominates the educational field, but Government-authorized private schools continue to play an important role. One of the earliest of these is MacKay School of Valparaiso (1857), and a more recent foundation, the Grange School of Santiago. Both have won a considerable reputation throughout the continent as examples of the British boarding-school type. French, German, and Italian schools, and the many institutions still under the control of religious orders also assist in providing additional facilities.

Of the primary school enrolment of 713,000, 23 per cent attend private schools of one type or another. Another 70,000 attend secondary schools, of which 35 per cent are in private institutions. A further 67,000 are classified as pursuing courses in special education, chiefly in State schools. This is a development of recent years, which includes agricultural, vocational, industrial, technical, commercial, artistic, and nursing education. Outstanding, quantitively, among these are the vocational schools with an enrolment of 32,000, and the commercial and industrial institutions catering for 12,000 and 10,000 each respectively. Most of the rural primary schools and one-third of the State secondary schools, especially in regions of low population, are co-educational; but with increasing numbers this tendency is declining.

The University of Chile is the official one, with an enrolment of 6,000 students, 500 of whom are foreigners. Twenty per cent of the students read law, a similar number pedagogy, and 16 per cent medicine. Its vacation courses provide instruction for an additional 1,500 Chileans and 200 foreign students, many coming from the United States. The Catholic University of Santiago, founded in 1888, enrols 1,100, and the new independent University of Concepción (1920) has a similar number. This latter institution has, in a short space of time, built up a great prestige, and has many features akin to modern English universities. Unique on the continent is the Santa María Technical University of Valparaiso, which, through the beneficence of its founder, offers to some 400 students technical and engineering courses similar to those of the pre-war German technical universities. There are, in addition, the naval, military, and aviation schools with a combined enrolment of approximately 1,000.

French, German, Swedish, and American teachers, philosophers, and methods have influenced Chilean education considerably in the past, but recent trends are towards adapting the system to the present needs of Chile. Included among these needs are the raising of living standards, technical education to speed industrialization of the country, and the pupils' realization of the advantages of democratic society. The 1944 Education Act stresses the importance of education being extended to the entire population through all possible means, and steps have been taken, therefore, to help eradicate the legacy of illiteracy among adults. Some progress has been achieved, although this has been less spectacular than in some other Latin American countries. It is estimated that over 20 per cent of the population over seven years of age are illiterate, and this is borne out by statistics relating to the literacy of persons contracting marriage. Between 1942 and 1946 the percentage of marriages among Chileans where both parties knew both how to read and write increased from 74 per cent to 81 per cent. The provinces of Valparaiso and Magallanes register the highest literacy indices of approximately 95 per cent in this respect.

CHAPTER III

HISTORY AND POLITICS

HISTORICAL BACKGROUND

The Spanish Colonial Period. Chile became a part of the Spanish domain in America following the conquest (1540–53) of its core region by Pedro de Valdivia. Control was really effective only north of the Bío-Bío, due to the hostility of the Araucanians south of that river, and, as a result, the impress of the colonial pattern of administration, society, and economic life is much greater in the Mediterranean region than elsewhere. No attempt is made here to consider the nature of this pattern, as full accounts are readily available elsewhere, but its influence not only on the paths of development of nineteenth-century Chile, but on the present social, political, and economic system is profound, and it is an essential basis to any consideration of later political and economic history.

The Nineteenth Century, 1811–91. With the coming of independence there was an early period of turbulence, in which various protagonists of alternative governmental methods and systems vigorously advocated the path that Chile should follow. This struggle probably avoided for the republic the later upheavals and revolutions which were such familiar history in that century for the other new Spanish-derived independent States. For thirty years (1831–61) the country was ruled by an autocracy of Conservative Presidents with severity, respect for order, and in the interest of the land-owning oligarchy. For another thirty years a more benevolent and a more liberal administration guided the fortunes of Chile, although the 1833 Constitution effectively centralized the Government and 'the entire nation in one single net of authority'.[1]

During these sixty years the territorial expansion of Chile both to the south under Búlnes (1843), and to the north by the War of the Pacific (1879–84), was completed. Much of the country was colonized; an economic system largely dependent on mineral ex-

[1] L. Galdames, *A History of Chile* (Chapel Hill, N.C., University of North Carolina Press, 1941), p. 361.

ports was established; and a communication system to knit together the scattered settlements of the republic was begun.

Parliamentary Democracy. 1891–1925. Then occurred the only break in ordered constitutional progress in the form of a civil war between the proponents of presidential rule and those who believed the executive should be subject to the will of the majority of Congress. In spite of the loyalty of the army, the command of the sea proved vital, and the parliamentary forces triumphed. A period in which 'the omnipotence of the legislative replaced the omnipotence of the executive'[1] was ushered in. The period was a most unstable one, and the multiplication of political parties prevented any responsibility in the Congress without which such a parliamentary system could not function efficiently. There was, however, some educational progress; a public-works programme was promoted; and the country weathered both its first serious labour troubles and the inflationary conditions of the First World War.

The post-war decline in nitrate and copper sales, currency depreciation, the rising cost of living, the growth of urban populations, and an increasing awareness of politico-economic conditions by the spread of popular education, all combined to demand a change in the *status quo*, in which, whether in the form of autocratic or benevolent Presidents or jockeying Congresses, the vested interests of Chile's anachronistic agrarian system and absentee landlords ruled the largely inarticulate remainder of the nation.

Dissatisfaction with this state of affairs was expressed in the 1920 election in which Alessandri, representing these dissident elements of an industrial proletariat allied to an increasingly important middle class, was narrowly voted into office. Unwilling to see their century-long tenure of power cut short by such reformers, the Conservatives largely prevented Alessandri from carrying out his programme.

To increase the difficulties caused by this political situation, great economic depression, caused partly by further continued decreases in Chile's export commodities, hit the country and the governmental revenues severely. Gold conversion of the currency was suspended and an income tax was adopted, although the passage of the budget was only secured after long delay.

The newly elected Congress of 1924 had a working majority

[1] R. A. Humphreys, *The Evolution of Modern Latin America* (London, Oxford University Press, 1946) p. 125.

favourable to the administration, but the army, dissatisfied with its economic measures, forced Alessandri's resignation. The military junta failed to carry out the reforms promised and Alessandri was invited to return. Strengthened by this recall, he was able to take more energetic and radical measures to deal with his country's situation than previously.

Realizing the ineffectiveness of the parliamentary system as practised without the corollary of responsibility, he called a constituent assembly to amend drastically the 1833 Constitution. Approved by a plebiscite, the 1925 Constitution was promulgated, and, with very minor amendments, this remains the basis of the republic's Government today. It re-instituted the presidential system of the nineteenth century with adequate safeguards against a repetition of the earlier autocracy, provided for universal male suffrage, and modelled the Government on the lines of the United States Constitution.[1]

The New Constitutional Democracy, 1925. The first seven years of the new democratic régime did not promise well for the stability of constitutional Government in Chile. After two years of indecisive rule following Alessandri's second resignation, due to a quarrel with Ibáñez, his Minister of War, the latter was elected President in 1927. Chile now found itself faced with rapidly deteriorating economic conditions, caused by the gathering clouds of world depression, and, severe presidential rule little short of dictatorship. Important administrative reforms were carried out; the Tacna-Arica frontier dispute was settled; and a great programme of schools, roads, and other public works was carried out, to alleviate the unemployment situation. To help save it, the nitrate industry was reorganized under a corporation[2] involving a partnership between the Government and the majority of the nitrate companies.

The economic condition of the country, however, continued to deteriorate. Nitrate and copper export values fell to half of those realized in 1927; huge Government expenditure alarmed foreign bankers who refused further credits; and the electorate, disillusioned by the repressive measures of military dictatorship and suffering all the effects of the nadir of complete economic depression, forced Ibáñez's resignation.

To remove Ibáñez was an achievement, but to replace his rule

[1] A fuller analysis of its provisions is given in a later section.
[2] Compañía de Salitre de Chile.

with an efficient Government, as the full fury of economic storm[1] hurled itself upon Chile, required another miracle. For eighteen months, Chile tried every form of Government from a military junta to a Socialist republic. Plots and revolutions succeeded each other, but, eventually, the armed forces demanded that the Government be restored to those who should administer it under the Constitution.

This action, and the overwhelming majority by which Alessandri was once more returned to power in 1932, speak volumes for the sound democratic faith of the Chileans that Government must be by popular consent and that military interference in it is not the path they wish to follow. Since 1932 in spite of a great war, economic crises, and the acute political and social problems of the post-war period, Chile has maintained to the fullest its constitutional democratic Government, guided by five Presidents, each elected without military pressure, or irregular voting procedure. In this, Chile is unique in the continent during two decades which have seen their share of coups d'état, dictatorships, and the suppression of individual and political freedom, not only in Latin America but beyond its shores.

Alessandri's second administration, 1932–8, was aided by the slow world recovery of those years and the astute financial policy of Ross. The vital nitrate industry was reorganized and the country's industrial expansion was encouraged with conspicuous results, production increasing by almost 50 per cent. The return to stability, the financial rehabilitation of the republic, and the impetus to economic nationalism which Ross directed were probably the outstanding features of the Alessandri Government. There was, however, a decided swing against the policy of his first administration. Labour organizations and the growing radicalism springing from social changes at work in Chile were repressed; strikes were dealt with harshly; and there was a mounting tide of criticism of the strong Conservative agrarian influence over governmental policy.

This had the effect of rallying, for the first time, all the parties of the Left and Centre into a Popular Front coalition which secured a very narrow majority[2] in the presidential elections of 1938. The strong personality of the new President, Aguirre Cerda, and his vigorous determination to tackle the social problems of

[1] Nitrate and copper exports, 1925, 1,507 million pesos; in 1932, 181 million pesos.

[2] 4,111 votes in the total poll of 443,525.

Chile provided an effective leadership. A destructive earthquake in the Concepción-Chillán area within a month of his assuming power, the outbreak of the European war in the same year, the difficulty of ruling the country with a congressional majority against his Government, and the many quarrels which developed within such a broad-based coalition, stretching from Communists to Right-wing Radicals, did not aid his task. Nevertheless, within the three years (1938–41) before his death, he was able to achieve much. Outstanding was the foundation of the Chilean Development Corporation[1] to plan and organize the republic's whole economic development, particularly in the industrial field. Aguirre Cerda's passion for education, health, and agrarian reform was closely linked to this industrialization programme which promised a higher standard of living and more economic independence than that possible with the rickety prop of nitrate and copper exports, which the coming of the Second World War had once more dislocated.

The country's short experience of a Government more attuned to the rapid evolutionary social change Chile was passing through had not been unpleasant. There was a world-wide revulsion to Fascism, and the opposition candidate, Ibáñez, virtual Dictator of the 1927–31 period, appeared to be not wholly free of its taint. The Popular Front had been expanded into the Democratic Alliance[2] which consisted of all parties except the Right, and this coalition secured the election of Rios as President.

The increasing inflationary conditions of the war years, the industrial disputes arising therefrom, and the continuation of party feuds, often resulting in the President being compelled to govern with a Cabinet of non-party ministers, combined to make Rios's task a difficult one. Aguirre Cerda's policy was followed in so far as world conditions allowed, and Chile's increasing aid to the victory of the United Nations was finally translated into rupture and then war on the Axis Powers. Again death brought the presidential term to a close before the expiry of the six-year period, and new elections were held in 1946. The political situation resolved itself into candidates of Left, Centre, and Right, and González Videla, the acknowledged political heir of Aguirre Cerda, was elected in a continuation of the trend which had manifested itself in the two previous contests.

[1] Corporación de Fomento de la Producción. See Chapter IV.

[2] Alianza Democrática.

There are several similarities between the régimes of these two very popular and dynamic Presidents. Both were returned to power by the important help of a large block of Communist votes; both found it impossible to work with them once returned to power.[1] Aguirre Cerda annexed Chilean Antarctica in 1940 by decree; González Videla carried this a step further by 'occupation' and a dramatic presidential journey to 'O'Higgins Land'.[2] The late nineteen-forties also saw the increasing tempo of the rapidly maturing plans of the Chilean Development Corporation, a basic feature of which is the steel plant at Huachipato which went into production in 1950. González Videla pressed forward with these schemes as the fruition of Aguirre Cerda's dreams. It was said of the latter's administration that 'it tenaciously adhered to constitutional procedure in the face of persistent and aggravating opposition'.[3] No more correct appraisal could be given of the Gonzalez Government, which, faced as it was with difficult situations in the coal, copper, and nitrate areas, and always beset with rising living costs and their inevitable accompaniment of unrest, always surrendered any emergency powers temporarily necessary, and reverted to what can now be considered the norms of democratic Government in Chile. Nowhere did this exemplary devotion to democracy find greater respect and admiration than in the United States, and this was translated into considerable financial help for Chile to maintain a stable economy.

THE CONSTITUTION

In the first years of independence Chile experienced the Latin American propensity for constitution-making and had no less than five in the space of twelve years, but since the eighteen-thirties little of its energy has been spent in the compiling of short-lived constitutional codes. The 1833 Constitution, with few amendments, sufficed for almost a century, and the present charter has suffered little change in the quarter century since it was promulgated on Chile's Independence Day in 1925. In it the republic is defined as 'a unitary State', and this continuing feature of a centralized nation has played a most important role in Chilean history and development.

[1] González Videla had three Communist Cabinet Ministers at first, and Aguirre Cerda offered them ministries.

[2] Chilean name of Graham Land.

[3] J. Gunther, *Inside Latin America* (New York, Harper, 1942) p. 200.

Constitutional guarantees assure to all inhabitants of the republic 'equality before the law'. 'In Chile there is no privileged class'. Other clauses guaranteeing freedom of expression and association, liberty of movement, and the inviolability of property within social needs are similarly based on democratic practice. Of especial interest in a Catholic State is the provision permitting full religious freedom. The duties of the State in matters of health and education are stressed, and other economic and social aims are defined. The goal is that each inhabitant shall receive 'a minimum standard of life, adequate to the satisfaction of the personal needs of himself and his family'. In this connexion the State favours the sub-division of land and the idea of family proprietorship. The code of justice gives the individual the normal democratic rights before the law; the franchise is extended to literate citizens over twenty-one years of age, and voting is by secret ballot.

These democratic fundamentals having been laid down, the Constitution defines the parliamentary system of a bi-cameral legislature, the Chamber of Deputies and the Senate, membership of the latter being restricted to citizens over thirty-five years of age. The members of both Houses are elected by direct vote,[1] one deputy representing 30,000 inhabitants.[2] This produces a Chamber of Deputies of 147 members, which is re-elected every four years. The Senate constituencies are groups of provinces so arranged as to give representation to the interests of all the differing regions of the republic, five senators being elected for each of nine regional groupings. The Senate is elected for eight years, and half of the membership is renewed every four years.

The Congress has considerable control over finance, ratifies treaties, declares war, and authorizes the President's absence from the country. While legislation may be initiated in either House or by a message from the President, taxation proposals remain the initiative of the President, who has important powers of demanding attention to urgent matters and amendments of laws, but a two-thirds majority of both Houses can overrule the presidential suggestions. When unresolved differences of opinion exist between the two Houses, mixed commissions of an equal number of Deputies and Senators meet to resolve the difficulties. The ordinary sessions of Congress last from 21 May, Navy Day, to 18 September,

[1] Belgian system of proportional representation.

[2] A grouping of departments exceeding 15,000 in population also entitles the area to a deputy.

Independence Day. On the opening day the President delivers his annual message to Congress, giving an account of the administrative and political state of the nation.

The Constitution defines the qualifications of a presidential candidate as being a person born a Chilean and over thirty years of age. He is elected by direct vote for a six-year period and cannot be re-elected for the following term. If no candidate obtains a majority over all candidates, the two Houses of Congress, in secret vote, choose between the two candidates securing the highest poll. This democratic provision was observed in 1946 and was an indication of the maturity of Chilean politics, as Congress did not have a majority of members politically sympathetic to González Videla.

The President nominates a Vice-President from his Ministers of State only when ill, absent from Chile, or personally in command of the national forces, but normally no such office exists, and fresh elections are called if the President dies in office. The presidential powers are wide and 'his authority extends to everything which has for its objective the maintenance of public order and the security of the republic in accordance with the Constitution and laws'. Although the twelve Ministers of State, forming the Cabinet responsible to the President, cannot be members of Congress, they can participate in its sessions, securing precedence in debate, but with no voting rights.

Executive and judicial functions are quite separate, the latter power being on a non-political basis, and an electoral tribunal, with a judicial majority, certifies the validity of all popular elections.

POLITICAL IDEAS, POLITICAL PARTIES, AND THE PRESS

Within the century and a half of independence, Chile's political structure has shown an expansion from one-party rule to the democratic coalition Government of 1950. The change from colonial tutelage to independent nationhood was accompanied with the almost inevitable replacement of one dictatorship by another very little different from it. The autocratic Conservative landowners of the *haciendas*[1] alone were able to offer effective Government of the country, and as such they ruled while the *inquilinos*[2] obeyed as they had been accustomed to do in the centuries before. Over the last century, the Conservatives have retained to a remarkable extent their fundamental traditionalism, strong clerical sympathies, association with agricultural owner-

[1] Large farm-estates. [2] Peasants.

ship interests, and resistance to change. It is due to their stubborn defence that Chile's *hacienda* system still survives as such a brake on the country's economic progress. It is true that, as elsewhere, the political faith of the party has broadened considerably, and their last presidential candidate, Dr E. Cruz Coke, probably represents the most enlightened wing of a party which still has its share of reactionary die-hards.

The urge to a more Liberal approach had early shown itself, but it was not until the quarrels over the power of the Church that the Liberals succeeded in overthrowing the Conservatives, partly by a break-away from the latter party. So was ushered in a period of Liberal rule. The title is deceptive, however. In the nineteenth century, the change meant the substitution of one group of a land-owning oligarchy for another of similar vintage. In this century, the Liberals have changed more than the Conservatives and have become more associated with the growing industrial and commercial aristocracy, and as such correspond more to English Conservatism.

No sooner had the Liberals achieved power than its Left wing broke away in protest against the continuance of oligarchic centralized rule. Thus was formed the Radical, or Centre, party of Chile, and sheltering within its ranks a wide grouping of political thought. The increasing industrialization of Chile, the increasing educational progress of the country, the increasing administrative machine the republic carries, have all strengthened the Radical Party by an influx of an industrial middle class, of lawyers, doctors, teachers, civil servants, and administrators. It is not fortuitous that, although the Radicals were unable, alone, to challenge successfully the Conservative-Liberal domination, 1811–1925, the electoral coalitions since 1938 have, in each case, had as their candidate Radical Party members, Aguirre Cerda, Rios, and González Videla. In 1946, divided into two unequal sections, partly on personal grounds and partly on the question of association with the Communists, the Left Radicals supported González Videla and the Right Radicals the Liberal candidate, Fernando Alessandri, son of Chile's famous President.[1]

As political thought expanded in the country, especially as a result of the economic troubles of the nineteen-twenties and nineteen-thirties, so did the number of political parties. These were based partly on political conviction, and partly on the dynamic

[1] Arturo Alessandri, died 1950.

appeal of individual leaders. They are so numerous that only the larger party units will be mentioned.

In 1921, the Communist Party was formed, and its rapid growth in the fertile soil of the industrial labour force of Santiago, the Lota coalfield, and the northern mining camps, and its partial control of the trade unions, soon resulted in it becoming the strongest Communist Party in Latin America. Its support in the presidential campaigns of 1938 and 1946 was important in helping to secure the election of both Presidents.

The Socialist Party was founded in 1931 and has suffered many vicissitudes as the quixotic personalities of its leaders have led to innumerable divisions and recombinations within its ranks. Supporting the Popular Front candidates in the 1938 and 1942 elections, it maintained a stubborn independence in 1946 and ran its own candidate rather than ally with Communist support of González Videla.

Of more recent growth is the Agrarian Labour Party under the leadership of President Ibáñez. Whether this is a temporary development or the birth of a party which will exert permanent influence on the situation, it is early to foresee. The rapid development of popular support for it is indicated in these statistics of votes cast: 1937, 9,721; 1947, 20,446; 1949, 35,921.

The 1949 elections to the Chamber of Deputies indicate both the relative strength of the parties and their multiplicity and bewildering nomenclature, which often conceals the political tendencies represented:

Political Party	*1949 Chamber of Deputies*	*1949 Votes cast*	*1949 Senate*
Radicals	34	90,000	8
Liberals	32	65,000	12
Conservatives	30	100,000	9
Agrarian Labour	14	25,000	4
Radical Democrats	8	15,000	5
Democrats	7	15,000	1
Ibáñez Socialists	5	10,000	2
Popular Socialists	5	5,000	3*
Falangists (Social Christian)	3	20,000	1
Progressive Liberals	2	3,000	–
Traditional Conservatives	2	10,000	–
Popular Democrats	2	4,000	–
Labour	1	3,000	–
Authentic Socialists	1	8,000	–
New Chilean Party	1	2,000	–

*Communists.

Party strength in both Houses of Congress and the 1946 presidential election returns:

González Videla	(Left)	192,207
Cruz Coke	(Right)	142,441
Alessandri	(Centre)	131,023
Ibáñez[1]	(Socialist)	12,114

indicate a position of approximate stalemate between Left and Right, with the balance probably in favour of parties of the Left. There is little inclination, however, for the numerous parties to coalesce into this two-party alignment, but since González Videla's rejection of the Communist alliance in 1947, the national basis of his Cabinets indicated co-operation between several parties.[2]

An analysis of the 1946 presidential election returns appears to indicate a significant regional political pattern. Support for the Left was mainly derived from three groupings of provinces. Outstanding in this respect were the absolute majorities registered in the four northern provinces where the mining population's strong trade-union organization is largely responsible. The coal-mining and industrial voters of the largely urbanized provinces of Arauco, Concepción, Valdivia, and Santiago also accounted for an important share of the country's Left-ward bias. The third major concentration of strength lay in the three southernmost provinces of Magallanes, Aysén, and Chiloé, where the greater interest of the Left in a more decentralized administration, and the traditional absorption of the Right parties in the agrarian fortunes of Mediterranean Chile, have played the major roles in swinging the political orientation of the south of the republic towards the Left.

This Mediterranean concentration of Rightist support was seen in the fact that five of the six provinces recording a Conservative preference were in the heart of the Mediterranean agricultural zone. In the case of the Centre candidate the composite nature of his support, both from Left and Right parties, makes regional analysis less useful.

In like manner the 1952 Presidential election so fragmented even the major political groupings that any such analysis is impossible. A normal reaction against a party which had held office

[1] Bernardo Ibáñez, not to be confused with Carlos Ibáñez, now President of Chile.

[2] 1950 Cabinet consisted of these members: four Radical, three Conservative, two Falangist, two Democrat, and one non-party.

for fourteen years, exasperation at unchecked inflation and the resultant labour unrest, and a growing economic nationalism were the principal elements in the refusal of the electorate to countenance another Radical president. It was, however, the personality of the new President, General Carlos Ibáñez del Campo which caused the break-up of party allegiance, as witnessed by the election returns:

Ibáñez	(Independent)	436,345
Matte	(Right)	257,066
Alfonso	(Centre)	187,044
Allende	(Left)	52,348

Standing as an Independent, Ibáñez detached voters from all parties as no other candidate in Chile today could have done. His reputation for efficient government, the dissatisfaction of many voters with all the political parties, and the desire of many for such a strong nationalist leader all combined to ensure his election. Only the developments of his term of office (1952–8) will reveal if his supporters will coalesce permanently into a Nationalist Party or re-combine with their former or other political groups.

Women voted in parliamentary elections for the first time in 1949, a franchise extension finally secured without much difficulty from Congress. Partly as a result of the electoral registration system,[1] partly due to illiteracy, and partly due to political apathy, the percentages of the eligible population inscribed as voters is much lower than in Europe or the United States. Thirty-five per cent of men and 9 per cent of women[2] over twenty-one years of age were registered voters in 1947. In parliamentary elections, therefore, approximately 30 per cent of the eligible voters vote, and in municipal affairs this falls to less than a quarter of this figure. This is reflected in the smallness of the electorate, which has never exceeded a total of 1,000,000, out of a total population of 3,000,000 over twenty-one years of age, although the tendency has been for it to increase in recent years.

The relationship of numbers of voters to illiteracy is best exemplified by the fact that Magallanes, with the lowest incidence of illiteracy, has the highest percentage of voters in relation to total population (20·6), whereas such provinces as Cautín (9·5) and Chiloé (9·9) with low voting ratios have high illiteracy rates.

The association of the press with politics is very strong, and,

[1] Which involves active personal inscription.

[2] For municipal franchise, which they have had for some time.

although it has for the most part rid itself of the polemics of the nineteenth century, it is still a rostrum on which many rising politicians first make known their political philosophies. By constitutional guarantee there is complete freedom of the press, and while occasionally, under emergency powers, a newspaper has been suppressed, these powers usually have been relaxed later, and the newspaper has made its reappearance.

The length of the republic has precluded any national dailies in the sense that they are obtainable in all parts of the country on day of issue. As a result the importance of the provincial daily, of which *El Sur* of Concepción is probably the best example, can hardly be overestimated. Obviously the great urban concentrations of Santiago and Valparaiso publish newspapers of national status, and here also are published the more important magazines, of which *Topaze*, a satirical effort, and *Zig Zag*, an illustrated weekly, are examples. Some of these Santiago and Valparaiso dailies rank with the best journalistic efforts not only in Latin America but in the world. *El Mercurio*,[1] published in both cities, compares favourably with the standards of *The Times* and the *Manchester Guardian* in its coverage of news and comment. In politics it is Liberal in colour, and ranking closely to it in reputation are *La Hora*, *El Diario Ilustrado* and *La Unión*, the Conservative organs. *La Nación*, thanks in the first instance to Dávila's[2] reforming zeal, has become of major importance in its appeal to the middle class and the wider public opinion of recent years. At the two political extremes are the Rightest *El Imparcial* and the Communist *El Siglo*. While all the numerous publications wield considerable political power, particularly the strong defence of local and regional interests maintained by the provincial dailies, the impact of illiteracy[3] and poverty means that a large proportion of the people never buy newspapers, and sales are not comparable with United States or British publications.[4]

ADMINISTRATION AND THE CIVIL SERVICE

There have been, in the last century, several changes in the administrative division of the country, which were often made to gratify local sentiment or to further the schemes of politicians. Probably the most satisfactory division with the greatest geo-

[1] Founded by Agustín Edwards, politician, diplomat, banker, and industrialist. and still owned by the Edwards family.

[2] President for a hundred days in 1932. [3] 28 per cent (1940).

[4] Newspaper circulation per 1,000 of population is one-seventh of that of the United Kingdom.

graphical advantages was made by Ibáñez in 1928, which considerably simplified the previous pattern. There were sixteen provinces, and two territories,[1] which united communities with similar aims and interests and took account of the development of communications. Many of the central provinces were based on river basins separated by thinly populated watersheds, rather than on river-divided entities. The historic ties of a system which had been operative during the formative period of the nation, however, proved more powerful, and the 1936 administrative division in large measure restored the *status quo* of the pre-1928 period, there being now twenty-five provincial units.[2] The division reflects the population distribution. The largest provinces are the three desert areas of Tarapacá, Atacama, and Antofagasta, and the thinly settled southern region of Chiloé, Aysén, and Magallanes, whereas the more thickly populated central third of the country includes the remaining nineteen provinces.

Although constitutional provision is made for a gradual decentralization of internal administration, the power of the central Government still permeates all regional administration, and there is very little real autonomy deputed to the provinces. The inclination of the powerful interests of the central nucleus to legislate for the majority is almost inevitable, and the critical complaint of the distant provinces is a natural corollary.

Each province is under the authority of an *intendente* who is appointed, for three years, by the President. He directs provincial administration, being assisted in this task by a provincial assembly of representatives from the municipalities within the province. The assemblies, through the *intendentes*, indicate annually to the President the needs of the provinces and the finances necessary to carry them out.

Each province is sub-divided into departments, a governor, nominated again by the President, being the administrative head of each department, the *intendente* being the governor of the department containing the provincial capital. There are also further sub-divisions of the departments into sub-delegations, or communes, and these into districts. Local administrations of each commune or group of communes is managed by a municipality, presided over by an *alcalde* or mayor, who in cities exceeding 100,000 population are salaried officials appointed by the President. These municipalities have from five to fifteen councillors

[1] The thinly populated southern region. [2] See map on p. 7.

elected by direct vote for a three-year period, the franchise being extended to all persons over twenty-one years of age, including aliens who have resided five years in Chile. Matters on which the municipalities can legislate, with certain limits, include local by-laws, health, educational and recreational facilities, agricultural, industrial, and commercial development, and roads and public works, for all of which they may impose certain forms of local taxation.

In this century especially, the growth of the civil service has been phenomenal, for the period has seen the extension of governmental control into almost every sphere of national life. The departments set up to administer industrial development and the social security and labour legislation enacted since 1920 account for much of the personnel increase, but in addition are the Government departments dealing with the nitrate industry, railways and steamship services, police, education, and the armed forces, many of which have been expanded in recent years.[1] This means that the bureaucratic burden on the small population of some 6 million is very heavy, a burden which, by the nature of its largely non-productive character, is the heavier in Chile where the proportion of active population is in any case lower than many other countries.[2]

All Ministers of State, *intendentes*, judges, and civil servants are barred from election to Congress, with the exception of higher-education employees stationed in Santiago. As a result there is little direct entanglement of the civil service in the political arena, but its support of the Governments which largely sponsored its expansion cannot be ignored.

STATE SOCIALISM

The transition from a traditional policy more typical of last century to active State participation in the industrial and social welfare of the republic was a sharp one, and dates from the first Government not dominated by the Conservative and Liberal Parties, namely that of Alessandri, 1920–5. Social reform had not kept pace with the changing social structure of the country, and the economic crisis resulting from the loss of the nitrate market, with its currency depreciation, rising living costs, static wages and

[1] Numbers of Government employees rose from 71,500 to 111,500 in decade 1938–48, or to 7 per cent of those gainfully occupied.

[2] 30 per cent compared with 40 per cent in the United States.

unemployment, precipitated the new policy. Alessandri, in a long and bitter struggle with the Rightist forces in Congress, succeeded in founding a basic pattern of social security on which later Governments could build. Laws relating to hours of employment, wages of the poorer sections of the community, social insurance, pensions, and an income tax were introduced. Alessandri did not obtain all his wishes, but to him is due the credit for the beginnings of a social-welfare structure only equalled by that of Uruguay in the Americas, far ahead of developments in most European countries, and only realized in Britain since 1945. The coming of the Popular Front Government in 1938 securely entrenched and extended the structure, and the similarly sympathetic Governments of Rios and González Videla meant no diminution of its importance.

Under the system practically the whole Chilean population is related directly or indirectly with one of the organizations of social prevision. A compulsory *caja*, or guild structure, related to the type of employment, is the basis of the system. Payments from employees, the employers, and the State are invested in mortgages and other securities, and from this fund are financed health benefits, accident insurance, old age pensions, unemployment benefits, family allowances, and savings funds enabling members to build their own homes. The largest *caja* is that covering the manual workers which in 1948 had 1,232,000 members; next in importance is that covering salaried employees of private employers numbering 114,000, and thirdly that of State, semi-State or journalistic employment numbering some 90,000. Other *cajas* are those covering the armed forces, and police, municipal employees, the mercantile marine, and railway workers.

Apart from the social benefits derived, the *cajas* act as mortgage and commercial banks for the members, and the capital investment resulting, in house construction alone exceeding 2,500 million pesos, would not have existed otherwise. Compulsory life insurance for each member of the salaried *cajas* is another measure encouraging thrift. Minimum salaries, dependent on province of residence, and annual increments, are enforced by law, and both are adjusted annually in accordance with the cost of living index, by mixed commissions of employers and employees.

As an example of the service rendered by the central welfare institutions embracing the hospitals, the following statistics for 1948 indicate the social work carried out by the manual workers' *caja*:

Number of members and dependants assisted	652,000
Surgery attendances	3,474,000
Laboratory treatments, injections, and dental treatments	5,460,000
Hospital cases (number of days)	2,043,000
Sickness benefits	39,240,000 pesos
Maternity benefits	4,455,000 ,,
Milk-scheme benefits	11,713,000 ,,
Preventive-rest benefits	83,814,000 ,,
Pharmaceutical materials	31,628,000 ,,
Infant-welfare foods	30,078,000 ,,
Pensions	68,513,000 ,,
Return of contributions	10,854,000 ,,
Death benefits	2,906,000 ,,

A Government housing scheme,[1] in addition to the homes built by *caja* members, had built or had under construction 17,000 houses with a living capacity exceeding 100,000. These housing schemes, sometimes of 1,000 houses, scattered throughout the republic, and representing an investment of 1,375 million pesos, represent a State effort to deal with an appalling, long-neglected problem.[2]

The other aspects of State Socialism largely concern the transport and industrial field. The main communications network is a nationalized railway system, administered in much the same form as the British Railways Executive. The early participation of the State is shown by the fact that the Santiago-Valparaiso line was built by the Government during the period 1852–63, and most of the other State railways were Government constructed. The railway network is interlinked by a maritime service from Arica to Punta Arenas, with a fleet of passenger and cargo vessels operated by the State Railways Board. The internal National Air Line services, the post office, and much of the telegraph system are also Government undertakings. The ports similarly are largely State operated and much money has been invested in their improvement.

The movement toward State Socialism persisted in Alessandri's second administration for Ross's programme of economic national-

[1] Caja de la Habitación Popular.

[2] Señor Aldunate Phillips, Professor of Industrial Administration in the University of Chile, states that 86 per cent of working class families live in one room only. Other estimates suggest a deficit of 400,000 houses.

ism inevitably led him to introduce measures strengthening the powers of the State *vis-à-vis* foreign interests in the country. The reorganization of petroleum importation and distribution into a Government monopoly,[1] and of the South American Power Company into the Chilean Electricity Company[2] were examples of this and really represented a form of semi-nationalization, two-thirds of the latter's earnings on its ordinary shares going to the State.

In similar manner the nitrate industry's operation has been placed under Government control, the State Nitrate and Iodine Sales Corporation taking one-quarter of the profits, which meant £1¾ million in 1951.

Probably the most important step in State-sponsored planning of industry was the creation of the Chilean Development Corporation in 1939.[3] It is true that the enormous work accomplished by this organization has been carried out with the aid of private enterprise, but in some directions, notably in the fields of hydro-electric power development and petroleum exploitation, State ownership of these sources of energy has been a dominant feature. The National Electricity Undertaking is 90 per cent Government controlled, while many of the other large enterprises, such as the Pacific Steel Company, would not have been possible without State help through the Corporation. The total Government investment in the Corporation's plans by 1948 exceeded 2,000 million pesos,[4] of which over 50 per cent was in the electricity company, 10 per cent in petroleum, 8 per cent in cement, and 5 per cent in the steel plant.

[1] The decrees of 1932 and 1936 creating this monopoly were never enforced, but a Government-supported company, the Compañía de Petróleos de Chile (Copec), organized in 1934, controls a large share of the market.

[2] Supplying light and power to tramways in Santiago and Valparaiso.

[3] See Chapter IV, p. 78.

[4] See Appendix I, pp. 116-17.

CHAPTER IV

GENERAL ECONOMIC AND SOCIAL CONDITIONS

NATURAL RESOURCES

CHILE has been liberally endowed with natural resources. Indeed its economic existence has been largely dependent on the exploitation of two of these resources, nitrate and copper. In view of the important part minerals have played in the development of the country it is convenient first to consider Chile's wealth in this respect. Outstanding among these are the very large resources of copper, nitrate, iron, and manganese. While several other precious minerals exist, the republic is poor in some of the scarcer minerals such as tin, chromium, nickel, and platinum, and the more common zinc and lead. A small production of asbestos has begun, but bauxite for aluminium production also seems absent. In any appraisal, however, of Chilean mineral resources it must be borne in mind that while Desert and Mediterranean Chile have been fairly well surveyed for mineral potentialities, all Forest Chile, particularly the more inaccessible parts and the archipelago, offers considerable possibilities for the discovery of new mineral resources. This is all the more probable in view of the geological continuity of the republic. For example, there are extensive areas in the south of the same formations which contain the copper and iron reserves of the north. Likewise, for the same reason, in view of the scarcity in the north of the other minerals mentioned, possibilities of their appearance in Forest Chile are not great.

Nitrate and other Mineral Salts. Chile's complete monopoly of the production of natural sodium nitrate is based on extensive deposits of the *caliche* in Desert Chile. Although varying considerably from area to area, both in thickness and in depth, the resources of this salt occur from Arica to Copiapó in the central zone between the coastal plateau and the Andes. Varying in width from five to forty miles and at altitudes from 4,000 to 9,000 feet, the supplies are not everywhere continuous, but there is no reason to believe that they are not sufficient for a great length of time. This is increasingly true, taking into account the large production of syn-

thetic nitrate elsewhere which reduces consumption of the Chilean product, and the improved technological processes which enable low percentage nitrate-bearing rock to be economically worked. At present, with governmental rationalization of the industry, production is concentrated at two or three important *salitreras* near Tocopilla and Antofagasta[1] and several smaller ones in Tarapacá province, but these do not represent all the areas which could be profitably exploited.

Iodine, as the most important by-product, provides the country with a valuable revenue-earner, and the region is easily the world's greatest supplier of this element. Sodium sulphate is produced in fairly large quantities as another derivative of the nitrate deposits, and abundant sodium chloride (common salt) reserves exist south of Iquique. Of more recent exploitation are the rich calcium borate deposits near Quillagua[2] yielding a large production of borax. Phosphates production is increasing, derived in large measure from the apatite deposits of Aconcagua and Valparaiso provinces in association with cement manufacture at La Calera.

The list of natural and non-metallic minerals could be greatly extended, but Chile's wealth of these resources can be gauged from this list of those produced in considerable quantities:

Mineral	*Production (tons), 1947*	*Chief Producing Area (Province)*
Kaolin	6,464	Aconcagua
Limestone	913,483	Valparaiso and Coquimbo
Quartz	46,022	O'Higgins
Barium sulphate	3,752	Valparaiso
Gypsum	76,678	Santiago
Guano	21,671	Tarapacá

The dominance of the nitrate deposits, however, is indicated by the fact that they account for 74 per cent of the value of the non-metallic minerals produced,[3] and limestone accounts for half the remaining 26 per cent. Third in value is the country's sulphur production of some 10,000 tons annually. Bearing in mind the volcanic nature of great areas of the Andean cordillera it is not surprising that the country is rich in this mineral. Occurring on

[1] María Elena and Pedro de Valdivia *oficinas* (factories) with annual production capacities of 450,000 and 600,000 tons respectively.
[2] Oasis on River Loa. [3] Excluding coal.

the surface from the extreme north of the republic to the southern limits of Mediterranean Chile, the deposits are situated at great heights[1] and therefore, far from the coast; the chief centres now exploited being Mount Tacora near Arica, and Ollagüe near the Bolivian frontier in Antofagasta province.

Copper. Supplies of this metal are enormous, and for long Chile was the world's greatest producer of copper. In the last quarter of the nineteenth century, developments in the United States pushed that nation ahead of Chile, but the latter's annual production of over 400,000 tons represents between 20 per cent and 25 per cent of world production, and exceeds the production of any other continent except North America. Ninety-six per cent of this output is derived from three great mines located at Chuquicamata, inland from Tocopilla, Potrerillos, inland from Chañaral, and El Teniente, south east of Santiago. These produce approximately 60 per cent, 23 per cent, and 13 per cent of the country's copper output, none being worked at potential capacity.

The Chuquicamata deposit alone possesses greater reserves than any other copper deposit known, and although its lateral and vertical extent are yet undetermined, there are at least 1,000 million tons of 2 per cent ore available for exploitation there, and it is the largest open-cast working in the continent. The Potrerillos deposit is smaller, poorer (1·1 per cent), and complicated by oxide and sulphide ore deposits, which make refining more difficult. The El Teniente reserve represents at least another 300 million tons of ore as rich as the Chuquicamata supply, and there are smaller sources of high percentage ores near Santiago.

Iron. The country is almost equally well endowed with iron ore. Of the many large deposits already known, about half the reserves occur at El Tofo, Romeral, and Algarrobo, all in the coastal zone and within fairly easy access of the sea. Development of Chilean iron ore only dates from the days of the First World War, and until 1952 only the El Tofo deposit was being worked. Richer[2] than most North American deposits the great magnetite-haemitite capping, over 500 feet in depth, is also mined by open-cast methods.

Gold. While aliuvial workings for gold have been a feature of the Chilean mining economy for almost a century,[3] and still give

[1] Often exceeding 15,000 feet. [2] 62 per cent content.
[3] Pedro de Valdivia worked alluvial gold washings in Marga-Marga river, near Viña del Mar, in the sixteenth century.

employment to some 1,500 men, the more recent developments[1] have been the exploitation of lode gold and the extraction of the metal from the copper ore. As a result, although supplies of gold are low grade, 200 million pesos' worth of the metal is mined annually, from many scattered deposits, chiefly in Santiago, Atacama, and Coquimbo provinces. Only 2 or 3 per cent of this is derived from placer mining and some 50 per cent represents by-products of other metalliferous mining, particularly from the flotation mills at Potrerillos, Chagres, and Naltagua. Thus while no spectacular deposits of gold have been found, the exploitation of the many small supplies will continue to provide a useful means of employment and a source of this precious metal for the nation.

Molybdenum. Ranking only after copper, gold, and iron in total value are the molybdenum concentrates recovered from copper refining by differential flotation at the El Teniente copper mine. Nearly 400 tons of this precious metal are produced in this way annually.

Manganese. Next in importance as regards value of present production comes manganese. Here again tremendous resources exist and the ore content averages 46 per cent. Almost the whole production at present is derived from the province of Coquimbo and exported from that port.

Silver. Production of silver has been assisted by the steps taken to refine and separate silver and gold from copper ore, 60 per cent of the country's silver production being at present represented by the silver content of the copper bars exported from Potrerillos. Most of the remaining silver mining is concentrated in Antofagasta province, near Taltal.

Hydro-electric Power. In view of the increasing industrialization of Chile the wealth of the country from the viewpoint of energy-providing resources is a vital matter. In respect of hydro-electric power,[2] Chile is very fortunate, being exceeded in the continent only by Brazil, in the amount potentially available. If one takes into consideration only the region from Arica to Puerto Montt, the reserves are estimated to be in the nature of 6 million kilowatt capacity, or a *per capita* amount five times that of the United States and three times that of Switzerland. Geographically the northern third of Chile is poor in water resources, but the central third from La Serena to Puerto Montt contains the great bulk of the available water power. As this is the region of greatest popula-

[1] With aid of the Mining Credit Fund. [2] See map on p. 83.

tion the supplies could not be more conveniently situated. In Mediterranean Chile the concentration of rainfall in the winter months is more than compensated for by the melting snows of summer, while the heavy all-season rainfall from Concepción to Puerto Montt provides a vast reservoir of potential power. As rich, although offering less likely possibilities of development, is the southern zone comprising Chiloé, Aysén, and Magallanes, where recent exploration suggests an additional reserve of some 5 million kilowatt.

The extensive distribution and natural advantages with which Chile has been endowed offer the country undoubted industrial possibilities from the angle of supply of mechanical energy. The rivers plunge down from the great Andes cordillera, offering excellent sites for high-head installations, and the cost of harnessing the power is cheap by comparison with other countries. The lakes of the Concepción-Puerto Montt region are important in this respect, while the narrowness of the country permits cheap distribution of the power generated.

Already Chile has developed a far greater proportion of her water-power resources than has any other South American country, but this represents merely 6 per cent of the reserves available. The Chilean Development Corporation has made the country's electrification a central feature of its programme, which will ultimately lead to a unified and national development of these resources, benefiting most of the population, agricultural and industrial, and involving schemes of mechanical irrigation, rural electrification, urban distribution, and the use of electricity in manufacturing industry.

The most important plants being developed at the present time are the Sauzal, Abanico, and Pilmaiquén projects, designed to serve the central third of the country.[1] The Sauzal plant on the Cachapoal river will supplement the present inadequate supply of the populous provinces of Santiago, Valparaiso, Aconcagua, and O'Higgins: the Abanico plant on the upper Laja river will serve the industries and agriculture of the Talcahuano-Concepción-Penco zone; while the Pilmaiquén plant on the river of the same name, east of Osorno, will bring supplies to an area now almost without electricity, from La Unión to Puerto Montt, and offering both agricultural and industrial potentialities.

[1] These three plants are in production, but projected maximum capacity is much greater than at present.

Other projects in hand for the period 1948–53 are the Los Molles plant on a tributary of the Grande-Limarí, which will supply the north Mediterranean province of Coquimbo, embracing the agricultural and mining region from La Serena to Ovalle; the Los Cipreses plant on a tributary of the Maule, which will work in co-operation with the Sauzal installation and supply the central valley area between Curicó and Linares; and the Calafquén project which will supply the Temuco-Valdivia agricultural zone west of the Chilean lakes, and link up with the Pilmaiquén plant to the south. These six systems will supply 90 per cent of the population of Chile in the area from La Serena to Puerto Montt.

Coal. The development of these rich hydro-electric resources is all the more important in view of the country's comparative poverty in coal. All Latin America is poor in such resources, and while Chile has sufficient for an annual output of some 2 million tons, reserves are not very great and would be exhausted in less than half a century even at this small production rate. The coal area in the Lota-Coronel-Curilanhue zone is in the extreme north of Forest Chile, south of Concepción. In quality the coal is sub-bituminous, and the seams are irregular. Even with improved methods of utilization and economies in its use by the substitution of electricity, the country cannot be regarded as having a very important reserve of coal, although its seaboard location is a decided advantage.

In Atlantic Chile much larger resources exist on Riesco island and near Punta Arenas, but the quality is lignitic and it would become of considerable commercial importance only if coal distillation became of easy economic practicability.

Oil. Geologically Chile is not a region where petroleum reserves are likely to exist, except in its Atlantic extension, where the structure somewhat resembles that of southern Argentina, of which it is the natural continuation. Exploration there in the nineteen-forties, under Development Corporation control, resulted in the discovery of the Manantiales field in northern Tierra del Fuego, and production started in 1950. Eighty wells have been drilled, yielding a total daily output of 2,500 barrels, which represents 20 per cent of national consumption. In view of Chile's dependence on imported Peruvian and Venezuelan petroleum, this is a welcome addition to the economic resources of the country. Exploration of the region is still proceeding and it is not im-

probable that other fields will be opened up further south or in the pampa of Magallanes province.

Forests. Perhaps with none of her natural resources has Chile done less than in the field of forest exploitation. While, in the past, her reserves of utilizable timber frequently have been greatly exaggerated, taking little account of the inaccessibility and broken nature of much of the forested section of the country and the varying quality of the forests, there is no doubt that the country's natural forest resources are important. Exploitation has been unscientific for the most part, and little has been replaced by re-afforestation. In view of the generally mild and humid conditions prevailing in Forest Chile, growth is rapid and this will be one asset when afforestation is tackled more widely, although the ravages of soil erosion are naturally great once forest cover has been removed.[1]

A United States forest service mission in 1943 reported that Chile possesses one of the major sources of hardwood in the temperate zone, and estimated that it covered 40 million acres.[2] Apart from this estimate, little has been done to survey scientifically the archipelagic and coastal forests of the three southern provinces. Nevertheless, there seems to be sufficient to supply Chile not only with pulp and constructional material, but with such requirements as poles, railroad sleepers, boxes, furniture, shingles, plastics, and wood alcohol. The Development Corporation has invested over 50 million pesos in an industry[3] to creosote poles and railway sleepers and so conserve supplies of oak, elm, and pine. Two-thirds of all Chilean forestry production comes from the provinces of Valdivia and Cautín which contain the most accessible and valuable forests. A considerable export trade to Argentina, Bolivia, and the United Kingdom[4] of Chilean beech, pine, laurel, and other woods has been developed, and imports of wood, chiefly American pine, are now very small.

Fisheries. Although much remains to be done, efforts to utilize the valuable food resources available off 3,000 miles of coast, have made greater progress in recent years, and the annual catch has quadrupled in the last thirty years. The Development Corporation has successfully focused attention on Chilean fishing resources as

[1] Forest fires destroy three times as much timber as the country uses annually.
[2] See Appendix I, p. 116.
[3] Sociedad Impregnadora de Maderas; Wood Treatment Company.
[4] An important trade in plywood is a recent development.

a means of increasing the standard of living, of furnishing valuable protein foods, and of providing economically sound industries. Already the canned products have practically supplanted imports of this food, and fish consumption increases as that of meat declines. Talcahuano and ports of Arauco and Tarapacá provinces feature as the principal bases of the fishing industry at present. A joint Chilean-United States mission in 1944 made a full investigation of the potentialities, and their report indicates the abundance of an enormous variety of fish ranging from whiting, herring, sardines, and anchovies, to tuna, swordfish, and shark, besides plentiful supplies of shell-fish.

Water. The relief of Mediterranean Chile enables the sun-parched fields of the central valley to be irrigated, in summer, in great measure by simple gravity-flow channels, for many rivers flow on the slight apexes of the great alluvial fans spreading from the Andean cordillera. These rivers, fed by melting snows, are an invaluable resource for Chilean agriculture, and over 2,500,000 acres are irrigated by canals. All suitable land is not accessible in this way, and it is in this respect that the resources of hydro-electricity and water combine to make another half million acres of fertile land available for agriculture by means of mechanical irrigation.

Scenery. The assets of the benign climate of the Mediterranean zone, of high mountains, magnificent lakes and forests, glacier-fringed fiords, and swift rivers, are resources for the development of an international tourist industry, which Chile has not been slow to develop. Portillo, over 9,000 feet high in the Andes, has become a major winter sports rendezvous, and a modern hotel coverage in the Lakes region has enabled the country to convert the wealth of scenery to its economic advantage.

COMMUNICATIONS

The anomalous shape of the republic, its surface relief, the broken nature of the southern third, and the difficulties of desert and forest have combined to render communications by land, sea, and air a formidable problem for Chile. Yet their importance in linking together groups of isolated settlements and of uniting these populated centres with Santiago and the core region of the republic is fundamental in maintaining the stability of such a difficult country. In this respect it is fortunate that 90 per cent of the population is contained in the fairly compact central rectangle

of territory from La Serena to Puerto Montt, for, if population were more evenly spread throughout Chile, any great deficiency or weakening of communications would, almost inevitably, in such a country give an impetus to autonomous or secessionist sentiments.

Maritime. The importance of maritime communications to a nation possessing more than half the Pacific coastline of the continent is obvious. Enclosed by desert and mountain ranges its principal contacts with the outside world have been by means of sea routes, and since 1840 regular steamship links with Europe have always been important, even though these involved journeys around Cape Horn or through Magellan's Strait. With the opening of the Panama Canal these links, and routes to North America, assumed even greater importance. Today, nearly half of the tonnage of foreign vessels using Chilean ports is that of the United States, another quarter being represented by British and Norwegian vessels. Of loaded ships whose last port of call was a Chilean port, 40 per cent were bound for the United States, 13 per cent for Peru, and 5 per cent for Egypt, and of those making their first port of call a Chilean port, 40 per cent came from the United States, 13 per cent from Peru, and 11 per cent from Curaçao. The importance of communications to and from the United States is clearly evident. The principal regular international steamship services now operating are those of the Grace Line, the Pacific Steam Navigation Company, and the Compañía Sud-Americana de Vapores. Sea routes as a means of passengers entering or leaving Chile have declined relatively in importance, air travel having more than replaced them. Maritime routed passengers in 1951 represented only 6 per cent of the total immigration and emigration statistics, compared with 28 per cent in 1939.

Coastal trade between Chilean ports is the monopoly of Chilean vessels by law, and an analysis of these maritime links between the various regions of the republic reveals their importance. In number of ships (but not in total tonnage) the Chilean coastal traffic exceeds that of the international shipping:

	Number	*Tonnage*
Foreign and Chilean international shipping entering Chilean ports, 1951	2,321	9,205,000
Chilean coastal shipping	7,258	6,578,000

The leading ports concerned with these internal maritime communications are:

Port	*Number of Ships*	*Tonnage*
Valparaiso	689	1,139,000
Antofagasta	572	923,000
San Antonio	508	877,000
Talcahuano	240	524,000
Lota	326	501,000
Tocopilla	326	489,000
Coquimbo	396	430,000
Iquique	340	364,000
Chañaral	183	348,000
Coronel	165	318,000
Puerto Montt	439	268,000
Corral	109	221,000
Castro	271	194,000
Chonchi	259	173,000
Arica	123	168,000
Punta Arenas	319	166,000

The principal features of these sea links thus become clear:

1. Valparaiso is the nucleus port from which point radiate the routes to north and south Chile.

2. Traffic to the desert zone is of relatively greater importance, the region being less well served with railways and roads than north Forest Chile.

3. Lota and Coronel serve as bunkering ports, as much of the coastal shipping is still coal-burning, and coal is delivered direct from mine to ship, over 10 per cent of Chilean coal production being consumed in this way.

4. The indispensable service to the three southern provinces is evidenced by the traffic to and from Puerto Montt, Castro, Chonchi, and Punta Arenas. As these ports can only be reached either by sea or by air from central Chile, maritime communications are more vital to these settlements than to any other part of the country. This is reflected in the passenger statistics of embarkation and disembarkation for ports within the republic:

Puerto Montt	45,634
Punta Arenas	19,784
Castro	12,835
Aysén	11,349

Valparaiso	12,967
Ancud	7,696
Porvenir	5,659

Many of these internal routes are organized as an integral part of wider services extending around the continental coasts from Ecuador to Brazil, although the State line confines itself to Chilean ports. In 1948 there were seventy-three Chilean steamships in service, of a total net tonnage exceeding 100,000 tons. Most were of pre-war construction, and some were constructed in the last century. The passenger services are run in vessels of approximately 2,500 tons net.

River transport is of little significance in view of the short length of the Andean rivers, their rapid courses, and varying volume,[1] and the possibility of this aiding the transport system of the country can be ignored.

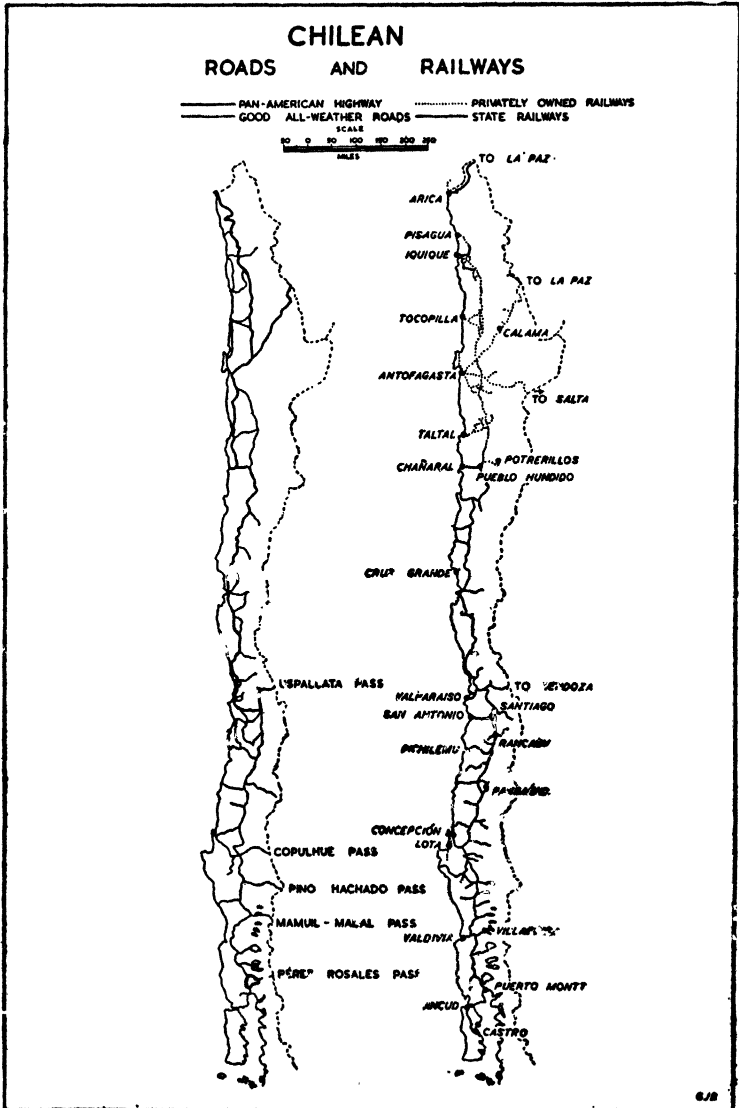
International Railways.[2] There are five railway lines linking Chile with its three neighbours. The least important is the Arica-Tacna line, which forms the only rail link between Chile and Peru. As practically all communications between the two countries are by sea or air, the railway has only a local significance, carrying little freight, but some 70,000 passengers annually. Of considerable international importance is the Arica-La Paz railway, a State line, affording the shortest route[3] for Bolivia to the sea. A considerably longer route[4] to Antofagasta is served by a British-owned line, passing through the Calama oasis and one of the larger nitrate areas. It is, however, only a little less used than the Arica railway as these statistics indicate:

Route	*1948*		
	Passengers	*Exports*	*Imports*
Arica-La Paz	5,718	$67 million	$108 million
Antofagasta and Mejillones-La Paz	4,196	$29 million	$110 million

The interdependence of these international railway links with Bolivia and the maritime communications of Chile are of out-

[1] Valdivia estuary, Corral to Valdivia, is probably the most important.
[2] See map on p. 58. [3] 278 miles. [4] 722 miles.

standing importance, the bulk of Bolivian mineral exports passing via Antofagasta and Arica.



Since its completion in 1948 Antofagasta has become the terminus of another international line, that from Salta in Argentina. This railway gives an outlet to the Jujuy and Argentine Chaco area, and should permit not only the export of sugar and semi-tropical fruits from that region but facilitate greater trade between Desert Chile and its neighbour, whereby copper and nitrates would pay for grain, vegetables, and beef.

The most publicized international railway, largely because of its spectacular ascent of the Andes, is the Trans-Andean railway linking Los Andes with Mendoza. Very little commercial traffic, however, passes by this route, but it is the most important international rail link for passengers entering or leaving Chile. These totalled 17,488 in 1948 or 12 per cent of all passenger traffic by all means.

There are two or three other projected international lines linking Valdivia with Bahía Blanca via Zapala. The Andean passes are lower there and the task would not be of extreme engineering difficulty, but road construction has taken priority over railways, and it is doubtful if these lines will be completed.

Internal Railways. Like the international links, the internal railway system has had to overcome the peculiar geographical difficulties of Chile, but in the hundred years since 1851 a system like a great spinal column has evolved, which unites the northern two-thirds of the republic in one of the three major networks of the continent.

The rail communications of the two northern desert provinces are dominated by a group of private companies. The pattern is a twofold one; the longitudinal line from Pisagua to Pueblo Hundido, east of Chañaral, where it joins the main State system; and a group of isolated rail networks developed for the purpose of mineral exports.

The northern railway terminus for the whole country is Pisagua, for the only railways north of this point are the international lines from Arica. It is thus possible to make a rail journey from Pisagua over 1,500 miles to Puerto Montt.[1] The Antofagasta and Bolivia Railway Company, the largest private company, operates the international line and most of the State longitudinal line of the desert zone. The smaller networks include the Chuquicamata and

[1] Pisagua-Iquique service is infrequent; Iquique-Santiago service once weekly in each direction, lasting three days; Santiago-Puerto Montt service excellent.

Potrerillos copper export lines, the El Tofo-Cruz Grande iron export line, the Taltal railway tapping the mineral zone east of that port, the María Elena-Pedro de Valdivia *oficinas* network linking them to Tocopilla, and the 400 miles of the Nitrate Railways Company on the Tarapacá nitrate pampa behind Iquique and Pisagua. The only State component of all these port-based lines is the Iquique service zone.

The varied origins of these desert systems is indicated by the great confusion of four separate gauges. The State lines and most of the track operated by the Antofagasta and Bolivia Railway Company are metre gauge, but other lines range from 2 feet 6 inches to standard width of 4 feet 8½ inches.

South of Pueblo Hundido, practically the whole railway network is the national State system, the principal exceptions being the El Teniente-Rancagua railway serving the Braden Copper mine, and the Concepción-Curilanhue railway through the Chilean coalfield. The pattern of this 3,000 miles of railroad is a simple one. A main trunk line runs from north to south, occupying the floor of the central valley, and terminates where the valley ends at Puerto Montt. Westwards from this lead off some fifteen branch lines which reach the more important coastal settlements by passes through the coastal range, these feeder termini being either ports like Valparaiso,[1] San Antonio, or Valdivia, or beach resorts such as Papudo, Quintero, or Pichilemu. Branching off from the main trunk line on the east are shorter off-shoots, either leading to important towns in the east of the central valley, such as Los Angeles, or into the Andean foothills to thermal spas, such as Panimávida, or to tourist resorts on the lakes like Lago Ranco and Villarrica.

The mainly private railroad, Arauco to Tomé, serving the coal ports of Lota and Coronel and the Concepción industrial zone, is the only one which is coastal in any sense. Like most of the State trunk system, it is wide gauge, 5 feet 6 inches, in contrast to the narrow gauge desert lines.

The only railway south of Puerto Montt is the short stretch linking Ancud and Castro, the two principal settlements of Chiloé island. All Chile south of this point is without railways owing to difficulty of terrain, lack of population, and the more recent development of the region being better served by road construction.

[1] Electrified link to Santiago.

Some progress has been made towards railway electrification, the Valparaiso line and the trans-Andean section being notable examples. The increasing development of hydro-electric power will make this trend more decided and lead to important economies in the use of the country's scanty coal reserves. At present over 20 per cent of production is consumed by the State railways, and it is estimated that the electrification of the Santiago-San Antonio and Santiago-San Fernando lines, when the Sauzal project is fully developed, will mean a saving of 70,000 tons of coal annually.[1] In the meantime, more efficient coal utilization has resulted in remarkable economies. 'Since 1913 the ton-kilometre on the railways using coal has trebled, with a decrease of 20 per cent in the coal used'.[2]

The enormous importance of the railway network in the transport system of the country is indicated by these statistics for 1951:

Number of passengers carried	26,800,000
Passenger-kilometres	1,808,000,000[3]
Ton-kilometres of freight	2,368,000,000

Private lines carry 10 per cent of the freight, but only 3 per cent of the passenger traffic in the republic.

Roads.[4] The country's shortage of petroleum has somewhat restricted the development of its road transport services, and relatively little freight and few passengers are moved by road. The number of lorries and buses registered has doubled in the last decade, and there is little doubt that the importance of road transport is increasing, especially with the present tendency to hasten ahead with road development in preference to railway construction.[5]

Considering the difficulties inherent in such a mountainous country, the system of roads is fairly extensive, although quality varies. Of a total of 32,000 miles, 65 per cent are unimproved earth and only 900 miles in the entire country are classified as of arterial quality. Sixty per cent, however, are considered to be of all-year usefulness. The Santiago region and the Mediterranean central valley are the best served, but the desert mineral zones

[1] H. Finer, *The Chilean Development Corporation* (Montreal, International Labour Office, 1947) p. 31.

[2] ibid. p. 27. [3] Average of 300 km. *per capita* of whole population.

[4] See map on p. 58.

[5] The Export-Import Bank of Washington granted a credit of $1,800,000 in August 1950 to buy American road-building machinery and equipment.

now have a good network, as is the case with the major towns. In 1951, 61 per cent of the country's buses, 54 per cent of its cars, and 40 per cent of its lorries were concentrated in Santiago province alone; Valparaiso accounting for another 15 per cent of the buses, 12 per cent of the cars, and 11 per cent of the lorries.

Chiloé, the islands, and Aysén province need a great programme of road construction to permit greater settlement, especially when the absence of railways is considered. Atlantic Chile has made more progress in this respect and great loads of wool are carried over its road system. In Forest Chile in 1951, five provinces had less than ten buses each, and the whole province of Chiloé had forty motor vehicles. These statistics reflect the nature of this hilly, forested terrain with hundreds of rivers to be spanned, its recent incorporation into the settled life of Chile, and the large areas still untapped by roads. That the three adjoining provinces of Malleco, Cautín, and Valdivia together have more than 750 bridges, or nearly 30 per cent of the country's total, indicates the nature of the region to be traversed.

The importance of roads in international communications with Chile's neighbours is noteworthy. In this connexion the desert zone is insignificant, but the route to Argentina through the Uspallata pass sees an annual traffic of 25,000 passengers, while the lower Pérez Rosales pass from Peulla caters to another 6,000. Communications between Atlantic Chile and Argentina are also largely by road; in fact the absence of any road system in south Forest Chile compels any road traffic to central Chile from the extreme south to be routed via Argentina.

Chile's portion of the Pan-American Highway includes all the 1,500 miles of longitudinal road from the Peruvian frontier to Los Andes, and thence to the Uspallata pass, running in parts through inhospitable areas uninhabited for over 100-mile stretches, with gentle gradients in the desert section but steeper further south as mountain spurs and seasonal river courses interrupt its route.[1]

The inter-relation of maritime and both road and rail communications is seen in the comparative lack of both the latter along the coast, this part of the national transport pattern being supplied by the coastwise shipping.

Air. To a country such as Chile the coming of air transport has obviously been of outstanding importance, and traffic on both

[1] Major reconstruction of this Santiago-La Serena section (300 miles) is now in progress.

domestic and international routes has soared in the last decade:

	1938	*1951*
Passenger-kilometres	2,112,000	68,200,000
Ton-kilometres	28,000	857,000

Pan American Airways and two[1] British Overseas Airways routes make Santiago their terminus for routes from the United States and Britain, and the number of passengers leaving and entering Chile by air[2] exceeds that of all other means of transport combined.

Within the country, air communication by the National Air Line has developed considerably and plays an important part in linking together settlements previously only accessible by sea or infrequent, long rail journeys or difficult road communications. The main internal trunk lines are maintained by Lodestar and Douglas 1,200 h.p. planes, and include the whole length of the republic from Arica to Punta Arenas. Other services, by Electra 450 h.p. planes, link intermediate points, one such local service uniting Tierra del Fuego with the mainland. North of Concepción air transport is very satisfactory, and its use in linking together centres such as Concepción, Santiago, and Antofagasta is most noteworthy, but the bad flying weather experienced in Forest Chile, particularly in its southern extension, makes regular services with low-powered machines impossible. Aircraft of larger power involve larger landing fields, and the country's financial resources are already strained in providing a subsidy to meet losses of the National Air Line, which, with the maintenance of such a lengthy network and the necessary telecommunications, can hardly be expected to be self-supporting.

Telecommunications. The internal telegraphic service is largely (72 per cent) in the hands of the State organization, and internal telephonic communication has a limited development compared with Britain or the United States. A naval radio-telegraphic service links the whole country and unites Juan Fernández island to the mainland, and is partially available for public use. Sixty per cent of international telegraph and wireless communication is in the hands of two foreign companies,[3] which since 1875 have operated cables connecting all the ports from Arica to Coronel,

[1] Via Lima and Buenos Aires. [2] 74,750 in 1951.

[3] All America Cables; The West Coast of America Cable Company (Cable and Wireless Ltd).

and the overland telegraph line to Buenos Aires. Internal broadcasting, on a commercial basis, has had an important development, twelve short-wave and sixty long-wave stations being distributed regionally throughout the republic.

AGRICULTURE

The central valley with its deep rich loams, its gently westward-dipping slope facilitating gravity irrigation, its snow-fed streams, and climatic régime of winter rains and summer sunshine, combine to provide an agricultural environment which should be capable of producing sufficient foodstuffs to feed a population much larger than Chile's 6 million people.

That this is not the case is due to an antiquated system in which the vast *haciendas* of colonial days have survived into the middle of the twentieth century, with all their uneconomic agricultural practices and lack of development, exacerbated by the increase of absentee landholding.[1] Very recent figures to illustrate this position are difficult to obtain, in a country otherwise prolific in the detail of its statistical returns. The agricultural census of 1935–6 indicated clearly the position, and although there have been changes since, the fundamental picture remains unaltered. A recent estimate is that about '89 per cent of all farm land consists of such estates, comprising nearly 26 million acres out of a little over 29 million in total rural properties', which means that 'from 60 to 75 per cent of the rural population of central Chile lives on the large properties'. Some of them are excessively large, exceeding 250,000 acres each, but at least half of the agricultural land is held in blocks exceeding 12,000 acres each. They are 'usually so extensive that the individual owner has little interest in the maximum exploitation possible by means of modern methods, or in the full education, training, and employment of the labourers'.[2]

That such a system has survived is due to the fact that for over a century the landowners were the rulers of Chile, and the preservation of the agricultural *status quo* featured almost as a constitutional guarantee. Since 1920, attempts have been made to reform a system which is Chile's most fundamental problem. While much has been done, the basic defects have been, as yet, scarcely touched. The overwhelming magnitude of the condition, its

[1] G. Mc. McBride, *Chile: Land and Society* (New York, American Geographical Society, 1936), is a masterly study forming an essential basis for an understanding of Chilean agriculture. [2] Finer, op. cit. pp. 42–3.

intricate problems, the radical measures necessary, and the inevitable torrent of opposition which would be released, all seem to have prevented any Government from venturing to tackle the herculean task. Yet few will dispute that the appalling poverty, the malnutrition, the illiteracy, the semi-servile conditions of the agricultural community which still comprises 40 per cent of Chile's population, form one of the most favourable breeding grounds for Communism in the continent.

The Development Corporation, committed to the purpose of fully developing Chile's economic resources, has agricultural development in its care as well as the industrial programme, and, in spite of financial limitations and the lack of a unified agrarian plan, it has probably done more to infiltrate modern agricultural technique into the Chilean scene than any other organization. Mechanical irrigation schemes based on hydro-electric developments have already been mentioned, but mechanization, both to ease the burden of manual labour and to increase productivity at lower cost, has been a greater achievement in the Corporation's multiple activities.[1]

A zonal analysis of the four Chilean natural regions will provide a basis for a consideration of the country's agricultural status as a whole.

Desert Chile. The three large desert provinces obviously provide few facilities for agriculture, and the region is almost completely dependent on outside sources for foodstuffs. Some small oases and watered valleys provide in all 100,000 acres, which are cultivated for garden products and fodder plants. Antofagasta province is the most useless from the agricultural viewpoint, but in the frontier province of Tarapacá, the Azapa and Lluta valleys offer limited possibilities for tropical agriculture. Some cotton and sugar-cane have been grown in the past, but now the cultivation of almonds, raisins, vegetables, and fruits, some of which are exported to adjoining areas of Peru and Bolivia, are more important, and, in view of the restricted area, more suitable than attempting to produce plantation crops like cotton and sugar which Peru can supply in quantity. Atacama province indicates the approach of moister conditions further south, and some 2,000 acres are devoted to vineyards, especially in the Huasco and Vallenar districts.

[1] In 1946 there were only 4,400 farm tractors in the country, but in the period 1947–52 the Corporation imported another 5,000 by means of U.S. Export-Import and International Bank credits.

Mediterranean Chile. The eleven Mediterranean provinces constitute the agricultural region *par excellence* of Chile. Even so, stock-raising is in most areas the predominant agricultural activity, and is a reflection of the undeveloped state of the agrarian system prevailing. This is also partly due to the large areas represented by the coastal range hills and the spurs of the Andean foothills. Because these hilly areas do not provide pasture for the whole year, owing to climatic conditions, much of the cultivated area is given over to fodder crops, or left fallow to accommodate the animals when the spring hill pastures are exhausted. This practice of transhumance is a noteworthy feature of the region's pastoral economy. The numbers of cattle are not large,[1] being about 40 per cent of the total in the country. Quality is inferior and there are few examples of good cattle husbandry. The contrast with the desert is indicated in that at least 40 per cent of the land in every province is of some value agriculturally or pastorally, and in four provinces exceeds 75 per cent of the total area.

The region is of considerable importance in vineyard cultivation, accounting for 70 per cent of the country's total. Ñuble has the greatest area of vineyards,[2] but most of these do not require irrigation, whereas Talca, the next most important province has over 26,000 acres of vines under irrigation. The grapes are grown chiefly for the production of quality wines, Talca, Santiago, and Linares provinces producing together over 140 million litres, or half the national total. Brandy is a product of the north Mediterranean provinces from Coquimbo to Curicó. Production is fairly static, and while most are consumed within Chile, Chilean wines are imported by Belgium, the United States, and Ecuador. A considerable trade in fresh grapes has developed, and 2,500 tons were exported in 1951 to the United States and other South American markets.

In cereal production the region is especially important in barley cultivation, the northern provinces centred on Santiago and O'Higgins growing large quantities of malting barley of high quality. Mediterranean Chile in 1951 accounted for 93 per cent of all Chilean barley, and exports in 1949 exceeded 65,000 tons. Wheat is not unimportant, but the region grows less than a third of the Chilean crop, and less than 5 per cent of its oats. Nearly all the country's maize, grown as a fodder crop, is derived from this region.

[1] 1,000,000. [2] 40,000 acres in 1947.

The most promising agricultural development of recent years has been the increasing attention paid to rice. Once dependent on imports, Chile has become not only self-sufficient[1] in the last decade, but has developed an export trade in this grain. Acreage devoted to the crop is now twice the 1940–1 figure, production being concentrated especially in the flat lowlands of Talca and Linares, which account for 60 per cent of the total. Yields per acre tend to be higher in the Santiago-O'Higgins area.

There is an enormous production of beans and lentils, this representing Chile's most valuable agricultural export,[2] the region accounting for 80 per cent of the output. Sunflower, grown for its seed and oil, is widespread in the region, especially in the central valley between Santiago and Linares.

Two other crops peculiar to the Mediterranean zone are tobacco and hemp. Aconcagua province grows over 50 per cent of both crops,[3] Valparaiso supplying most of the remainder of the hemp and O'Higgins being the other principal tobacco province. Acreage under hemp has tripled in the last decade.

The considerable export of onions, plums, peaches, cherries, melons, lemons, raisins, and prunes from this region, principally to the United States, and the profusion of vegetables and fruits on sale in any city market, are indications of the varied productivity of a region as yet only imperfectly utilized.

What is outstanding is the lack of citrus fruits relative to other Mediterranean regions. No oranges are exported; practically no grape-fruit are grown; and lemon exports are very limited.

Forest Chile. The area between the Bío-Bío and the southern limits of Chiloé island represents not only a considerable change in climatic, topographic and soil conditions, but a contrast to the land tenure system of Mediterranean Chile. The large *hacienda* is not unusual, but there is a much greater variety in the size of holding, particularly in the areas of most recent colonization. In some cases the farms are so small that they lack both the means and the scope to introduce mechanized agriculture. The broad sweep of the central valley is broken up by lakes and morainic hills; 'cut-over' land, won from the pervasive forest, is the typical landscape; the soils are podsolic,[4] and rainfall is as omnipresent as it is often lacking in Mediterranean Chile.

[1] With consumption *per capita* also doubled. [2] 430 million pesos in 1948.

[3] Also chief walnut-growing province, exporting 1,500 tons.

[4] Soils, developed under temperate conditions, in which the soluble constituents have been washed out.

Over most of this region two-thirds of the area is suitable for pastoral or agricultural activities, but in Llanquihue and Chiloé the proportion falls to 47 and 32 per cent respectively. The forest becomes dominant and the cost of clearing land prohibitive. The value of the farming land also varies considerably, from the cheap acres of Chiloé to the market garden areas of Concepción or the cereal farms of Cautín, which has almost twice as much acreage under grain as any other province.

This is the principal region of Chilean cattle farming. The block of six provinces Bío-Bío, Cautín, Valdivia, Osorno, Malleco, and Llanquihue account for more than half of the nation's cattle. The rich pastures mean that no longer is transhumance necessary, and mild winters usually mean that cattle remain out all the winter, and that grass continues to grow. The moister conditions are reflected in a decline in the importance of sheep farming,[1] but pig farming, with Development Corporation stimulation, has increased considerably, the region accounting for nearly 60 per cent of these animals.

The mixed farming economy incorporates a large area devoted to cereals, Cautín, Malleco, Valdivia, Osorno, Bío-Bío, and Llanquihue each having over 100,000 acres under grain. Wheat is by far the most important, the nine forest provinces growing two-thirds of the Chilean crop, which means more than half of the total cereal production of the country. The climatic conditions are very favourable to oats,[2] especially in the provinces from Malleco to Llanquihue, whereas the little barley grown is predominantly for fodder. Rye is not important, but most of what is grown is found in this zone. Maize, similarly, is only grown in the warmer parts as a vegetable or as ensilage.

The region is not a great producer of most leguminous plants, but it is important for peas, accounting for over 80 per cent of the total, and exporting 14,000 tons in 1948 to many European and American markets. The three southernmost provinces of Llanquihue, Chiloé, and Osorno are famous for their potatoes, growing 30 per cent of the country's crop on 40,000 acres and producing very high yields per acre.

Some vineyards occur in the northern transitional margins of the region, but irrigation is no longer necessary. More and more flax is being grown, the area sown having tripled to 12,000 acres

[1] 20 per cent of Chile's sheep.

[2] 95 per cent of total Chilean crop: exports to Germany 9,000 tons in 1951.

in the last decade, largely by the stimulative efforts of the Development Corporation to create the basis of a linen industry.

Atlantic Chile. Agriculturally, the whole area south of Chiloé is of very little importance. The rainy, fiord-braided coast and the windswept archipelago offer few possibilities now or in the future. The two areas to the lee of the main Andean ranges, namely northern Tierra del Fuego and the Magallanes pampa region, and the more favourable parts of Aysén province between Puerto Aysén and the frontier, are, however, of considerable value in the pastoral sense.

Here are found about 3 million Romney Marsh and Corriedale type sheep, representing 53 per cent of all the sheep in the country. Far more impressive is the quality of the flocks, contrasted with this generally neglected branch of farming in the rest of the country. The 15 million acres of grassland permit of sheep farming on an extensive scale, as practised in Australia and New Zealand. Large quantities of frozen mutton, wool, skins, and tallow are exported to the United Kingdom and the United States, and both the textile industry and urban concentrations of central Chile import raw material and food from this source. Farms are large, with a greater economic justification than in Mediterranean Chile, from the nature of the pastoral industry involved. Actually, however, considerable sub-division of land has taken place in this region in recent years.

Some dairy farming is carried on, particularly in the rainier areas and where there is an urban demand for these products, and the region is very largely self-supporting in vegetables. Grains in Magallanes province do not ripen, and where grown are used as green fodder. Aysén grows some oats and potatoes more successfully.

Land Utilization

Region	*Total area as per cent of Chile*	*Per cent of region Agricultural*	*Per cent of region Arable*	*Per cent of region Cultivated*	*Per cent of region Irrigated*
Desert	35	1·9	0·1	0·1	0·2
Mediterranean	18	59·3	19·5	6·0	8·2
Forest	17	59·5	23·8	5·5	0·8
Atlantic	30	24·1	0·1	–	–
Whole country	100	28·8	7·6	2·0	0·7

These statistics summarize the national agricultural potentiali-

ties. The 7·6 per cent of total area classified as 'arable' represents some 13 million acres, and the annual cultivated area about 4 million acres, made up approximately as follows:[1]

Crop	*Acreage in Million acres*
Cereals	2·6
Legumes	·4
Fruit	·1
Textile crops, oil seeds, tobacco	·15
Forage crops (clover, alfalfa)	·75
Total	4·0

About 2,750,000 acres in the Mediterranean zone and 250,000 acres in Forest Chile are classified as land which is irrigated, but much of this is in pastoral use. Already 1·1 to 1·3 million acres of cultivated land are irrigated mechanically, and at least another 2 million acres could be brought into cultivation by the extension of irrigation and mechanization. When it is realized that this would mean an addition of approximately 50 per cent to the cropped land of Chile in the most productive region the consequences on the country's economic position, even under present conditions, become apparent. If productivity were increased at the same time by modernization of the agrarian system, Chile would have gone far not only to reduce her dependence on foreign food imports and improve her foreign exchange position, but to improve the standard of living for the half of her population suffering from malnutrition.[2]

Production. Analysis of statistics reveals the following regional and crop contributions to the agricultural production of the country in 1947:

Desert Chile	½ per cent
Mediterranean Chile	63 per cent
Forest Chile	34½ per cent
Atlantic Chile	2 per cent

Cereals	45 per cent (wheat 33½ per cent)
Pastoral products	26 per cent
Other food crops	20 per cent
Vines and industrial crops	9 per cent

[1] See also Appendix I, p. 116.

[2] I.L.O. estimate: 11·9 per cent suffer from malnutrition, 27·3 per cent from serious malnutrition, 11·0 per cent from desperate malnutrition.

The Mediterranean provinces of Talca, Aconcagua, Santiago and O'Higgins make the largest contributions, and in Forest Chile the Malleco-Cautín-Valdivia zone stands out agriculturally.

The importance of cereals, and of wheat especially, is clear. Since 1945 the tendency has been for increasing wool prices to raise the importance of pastoral products, and the increasing importance of crops such as hemp and flax to increase their relative significance. In value of production, wheat, beef, beans, peas, lentils, potatoes, and wine are the great food products of Chile, and they summarize vividly the dietary habits of the nation. In total agricultural-pastoral production there has been a 30 per cent increase over the 1923–7 period, but this level was reached in the nineteen-thirties, and there has been little advance since.[1] What has happened in the agricultural economy of the nation since that time has been a change of emphasis, production of beans, peas, lentils, fruit, and wine increasing, and fodder barley, meat, and wool tending to decline.

Since 1910 cattle have increased from 1,600,000 to 2,400,000 but this figure was reached in 1930, and has shown only minor fluctuations since. Sheep have increased slightly in Magallanes, with land sub-division, but elsewhere have declined. Pig population has registered a 50 per cent increase in the decade 1939–48, the increase in pork consumption leading to a compensatory decline in other meats. In the last five years, 1944–9 milch cows have increased by 43 per cent, leading to a 50 per cent increase in milk production, but consumption is still very low, being less than two-thirds of a pint *per capita* daily.

Soil Erosion. The inroads of soil erosion and exhaustion are evident in the yields of crops as these statistics indicate:

Crop	*1910–15 Yield per Hectare*	*1920–5 Yield per Hectare*	*1940–5 Yield per Hectare*
Wheat	12·8 quintals	12·0 quintals	11·2 quintals
Barley	18·0 ,,	17·7 ,,	15·2 ,,
Oats	15·4 ,,	13·4 ,,	9·7 ,,
Maize	15·9 ,,	14·5 ,,	13·0 ,,
Peas	10·6 ,,	9·2 ,,	7·8 ,,
Lentils	10·6 ,,	8·3 ,,	7·0 ,,
Beans	12·2 ,,	10·6 ,,	8·5 ,,

While exceptional years, such as 1948–9, have led to better

[1] 1934 index identical with that of 1948.

yields, the serious nature of the problem is evident, especially since, during the period under review, much new land has been cultivated. Experts estimate that 10 million acres have been affected by erosion, the worst areas being the coastal zone of Mediterranean and north Forest Chile from San Antonio to Valdivia, and the Arauco-Temuco zone where fires to clear new land have led to the destruction of valuable forests and the protective soil covering.

Agricultural Self-Sufficiency. Increased population and slightly increased consumption of foodstuffs have led to significant changes in Chile's self-sufficiency in food. While there has been a general increase in wheat production, 1910–50,[1] consumption has more than kept pace with the increase. Exports of an average 900,000 quintals during the period 1920–5 fell to 50,000 in 1940–5, and virtually ceased after 1941. Instead, there is now an annual import of 350,000 quintals from Argentina. Likewise 200,000 cattle and 200,000 sheep are imported annually from the same source to help feed central Chile. Thus, when to these imports are added also those agricultural products which Chile cannot produce, owing to climatic insufficiency, such as cotton, sugar, bananas, cocoa, coffee, tea, and jute, it is not surprising that there is a considerable adverse balance of trade in such products:

	1948
IMPORTS	2,213 million pesos
EXPORTS	1,388 ,, ,,

the major items imported being:

Cattle	580 ,, ,,
Sugar	517 ,, ,,
Cotton	355 ,, ,,

The largest item should not be necessary, and the fact that the following imports are all products Chile is capable of producing:

Wheat and cereal products	68 million pesos
Tobacco	28 ,, ,,
Edible oils (96 per cent sunflower)	180 ,, ,,
Milk products	6 ,, ,,

indicate the point first developed, that all is far from well in the utilization of the agricultural-pastoral resources of the country.

[1] 5 million quintals to 9 million quintals.

MINERAL EXTRACTIVE INDUSTRY[1]

A survey of the Chilean industrial scene involves its sub-division into extractive and manufacturing industry. While no rigid line can be drawn between these two branches, a practical criterion is to include under extractive industry those mineral industries on which the economy of the country is still dependent, and to group all other industries under the term manufacturing, even though in the case of such products as lumber, meat, and dried fruits, relatively little manufacturing takes place.

The importance of the mineral extractive industry is paramount, and, although the emphasis has changed from nitrate to copper, dependence on mineral extraction still largely controls Chilean financial and economic policy. The industry dates back to early colonial days, but it developed considerably in the nineteenth century, particularly in respect of nitrate, which dominated the country's economy for a couple of generations. Since synthetic nitrate production in many countries came into its own, the industry has fallen to second place in mining production.[2] Between 1913 and 1929 there was no important absolute decline,[3] but Chile's share of world production fell from 90 per cent to 24 per cent. The World Depression, however, had a catastrophic effect on the industry. Production fell away to less than one-tenth of normal, and only partially recovered with reorganization and rationalization of the industry, which, with modern technological processes, has permitted production at an economic price, competitive with other synthetic nitrate exports. Output now averages some 1,600,000 tons annually, representing a considerable absolute decline compared with the nineteen-twenties, and relatively, an even smaller share of world nitrogenous production is attributable to Chile.[4] Shipping difficulties during the war period reduced sales, and the post-war years have seen an increase[5] in supplies to Egypt and European countries prevented by the war from obtaining their needs of this material.

Iodine production, especially in the last decade, has been most erratic,[6] but except for Californian competition, Chile maintains her monopoly of this product, the United States still being the

[1] See map on p. 74. [2] Since 1932.

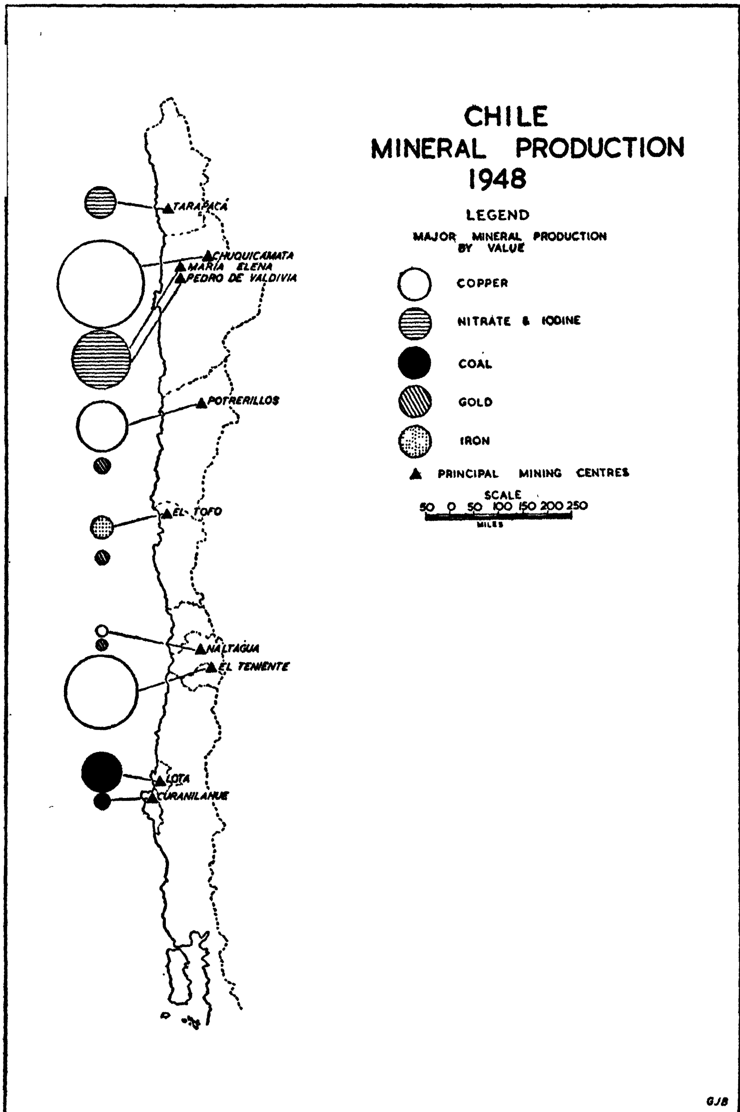
[3] Production in both years, approximately 2,750,000 tons.

[4] Probably 7 per cent.

[5] 1948 and 1949 production of 1,750,000 tons annually is the greatest since 1930, and 30 per cent above pre-war average.

[6] Varying from 1,950,000 kgs. in 1948 to 75,000 kgs. in 1949.

most important customer. Production of all the metalliferous minerals did not attain the scale of large-scale extraction until



this century, and has been subject to considerable fluctuations, principally due to two world wars.

Copper has shown a consistently great increase to ten times the 1910 production, the peak output being reached in 1943 and 1944, with a total of 500,000 tons. Compared with the pre-war period recent production has been more than maintained, although 1949 and 1950 figures indicate a decrease as a result of the fall in the price of copper. The industry has been helped by the lifting of the United States import tax on copper, 1947-50, but efforts to secure the continuation of this exemption have been unsuccessful.

Iron-ore production, which was erratic until 1922, has expanded greatly since that time, but has been more reflective of world conditions than other mineral production. Thus the depression years saw the collapse of production in 1932 to one-tenth of that of 1929. By 1936 the position had been recovered, but shipping difficulties, on the United States' entry into the Second World War, led to complete cessation of exports. In the post-war years, the industry has experienced such unparalleled expansion that production in 1951 of over 3,100,000 tons is twice the pre-war average. The ore is sent to the Sparrow's Point, Maryland, iron and steel plant of the Bethlehem Steel Company. Fortunately, the severe fluctuations the industry has suffered have directly affected a very small mining force, in view of the efficient open-cast methods employed and the non-processing of the ore in Chile.

Although a fairly steady quantity of alluvial gold has been produced for centuries, it is not until the nineteen-thirties, with an increase in gold-concentrate production that output has assumed important proportions.[1] With increasing cost of production and a fixed international buying price the tendency is for marginal alluvial producers and small lode-mining concerns to find production unprofitable, but the by-product concentrate industry is relatively unaffected. The case of silver is similar, being also obtained in large part as a derivative industry of copper production, and post-war output has been well maintained. The production of manganese, molybdenum, and mercury experienced a war boom, the 1942–4 production exceeding total output for the whole period before and since those exceptional years.

The amount of processing which the minerals receive varies

[1] 1930 production 642 kgs; 1940 production 10,433 kgs. Chile is second to Colombia in Latin American gold output; 1951 production 5,402 kgs.

considerably. In the case of coal[1] this is at a minimum, although in the more modern mines, apparatus for washing and grading of the product has been installed. This extractive aspect of the industry is similarly represented by the export of the crude iron ore from Cruz Grande. On the other hand, in the case of the non-ferrous metals, some processing takes place, dependent on the mineral, its ore, and the technological process used. Often the number of men employed in the processing exceeds those concerned with the extraction of the ore, as these statistics of the three major copper plants indicate:

Employment, 1946

Plant	*Administrative*	*Mining*	*Processing*	*Transport*	*Total*
Chuquicamata	1,775	2,352	4,525	157	8,809
Potrerillos	883	910	1,807	76	3,676
El Teniente	1,223	1,132	3,531	127	6,013
Total	3,881	4,394	9,863	360	18,498

Similarly, the nitrate industry has a large proportion of employees concerned with the processing of the *caliche*, extracting by-products, and the preparation of the nitrate in granulated form ready for agricultural use. The following statistics show employment in the nitrate industry: administrative, 2,472; extractive, 5,282; transport, 1,863; processing, 4,421; power plants, etc., 6,766; total, 20,804.

Compared with the manufacturing industries the employment given by these mineral extractive industries is not in proportion to their economic importance to the country. Direct employment is probably some 63,000 persons distributed thus:

Nitrate	24,500
Copper and allied minerals	18,500
Coal	17,000
Iron and manganese	1,000
Gold washing	2,000

The complete dependence of the desert region on this mineral economy, however, indicates that a much larger number are supported indirectly. Although the financial and economic implica-

[1] Production to 1933, between 1 and 1½ million tons annually; since increased to average of 2 million tons.

tions involve the stability of the whole nation, the desert region and the coal-mining area are the only zones of the country in which the mining industry dominates the economic pattern.

The large foreign interests involved have resulted in the most modern processes being used for the extraction and preparation of some 90 per cent of the country's mineral production. Nowhere is this better demonstrated than in the two giants of the industry, copper and nitrate, as, for example, the selective flotation of minerals at Potrerillos which permits the exploitation of low-grade compound ores, and the low-temperature crystallization process of the major nitrate *oficinas*. Mechanization and these new processes have permitted considerably increased productivity. In the copper industry annual output per worker increased from 25·1 tons in 1929 to 28·4 tons in 1947, or 13·6 per cent. In the nitrate industry in the same period the increase was from 55·4 tons to 75 tons, or 35 per cent.[1]

In the non-foreign mining industries the Chilean Development Corporation has taken similar steps to assist modernization and development. In the larger coal mines there has been considerable mechanization of transport and loading; in the new petroleum industry plans are advanced for the construction of a modern refinery;[2] and the Paipote smelter is an important effort to expand metal refining among the smaller enterprises to supply the industrial domestic market. In this latter case no financial return is planned, but the objective is to process the 4 per cent of copper production not under American control,[3] to benefit the country. The refinery, planned with the aid of the Mining Credit Fund, will produce 7,000 tons of copper bars, 1,000 kilograms of gold, and 3,500 kilograms of silver annually.[4]

MANUFACTURING INDUSTRY[5]

Chile has shared in the upsurge of manufacturing industry which has been such a prominent feature of the more important Latin American countries since the Great Depression, and which has the twofold objective of helping to liberate its economy from dependence on mineral exports and raise the standard of living of its population. Two world wars have done much to accelerate

[1] United Nations, Department of Economic Affairs, *Economic Survey of Latin America* (New York, Columbia University Press, 1948). p. 77.

[2] At Concón, north of Valparaiso. [3] Previously exported.

[4] Finer, op. cit. p. 40. [5] See map on p. 83.

the speed of this industrialization, but its origins are much earlier than is generally believed.[1] Before 1914 the pattern which the nation's industrial fabric was to take appeared to have been set. The sugar refineries of Viña del Mar and Penco, the food and beverage industries of Santiago, the cotton mills of Chiguayante, the woollen mills of Tomé and Santiago, the iron foundry of Corral, the match factory of Talca, the cement industry of La Calera, and the hosiery works of Puente Alto were all in existence, and there has been little fundamental variation from this basis in the four decades since.

To help meet the situation caused by the severity of the economic dislocation in the depression years,[2] industrialization was considerably expanded, and the index of factory production increased 66 per cent in the decade 1928–38. The most decisive step in the development of the national industries was taken in 1939 with the setting up of the Chilean Development Corporation, in a direct governmental effort to stimulate production and plan the economic future of Chile. Endowed with wide autonomy of enterprise and decision and freedom from customary controls by Government departments, it has, in its first decade, accomplished an enormous task, and is one of the most conspicuous examples of successful national planning aided by international co-operation. Through it the Export-Import Bank of Washington has already advanced loans of 130 million dollars to aid the Corporation's projects, and other funds are obtained from certain earmarked taxes and from credits granted by firms which supply it with material.[3]

Realizing that the accomplishment of industrialization was largely dependent on supplies of energy, it has devoted most of its efforts to hydro-electric development and the search for petroleum, but its activities range over numerous industries, agriculture, and transport. That industrial production has increased a further 85 per cent since 1937,[4] in spite of the difficulties caused by the war, in such matters as replacement and modernization of equipment and establishment of new enterprises, is an indication of the achievements of the Corporation and of Chilean industry in general. Increased mineral exports leading to increased purchas-

[1] 1912 statistics show 6,215 factories with 80,000 employees.

[2] Value of copper and nitrate exports fell from 3,051 million pesos in 1929 to 239 million in 1932.

[3] H. Finer, op. cit. gives an excellent account of its work and organization. See also Appendix I, p. 116–17.

[4] 200 per cent over 1928.

ing power, and shortage of competitive imported manufactures were other strong stimuli.

The expansion has continued in the post-war period as mineral exports have continued at a high level, and it was possible to import industrial equipment out of the proceeds of foreign exchange accumulated during the war, aided by governmental policy to encourage such imports in priority to luxury goods. More recently the tempo of expansion has slowed down, with the increasing competition of foreign products entering Chile. The country is once again restricted by shortage of foreign exchange, and a fall in metal prices accompanied by reduced output accentuated this difficulty during the period 1949–50.

Although manufacturing industry has forged ahead, its importance in the country's economic framework is still secondary to agriculture and mining, employing but 330,000 or 18 per cent of the employed population. Nevertheless, its importance has increased relative both to other economic activities and to the population increase, and the fruition of major undertakings such as the Huachipato steel plant will shortly reflect the significance of the expansion to a more marked degree.

The food, beverage, and tobacco industry is the largest group of manufactures, and, by all criteria, is the most important. More capital is invested in it; more labour is employed; more fuel and electricity is consumed; and more value is added to the raw materials processed, than any other industry. It ranges over a great variety of products, such as tinned and dried fruits and vegetables, tinned fish, edible oils, biscuits, chocolate, sugar, wheat products, and frozen mutton; the beverage section specializing in a wide variety of wines. In a country of agricultural possibilities such as Chile it was the most logical form of early industrialization, being based primarily on domestic raw materials,[1] the sugar refining, edible oils,[2] and chocolate industries being the only major groups dependent on imports. These food industries have shown a great expansion in the last decade, the 1951 index of production being 111 per cent over that of the pre-war period, the greatest increases being recorded by the dairy products,[3] and dried fruits[4] branches.

Like all Chilean manufacturing industry, and typical of a region

[1] Approximately 74 per cent. [2] Imports 20 per cent of raw material oils.
[3] 350 per cent increase.
[4] 500 per cent increase; 60,000 kgs to 3,600,000 kgs, chiefly prunes.

in an early stage of industrialization, it is distinctly small scale, the number of factories exceeding 4,500. The tendency is for these to decrease in number by amalgamation and closing of inefficient plants and so for the industry to become a larger unit structure. This trend, especially noticeable in the beer industry, and technological improvements within the industry, are resulting in employment decrease and production increases simultaneously.[1] With the exception of frozen mutton from Magallanes province, wines, malted barley, cereal products, and some tinned fruits and vegetables, accounting in all for only 3 per cent of the industry's production, the domestic market absorbs almost the whole food-beverage-tobacco industry's output.

The textile industry is growing in importance, and if beverages and tobacco are omitted from the food industry group, textiles account for the greatest increase in net production. While factory units are still small, it is more large-scale than the food industry, having one-third the number of industrial establishments for a similar output in value. It is even more exclusively devoted to supplying the home market, exports accounting for little more than ½ per cent of total production. Indeed it is the stimulus of lack of European, American, and Japanese textile goods during the war years which has done much to impel production upward, even when re-equipment of the industry was well nigh impossible.

The cotton, woollen, and hemp branches have early origins, and cotton has remained the greatest producer throughout. War conditions tended to secure a greater relative increase in woollen and silk manufactures, owing to Chile's greater dependence on imports of these types of manufactured textiles. The following statistics for 1947 and 1951 summarize the position:

Textile Branch	*Production Index 1951 (Base 1938 = 100)*	*Per Cent Production Increase 1943–7*	*Employment 1947*
Cotton	172	20	9,000
Woollen	154	40	7,000
Silk (real, artificial, and cotton + silk)	151	100	5,000
Knitting	194	10	4,000
Hemp and Jute	78	–	1,500
Linen	–	33	1,000
Total	–	20	27,500

[1] Manufacturing production increased 60 per cent over 1937; employment increased 38 per cent.

The rayon industry was introduced in 1941 and has had a great expansion since, production of rayon yarn increasing from 50 tons in 1941 to 1,442 tons in 1947, 40 per cent of the materials used in the industry being imported. The hemp and jute industry has remained fairly static, jute and sisal being imported, but increased hemp cultivation has permitted that branch of the industry to be self-supporting. The new linen industry, likewise, is increasingly supplied from domestic sources. The cotton industry is entirely dependent on imported supplies from Peru, Brazil, and the United States, but the woollen industry is five-sixths supported by domestic raw materials. The imported one-sixth are special types of wool and Argentine-washed wool, for Chile is a large exporter of good cross-bred wools from the Magallanes region. Considering the textile industry as a whole, imported fibres account for nearly half of the materials consumed. Production generally is of piece goods, and output has doubled in the 1938–48 decade, and there is little doubt that, with a reasonable improvement of living standards, there is considerable scope for expansion of the domestic markets.

Since the end of the war, the metal and metal products industry, including machinery, has taken third place in the industrial structure, although it depends to the extent of 40 per cent on imports of unwrought and semi-fabricated iron and steel, tin, zinc, and other non-ferrous metals. Capital invested in the industry exceeds that in the textile industry. Although the major iron and steel plant did not go into production until 1950, the fact that output of iron was 700 per cent, and of steel 200 per cent, of the pre-war figure will indicate the expansion achieved before that date.

The Development Corporation has devoted more capital to the installation of the country's basic heavy steel industry than to any other enterprise. In this they have been assisted by loans from the United States,[1] from American suppliers of the equipment, and from Chilean investors. In view of the fundamental importance of the production of iron and steel products to so many industries, Chile's dependence on imports for five-sevenths of her steel, the low *per capita* consumption of such goods because of scarcity of foreign exchange, and the availability of the basic raw materials within the country, the new steel industry near Concepción marks the most significant milestone in Chile's progress to industrialization.

[1] By 1952 the total investment exceeded 100 million dollars.

The high quality iron ore of El Tofo, limestone, and manganese is exported to the Huachipato site near the Lota coalfield, and the new steel industry is producing 225,000 tons annually.[1] Other subsidiary industries will manufacture the multiple iron-based needs of Chile, such as railway equipment, farm implements, household appliances, and the tins required for the food-processing industry. It is expected that this Pacific Steel Company's mill will produce steel at an economic price and be competitive with the imported foreign product without tariff protection. Much hydro-electric power will be used, and this was one reason for siting the steel mill at Huachipato, where supplies will be plentiful.[2]

Until 1950, production had been limited to a scrap-based industry in Santiago and high-cost pig iron production at Corral.[3] Other metal working industries are small shipyards, foundries, and galvanizing plants. It is planned that the Paipote copper smelter will produce wire and other requirements needed for the electrification scheme.

The chemical industry now ranks fourth among Chile's manufacturing enterprises. Its main products are acids, alcohol, fertilizers, explosives, soaps, and paints, and the war-time shortage of pharmaceutical and toilet articles stimulated production of these goods. It seems surprising that Chile, with its rich deposits of mineral salts useful as raw materials for a chemical industry, has not developed this branch of manufacturing production more fully. The Development Corporation has done much to rationalize and expand the industry, integrating it with the steel developments already described. The important by-products of coke production will permit the manufacture of tar, creosote, ammonium sulphate, and motor fuel, and the increased limestone output necessary for the steel mill will enable a chemical plant there to produce fertilizers, soda ash, caustic soda, and sodium bicarbonate.

The next most important industry is that concerned with leather and rubber goods, producing a wide variety of products, the quality of women's shoes being especially good. The recent trend has been for production of men's and children's footwear to expand, and that of women's to contract. The industry is 90 per

[1] In 1948 total steel output was less than 30,000 tons.

[2] See map on page 83, inset map of Concepción Industrial Zone.

[3] Now subsidized by the Development Corporation to aid efficient reorganization.

CHILEAN INDUSTRY

LEGEND

△ – PRINCIPAL MANUFACTURING CENTRES

MORE IMPORTANT DEVELOPMENT CORPORATION PROJECTS 1939-50

① ② – IRON & STEEL PLANTS

③ – CEMENT PLANT

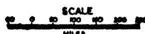
④ – COPPER REFINERY & CONCENTRATING PLANT

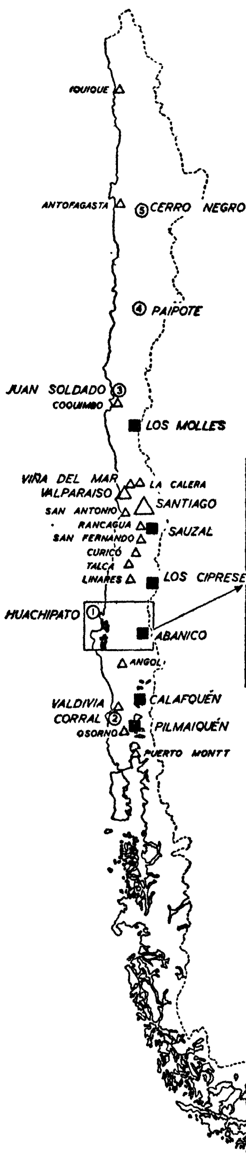
⑤ – COPPER MINE

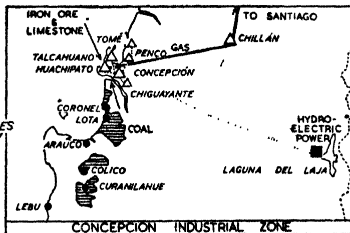
■ NATIONAL ELECTRICITY POWER STATIONS

● OIL FIELD

COALFIELD







cent self-sufficient in the supply of hides and skins, and the tanning and footwear sections alone employ 12,000 workers.

The expansion of the paper, glass, and ceramics industries has been notable, and the paper and cardboard production of Chile is *per capita* probably the greatest in the continent. Glass production has doubled in the last decade, largely as a result of building expansion.

Constructional work, at twice the pre-war average rate has also necessitated a considerable development of the cement industry. This has been long established at La Calera, and production has steadily increased by some 8½ per cent annually over a long period, but has never met the demand. Although Chile's *per capita* output is only exceeded in the continent by that of Uruguay, the shortage has slowed down the construction of homes, factories, roads, and power plants, and generally limited the developing economy of the country.[1] The Development Corporation has expanded production at La Calera, and installed an American cement plant near Coquimbo.[2] This latter undertaking, involving loans of 166 million pesos, was the most costly adventure of the Corporation, and, for a variety of reasons, threatened to be a complete disaster, but amalgamation with the La Calera company and the Mines and Fertilizers Company, to effect a financial and economic reconstruction, promises to rehabilitate the venture and produce a more adequate cement supply.[3]

The service industries of gas and electricity cannot be omitted from a survey of Chilean manufacturing industry, and the developments in the field of hydro-electric power have already been mentioned.[4] The National Electricity scheme, in spite of the 250 per cent increase over pre-war output has barely kept pace with expanding demand, and 700,000 tons of fuel oil are imported annually to meet the demands of desert industries. Until more of the electricity and petroleum plans mature, shortage of energy will continue to be a brake on industrial development.

Gas, coke, and tar production have increased 60 per cent over the pre-war period, and the Huachipato steel plant will further assist this expansion. The gas from the coke ovens at the plant will be piped to supply the Concepción area and thence via Chillán to

[1] 5 million pesos' worth was imported in 1948, but the cost is almost prohibitive. [2] Juan Soldado.

[3] 1948–50 production fell below that of 1947 owing to temporary collapse of Juan Soldado production. [4] See 'Natural Resources', pp. 50–2.

Santiago, supplying the towns *en route*. One-sixth of the country's coal output is used in gas and electricity production directly, and as another two-fifths goes to manufacturing industry and the railways, it is evident that the integrated expansion of hydro-electric power will do much to conserve the country's small coal reserves.

The location of Chile's manufacturing industries is determined primarily by the existence of the most populous market. This also consequently means availability of labour, power, and transport facilities. No less than 74 per cent of all manufacturing production is concentrated in the provinces of Santiago (54 per cent) and Valparaiso (20 per cent), reflecting the great concentration of the country's population there. The character of Chilean industry in catering primarily to the domestic market and being very little concerned with exports has largely determined this location. Santiago concentrates principally on the food, textiles, clothes, leather, and chemical industries; Valparaiso has a similar pattern, tobacco tending to replace clothes as a major manufacture. In view of the dependence of some of the manufacturing industries on imported raw materials, the overwhelming importance of Valparaiso as the nation's greatest port for incoming cargoes has been a powerful factor in accentuating industrial location in the Valparaiso-Santiago area.

A subsidiary centre is Concepción province, concentrating primarily on textiles, and with food and glass factories also of considerable importance. The province now accounts for 9 per cent of national production, and, with the completion of the steel plant and its subsidiary industries, its importance must increase considerably. This will implement one of the important fundamentals of the Development Corporation, namely, to develop the economic potentialities of all the Chilean regions, and it will be a welcome counterweight to the top-heavy concentration of Santiago. The remaining 17 per cent of industry is widely scattered. Valdivia and Colchagua provinces account for 4 per cent of it, the former being an important centre of the metallurgical, food, wood-working, and leather industries based on the raw materials available in Forest Chile. Food and tobacco account almost entirely for Colchagua's total.

Where exceptionally a product is processed for export, the factory is usually situated at tidewater, and this is demonstrated in the meat-packing plants of Atlantic Chile and the tuna fish cannery of Iquique. Provinces with less than one-tenth of 1 per

cent of national production are for all practical purposes lacking any industrial framework, and included in this category are Aysén, Chiloé, Arauco, Maule, and Atacama.

LABOUR MOVEMENT

The importance of the extractive industries in Chilean economic history meant an early beginning to a labour movement, dating back in its original form to the closing years of last century. By 1903, workmen's associations, trade unions, or syndicates as they are more commonly known in Chile, numbered in their ranks no less than 63,000 members. The strongest centre in those days was the province of Valparaiso, especially the port, the other principal nuclei of this early labour movement being the provinces of Tarapacá, Santiago, Concepción, and Antofagasta. This reflects the strong organization of the nitrate and coal-mining industry, and of Santiago as the birthplace of Chilean manufacturing industry. A strong motive for the formation of some of the desert-based unions was the provision of social and recreational facilities in that hostile environment.

In spite of considerable difficulties placed in their way, membership grew 50 per cent to 92,000 by 1910, but during the next two decades, while much progress was achieved, there were parallel developments in the country's economy which tended in some ways to make the urgency of an organized labour movement less strong. One of these changes was the rapid expansion of Chilean copper mining, for the mining companies paying higher wages, and providing better housing, medical attention, and recreational facilities than could be found outside the mining camps, weakened the call of the unions to membership. A few industrial organizations elsewhere also imitated these developments. Another factor of importance was Alessandri's election as a representative of the growing labour and middle classes, which became for the first time important in Chilean political history. The first steps in labour legislation and social security and the institution of an income tax showed the Government's intention to secure a fairer distribution of wealth.

Soon, however, the full effects of world economic depression hurled themselves on Chile. Currency depreciation, rising living costs, unemployment, and the dictatorship of Ibáñez were sufficient stimuli to convert the labour movement into a popular, mass organization, and the repression of labour by Alessandri's admini-

stration of 1932–8 was a further consolidating force. The rival organizations within it sank their differences and formed the Chilean Trades Union Congress[1] in 1936, which included 50 per cent of the industrial workers of the country and a larger proportion of the miners, and which soon became one of the most powerful organizations of its kind in the continent. One of the first results, in the following year, was the passing of a minimum-wage law for employees in industry and commerce.

Popular education, urbanization, and increasing industrialization all played their part in the Leftward swing which Chile then experienced, and the support of the new Confederation in securing the return of the Popular Front Government was very considerable. The expansion of social security and the *caja* system by that Government reflected the influence of that support.

By 1946 there were over a quarter million trade-union members, and an indication of the best-organized regions and industries is given in the fact that 78 per cent of this number are contained in the following five provinces which represent nearly all the mining and industrial zones of the country:

Province	*Number of Trade Unions*	*Membership*
Santiago	671	87,000
Concepción	136	36,000
Antofagasta	99	31,000
Valparaiso	234	30,000
O'Higgins	42	10,000

Mining is the industry most efficiently organized, including some seven-eighths of all labour, permanent and casual, and the following industrial groups account for 61 per cent of trade-union membership:

Mining	70,000
Transport	33,000
Textile industries	24,000
Food and beverage industries	24,000

Least touched by trade unionism is agriculture, less than 0·2 per cent of those employed in farming being union members in 1946.

The pressure of the labour movement, and social legislation,

[1] Confederación de Trabajadores de Chile, or C.T.Ch. (Chilean Workers' Federation).

particularly since 1938, have done much to raise the living standards of the Chilean people. In the period 1937—48, while the money wage index rose from 100 to 864 to meet the inflationary cost of living, real wages rose 87 per cent, the highest wages being paid in the paper, gas, and tobacco industries.[1] An analysis of the distribution of the national wage bill indicates that those sections of the labour movement best organized have secured for their members the best living standards:

Employment	*Percentage of National Wage Bill*	*Percentage of National Labour Force*
Industry	36	17
Commerce	16	12
Agriculture	14	35
Mining	13	4
Construction	10	5

That much remains to be done to raise the conditions of labour to a decent level of subsistence comparable to other civilized countries, no objective student can deny. Varying estimates, all pitifully low, have been made by economists of the *per capita* real income of the Chilean worker. It probably averages over the whole country between £30 and £50 *per capita* annually. A far better guide to conditions are the International Labour Office statistics of malnutrition quoted on page 70. The condition of the *inquilino* is notorious, and is symptomatic of the wasteful and inefficient agricultural system which the country has not yet succeeded in shaking off. The National Agricultural Society representing the vested interests of the property owners is probably the smallest but strongest trade union Chile possesses, a union of agrarian landlords and absentee owners committed to the preservation of the *hacienda* system, who regard an improvement in living standards as inviting misfortune.

The progress achieved has not been always by peaceful means. Early in the century there were bitter struggles in a general strike in Valparaiso and Santiago, and in 1907 the Iquique strike resulted in 1,000 killed. In the nineteen-twenties and nineteen-thirties strikes spread from one end of the country to the other, and the continuing inflation of the post-war period has resulted in periodic crises, especially since 1946.[2] In 1947 serious strikes by the miners

[1] Greatest increases were in textiles, tobacco, and matches.
[2] There were 185 strikes involving 65,000 workers in 1951.

of the coalfield and of the desert north led to a state of emergency and their suppression by naval forces. In 1949 a student protest at rising prices led to riots in Santiago, further strikes in the mining provinces, and governmental intervention in these disputes. Nor are the uprisings confined to the manual workers[1] for the February strikes of 1950 involved banks, utility services such as newspapers and telephones, and other members of the Federation of Private Employees, in protest against a wage-freeze bill before Congress. Not only did this strike largely succeed in its objective, but it resulted in legislation requiring all firms to distribute one-quarter of their annual earnings to their employees.

That the Communist party has taken full use of the opportunity to exploit the poverty and misery of the Chilean *roto*[2] to advance its political ends there is no doubt. Its members infiltrated into the unions and the Confederation from early days and, although at first the Socialists were the majority element, dissension within that party's ranks gave the Communists the leading part by 1945. The turning point was in the general strike of 1946, in which the two elements pursued opposing courses, and which led to the Socialist Party opposing the candidature of González Videla in the presidential election, while the Communists were his most vocal supporters.

On his election, of the three Cabinet posts given to the Communists, that of Agriculture was probably the most important, and the Communists immediately set out to unionize the vast agricultural proletariat.[3] This was really the beginning of the end of Communist co-operation in the Government. Baulked by Congress, by an act which virtually forbade a labour movement for the agricultural workers, it was only a matter of months before the Communists were forced from the Government.

Since that time, the Communists have taken a full part in stirring up the labour troubles of the mining areas, and González Videla retaliated by exiling the leaders, suppressing the party, and driving it underground. Adopting this vigorous anti-Communist policy he succeeded in reinforcing his position in the successive economic crises which have faced the country.

A post-war development of the labour movement, related to

[1] Nurses of Santiago hospitals came out on strike, May 1950.
[2] Chilean peasant or worker.
[3] Ricardo Marín Molina's *Condiciones Económico-Sociales del Campesino Chileno* (Santiago, Editorial La Hora, 1947), describes this struggle over the legalization of trade unions.

Communist influence in it, has been a rift in the Confederation similar to that which has occurred elsewhere. The coal-mining unions supported the Communist-controlled section, the nitrate and railway workers' unions were somewhat divided, and the copper-mining unions, and most of the important manufacturing unions of Santiago and Concepción, fell under the control of the Socialists. Bernardo Ibáñez,[1] Socialist Secretary-General and founder of the Confederation has played an important part in this conflict, which has its continental counterpart. His efforts to better labour standards and to prevent the Chilean labour movement from being used as a political instrument were recognized by his election as President of the new anti-Communist Inter-American Federation of Labour[2] founded in 1948.

TRADE

The pattern of the foreign trade of Chile has undergone little fundamental change in the last century. Throughout that time the country has been an exporter of minerals predominantly and of agricultural and pastoral products to a lesser extent, and an importer of manufactured products and tropical agricultural commodities not cultivable in Chile, either for food or as raw materials of industry. This is demonstrated by the following export statistics:[3]

Exports	*1913* *Percentage*	*1948* *Percentage*	*1951* *Percentage*
Minerals	88	82	74
Agricultural and pastoral	12	13	14
Manufactured	—	5	12

Within this framework, however, there have been important changes in the character of the goods entering into its international trade. Before 1914, 80 per cent of the exports were nitrate and 7 per cent copper, whereas today nitrates only account for 18 per cent, and copper 48 per cent of exports, other minerals providing a further 8 per cent. While agricultural and pastoral products have remained a fairly steady proportion of exports, the increased processing of foodstuffs and the expansion of Chilean manufacturing industry have added a large amount of manufactured goods

[1] Presidential candidate in 1946 election.

[2] Not to be confused with Communist-controlled Latin American Federation of Labour.

[3] Unless otherwise stated export and import percentages are by value.

to the export total. On the import side, the increased consumption of foreign raw materials by Chilean industry, the greater dependence of the population on imported foodstuffs, such as meat and tropical beverages, and the increasing importance of petroleum imports, have all tended to increase pastoral, agricultural, and mineral imports in relation to those of manufactured goods.[1]

More fundamental changes have occurred in the direction of Chile's foreign trade,[2] partly as a result of the change in character of the two principal mineral exports, and mainly as a result of two world wars. Before 1914, most of the exports went to the United Kingdom (38 per cent) and other European countries (33 per cent) which had a monopoly over the nitrate market. Imports were 35 per cent from the United Kingdom, 25 per cent from Germany, 17 per cent from the United States, and 9 per cent from France and Belgium. The First World War dislocated this pattern, but in the inter-war years it was partially restored. Europe remained the principal export market and source of imports, but the United States became the largest single customer of and exporter to Chile, accounting for between one-quarter and one-third of Chilean foreign trade. This expansion was largely at the expense of the United Kingdom, which took only about one-quarter of Chilean exports and provided little more than one-ninth of its imports.

The Second World War meant an even greater displacement of trade, especially in relation to Europe as a supplier of Chilean imports. The foreign trade of the country, in common with a tendency displayed by many Latin American countries, became predominantly hemispheric in direction, so that in 1946 82 per cent of its imports and 59 per cent of its exports were to and from North and South America.[3] Nor has this tendency been reversed, the 1951 statistics showing an American source of 75 per cent of Chile's imports, and the export proportion having risen to 68 per cent. This is accounted for, in large measure, by the predominant role the United States now plays in Chile's foreign trade, taking 51 per cent of its exports, and supplying 55 per cent of its imports. The Latin American countries have partially replaced Europe as a source of supply of some Chilean imports, a tendency evident before 1929 but accelerated by the war. Europe

[1] See Appendix I, p. 117-18. [2] See Appendix I, p. 118.

[3] Some of this trade was temporary in nature, such as the supply of poor lignitic coal to Argentina from Atlantic Chile.

continues to take some 30 per cent of Chilean exports, compared with twice that quantity in the pre-war period.[1]

The four chief suppliers of Chile's import needs in 1951, and also its chief customers, are the United States, Argentina, the United Kingdom, and Western Germany in that order, together accounting for 75 per cent of the import trade and taking 70 per cent of the exports.

Nearly all the foreign trade of the country is carried on through the maritime ports, land commerce accounting for only 1 per cent of its exports and 3 per cent of its imports. This is inevitable in view of the poor international communications imposed by a mountain and desert barrier with its neighbours. Valparaiso has always been the greatest port for imports, being convenient to the great populated nucleus of the country. This dominance of the nation's import trade has tended to grow, the port accounting for 48 per cent of imports in 1913 and 60 per cent in 1951. Talcahuano has been, also for a long period, the second port in respect of imports (10 per cent), the cargoes of raw materials, particularly cotton for the Concepción industrial area, and supplies for the transitional Mediterranean-Forest zone, being landed there.

A completely different picture results from a consideration of exports, and the dominance of mineral shipments is evident. Antofagasta and San Antonio each account for 30 per cent of all exports, the copper mines of Chuquicamata and El Teniente being almost entirely responsible for this. Tocopilla (13 per cent) and Chañaral (5 per cent) rank next in importance, being the ports of export for the María Elena-Pedro de Valdivia nitrate *oficinas* and the Potrerillos copper mines respectively. Valparaiso and Punta Arenas each account for 5 per cent of the country's exports and Talcahuano for half that amount.[2]

The decline of Iquique[3] is most evident, for in the days of flourishing nitrate exports it was the principal export port of Chile. The rise of Tocopilla is indicative of the southward displacement of the main nitrate mining area, now represented by the two great *oficinas*.

In view of the vital importance of the balance of foreign trade,

[1] See Appendix I, p. 118.

[2] Tocopilla and Antofagasta are the chief ports of supply for the northern mineral zone, accounting for some 16 per cent of the country's imports.

[3] The enlargement of the Victoria *oficina* of the Tarapacá and Antofagasta Company, and the mechanized loading plant recently installed at Iquique is helping the latter port to recover some of its former importance.

especially quantity and value of exports, on the economic development of Chile a summary of recent trends is necessary.

Only in very exceptional circumstances does the country register an apparent trade deficit, the favourable balance in millions of American dollars having been:

1937	104·1	1942	49·8	1947	13·1
1938	36·3	1943	47·7	1948	60·8
1939	51·7	1944	50·6	1949	−7·7
1940	35·9	1945	48·7	1950	36·3
1941	50·2	1946	19·8	1951	43·6

The balance, however, is more illusory than real, as owing to the large foreign investments in copper and nitrate plants, sales of these exports do not return in foreign exchange the full amount of the selling price. The proportion available to Chile varies considerably, dependent upon costs of production and world prices of these commodities, but it is safe to deduct between one-quarter and one-half of the export value of these two products from the apparent trade balance, thus considerably prejudicing the impression created by a casual study of the trade returns. One important invisible export of increasing importance is the foreign exchange credits of the Chilean merchant fleet which have increased thus: 1942, 24 million pesos; 1944, 72 million pesos; 1947, 388 million pesos.

The Second World War inflicted relatively little dislocation of trade. It is true that deprivation of manufactured imports caused shortages, and some industries, such as iron-ore exports, collapsed, and that Chile suffered in an extreme form the full effects of a general world inflation, but even the lack of imports had a favourable aspect for a great quantity of foreign exchange reserves was accumulated with which to finance post-war capital equipment imports.

That the dislocation of trade was minimal was due primarily to three causes. Firstly, the volume of exports from Chile remained fairly constant throughout the decade, as these indices show:

1937	100	1942	97	1947	93
1938	94	1943	92	1948	95
1939	84	1944	96	1949	88
1940	90	1945	100	1950	84
1941	97	1946	99	1951	78

due primarily to the steadiness of copper exports to the United States. Secondly, the increase in the price of these exports was relatively small compared with many other commodities,[1] as indicated by these price indices:

1937	100	1942	92	1947	143
1938	72	1943	92	1948	169
1939	71	1944	101	1949	158
1940	74	1945	108	1950	150
1941	83	1946	118	1951	193

This was largely due to the United States Government pegging the price of copper at 11½ cents a pound throughout the war. Thirdly, the quantity of imports was only comparatively slightly reduced, as a large proportion of Chilean imports were foodstuffs or raw materials, which were obtainable within the Americas. The reduction in quantity also meant that the price value of imports, until 1946, was not unduly inflated relative to the rise in export values, as these statistics indicate:

Year	*Imports Volume Index*	*Imports Price Index*
1939	101	96
1940	112	118
1941	112	123
1942	97	145
1943	86	149
1944	92	169
1945	100	176
1946	123	222
1947	133	305
1948	137	305
1949	186	344
1950	134	280
1951	153	372

When foreign supplies became available in the post-war years the Government, by means of import permits, switched the accumulated demand to capital goods, transport equipment, and durable consumer goods, and the 50 per cent rise in post-war imports is indicated in the previous table. Fortunately, accom-

[1] Using 1937 as base index of 100, price indices of principal Chilean export commodities in 1946 were: copper 101, nitrate 109, wool 111, meat 199.

panying the post-war shrinkage of mineral exports there came a rise in price, which permitted the value of exports to increase[1] and the maintenance of more adequate supplies of foreign exchange. United States governmental controls on Chilean copper prices were withdrawn in 1946, and the increased price meant that copper-earned income rose from 73,500,000 dollars in 1946 to 128 million in 1951.

The much greater increase in the price of imports in the same period,[2] however, resulted in the terms of trade reacting against Chile. The post-war period has been in many respects more critical than that of the war years, and the vulnerability of Chile to fluctuations in volume or price of its key exports is almost as great as ever. No more clear demonstration of this could be wished than the sudden large fluctuations in the price of copper in the years 1949[3] and 1950. Between March and June 1949 the price fell from 23½ cents a pound to 16 cents, involving the country in a heavy loss of governmental revenue and at least 30 million dollars of foreign exchange.[4] Expressed in another form, the Minister of Finance claims that the industry is subsidizing the general economy of Chile to the extent of considerably more than 1,000 million pesos annually.

The efforts of the Development Corporation to develop export markets for other commodities, to rationalize commercial operations, and to improve the standardization and packing of these products are steps to help reduce the dependence of the country on such a mono-metal trade. It is, however, a wide process, involving the modernization of agriculture and the increasing industrialization and self-sufficiency of the country, which cannot be accomplished suddenly.

BANKING

The banking system dates from 1860, and some of the present banking houses originated shortly after that time. Apart from several Chilean capitalized institutions there are important British, Italian, French, American, and Israeli banks, the German counterparts having been liquidated during the Second World War.

The rigidity of the exchange-office system of currency manage-

[1] See table of export price indices, p. 94.

[2] See table of import price indices p. 94.

[3] Note adverse balance of trade in 1949, in table, p. 93.

[4] A fall of 1 cent in price is estimated to mean a loss of 5 million dollars in royalties. Fortunately by June 1952 the price had risen to 35½ cents.

ment operative until the nineteen-twenties led to its decline in the dynamic events of those years, a Central Bank system being set up in 1925, with control of currency issue and a currency established on a gold basis. In the storm of economic depression, the Central Bank, in its efforts to save the gold standard, provided strong deflationary pressure, but in 1932, with the complete collapse of Chilean foreign trade, it succumbed, and there then began a reversal of policy which has continued fundamentally unchanged to the present day. This is an expansionist policy of domestic credits and loans, which, together with a favourable turn in world conditions, first enabled Chile to recover from the depression, and then led, in the decade 1931–40, to a 100 per cent inflationary set of conditions.

This has inevitably meant the assumption by the Central Bank of new functions, such as management of exchange rates and administration of exchange controls, to meet the successive economic emergencies which have beset the country in its recent history. As a result there has evolved a rigorous and complicated system which, although 'introduced in a relatively loose and simple form as a means of conserving its dwindling gold reserves, maintaining the external value of the peso, and ensuring the acquisition of essential imports', now 'centralizes all Chile's international transactions, with a few minor exceptions, under the authority of a single board'.[1]

The multiple exchange rates and the manipulation of exchange controls and depreciation have had a protective effect on the country's economic development, fostering in particular the industrial expansion of the last decade.

Shortages of goods, monopolistic policies of many importers, and world inflationary forces have all had their effect in Chile in forcing prices upward, but the principal cause of the enormous rise in prices since 1939 has been the expansion of the money supply. The extent of the inflation may be gauged from these indices:

	1937	*1951*
Wholesale price of farm products	100	638
All wholesale prices	100	583
Cost of living	100	759
Daily wages in manufacturing	12·60 pesos	143·45 pesos

[1] Seymour Harris, *Economic Problems of Latin America* (New York, McGraw-Hill, 1945) p. 315.

As money supply is to a considerable extent the province of the Central Bank, responsibility for much of the inflation lies here, as these phenomenal increases indicate:

	1937	*1951*
Currency in circulation (million pesos)	630	7,970
Deposit money	1,364	16,420

meaning a twelve-fold growth in the total means of payment, or approximately twice the rise of wholesale prices.

Loans by the Central Bank, and the facilitation of increasing lending by the commercial banks, based on the Central Bank's expansionist policy, have contributed most to this state of affairs. The Central Bank loans have been predominantly to the development institutions such as the Development Corporation, while the Government has also borrowed heavily from the commercial banks. This policy of easy loans and a static re-discount rate of 4½ per cent has been instrumental in the unchecked rate of inflation, which is as bad as any in Latin America, and has precipitated the numerous crises from which Chile has suffered since the war. An attempt to control credit in 1946 proved too drastic and very unpopular, and the attempt to enforce a wage-price stabilization policy in 1950 was almost equally unsuccessful. A satisfactory feature has been the banks' observance, for the most part, of governmental wishes to devote their credits to generally productive purposes. Insufficiently explored to date appear to be economies in Government expenditure, and some attempt at increased public saving,[1] although this latter is decidedly limited in view of the standard of living of most of the people.

PUBLIC FINANCE

The collection of revenue from a comparatively small population scattered over a great length of country, in varying degrees of development and prosperity, has always been a difficult and costly problem. This was particularly so when any attempt to tax land or its production would have met with great opposition from the land-owning oligarchy, and when the great mass of the population had little to be taxed. It is not surprising, therefore, that the Government relied on import and export taxes as the two principal sources of revenue. Both were simple to administer, and the

[1] Public deposits in the National Savings Bank increased over the period 1939–51 from 857 to 7,266 million pesos.

latter, at any rate, popular. For half a century, 1880–1930, nitrate taxes accounted for more than 40 per cent of all Chilean public revenue, and, in most years to 1917, the nitrate export tax produced half or more of the total national revenue. In the nineteen-twenties, in view of the competition of synthetic nitrate, export taxes were lowered, but even then they yielded one-quarter of the revenue, with sufficiently serious consequences to public finance when foreign trade collapsed in the Great Depression.

Slowly there has evolved a broader-based origin to national revenue, which is now made up approximately in this form:

	Percentage of Total
Internal direct taxation	41
Internal indirect taxation	31
Customs duties	8
National services: post office, ports, etc.	4
Income of national property: rents, railways, etc.	3
Miscellaneous	13

There are, in addition, the many separate laws by which certain specific revenue does not enter into the ordinary national balance sheet, but is earmarked for specific purposes. Included in such are the taxes (some from nitrates) reserved for the amortization of a part of the foreign debt, some of which since 1939 have been allocated to the Development and Reconstruction Corporations,[1] including principally the special copper tax.[2] No provision is now made in the budget for these various semi-State institutions[3] in charge of economic development or for grants to the State railways, these matters being financed independently. Many public services also come under municipal control and finance, which are supported mainly by several forms of indirect taxation,[4] but to the extent of one-third by property taxes.

Ordinary State expenditure is now constituted approximately as follows:

[1] Formed in 1939 to assist reconstruction of the areas affected by the Chillán-Concepción earthquake of that year.

[2] 10 per cent on the income of the large copper companies operating in Chile.

[3] Development and Reconstruction Corporations, Agricultural, Industrial, and Mining Credit Funds, Agricultural Colonization Fund, etc.

[4] Principally licences. Total budgets exceeding 1,800 million pesos in 1951.

	Percentage
Ministry of Interior	11
Ministries of Commerce and Economic Development	30
Education	14
Health	10
Defence (army 7 per cent; navy 6 per cent; air force 3 per cent)	16
Public works and transport	14
Miscellaneous (presidency, congress, foreign relations, justice, agriculture)	5

Recently, there have been several changes in methods of accountancy in public finance, but the budgetary deficits of 1945 and 1946 were liquidated as a result of a surplus of 1,350 million pesos in 1948. In the following year, the fall in copper prices dislocated budgetary estimates as the income from copper-mining taxation fell considerably. Higher customs duties, however, reduced the deficit so that the budget approximately balanced.

The extent of Chilean inflation can be gathered from the fact that in 1939 the budget was balanced at 1,800 million pesos and in 1952 at 29,100 million pesos.[1] There is no attempt to secure an anti-inflationary surplus, and the increasing expenditures on such development as electrification, petroleum production, the steel industry, and housing are financed mainly by the issue of bonds or by loans from the Central Bank. That the Development Corporation's programme involves the State in liabilities of 9,000 million pesos and 121,500,000 dollars of United States credits is evidence of the cost of industrialization to the country.

In recent years, an annual exchange budget has been prepared, whereby estimated exchange receipts are allocated in a fixed order of priority for four classes of imports, those of prime necessity, those essential to the national industries, those useful but not essential, and those of luxury importance only. This permanent control for each year in advance prevents undue interruption of trade due to exchange deficiency, which in view of Chile's economic plans, will remain a critical factor for a long time to come. The 1950 exchange budget, anticipating smaller receipts from lower-priced copper sales, while allocating reduced amounts[2] for all categories of imports, reserved a very large proportion for

[1] Supplementary estimates to meet civil servants' salary increases have since increased this figure by 25 per cent.

[2] 1949, 307 million dollars; 1950, 232 million dollars.

Government imports and other State requirements, again indicating the priority being given to State-planned economic development.

The rapid utilization in the post-war period of foreign exchange reserves acquired during the war years is evident from these statistics giving the amount in millions of United States dollars of foreign exchange available at the end of each of the years:

1937	*1938*	*1939*	*1940*	*1941*	*1942*	*1943*	*1944*
1·9	3·0	2·8	2·7	5·6	12·2	17·8	25·8

1945	*1946*	*1947*	*1948*	*1949*	*1950*	*1951*
27·7	4·4	10·7	9·8	3·0	14·4	6·7

The small amount of domestic investment,[1] relative to that of foreign capital, reflects the absence of a big fund of investment capital and the unbalanced distribution of income typical of Latin America. Investment in real estate is preferred, and the compulsory savings of the *caja* system are channelled predominantly into this type of investment. Constructional work, exclusive of Government or semi-Government undertakings, accounts for over a third of the total gross investment. The preference appears to have an historical basis, but inflationary pressure of recent years has strengthened the tendency. Aided by Governmental concessions, there has been some increase in investment in manufacturing and other economic development, particularly during the nineteen-forties. The success of the Development Corportation in encouraging the creation of joint private and State corporations, financed by foreign and domestic capital, and in opening up other new investment opportunities for the latter, is probably the most notable effort of this kind in the continent.

FOREIGN CAPITAL

The external debt of Chile has its origin in the earliest days of the republic, but its growth was very slow throughout the nineteenth century, amounting in 1830 to £1 million and steadily increasing to £34 million by 1913. During this same period there was a growing amount of foreign investment in the exploitation of mineral resources, particularly of nitrate, in the building of a railway network, predominantly in the desert region, and in the infant industrial structure of the country.

[1] Probably 10 per cent of national income.

The First World War checked any expansion of European investments and loans to Chile, but American capital in the country increased considerably, then, and in the immediate post-war period, with the copper-mining developments of the nineteen-twenties.

It is during the Ibáñez régime of 1927–31, in those years of the gathering storm of the Great Depression, that the country borrowed vast quantities of American dollars,[1] mainly from small investors, for the purpose of great public works' schemes, roads, and bridges. In the nadir of depression Chile found, with the enormous loss of foreign trade, and therefore, of foreign exchange, that her liabilities on these and other loans could not be met, and there occurred in 1931 her first default. During this critical period of the nineteen-thirties payments were suspended on most loans and investments.[2]

Following the overthrow of Ibáñez, the country was fortunate in securing a great Finance Minister, Ross, who achieved remarkable success in the financial restoration of Chile. He did much to reduce this huge accumulated debt, and push the country into a policy of greater economic nationalism, by which the great exploiters of the copper and nitrate resources, and other foreign-capitalized companies should contribute more towards the national revenues.[3]

In spite of this, in the decade before the outbreak of the Second World War, total foreign investments increased, with the result that in 1939–40 nearly 600 million U.S. dollars represented American capital in Chile, and 475 million U.S. dollars represented European investments. The latter were made up as follows:

	mil. $		*mil. $*
Great Britain	410	Spain	8
Germany	20	Yugoslavia	6
Italy	12	Switzerland	6
France	9	Others	4

The British capital was invested in:

Government bonds, securities, etc.	33 per cent
Railways	24 ,,
Miscellaneous, including nitrate and meat refrigeration	43 per cent

[1] U.S. $208,600,000 (J. Gunther, op. cit. p. 248).

[2] Later small amounts of interest were paid, but much British capital still paid no interest twenty years later.

[3] See p. 45.

while American investments were distributed thus:

Copper and nitrate	46	,,
Government bonds, securities, etc.	30	,,
Transportation, electricity, and other public utilities	20	,,
Miscellaneous	4	,,

The war years saw two major developments. The favourable economic conditions of Chile permitted a partial liquidation of the Government's external debt, which resulted in a 20 per cent net reduction of 66 million dollars between 1938 and 1948. State income from the Nitrate and Iodine Corporation and from the tax on copper companies is now further reducing this debt as these statistics indicate:

		1934	*1951*
LONG-TERM DEBT	£ U.S. $ Swiss francs	29·6 million 264·6 million 120·6 million	21·7 million 114·8 million 93·3 million
SHORT-TERM DEBT	£ U.S. $	3·9 million 30·4 million	1·7 million 4·0 million

The financial straits of the belligerents meant the liquidation of the small German investments, and a considerable reduction in British capital invested in the country. Of the investments quoted on the London Stock Exchange, there was a reduction from the peak figure of £94½ million in 1935 to £46 million in 1947. This disposal of British investments was almost exclusively in the 'miscellaneous, including nitrate' group, which fell to one-sixth of its pre-war total.[1] In 1947 there was also a 12 per cent reduction in British holdings of Government bonds, final arrangements being made in 1948 for a total settlement of that part of the Chilean external debt in a relatively short period.

In the same year, a commission to control the establishment of foreign industries was set up, and some capital equipment has been imported by this means, American, British, Italian, French, and Argentine industries being involved. The United States especially, since the war, has increased investment in Chile, so that the amount of American capital there is exceeded nowhere

[1] The Lautaro Nitrate Company, founded in 1871, being one of the survivors and paying a higher interest rate than most.

else in Latin America. Much of this has been Export-Import Bank of Washington aid for the Development Corporation, the total of these loans exceeding 130 million dollars at the end of 1951.[1] Suppliers of equipment have also provided credits for the same purpose. Otherwise the two major American investments in the post-war period have been the Chile Exploration Company's construction at Chuquicamata of a new plant to utilize copper sulphide ores, and the Bethlehem Steel Company's development of the iron reserves of El Romeral and their export via Guayacan, near Coquimbo, for the benefit of both the domestic steel industry and the North American market.[2]

Chile is also the first country to obtain facilities for development, as distinct from reconstruction, from the International Bank, a twenty-year loan of 16 million dollars having been granted in 1948 to help finance the hydro-electric power schemes and to purchase agricultural machinery.[3]

[1] The list of recipients of these credits indicates the range of the Corporation's activities and the contribution this foreign aid has made to the republic's development programme during the period 1947–52:

Project	*Million U.S. $*
Huachipato steel plant	61·2
Agricultural mechanization	18·3
Hydro-electric plants	16·6
El Romeral iron mine	2·8
Road making equipment	1·8
Irrigation projects	1·3
Rayon plant	1·2
Various other projects	27·4
	130·6

[2] Production began at both these new enterprises in 1952.

[3] *Chilean News.* no. 192. (London, The Anglo-Chilean Society, December, 1948.)

CHAPTER V

FOREIGN RELATIONS

SOUTH AMERICA

Argentina. In the period since the liberating missions of San Martin and O'Higgins set up the two independent States of Argentina and Chile, separated by a land frontier over 2,000 miles in length, relations have varied between comparative cordiality and the brink of war. That the latter occasions have been few and far between is partly due to the desert and mountain barrier separating them. Where this frontier was less well defined, particularly in the far south, competing claims to territory unresolved for some sixty years, led to much friction and the threat of armed conflict. Fortunately, wiser counsels prevailed, and British arbitration produced a mutually agreed frontier in 1902.

In the last half century of turmoil in international relations and many crises in the internal affairs of both republics, Chile and Argentina have pursued courses in some respects parallel, in others greatly divergent. In the First World War, both nations remained outside the conflict, in the Second, both were the last in Latin America to break off relations with the Axis Powers. At times the *rapprochment* has been close, as is witnessed by the Reciprocal Trade Agreement of 1932 and the efforts in 1947 and 1953 to re-establish the 1856—68 'Free Cordillera' and expand it into a full Customs Union of the two republics. Efforts by far-seeing statesmen of both countries have been directed to lessening issues of friction and removing the tiresome formalities of trans-Andean trade and passenger movement, and the visit of González Videla to Argentina in 1947, in which trade[1] and cultural agreements were signed, is an example of the friendship between these nations.

There is also a subtle incompatability which exhibits itself in three major ways. Politically, it is based on an innate suspicious fear of Argentine hegemony in the southern half of the continent, a position which in times of super-nationalistic emotion in Argentina leads to the impression that that country has assumed the

[1] Chile gave market for Argentine cattle in exchange for market for nitrate, with Argentine promise not to erect synthetic nitrate plants.

leadership of a southern bloc. The more nationalistic aspects of Argentina since the 1943 coup d'état and the increase of her military and air strength have had their reaction in Chile, although the confidence of the latter country in its ability to defend itself is unbounded.

Economically, the abundant agricultural and pastoral wealth of Argentina, and the comparatively easy economic development of that country, have tended to accentuate the contrasts between the republics and throw into strong relief the Chilean struggle to secure the development of a mountain-girt nation with a thousand natural difficulties. This fear of economic domination is another facet of the suspicion of Argentine hegemony, and accounts for the opposition to a full economic union and the penetration of Chilean development by large-scale investment of Argentine capital, as was suggested in 1946 and 1953, lest Argentina should secure by economic means what would be so fiercely resisted in the political field.

Mentally, there is Chilean scorn of some of the Argentinian's psychological characteristics, especially his aggressive confidence which is often accompanied by ignorance of the neighbouring republic. Reciprocally there is the Chilean's pride in the superiority of his social legislation, democratic evolution, and homogeneous nationality.

They are, perhaps, reactions inevitable in two nations in such contrasting environments, and with such differing economic and racial foundations. It is as absurd to pretend they do not exist as to exaggerate their significance. Fundamentally, except for three unimportant islands,[1] and overlapping claims to Antarctic sectors,[2] there is no dispute which divides them in the field of foreign relations. In the case of Antarctica, while Argentina protested at the Chilean claim in 1940, in the post-war years the opposition of Great Britain to both their claims, has resulted in a working agreement to respect their mutual interests, and to act together in the matter, and they have joined with the United Kingdom in an agreement to refrain from naval demonstrations south of 60° S.

Although differences have arisen, and the days of an ABC bloc[3]

[1] Lennox, Picton, and Nueva islands, 55° S.

[2] For full account of Chilean and Argentine Antarctic claims see 'Rivalries in Antarctica', *The World Today* (London, Royal Institute of International Affairs, April 1948).

[3] Argentina, Brazil, Chile.

are past, the increasing bond of communication facilities and the greater trading links growing out of the diversification of the economies of both republics, have done much to impress upon their peoples that their interests are complementary rather than antagonistic.

Peru. Relations with Peru and Bolivia in the past twenty years have been more normal and friendly than at any time in the modern history of Chile. This is due to the fact that the last legacy of the War of the Pacific against these two republics, the Tacna-Arica dispute, was finally settled by Chilean-Peruvian negotiation in 1929, after remaining a festering sore for almost half a century, and more especially since the peace treaty of 1904. It was scarcely to be expected that the settlement would suit all parties to the dispute, but some satisfaction was received by each. Peru retained Tacna, Chile obtained Arica, and Bolivia the facilities to use Arica as a free port of entry and exit for her merchandise, by her shortest and quickest route to the sea.[1]

In the case of Peru the wounds of conflict have generally healed. There exists no bond of great cordiality between the two nations for their geographical bases are so different and their political development poles apart. The short common frontier is in a sparsely-inhabited desert zone, and there, local customs' freedom permits an easy *modus vivendi* without friction, the Arica-Tacna railway linking the extreme south Peruvian settlement to its Chilean port. Otherwise, Peruvian-Chilean contacts are less traditional than those with Ecuador, with which republic Chile has for long had close ties. The economic dependence of Chile on Peruvian petroleum, sugar, and cotton leads to an enormous disequilibrium in trade between the two countries.[2] It has, however, facilitated reciprocal trade agreements, one in 1948 providing for the mutual removal of all restrictions on imports by both countries.

Haya de la Torre and the Apristas of Peru, persecuted and driven underground, have their friends in Chile, and the bonds of democracy are stronger in the mutual sympathy of such as these opposed to Peruvian totalitarianism than between Chilean and Peruvian as such.

Bolivia. Relations with Bolivia are inextricably bound up with past history and the deprivation of this country of a Pacific coast-

[1] Arica-La Paz railway, built 1904.

[2] 1949 statistics in millions of pesos 6d. gold, Chilean exports to Peru 9·4, Peruvian exports to Chile 158·2, but the latter were much less in 1950–1.

line. There is, however, on the whole, remarkably little bitterness, and the close communications network and port facilities Chile has established with Bolivia have done much to overcome the latter's land-locked position. While alternative routes have been opened or projected for exits via Argentina and Brazil, the proximity and commercial connexions established over half a century have remained predominant, and in this sense, Bolivia is linked economically to Chile, which also supplies the plateau republic with some foodstuffs.

To the Chilean, the matter of a Pacific port for Bolivia was definitely settled in 1929, and, while the door is always open for trade negotiations, there can be no question of a Pacific coastline or port. To the Bolivian, 'the maritime ideal will live as long as the nation lives'.[1] So the impasse remains. Chile is the stronger in every way. The present settlement could only be upset were a third power to support Bolivia. Hence springs Chile's sensitivity to any suggestion of Argentine support for Bolivia in this matter.[2]

Other South American Countries. Elsewhere in the continent, the presidential visit to Brazil in 1947 was symptomatic of an increasing cordiality, and a valuable maritime trade by Chilean vessels is maintained between Chilean and Brazilian ports. Uruguay's social democracy and parliamentary government find warm approval in Chile, and it is not accidental that the first supplies of Chilean petroleum were consigned to that republic. The brief experience of Venezuela in democratic government 1945–8, likewise, found a sympathetic friend in Chile, and there is little doubt that Chilean intervention before the Council of the Organization of American States in 1949 was instrumental in securing the safe conduct of Betancourt[3] from the Colombian Embassy in Carácas, where he had taken refuge, even though this meant the severance of Chilean diplomatic relations with the Military Junta of Venezuela. This again exemplifies the fact that democratic processes rather than national considerations are the bonds which most strongly link Chile to the other Latin American republics.

THE UNITED STATES

From the nadir of United States-Chilean relations in 1891–2 when these two nations nearly came to war against each other

[1] Bolivian Ambassador to Chile, Señor Alberto Ostria Gutiérrez, in 1949.

[2] Declaration of President Perón, 31 December 1948, later explained as referring solely to Argentine-Bolivian relations.

[3] President of Venezuela, 1945–8.

over the Itata incident, the environment has become more favourable, particularly in the last twenty years, until at the present time, co-operation is exceptionally full and cordial. For this transformation there are several causes, and probably outstanding is the growth of commerce between them. This enormous link has several aspects, but it has been forged out of the mutual necessities of two world wars. Another powerful factor has been the removal of the greatest physical obstacle to their inter-communication, the barrier of the Panama isthmus. The opening of the canal opened up the workshops of the eastern United States as a supply base of equipment and manufactured goods for Chile, and as a market for Chilean minerals. Air communications have reinforced in passenger traffic what had been accomplished in the sphere of freight.

The hemispheric regionalism enforced by the wars; the military, naval, and air[1] co-operation which has resulted; and the continuing mental climate of Roosevelt's Good Neighbour policy, have all contributed to the amelioration of relations. The visits of Presidents Rios and González Videla to the United States in 1945 and 1950 epitomized this policy of 'friendship and solidarity on the basis of equal sovereignty'[2] and mutual respect for each other's democratic way of life. Resistance to Communist intrigue, as the challenge to Western democracy, has been an additional common ground since 1947. The two Presidents, Truman and González Videla shared common political philosophies. Although both realized the menace of totalitarian Communist infiltration and aggressiveness, both were very conscious of the causes in both countries which provide a deeply fertile soil for Communism to breed, and both were apostles of faith in democracy. The sympathetic treatment Chile has received in recent years from the United States in financial support for her economic plans[3] is a translation of the community of feeling of the two nations, into practical economic co-operation.

It is sometimes assumed from the close understanding which has developed between two countries with comparatively little common cultural, political, or linguistic unity, that Chilean policies must, of necessity, be American dominated. Nothing could be

[1] U.S. air mission, and chiefly American equipment in Air Force.

[2] González Videla in Washington, May 1950.

[3] Particularly loans to Development Corporation, loans to offset loss of foreign exchange by falling copper prices, and reduction of tax on imports of Chilean copper.

more of an anathema to the Chilean. His stubborn independence, national pride, and sensitivity to foreign interference are such that in few Latin American countries is a sense of national unity more evident. The homogeneous racial composition of all classes from *roto* to *patrón*,[1] and the struggle needed to weld a complex physical environment into a national unit would seem to be two dominating reasons for this. Nevertheless, *vis-à-vis* the United States, Chile has never been in the forefront of Americaphobia as Argentina has, although, whenever her national dignity has been offended, even in recent times, the reaction has been sharp and decisive.[2] Nor does it always mean complete agreement with United States policies, as is indicated by the Chilean refusal to agree to the American proposition for a plan for the internationalization of Antarctica in 1949, and the American refusal to sanction a loan for the Paipote copper smelter project.

There is little doubt that the United States regards Chile as one of the few remaining examples in Latin America of a genuine attempt to defend democracy, and that if American help can do something to maintain this by economic means, and so prevent the spread of the poverty which would be instrumental in leading to its overthrow, it is a task, a Point-Four plan in miniature, which the United States should gladly shoulder in the time-old adage of 'prevention is better than cure'. If at the same time Chile can by this means, develop her economy and build a brighter future for all her citizens, she is ready to seize the opportunity thus proffered.

EUROPE

In some ways, as the strength and influence of the United States has grown in international relations, so that of Europe has declined. This, to some extent, is inevitable for the influence of recent historical events and the changing distribution of economic power has made Chile more dependent on the Western hemisphere. Nevertheless, there are deep-rooted historical and commercial links with Europe, which, in many of their fundamentals, remain unaltered.

Great Britain. With Britain, few Latin American countries have such really genuine long-maintained friendship as Chile has. Born in the early days of its independence, when Britain under the wise

[1] Master or employer.

[2] e.g. Sumner Welles's admonition on rupture of relations with the Axis, 1942.

leadership of Canning supported the new-born republic and Cochrane led the Chilean navy in victory against Spain; fostered by a thin but virile stream of British immigrants whose names are sprinkled through Chilean life[1]; strengthened by the economic interest in and development of Chile's northern and southern lands; and linked to the United Kingdom by the British mercantile marine for over a century, Britain's commercial, financial, technical, and moral example has always inspired Chile. Plentiful evidence, past and present, could be given of these close relationships, and today, the Anglo-Chilean Society[2] and the British Council's successful mission in Chile are indices of the mutual friendship and interest of the two nations. The part played by the small British colonies of Santiago, Valparaiso, Punta Arenas, Antofagasta and Concepción, numbering in all probably some three or four thousand persons, has been an integral component of this process.

This sympathy with Britain was strengthened during the war by the resistance of the United Kingdom under air attack, and the mass of the Chilean people were undoubtedly Allied in sympathy, although Chile's geographical position fosters a certain isolationism from European conflicts, which was reflected in the delayed rupture of relations with the Axis powers.[3] While the trading links with Britain were then almost severed, post-war restoration of Anglo-Chilean trade has steadily progressed, although it is doubtful if it will regain its pre-war importance.

The Antarctic question which featured in some prominence in 1947, and which brought the United Kingdom and Chile into opposition over their territorial claims in that continent, reflects the solidity of Anglo-Chilean friendship, for at no time did this threaten to become a serious dispute of critical proportions. Chile consistently underlined her desire to seek a friendly settlement with Britain, and while rejecting the British suggestion of an approach to the International Court of Justice, there was a co-operative spirit of mutual tolerance in the later agreements to waive the urgency of such a settlement in a world faced with a hundred more complex and vital issues.

British naval tradition has long influenced the relatively important Chilean navy, and for a long period a United Kingdom naval mission was stationed in the country. The Chilean battle-

[1] Ross, Edwards, Simpson, Bunster, etc. [2] Founded 1944.
[3] 20 January 1943.

cruiser *Latorre* took part at Jutland as H.M.S. *Canada*,[1] and most of the navy is British built.

Germany. Although the nucleus of German immigrants in Forest Chile, dating from a century ago, meant an early link with their Fatherland, the development of German financial, educational, commercial, maritime, and military contacts with Chile belongs more particularly to this century. Temporarily weakened by the First World War by German loss of sea-power, they came to full fruition in the inter-war years, and integrated themselves into the life of the republic. Chile's neutrality in the war facilitated this, and Germany's position was further strengthened by a barter-trading system between the two nations. This 'compensation treaty' was regarded with great favour in Chile, and in the late nineteen-thirties the increase in German-Chilean trade was spectacular.

The influence of a German army mission once stationed in Chile is still evident in her military forces, and some of its officers undoubtedly formed a part of the Chilean minority who openly admired the efficiency of the Wehrmacht, and who expected with equanimity the success of the invincible army of 1940. German-owned business, property, and interests were liquidated in the closing years of the Second World War, but much remains under the control of naturalized Chileans of German origin.

Spain. With Spain, the links, historically, linguistically, racially, culturally, and in the religious sphere are obvious, but Chile here also differs considerably from some other Latin American nations. A large number of her original Spanish inhabitants were Basques, and of distinctly independent characteristics; the population has not been reinforced bylarge numbers of new Catholic immigrants as in Argentina; and the very small number of pure Spanish stock remaining is a contrast to the position in Peru. The bond of 'Hispanidad' is, therefore, less stressed than in the case of those two countries, and, since the Spanish Civil War, sympathy with Spain in a Dictator's control has weakened even more. The democratic alinement of Chile with the Republican cause was undoubtedly a majority sentiment, and this was strengthened by large numbers of refugees who came to Chile in the late nineteen-

[1] It is unfortunate that this common tradition and link, of which Chileans are intensely proud, was not strengthened by Chile's suggested acquisition of H.M.S. *Ajax* of the River Plate action, in preference to her end in the ship-breaker's yard.

thirties.[1] It is scarcely to be wondered at that the sight of the former mother country stricken down should have evoked pity and bewilderment. Guernica to the Basque-derived Chilean was as Plymouth to the New Englander.

Other European Countries. Relations with other European countries show contrasting points of interest. With France, the Low Countries, and other Western European nations there are cultural and commercial ties which are strong today. With Eastern Europe there have been few contacts. During the later years of the war, Chile was one of the very few Latin American nations to establish diplomatic relations with the U.S.S.R., but this period of friendly contact with the Slav States was a very brief one. In October 1947 after an interchange of communications with the Russian, Yugoslav, and Czechoslovak missions, relations between Chile and these countries were broken off,[2] the originating cause of the rupture being, according to the Chilean Foreign Office, the subversive activities of two Yugoslav diplomats[3] against the political independence and security of Chile. The break with Russia and Czechoslovakia was based on the allegation that the strikes and disturbances in the mining areas at that time had been instigated by the Communist International directed from the Soviet Union, which was thus conspiring to undermine the political independence of the republic. From this time, Chile has maintained an anti-Communist stand which has been one of the most antagonistic to Soviet policy, and which is dealt with more fully later.[4] The small Yugoslav minorities in the country are, on the whole, sympathetic to the régime in Yugoslavia, and the break with that country was, therefore, scarcely popular with them. The Tito-Cominform struggle, since, has, to some extent, mitigated the situation.

THE PAN-AMERICAN SYSTEM

Chilean support for the Pan-American system has grown largely in direct proportion to her increasing cordiality with the United

[1] Chile has maintained United Nations policy on Spain. González Videla reaffirmed in May 1950 that there would be no exchange of ambassadors with Franco Spain. Later, in November of the same year, Chile supported the U.N. revocation of the ban on diplomatic relations.

[2] An agreement to re-establish relations with Yugoslavia was signed in November 1950.

[3] Yugoslav Chargé d'Affaires in Chile, and Counsellor to the Yugoslav Legation in Buenos Aires. [4] See *United Nations*, p. 114.

States. The inception of Roosevelt's Good Neighbour policy was pivotal in this, and the state of affairs in which it was presumed that Argentina and Chile would in most Pan-American issues take a similar or parallel attitude, often in opposition to United States policy, now no longer operates.

In all recent conferences and decisions of the Pan-American nations Chile has taken a leading and co-operative position in the promotion of continental solidarity. The breakdown of the League of Nations threw the regional organization of international co-operation into greater relief, and at Mexico City, Rio de Janeiro, and Bogotá from 1945 to 1948, there was firm Chilean support of the Act of Chapúltepec and the later treaty of mutual defence. Chile prepared proposals for a Charter of the States of America, for consideration at the Bogotá meeting, which substantially agreed with the final treaty approved. This set out the principles of the solidarity of continental defence, co-ordinated with, but independent of the United Nations, and probably constituted 'the greatest success that Pan-Americanism has so far achieved'.[1]

It is Chilean leadership in the continent in an offensive against international Communism which perhaps is best known. Chile's domestic experiences in this respect resulted in her Government sponsoring a resolution at Bogotá on this matter. A most noteworthy feature of its content was the limitation of the offensive against totalitarian propaganda and tactics to democratic, constitutional methods, 'for otherwise a negation of principle would take place, and anti-democratic means would be adopted to defend democracy'. In his speech to the Organization of American States in 1950, President González Videla indicated that this anti-Communist policy had its important positive aspects of social justice to prevent the rise of Communism, and his words summarized Chilean policy succinctly:

> We must join in defence of the principles of freedom, but those principles must also contain insurance of human existence with full recognition of man's economic and social dignity. Western civilization will be defended only by creating citizens who will possess something that is worth defending. In the face of tragic reality of economic deficiency or inequality, the mere concept of political freedom appears to many as a simple rhetorical figure of speech. The countries of the American hemisphere live, in their great majority, an existence filled with fear, anguish, and

[1] Francisco Cuevas, 'The Bogotá Conference and Recent Developments in Pan-American Relations: a Mexican View'. *International Affairs*, vol. xxiv, no. 4 (London, Royal Institute of International Affairs, October 1948).

privation, an existence in which economic injustice and social dissatisfaction make them search for the road, any road that may signify a hope for better days ahead.[1]

On the colonial problem which threatened to become an important issue at Bogotá, Chile showed no attempt to embarrass the European Powers and the Chilean delegate reaffirmed his country's faith in a pacific settlement in this sphere, including that of sovereignty in Antarctica.

THE UNITED NATIONS

Although the role of Latin America in world affairs barely measures half a century, Chile has not hesitated to play her part in international co-operation. An original member of the League of Nations the republic co-operated fully in its work as long as it played an effective part in international affairs. Since the birth of the United Nations organization, Chile has taken an increasingly active part in the Assembly and in the integral bodies associated with it, especially the Economic and Social Council, and the Food and Agricultural Organization.[2]

Since 1947 when González Videla's Government mounted its anti-Communist offensive within Chile, the policy has been carried into the Councils of the United Nations, and has crystallized on two particular key issues, in which Chile's experiences as a 'victim of the practical application of the principles and methods of international Communism' formed the basis of her resistance to this 'new form of foreign aggression'.[3]

The first occasion occurred in March 1948 and referred to the Czechoslovak coup of the previous month. The petition of the permanent Czechoslovak delegate to the United Nations, asking for an investigation of the causes that brought about the destruction of the democratic regime in his country, having been refused by the Security Council on procedural grounds, the Chilean Government decided to formulate the petition on behalf of Czechoslovakia, as Article 35 of the Charter permitted. In an effective speech the Chilean delegate[4] pointed out that non-inter-

[1] *Chilean News*, no. 205. (London, The Anglo-Chilean Society, April 1950)

[2] Benjamin Cohen is Assistant Secretary-General of U.N. Dr A. Alvarez is a Judge of the International Court of Justice for nine-year period. Chile was elected a member of the Security Council for the period 1952–3.

[3] Chile supported the U.N. Security Council's actions on Korea in 1950.

[4] Dr Hernan Santa Cruz, who was also President of U.N.'s Technical Assistance Conference in 1950.

vention of the United Nations in the situation would result in the loss of its prestige and in a reduction of its future usefulness. This latter sentiment has been expressed in several official Chilean utterances, and explains Chile's support of any proposal which would restrict the use of the veto.

The other issue concerned Chile directly, and was brought before the third General Assembly of the United Nations in Paris a year later. It related to Soviet violations of basic human rights and the rules of diplomatic immunity. This embraced the general question of the refusal of the Soviet Government to allow Russian wives of foreign citizens to leave the U.S.S.R., and particularly the case of the daughter-in-law of Señor Luis Cruz Ocampo, Chilean Ambassador in Moscow until the rupture of relations by Chile.[1] The denunciation of the Soviet attitude at the General Assembly was appropriately delivered by Señor Cruz Ocampo himself, in which he likened the present Soviet régime to the pre-revolutionary Governments of Russia:

> Against this total and oppressive tyranny, which denies to the free men of our era rights which were possessed by serfs over 500 years ago, the only remedy is to denounce its acts before the Assembly of the nations of the world, in order that the moral condemnation of the civilized conscience may fall upon those responsible.

These two conspicuous examples of the efforts of Chile to play its part in the post-war organization confirm the international policy of the republic as defined by its former President, 'loyal collaboration towards the maintenance of peace, through support of the United Nations as the effective means of keeping the world free from the horror of another war'.

[1] The Soviet representatives in Santiago were held in Chile until the family of Señor Cruz Ocampo was permitted to leave Russia.

APPENDIX I

TABLES

FOREST RESOURCES, 1948

Total area of Chile	185,000,000 acres
Total area forested	40,000,000 acres
Percentage of total area forested	22 per cent
Productive forest (*a*) Broad-leaved	15,700,000 acres
(*b*) Coniferous	950,000 acres

Accessible Productive Forests (all species)

Total annual growth in volume	20,200,000 cubic metres
Total annual loss by natural causes	31,900,000 cubic metres
Average annual felling	4,900,000 cubic metres
Net annual loss	16,600,000 cubic metres

AGRICULTURAL LAND UTILIZATION, 1951

	Crop	*Acreage Cultivated*
Cereals	Wheat	2,035,000
	Oats	245,000
	Maize	140,000
	Barley	125,000
	Rice	60,000
	Rye	20,000
Leguminous Crops	Beans	195,000
	Lentils	42,000
	Peas	55,000
Other Crops	Potatoes	132,000
	Vines	100,000
	Sunflower	135,000
	Hemp and linseed	20,000
	Tobacco	9,000
Total		3,313,000

THE CHILEAN DEVELOPMENT CORPORATION

Investments effective, 31 December 1947

	Chilean pesos (000s)
National Electricity Undertaking	1,065,000
Petroleum Exploitation	212,000
Juan Soldado Cement Plant	159,000
Pacific Steel Company	99,500
Valdivia Iron and Steel Plant	64,000
Paipote Copper Refinery	50,400

THE CHILEAN DEVELOPMENT CORPORATION (*cont.*)

Agricultural Equipment Service	43,500
Chilean Laboratory Company	15,200
Cerro Negro Mining Company	15,500
Bayer Pharmaceutical Company	13,700
Radio Corporation	13,300
Transport Undertaking	15,000
Mechanical Irrigation	11,400
Minor Investments in 60 other Companies	279,500
Miscellaneous Bonds	22,400
	2,079,400
Total amount invested 1939–47 and recovered by 31 December 1947 by sale of investments	1,500,000

Total funds invested or authorized, 1950 and 1951

Chilean pesos (000s)

	1950	*1951*
Minerals	26,800	31,000
Agriculture	64,700	121,800
Industry	309,300	147,300
Commerce and Transport	97,000	151,300
Energy and Fuel	599,200	1,074,600
Total	1,097,000	1,526,000

SUMMARY ANALYSIS OF FOREIGN TRADE, 1951

EXPORTS		
		Value, 000s Pesos 6d. gold
Extractive Industry	Minerals	1,345
	Agricultural	73
	Pastoral	139
	Forestry	41
Total		1,598
Manufacturing Industry	Food	18
	Beverages	8
	Textiles	6
	Chemicals	11
	Metallurgical	159
	Various	24
Total		226
EXPORTS TOTAL		1,824

SUMMARY ANALYSIS OF FOREIGN TRADE, 1951 (*cont.*)

IMPORTS		
		Value, ooos Pesos 6d. gold
Extractive Industry	Minerals	146
	Agricultural	167
	Pastoral	102
	Forestry	16
Total		431
Manufacturing Industry	Food	122
	Textiles	84
	Chemicals	253
	Metallurgical	584
	Various	119
Total		1,162
IMPORTS TOTAL		1,593

PRE-WAR AND POST-WAR DIRECTION OF FOREIGN TRADE

	Percentages of total		
	1937	1946	1951
Exports to:			
Continental Europe	37	25	23
United Kingdom	24	11	6
U.S.A.	28	45	51
Latin America	5	15	16
Other Countries	6	4	4
Imports from:			
Continental Europe	36	6	16
United Kingdom	11	6	7
U.S.A.	29	40	55
Latin America	16	42	20
Other Countries	8	6	2

APPENDIX II

CHILEAN PUBLIC INSTITUTIONS AND GOVERNMENT AGENCIES REFERRED TO IN TEXT

Banco Central de Chile	Central Bank of Chile.
Caja de Crédito Agrario	Agricultural Credit Fund; grants loans for purchase of seeds and agricultural equipment.
Caja de Colonización Agricola	Agricultural Settlement Fund; entrusted with sub-division and allocation of large estates.
Caja de Crédito Minero	Mining Credit Fund; grants loans to small miners.
Caja de la Habitación Popular	People's Housing Fund; Government-built houses, sold to workers on instalment plan.
Caja Nacional de Ahorros	State Savings Bank; branches throughout Chile.
Caja Nacional de Empleados Publicos y Periodistas	Social Security Fund catering to State employees.
Caja de Previsión de Empleados Particulares	Social Security Fund catering to private employees.
Caja de Seguro Obligatorio	Compulsory Insurance Fund, catering to manual workers.
Corporación de Fomento de la Producción	Chilean Development Corporation, involving particularly the following subsidiary organizations:
1. Compañía de Acero del Pacífico	Pacific Steel Company
2. Compañía Electro-Siderurgica e Industrial de Valdivia	Valdivia Iron and Steel Company, abbreviated to ESVAL.
3. Manufacturas de Cobre	Copper Refinery, abbreviated to MADECO.
4. Empresa Nacional de Electricidad	National Electricity Undertaking, abbreviated to ENDESA.
5. Sociedad de Cemento Juan Soldado	Juan Soldado Cement Company.
Corporación de Reconstrucción y Auxilio	Reconstruction Corporation, related to Chillán earthquake area.
Corporación de Ventas de Salitre y Yodo	Nitrate and Iodine Sales Corporation.
Ferrocarriles del Estado	State Railways.
Línea Aérea Nacional	National Air Line.

GLOSSARY

Alcalde	Mayor of municipality or city.
Aprista	Member of the Alianza Popular Revolucionaria Americana, a Peruvian political movement founded by Haya de la Torre.
Bolsón	Wide, dry basins, particularly in desert zone.
Caja	Bank, or treasury; a fund financed by contributory payments, particularly in connexion with Chilean social-security schemes.
Caliche	Natural sodium nitrate as quarried, in unprocessed state.
Cordillera	Range of mountains; the Andes, in South America.
Fundo	Farm.
Hacienda	Landed property, estate, ranch.
Inquilino	Chilean agricultural labourer, usually employed on large farm-estate, under semi-feudal conditions.
Intendente	Chief administrator of a province; governor.
Mestizo	Half-breed, cross between Indian and White; in Chile, usually Spanish-Araucanian Indian mixture.
Oficina	Industrial plant concerned with extraction and processing of nitrate.
Pampa	Temperate grasslands of Atlantic Chile, similar to those of southern Argentina.
Patrón	Master, employer.
Puna	Andean plateau, with sparse vegetational cover.
Quebrada	Steep V-shaped valley, often without permanent stream.
Roto	Unskilled Chilean labourer; literally 'broken' or 'ragged' person.
Salitrera	Saltpetre or nitrate deposit; salt desert.

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