SECTION V
INTRODUCTION TO VALPARAÍSO AND SAN ANTONIO

5.1 Introduction

The ports of Valparaíso and San Antonio are both located in the V Region. Due to this fact, certain key characteristics are common to both ports.

5.2 Overview of the Chile Central Zone

Valparaíso and San Antonio's hinterland comprises mainly the V, VI, VII and Metropolitan Regions of Chile, an area also known as the Central Zone and which contains some of the most heavily populated and economically active areas of the country. Around 61 per cent. of the Chilean population live in this area and 65 per cent. of Chilean GDP was generated here in 1997. In addition, being the location of Santiago, the capital city, and Valparaíso, which is home to the Chilean Congress, the zone can be considered the political centre of the country.

The ports of Valparaíso, San Antonio and Ventanas serve the demand generated by the Central Zone. Although servicing the whole of the Central Zone, each of the three ports is located in the V Region, and as such the three are collectively known as the "Port System of the V Region".

Endowed with rich alluvial soils, a pleasant temperate climate and Andean meltwater for irrigation, the Central Zone includes Chile's chief agricultural region, ideal for cereals, fruit growing and vineyards. Its most significant feature is the fertile central valley, at its widest just 70 km, that lies between the Andean foothills and the coastal range. In addition the Central Zone includes Chile's most famous tourist resort, Viña del Mar.

With the exception of forestry, Chile's key industries are all represented in the Central Zone:

- services (financial, consultancy, insurance, etc.);
- manufacturing (concentrated in and around the major cities);
- mining (principally Andina, El Teniente and Disputada de Las Condes);
- agriculture, fruit farming, vineyards and horticulture; and
- tourism and leisure.

This zone provides large volumes of cargo for export, principally agricultural and agribusiness products and manufactured products. It is also major importer, as the most populated area of Chile and with the biggest concentration of industry in the country. Together, this makes the Central Zone the focus of domestic and foreign trade for the Chilean economy.

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Table 5.1: Summary information of Central Zone

Total area	78,412 km² (approximately 30,275 square miles) (10.4% of Chile's surface area)
Population	Approximately 8.067 million (61% of Chile's population) (Rural 10%, Urban 90%)
Population density	102.9 inhabitants/km²
Capitals of Regions	Santiago (Metropolitan) Valparaíso (V) Rancagua (VI) Talca (VII)
Other important cities	Viña del Mar, San Antonio, Quillota, San Felipe, Los Andes, San Fernando, Curicó
Principal industries	Services, food production and processing, fruit products, beverage and tobacco industries, mineral extraction
GDP 1997	US$ 47.7 billion (65 per cent. of total domestic GDP)

Source: INE

Figure 5.1: The Central Zone

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5.3 The ports of the V Region

The cargo handled through the ports for public use of the V Region (San Antonio, Valparaíso and Ventanas) accounted in 1997 for about 43.4 per cent. of total cargo handled in Chile by ports for public use, with significant amounts of exports and imports.

- Import cargoes are mainly raw materials, goods for consumption and vehicles.
- Export cargoes are mainly agricultural products, fish meal, copper, fresh fruit and wood chips.
- The volume of cabotage for domestic cargo is not significant. Most of the goods imported to Chile arrive at the ports of the V Region and are transported to Santiago and its surrounding areas by truck or rail. Principally oil and its derivative products are subject to seaside cabotage traffic. Table 5.3 shows the cabotage traffic through the ports of the V Region in 1998.

Due to the importance of the V, VI, VII and Metropolitan Region in Chile in terms of population and manufacturing, the cargo handled through public ports within the V Region has been historically the largest of Chile.

The V Region has five ports, of which only the ports of Valparaíso, San Antonio and Ventanas are for public use. The ports of Quintero and Salinas, which are privately owned ports for private use, handle mainly liquid bulk such as oil and derivative products. Accordingly, these privately-owned ports should not be considered to compete with the ports of Valparaíso, San Antonio and Ventanas.

The throughput handled in 1998 by all the ports of the V Region was as follows:

Table 5.2: Total throughput in the V Region in 1998 (tonnes)

Port	Containerised cargo	General cargo	Liquid Bulk	Solid Bulk	Total
San Antonio	3,946,874	940,803	212,179	2,259,368	7,359,224
Quintero	-	-	na	-	na
Valparaíso	2,719,638	1,900,338	-	-	4,619,976
Ventanas (*)	-	75,636	260,783	1,076,059	1,412,478
Salinas	-	-	692,397	-	692,397
Total	**6,666,512**	**2,916,777**	**1,165,359****	**3,335,427**	**14,084,075****

Source: San Antonio Port Company, Valparaíso Port Company, Puerto Ventanas S.A. and DIRECTEMAR
(*) Throughput of Ventanas not including the coal imported by GENER, which represents a captive demand (1,064,221 tonnes in 1998)
(**)Totals not considering statistics of Quintero

General cargo (principally fresh products, vehicles and forestry products) and containers are mainly handled through Valparaíso and San Antonio.

Competition in handling bulk cargo has been mostly limited to the ports of Ventanas and San Antonio. In recent years, Ventanas has been achieving a larger share of the bulk market taking into consideration GENER's captive demand for coal. However, despite low investment, in 1998, San Antonio achieved the highest market share in this market compared to Ventanas (including its captive demand). San Antonio is currently the leading port for bulk cargo in the Central Zone.

Dry bulk cargoes are usually low value, high volume commodities for which storage and distribution costs can be significant.

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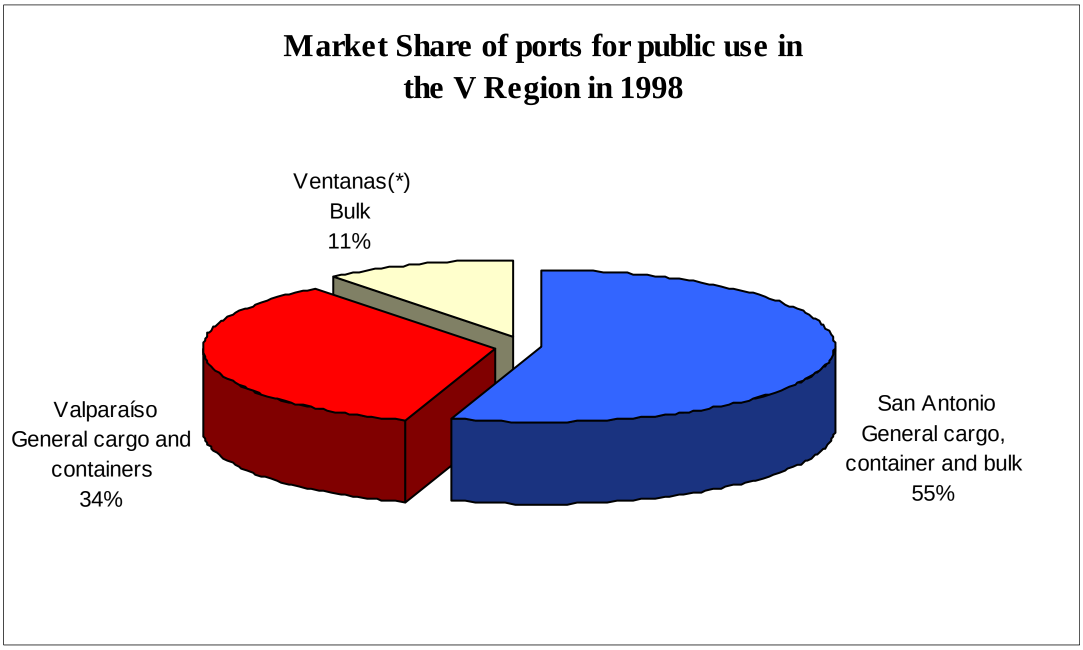
San Antonio is physically nearer than Ventanas to end-users of certain type of dry bulk cargo (such as poultry breeding farm, wheat, soda ash and salt). This may be seen to give a substantial competitive advantage to San Antonio in securing a larger share of the dry bulk market with limited additional investment.

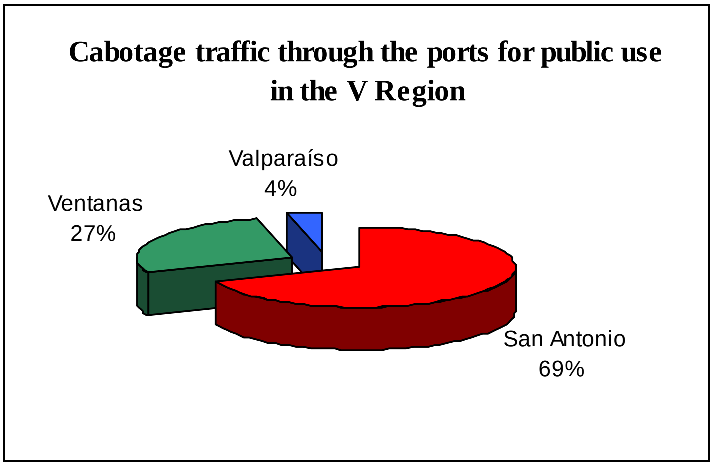


Source: Emporchi's Statistical Report, Valparaíso Port Company and DIRECTEMAR
(*) excluding GENER's coal

Table 5.3: Total cabotage traffic through the V Region in 1997 (tonnes)

Port	Cabotage Traffic
Quintero	na
San Antonio	626,288
Ventanas	249,928
Valparaíso	32,904
Salinas	na
Total	**909,120***

Source: San Antonio Port Company, Valparaíso Port Company, Puerto Ventanas S.A.
(*) Total not considering statistics of Salinas and Quintero



As was mentioned above, cabotage traffic represents a marginal amount of the cargo handled through the three public use ports (San Antonio, Valparaíso and Ventanas), whereas almost 50 per cent. of the total traffic through the port of Quintero is accounted for by cabotage, whereby oil and derivative products from southern Chile are carried to the Central Zone by ships and then discharged through the Port of Quintero.

5.4 Demand projections

The projection of demand set out below for the port system of the V Region is based on an analysis made by INECON in 1996, as part of an evaluation of the assets of the ports managed by EMPORCHI. This analysis splits the demand into two origins: the activities that are developed within the ports' hinterland and the potential transit cargo to and from Argentina.

- *Hinterland demand*

  The analysis considers that growth in cargo traffic will be in line with domestic GDP growth. Therefore, the cargo traffic is expected to reach 36.1 million tonnes in 2015, increasing 25.2 million tonnes over the period 1997-2015 and achieving a compound annual average growth of 6.5 per cent.

  It is worth mentioning that this analysis does not consider the current cargo movement of the Port of Ventanas, since these cargoes comprise captive demand such as GENER's coal and ENAMI's sulphuric acid.

  The following table sets out the INECON projection of demand by type of cargo over the period 1998-2015.

Table 5.4: Projection of demand by type of cargo in the V Region over the period 1998-2015 ('000s tonnes)

Product	1998	1999	2000	2005	2010	2015
Wheat	492	496	500	520	541	563
Corn	480	480	480	480	480	480
Copper concentrate	251	251	251	251	251	251
Other dry bulk	1,061	1,170	1,289	1,865	2,522	3,376
Dry bulk	**2,284**	**2,397**	**2,520**	**3,117**	**3,795**	**4,670**
Liquid bulk	**198**	**213**	**229**	**311**	**416**	**557**
Fruit	1,397	1,450	1,505	1,762	1,964	2,089
Vehicles	271	301	334	491	569	569
Metallic copper	668	690	698	698	698	698
Other general cargo	6,884	7,660	8,476	12,614	17,002	22,268
General cargo	**9,220**	**10,102**	**11,014**	**15,565**	**20,234**	**25,624**
Weight of containers	**1,490**	**1,684**	**1,895**	**3,003**	**4,060**	**5,277**
Total	**13,193**	**14,395**	**15,657**	**21,996**	**28,505**	**36,128**

Source: INECON

- *Argentine port demand*

  In addition, there exists potential for the V Region ports to capture containerised and fruit cargo from the Argentine province of Mendoza, San Juan, Santa Fe, Córdoba and in general all the northern and central Argentine regions, some of which is already transferred through the ports of San Antonio and Valparaíso. It is expected to reach 1 million tonnes by year 2015. This amount has not been taken into account in the table shown above.