

## **Investment Program for the Region V Port System: 1986-2000, 1985**

### Summary:

The study focused on reconstruction of the ports of Valparaíso and San Antonio, which were partially destroyed by the earthquake that affected Region V on March 3, 1985.

The most notable aspects of this work were in the methodology and the implementation. Regarding the former, while the study employed the traditional project assessment methodology, consisting of comparing the costs and benefits with and without the project, the incorporation of seismic risk was a novel addition and constitutes an interesting methodological contribution. In the seismic study, it was necessary to define a seismic scenario for the Region V Port System to determine the likelihood of large-magnitude earthquakes occurring in the area of study. The theoretical rigor employed in analyzing the seismic scenario and its effect on the costs and benefits of the port expansion projects are worth noting. Of particular note in the latter – the implementation itself – was the use of a Port Simulation Model designed to measure wait times and docking times (STAT) in each period considered in the analysis (for scenarios with and without the project), which was crucial for quantifying the social benefits. The work of calibrating the model to actual conditions and “feeding” it required several weeks of arduous effort, as it involved collecting statistical data, aligning them to the model’s requirements, and establishing exact values for numerous parameters.