

# Abstract

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## **Scenario-based forecasting of container throughput : a conceptual framework**

Container throughput is a function of maritime trade as well as other dynamic interrelated factors such as the port's competitive position, shifts in economic activity and changing resource stocks and usage. Port infrastructure investment decisions and port development plans take into account the long-term forecasts of the cargo growth at the port level. The aim of this research is to provide a decision support instrument for decision makers and stakeholders by estimating long-term forecasts of the container throughput at the port level. A problem in the long-term forecasting is the uncertainty of the explanatory variables. Therefore, scenario analysis is used to investigate the impact of different likely courses of the economic and transport trends on the container throughput future trend. \par To achieve this aim, the paper focuses to study the literature, to examine the trends, to develop a framework to build scenarios and to forecast the related container throughput. The literature review indicates that further research in this area will be beneficial both to the industry at the port operational level and to the policy makers concerning investment and planning decisions. In particular, it is interesting for them to see how the behaviour of the relationship between the container throughput and the economic activity changed after the financial crisis in 2008.