

Port Economics FEM11051

Case Study Ever Given – Supply Chain Questions

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Case Study Ever Given – Supply Chain

How one ship can disrupt the world's economy

Introduction

The case study is about the grounding of the Ever Given in the Suez Canal. The exercise focuses on the effects of the disruptive event on the supply chain from the perspective of the Port of Rotterdam. As a student, you are participating in the Harbour Master's team and you have to inform and advice Roger van Duin, the Harbour Master of the Port of Rotterdam, about the disruptive event. Initially, you are going to read a short introduction about your superior Roger van Duin and the department of the Harbour Master that you are part of. Then you are going through the narrative and answer the questions to provide the Harbour Master with information and recommendations.



Photographed by Bart Kuipers

Harbour Master of the Port of Rotterdam – Roger van Duin

As Harbour Master of the Port of Rotterdam, Roger van Duin wants to be the leader in efficiency while maintaining highest standards of safety. Ship turnaround time is of great importance to attract shipping lines and the corresponding trading volumes. Therefore, the department of the Harbour Master is responsible for keeping the risk of delays to shipping to a minimum. The coordination of the shipping schedules can be advanced when the whole maritime chain contributes to the improvement of the information exchange between all the maritime parties. This means that all the maritime parties, such as container terminal operators, inland terminal operators, barge and rail operators and freight forwarders, must share information with each other and with the Port of Rotterdam.

Narrative

March 23 around 7:00 am Roger van Duin, Harbour Master of the port of Rotterdam, received an urgent call about the *Ever Given* one of the largest vessels in the world. He immediately checked his dashboard for the voyage planning of the *Ever Given* and noted the ship was supposed to arrive one week from now in the Port of Rotterdam. The container handling company ECT and the Port of Rotterdam were already prepared for her arrival. However, this time the voyage planning of the *Ever Given* did not seem to go as planned...

His officers on watch told in the Harbour Coordination Centre the Harbour Master that morning that the 20.000+ TEU ship ran aground in the Suez Canal. The Harbour Master department started to reschedule the *Ever Given*. Nonetheless, the next morning it became clear that there was no prospect of when the ship would refloat again. This meant that the arrival of the *Ever Given* would inevitably be delayed, but also the arrival of other ships sailing through the Suez Canal would be delayed.

Besides this disruptive event, the international container logistics chain got already disrupted due to the COVID-19 outbreak and subsequent worldwide pandemic in the first months of 2020. The regular shipping schedule has been out of balance for months. The day before the grounding of the *Ever Given*, it seemed the tasks of planning for vessel arrival could not get any harder due to COVID-19 pandemic. Van Duin and its department had been working for months on planning and scheduling for optimal vessel arrivals considering the circumstances related to the pandemic. On top of that the Suez Canal, one of the most important transit canals in the world, was now blocked.

After three days the *Ever Given* was still not released and so the blockage in the Suez Canal remained. As a consequence, a traffic jam of vessels started to form on both sides of the Suez Canal. Roger van Duin started picturing a 'tsunami of containers' in his mind. As long as the blockage was not resolved, these ships were piling up, but once resolved would set sail and arrive in Port of Rotterdam in approximately 10 days all at the same time. The Dutch salvage company Smit Salvage/Boskalis came to the rescue and worked with the local authorities to release the ship. After six days and moving approximately 30,000 cubic meters of sand, the *Ever Given* was back afloat on 29 March 03:05 pm local time.

On the 6th of April the first ship that had been stuck behind the *Ever Given* reached the port of Rotterdam and from that moment the port of Rotterdam was expecting 8 more vessels per day to arrive on top of the regular 80 ships per day. Roger van Duin got his team together for a meeting to deliberate on how to mitigate the emerging port congestion.

Questions

Imagine yourself participating in the Harbour Master's team meeting and ask yourself the following questions.

Question 1: Effect on the Port of Rotterdam and related maritime parties

- A.** What are the possible effects of the blockage on the Suez Canal on the Port of Rotterdam?
- B.** Who would you involve from outside the Harbour Master's department to discuss?

Question 2: Prepare yourself for the tsunami of containers

- How can the port of Rotterdam and other maritime parties prepare itself when the 'tsunami of containers' is coming? Answer the question through filling in the table. The first column will be given. Then you can fill in the main task of the party and the measures that a party can take to prevent container traffic congestion.

Parties	General main task	Action (in relation to disruptive event)

Question 3: Effect on the entire supply chain

- What are the possible effects on the whole supply chain? Consider for your answer the shipping routes, the world economy, location of manufacturing suppliers and container freight rates (container prices).

Question 4: Digitalization

- How can digitalization of processes contribute to a more efficient port and a stronger competitive position? And how can digitalization contribute to handling disruptions in the supply chain more efficient, such as the Ever-Given grounding?

Question 5: Empty container problem

- The Ever Given unloaded the containers in the port of Rotterdam and eventually sailed to a ship repair yard in China without any cargo. In what way did this return voyage add to the already existing imbalance of empty containers?