



## EconoMag

### The Show that demystifies Economics Transport Economy – part 2

#### Sea Traffic

*by Max Farrington and Michael Hirsch*

Sea traffic is dominated by cargo ships, and, since the beginning of history, it has been the most efficient way of sending freight from point A to point B; whether it is by sea from London to New York, or by river from Rouen to Paris, or even across vast lakes such as Lake Huron, between Ontario and the US state of Michigan. Nowadays, marine shipping remains to be the most economic method of transporting goods around the world.

Cargo ships have been used since 1000 BC, and in their current form, these vessels coming in many shapes and sizes with steel hulls and specialized designs have been around since the 1960s, and there are thousands of them continuously plying our planet's oceans and waterways. Many cargo ships are very long and flat vessels that navigate into specially equipped ports where they are loaded by massive cranes with 20 to 40-foot long containers. These shipping containers are so commonplace that they have become an international transport unit, whether by road, rail or air, and all these different means of transport have been adapted to accommodate this standard sized steel box.

And, of course, in the past decades, the race has been on to build the biggest, longest, and largest vessel. Since 2006, the leading company in marine transport is the Danish firm Maersk, which has the largest container ship in operation. It is named the "Emma Maersk" and is 397 meters long, that's almost four football fields, longer than the Eiffel tower is tall; and it is 58 meters wide, with a capacity of 194,849 tons. At this stage of development, we seem to have reached the maximum size for such vessels because for bigger ships to be built they will require a deeper draft in the water, which would exclude them from a number of existing European ports.

Maersk employs 89,000 people all over the world and boasts revenue of 47.6 billion dollars in 2014 with 5.2 billion in profit. It was established back in 1903, and the company currently operates five core businesses and possesses the biggest fleet in the world, with 1,595 ships and petroleum platforms. The main branch of the company is Maersk Line, with a fleet of more than 600 vessels, making it the largest container shipping company in the world. The other main sectors for the Maersk Group are the building and operation of ports and their infrastructure; freight forwarding by land once containers are unloaded at their port of destination; providing drilling services to the world's leading oil companies; and crude oil shipping with a large fleet of oil tankers.

And if there are so many ships plying the seas, then there have to be enough ports to handle them! Since the beginning of the twenty-first century there have been no more debates about where the biggest port is or which country is leading in this area. China has 8 ports in the world's top 10, with Shanghai taking the top spot in 2013 with total traffic reaching 776 million

tons. Next comes Singapore with 560 million tons. The port of Rotterdam, the largest in Europe, comes in 4<sup>th</sup> in the world with 440 million tons. In 2008, Rotterdam hosted a total of 36,315 vessels, bringing in 525 million euro in revenue and a profit of 151 million, and up until 2002 it was considered the world's busiest port, and the shipping gateway to mainland Europe.

Like most modes of transport, marine shipping uses oil to move all these vessels around, and it consumes quite a lot of it! The worst accidents at sea usually involve oil tankers and oil spills in the ocean, creating catastrophic damage to marine life and coastal birds. The worst such incident in French waters was the Erika, an oil tanker that sank on the 12<sup>th</sup> of December 1999 off the coast of Brittany. The environmental damage was so devastating that an estimated 150- to 300,000 sea birds perished and 400km of coastline was ruined by the 'black tide'. An investigation was conducted to decide who should be to blame, and in 2012, the French companies Total and RINA, as well as the ship's owner and its handler were found guilty of causing the disaster.