Blue economy growth: the role of the transport sector

Elisabetta Venezia
Department of Economics and Finance
University of Bari Aldo Moro, Bari, Italy

elisabetta.venezia@uniba.it

AGENDA

- Literature review on maritime transport and on Blue Economy growth
- Focus on the socio-economic and environmental aspects
- Presentation of the results of the econometric estimations
- Focus on the relevance of maritime transport for the economy, society and environment
- Conclusions.

Literature review

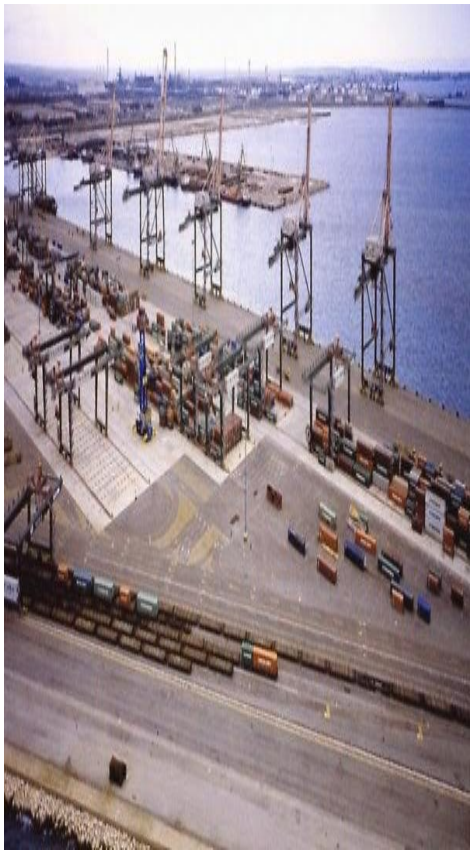
- "Blue Economy for Sustainable Coastal Development" is a concept of more innovative technologies applications
- Pollution can be controlled by applying zero-waste technology, "3 R" (Reduce, Reuse and Recycle) technology
- Spatial planning (Zoning) is required
- Cross-sectorial consultation and Integrated Coastal Zone Management (ICZM) are needed

Econometric evaluation

- Evaluating the socio-economic importance of marine and coastal activities has been a challenge
- When examining maritime transport within the context of 'Blue Economy', both the operations at sea and port operations should be considered
- This approach is in line with the Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean.

Econometric evaluation

- Econometric evaluation considers an Italian area and, particularly, all Apulian ports, over the period 1998-2018.
- It measures percentage of high-tech of export which are considered as a dependent variable. It may be affected by the adoption of "Blue economy system" and some other crucial variables presented in the following equation.



Econometric evaluation

$$TECH_{it} = \alpha + \beta 1\ Ln(POP_{it}) + \beta 2\ Ln(GNI_{it}) + \beta 3\ END_{it} + \beta 4\ BE_{it} + \varepsilon_{it}$$

- Where:
- TECH measures percentage of high-tech of exports;
- POP is the population;
- GNI is per capita gross national income;
- END measures transport infrastructures endowment;
- BE is a dichotomous variable that takes the value of one if the port can be considered in a Blue Economy context;
- ε is the error term
- i denotes port, t year, Ln natural logarithm.

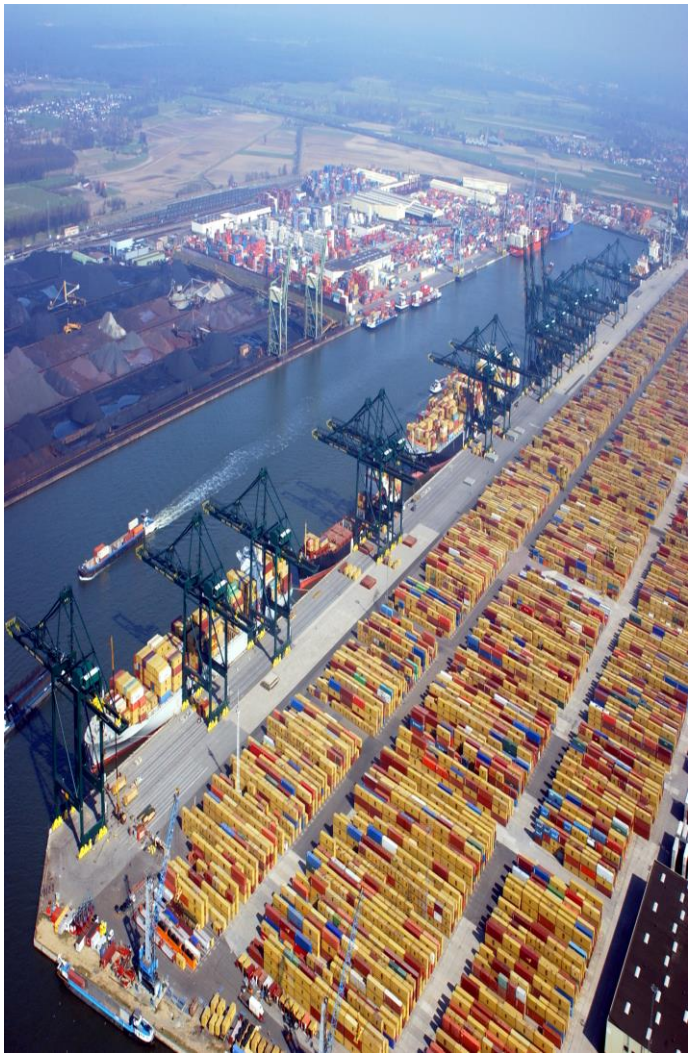
Econometric evaluation - results

Results stemming from the empirical analysis of this paper show that transport infrastructure investment acts as a complementary measure in addition to other important conditions, which must be met if further economic development (both in terms of GDP and occupation) is to take place.

	TECH
ln(POP)	1.07 (0.52)***
ln(GNI)	1.99 (0.84)***
ln (END)	0.75 (1.29)***
BE	1.35 (3.77)***
Constant	-27.66 (11.36)*
R squared	0.87
N	180
	*p<0.05; **p<0.01; ***p<0.15

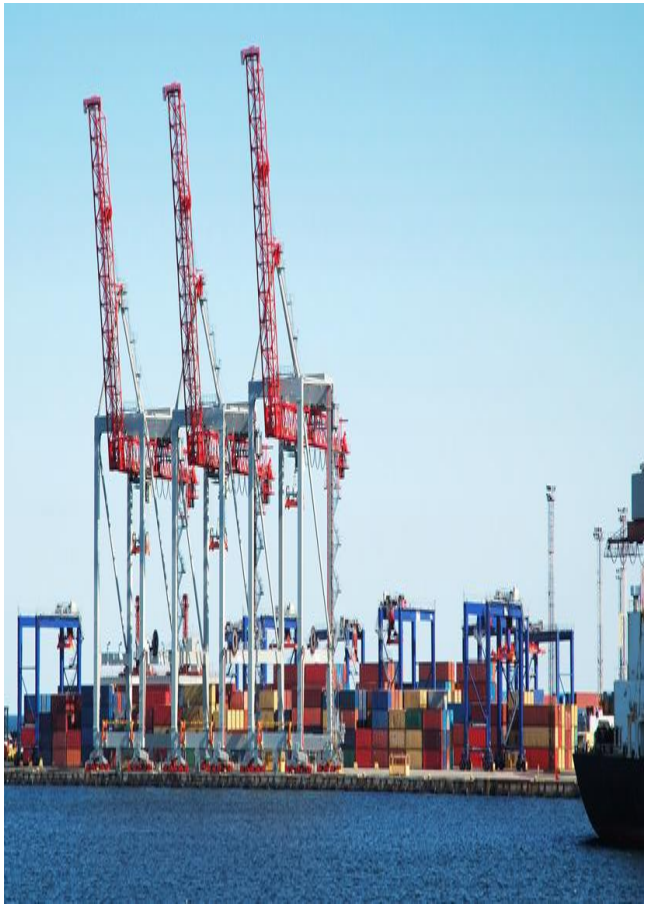
Contributions

- As indicated by the literature, additional transport investment is not a necessary condition, but acts in a supporting role when other factors are at work.
- There are elements, such as technological innovations, which can support welfare.
- In general, transport development serves as a growth supporter and not as a growth generator.
- Results of the analysis supplied in this paper suggest that it is rather better to improve existing infrastructures or to adequate them to the market needs, which require important dredging and/or construction of new ones port works to support these trade exchanges.
- Other important investments are linked to a more pressing use of technology.



Conclusions

- This study provides the governments with baseline information on the economic contribution from the ports for local port investment, planning and protection strategies.
- This study develops a range of information that can be used by marine policy-makers, politicians, lobbyists, industries and non-government organisations with Blue Economy perspective mandates.



Conclusions

Shipping is the most effective modal of international transport for most commodities, being economical and reliable to an extent that greatly facilitates trade and helps create prosperity between peoples and nations.

Essential as they are, growing lengths and draughts are constantly requiring more maneuvering spaces and deeper channels, and thus a greater dredging effort.

These investments are required to face new market requirements in a globalisation view.