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Paradoxes of Maritime Transport and Shipbuilding Statistics

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Statistics - purpose

The term „statistics” initially meant the collection of data about the condition/characteristics of the state/country.

However, due to rapidly developing industry and economy the basic data became insufficient.

Hence, the improvement of data collection, description and analysis is gaining ever more importance.

Statistics turned into a science, technology and art of extracting information from data

Statistics based on data and publications Should simplify the description of mechanisms, mirroring the data in reliable and clear way.

Statistical data

Do statistical data describe the world or create new/virtual reality?

Manipulation over statistical data can prove any „a priori" formulated thesis.

Data never (nearly never) are ready provided – they have to be collected, analysed and concluded and should be from reliable source.

Lack of critisism on data may have strange, misleading or absurd result.

„average" indicator is overused

For example growth dynamics has to be related to starting point (see: container throughput) or variety of data (average tonnage of 30+40+50 thous dwt is 40, i.e. similar to 40+40+40 thous dwt) or % should be carefully interpreted (+10% for 1 thous TEU fleet is less than +2% for 10 thous fleet)

Data incomplete - example

The casualty statistics (constructive total loses - CTL):

in 2004 - 1,5 (0,15%) per 1000 ships in operation,

in 2009 - 2,0 (0,2%)

Increase? But according to Alianz Global Corporate & Specialty there is decreasing tendency. Alianz uses IHS Fairplay/Lloyd's Register and/or Lloyd's List Inteligence Casualty Statistics (LLICS). The companies aply different methods of analysis – for example: for IHS the year end is 31 Dec.

and for LLICS 25 Nov.

According to Alianz, the LLISC during XI 2006 – XI 2007 recorded 172 (CTL) and similar number, i.e. 173 recorded IHS Fairplay for 2007 published in 2009. However publication from 2012 shows 204 CTL in 2007 (+18%).

Comparison for 2006 shows +20% difference (from 144 to 173; according to LLISC – 149). For 2004 the correction (7-th i a row) in 2012 is from 133 to 136.

The problem is in statistical delay, (up to 10 years negotiations between shipowner and insurrance company).

The LLISC data for 2004 were higher than those of IHS Fairplay, probably due to data collection method (LLISC include also units without propulsion - 3 barges in 2003).

Shipbuilding – output indicators

Deliveries:	CSO	L/F	Shipyards data:	
Number	15	40	GS	1 hull (Norway)
Thous GT	84,8	77	RSY	4 pass/car ferries (Norway)
Thous CGT	134		Crist	8 (fishing, seismic, pontoons)
				- partly fitted hulls

Selected shipyards output and indicators 2007

Country/ yards	GT (mill.)	CGT (mill.)	Value (bill. Euro)	Direct employment (thous)	GT-CGT/1 employee	Value thous Euro/ 1employee	Value 1GT-CGT in Euro
Korea	18,6	9,5	14,1	45	413-211	313	760-1480
CESA	6	5,5	15,2	88	68-62	172	2530-2820
Aker Yards	1,1	1,2	4,2	21	52-57	200	3820-3500
Poland	0,53	0,39	0,58	13	41-30	45	1100-1490
Denmark	0,86	0,35	0,7	3	287-117	233	814-2000

Source: Capt. M. Błuś, calculations based on CESA and Coshipa reports

Other ships built in 2012: sea-going yachts 538 (47 mill Э), hulls 31 (50 mill Э), Motor boats 411 (5,5 mill Э), other incl. Lighters,floating cranes, fire floating 4 (21 mill Э).

Shipbuilding – employment

Shipbuilding and shipyards traditionally played important role as employment industry in the coastal areas.

For example in Poland in 2011 there were nearly 30 thous. people emploed in shipbuilding and shiprepair industry (CSO data). Depending on the source of information the number of employees vary - caused by differences in definition of shipbuilding (yacht constructing enterprises not included).

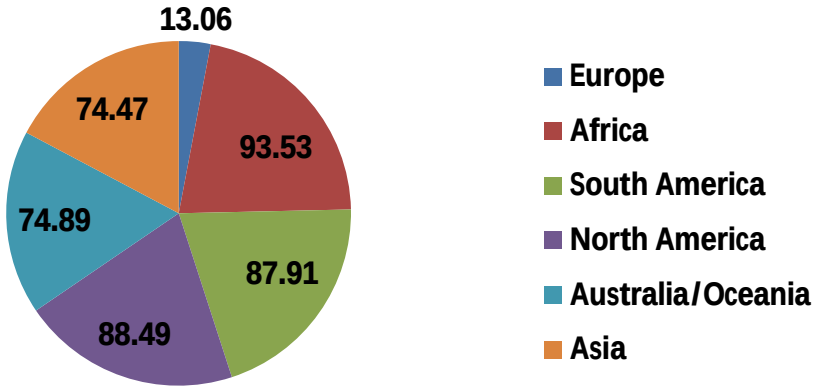
2008 according to Hart number of employees was 17 thous, while according to CSO it was 33 thousand, and according to Dajczak the total employment in shipyards, shiprepair yards and shipbuilding industrial groups and cooperating units was 80-100 thous.

In a long run there is no chance for Polish shipyards, and European as well, to produce larger tonnage and in long series independently (Asian competition).
As the recent profile of European shipyards indicates, the sector requires more flexibility and quick responce to the changes (off shore, wind mills, drilling and supply units, gas and pipe installations).

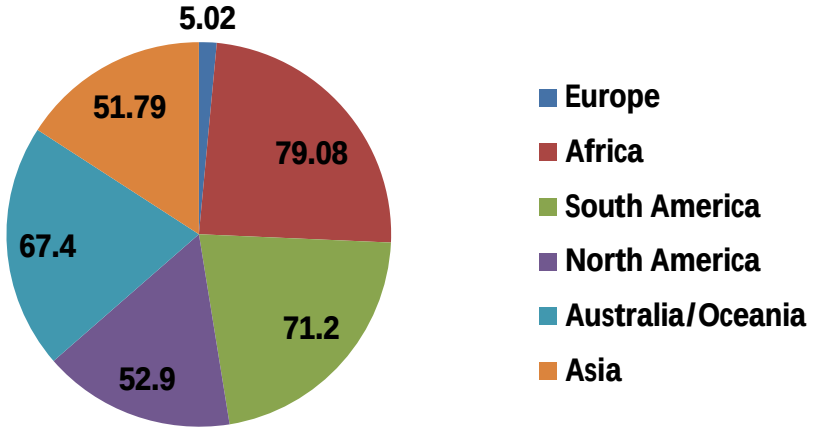
Seaborne trade – example of Polish export 2012

exports

% share of seaborne trade volume (20,1% of total 18 mill t),

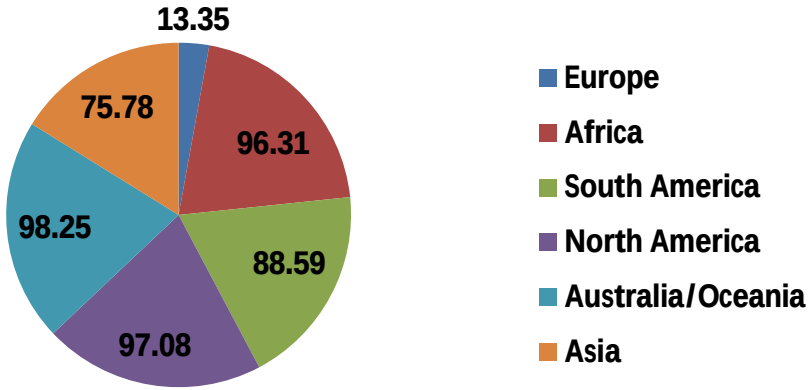


% share of seaborne trade value (10,9% of total)

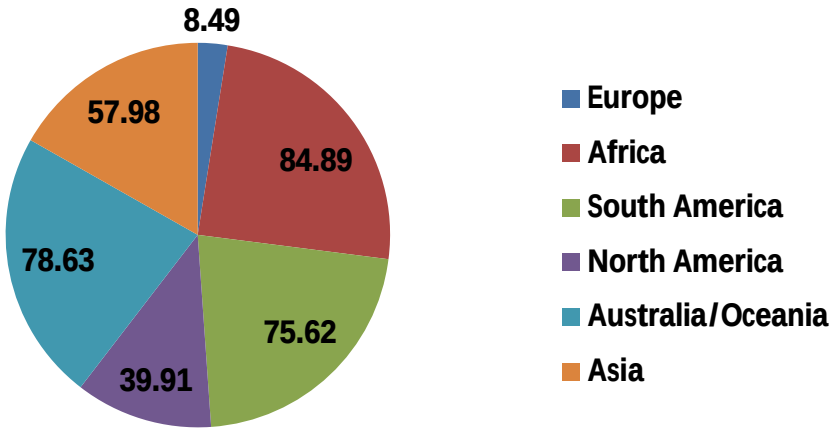


imports

% share of seaborne trade volume (19,7% of total 25 mill t)



% share of seaborne trade value (15,66% of total)



Source: database of Analysis Centre of Custom Administration.

TRANSPORT MODE - example

Exports 2012 – over 95 thous. shipments

Transport code	Transport description	Destination country(code)	Destination country (name)	Destination country (afiliation)	Product code	Product description	Region	Net volume	Statistical value PLN
1	Maritime	AT	Austria	EU	Xx	Yy	Zz	t	p
1	Maritime	BY	Belarus	?	Xx	Yy	Zz	t	p
1	Maritime	KZ	Kazakhstan	?	Xx	Yy	Zz	t	P
2	Rail	EG	Egypt	?	Xx	Yy	Zz	t	P
2	Rail	IC	Iceland	?	Xx	Yy	Zz	t	P
2	Rail	JP	Japan	?	Xx	Yy	Zz	t	P
3	Road	AR	Argentina	?	Xx	Yy	Zz	t	P
3	Road	AU	Australia	?	Xx	Yy	Zz	t	P
3	Road	US	United States	?	Xx	Yy	Zz	t	P

Imports 2012 – over 90 thous. shipments

Transport code	Transport description	Forwarders country (code)	Forwarders country (name)	Forwardes country (afiliation)	Country of origin (code)	Country of origin (name)	Afilition of origin country	Cargo code, cargo description	Statistical value
1	Maritime	CH	Switzerland	?	CN	China	?	xx	p
1	Maritime	CH	Switzerland	?	CH	Switzerland	?	xx	p
1	Maritime	NL	Netherlands	EU	IT	Italy	EU	xx	p
2	Rail	US	United States	?	MX	Mexico	?	xx	p
2	Rail	GB	Great Britain	EU	MX	Mexico	?	xx	p
2	Rail	VN	Vietnam	?	VN	Vietnam	?	xx	p
3	Road	BR	Brasil	?	BR	Beasil	?	xx	p
3	Road	UK	United Kingdom	EU	BE	Belgium	UE	xx	p
3	Road	AU	Australia	?	AU	Australia	?	xx	p

Seaborne trade – port turnover

Total: 7,5 mln tons
of which Polsteam:

0,7 mill t. publ. statistits
19,1 mill t. real performance (company data)

	Total merchant fleet	Fleet under national flag	
		UNCTAD	CSO
Number	110	172	15
GT – thous.	2 127	102	
DWT – thous.	3 049	75	28

Statistics and data interpretation

Statistical informations are often interpreted mechanically and without bothering what the statistical information represent and mean in practice

**The more statistical data are collected,
the more missunderstanding occure,
mainly due to lack of knowledge of the subject
as well as ever more complicated current economic processes
and also due to limited ability of understanding
and interpreting of data and statistical indicators.**

Worth to remember that: statistics investigate processes „en mass” – large amount of data and information (not individual cases).

Worth being aware that there are not, and will not be, any universal and ideal indicators!

Statistics not alway tell the truth

Macroeconomic data should be interpreted clearly and possible to be interpreted in most reliable way.

One can not formulate conclusions within the conjunctural cycle changing phase. Also seasonal fluctuations have to be considered in many processes.

Maritime economy should be regarded as a complex entity, which can not be evaluated and analysed only on the basis of one or two factors.

The market sometimes is balancing between depression and boom and it is not easy to point exactly the actual phase.

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