

Ship operating costs: Current and future trends

Richard Greiner, Moore Stephens LLP

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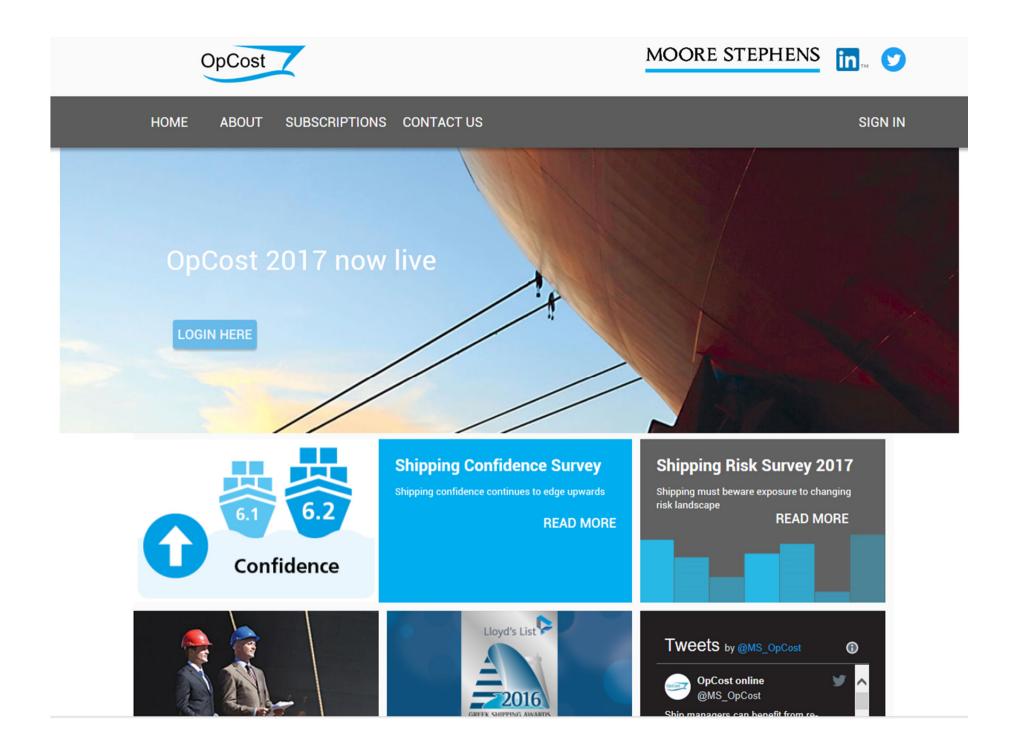
Overview



- Introduction to OpCost
- OpCost 2017 results
- Future cost trends



www.opcostonline.com



OpCost features



- Vessel operating cost benchmarking tool
- 26 vessel types: Including 4 bulker, 12 tanker and 4 container ship types
- 12 cost categories:
 - Including crew costs, stores, repairs & maintenance and insurance as well as dry-docking
- Over 3,300 vessels in OpCost 2017 database
- Exclusive to Moore Stephens

Benefits



- Assistance in improving cost control
- Backup figures in business plans
- Analysis of costs in new sectors and other ship types
- Helps to manage (and reduce) vessel operating costs

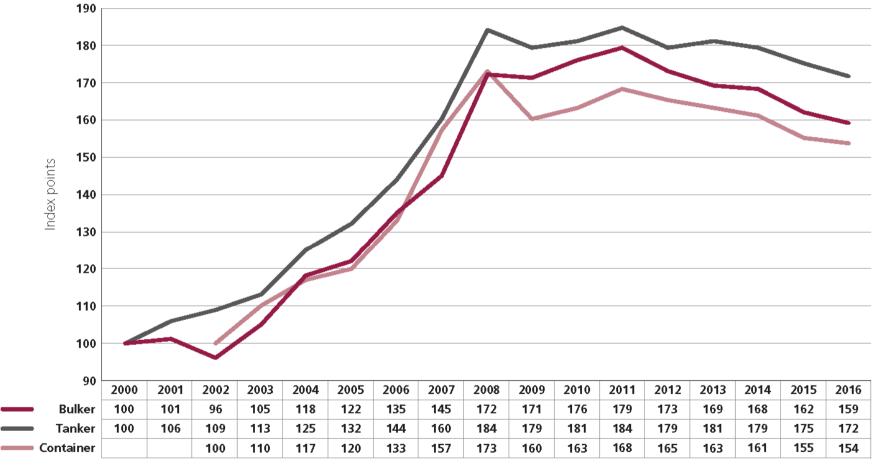
OpCost 2017 results

- OpCost indices (by sector)
- Daily running cost rates (by vessel type)
- Analysis of:
 - Crew costs
 - Stores
 - Repairs and maintenance
 - Insurance
- Drydock



OpCost indices

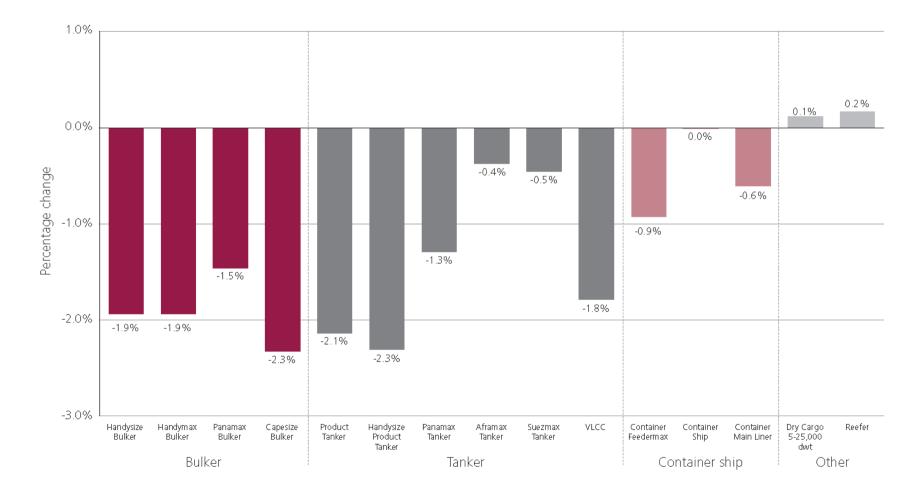




Year



Total operating costs 2015:2016



Operating costs – Bulker



	Weighted average	-1.9
Capesize	6,691	-2.3
Panamax	5,663	-1.5
Handymax	5,480	-1.9
Handysize	4,995	-1.9
	Daily Rate US\$	change (%)
	OpCost 2017	Year on year

Operating costs – Tanker



	OpCost 2017	Year on year
	Daily Rate US\$	change (%)
Product	7,433	-2.1
Handysize Product	7,557	-2.3
Panamax	8,041	-1.3
Aframax	7,832	-0.4
Suezmax	9,104	-0.5
VLCC	9,950	-1.8
	Weighted average	-1.7

Operating costs – Container ship



	Weighted average	-0.6
Main Liner (2,000-6,000 TEU)	6,830	-0.6
Container Ship (1,000-2,000 TEU)	5,172	0.0
Feedermax (100-1,000 TEU)	4,372	-0.9
	Daily Rate US\$	change (%)
	OpCost 2017	Year on year



Operating costs – Bulker

	1-7 years old	8-15 years old	16-25 years old
	Daily Rate US\$	Daily Rate US\$	Daily Rate US\$
Handysize	4,874	4,963	5,147
Handymax	5,294	5,576	5,825
Panamax	5,529	5,678	5,872
Capesize	6,554	6,853	6,989



Operating costs – Tanker

	1-7 years old	8-15 years old	16-25 years old
	Daily Rate US\$	Daily Rate US\$	Daily Rate US\$
Product	7,116	7,127	8,194
Handysize Product	7,127	7,552	8,501
Panamax	7,766	8,041	8,682
Aframax	7,488	7,940	8,306
Suezmax	8,714	9,091	9,543
VLCC	9,677	10,107	10,550

Source: Moore Stephens OpCost 2017

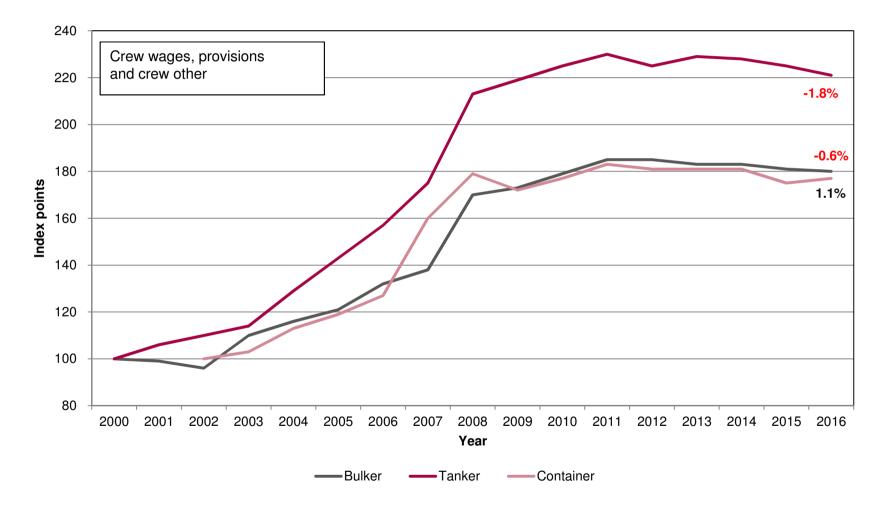
Operating costs – Container ship



	1-7 years old	8-15 years old	16-25 years old
	Daily Rate US\$	Daily Rate US\$	Daily Rate US\$
Container Ship (1,000-2,000 TEU)	5,082	5,111	5,424
Main Liner (2,000-6,000 TEU)	6,671	6,891	7,192

OpCost crew costs indices



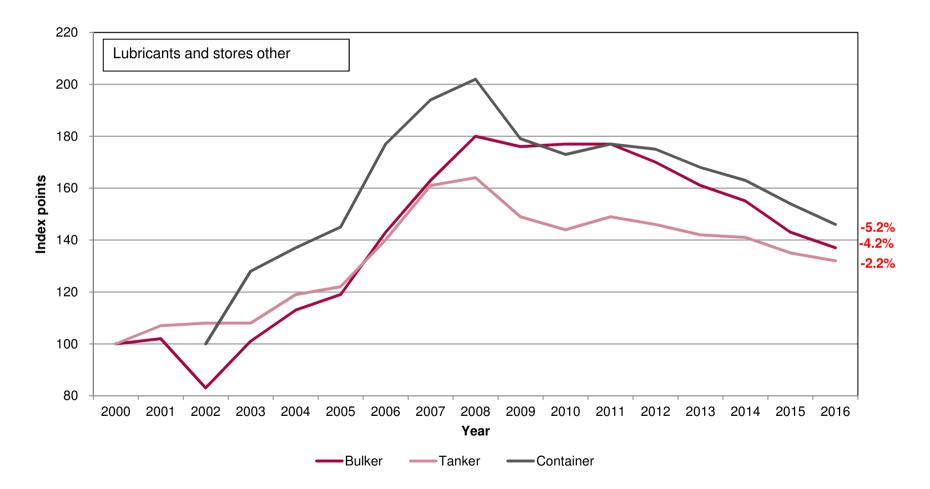


For tankers and bulkers 2000 equals 100, for containers 2002 equals 100

Source: Moore Stephens OpCost 2017

OpCost stores indices



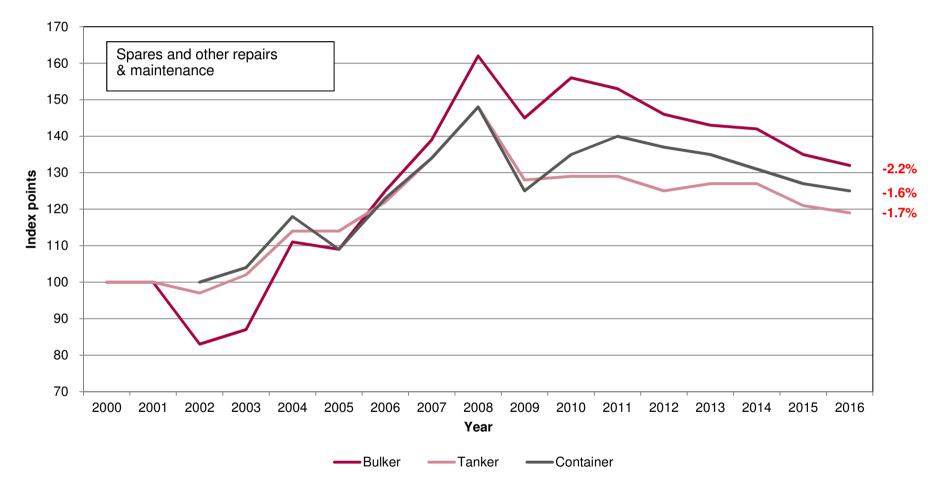


For tankers and bulkers 2000 equals 100, for containers 2002 equals 100

Source: Moore Stephens OpCost 2017

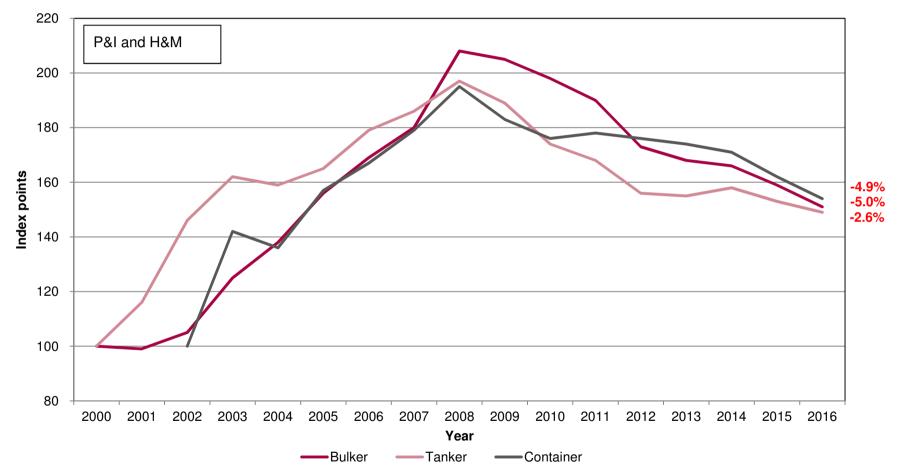
OpCost repairs & maintenance indices





OpCost insurance indices



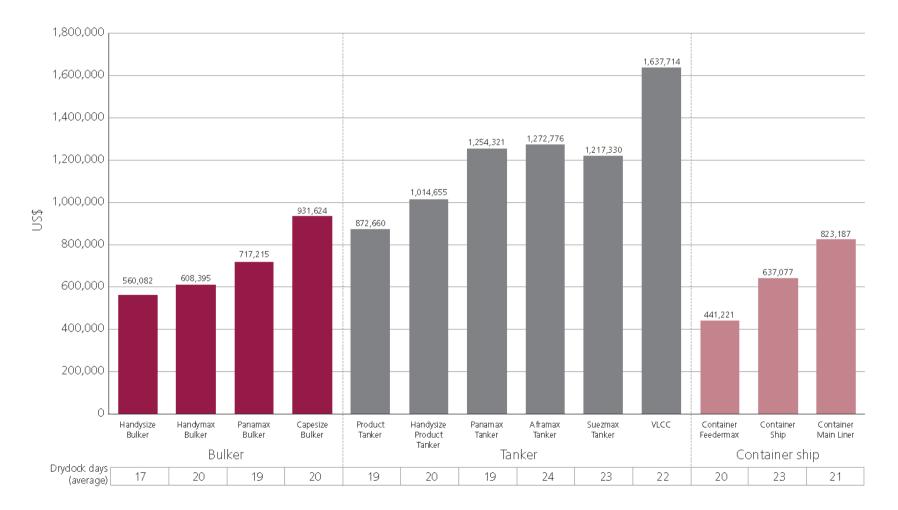


For tankers and bulkers 2000 equals 100, for containers 2002 equals 100

Source: Moore Stephens OpCost 2017

Drydock costs and duration





OpCost 2017: A summary

- OpCost 2017 annual change (%):
 - Bulker -1.9
 - Tanker -1.7
 - Container ship -0.6
- Annual average change (%):
 - Bulker 3.1
 - Tanker 3.6
 - Container ship 3.3



OpCost 2018



- To be published September 2018
- Aiming for increased participation and more vessel types
- Ideas for new features welcome

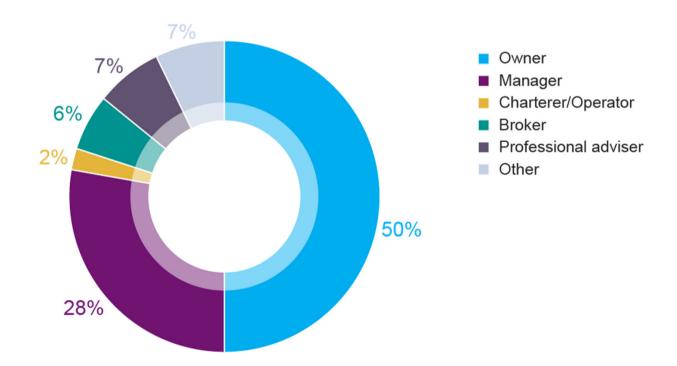
Future operating costs survey

- Respondents
- Expected cost increases
- Influencing factors



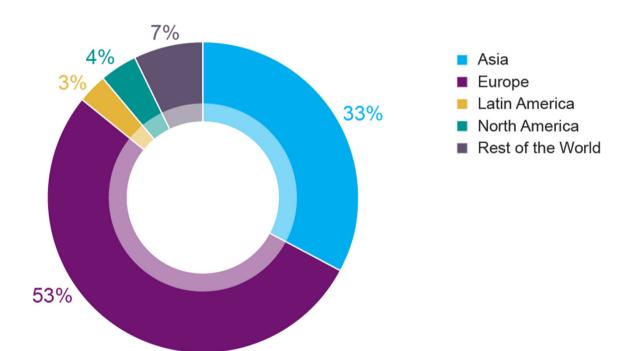
Respondents by type





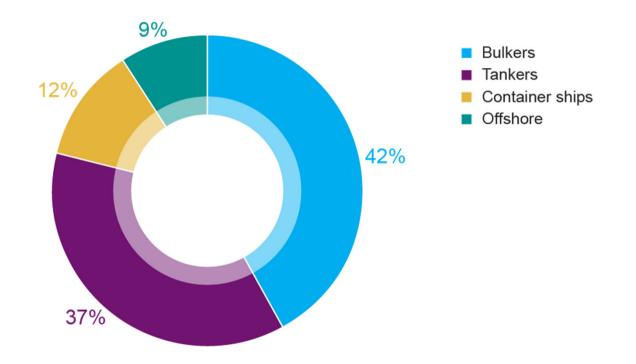
Respondents by location





Respondents by sector





Expected cost increases



	2017	2018
Overall – mean	2.1%	2.4%

Source: Moore Stephens, 2017 Future operating costs survey

Expected increases by cost type

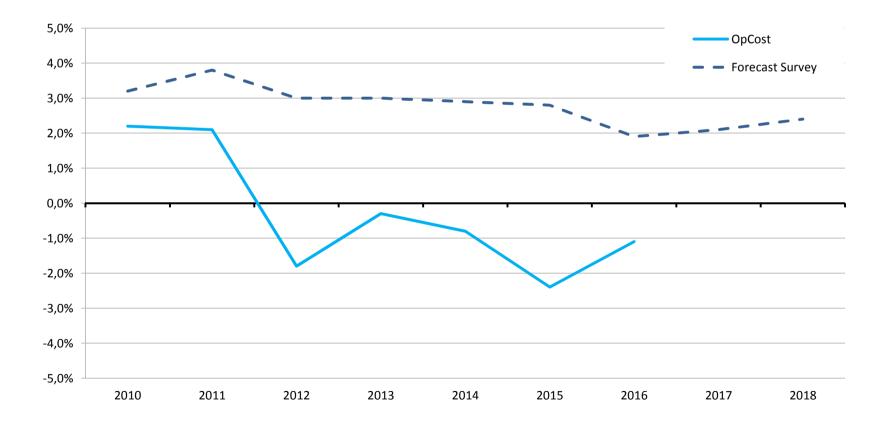


Cost type – mean	2017	2018
Crew wages	1.7%	1.7%
Other crew	1.6%	1.5%
Lubricants	1.6%	1.6%
Stores	1.5%	1.7%
Spares	2.0%	1.9%
R&M	2.0%	2.0%
H&M	0.5%	1.0%
P&I	0.7%	1.1%
Management fees	0.7%	1.0%
Drydock	1.7%	1.8%

Source: Moore Stephens, 2017 Future operating costs survey

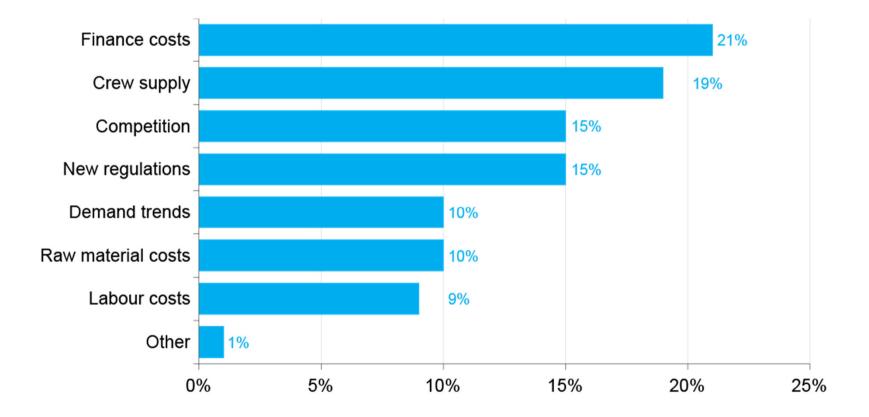
OpCost vs. Forecast survey

Percentage change in overall operating costs (y-o-y) OpCost vs. Forecast survey 1



Factors influencing operating costs





Source: Moore Stephens, 2017 Future operating costs survey



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