

Development of a strong management system



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Trouble in shipping turns ocean into scrapheap

The downturn in shipping is hitting the industry so hard that some of the world's biggest vessels are now worth little more than their scrap value, new figures show.

Source: Telegraph

INVESTING 7/10/2014 @ 11:44mj | 6,940 views

Why Is The Shipping Industry Underwater?

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Source: Forbes

The shipping industry appears to be in trouble, environmentally and financially

Source: The context of Things

Global Shipping: Any Port in a Storm?

Chinese Shipping Company Goes Bankrupt

Source: China Daily

Shipping industry feels adrift

Source: Forbes

Tanker Operator
Athens, April 2

Champagne Era is over!

Who's to Blame?

- The weak market (world trade)
- The competition

Performance for Sustainability

- Performance: The accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed.
Sustainability: Able to be maintained, to sustain itself at a certain rate or level.
- Source: Business Dictionary

Quantify the Performance

Quality of service and risk

-Key Performance Indicators such as:

- Port State Control Performance
- Vetting Performance
- Lost time Injury
- Crew retention rate
- Environmental performance
- Plan maintenance tasks performance

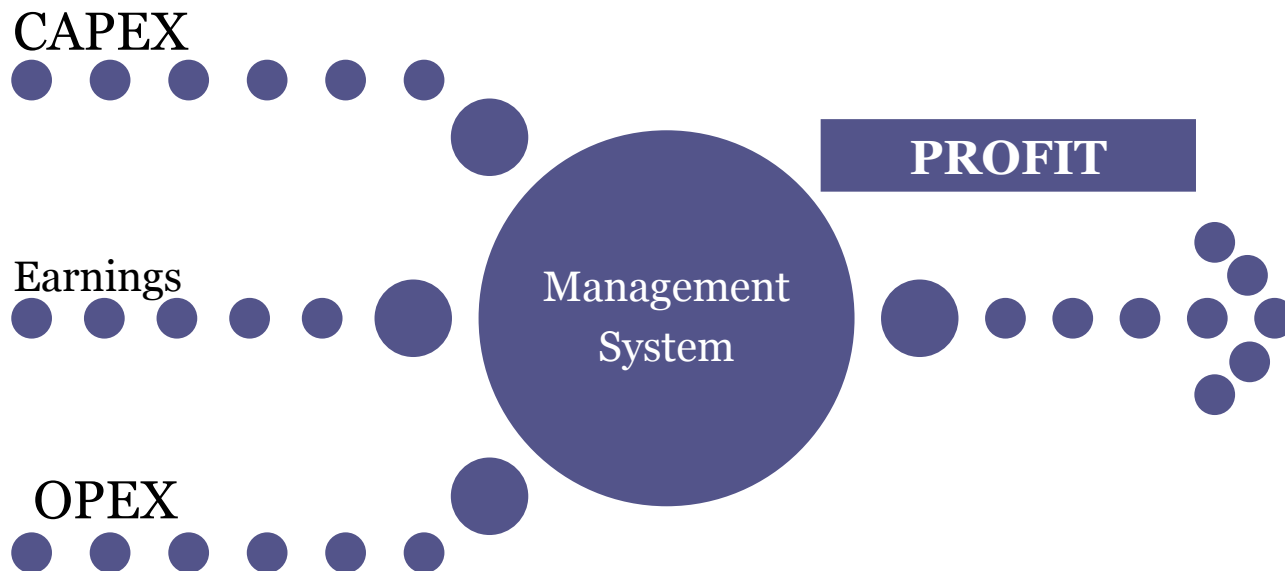
Financial Performance - Economics

-Capital Expenditure

-Earnings

-Operating Expenses

Capital, Earning, Expenses, Profit



Economics

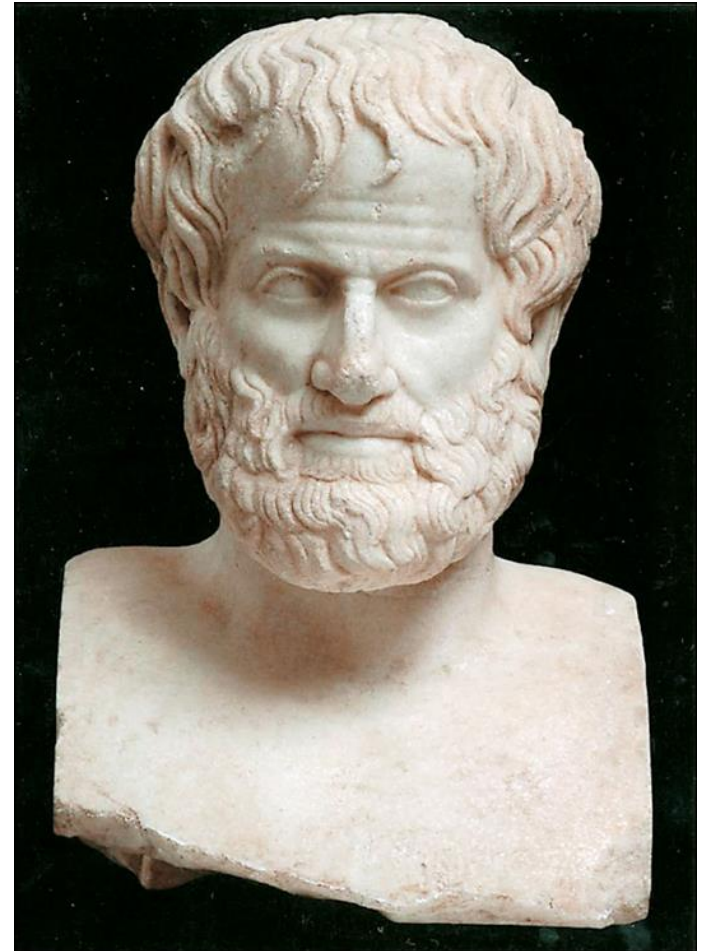
«Τὸ τὰναλώματα μὴ μείζω των
προσόδων γίνεσθαι».

Αριστοτέλης

Οικονομικός Δεύτερος 1346^a.15

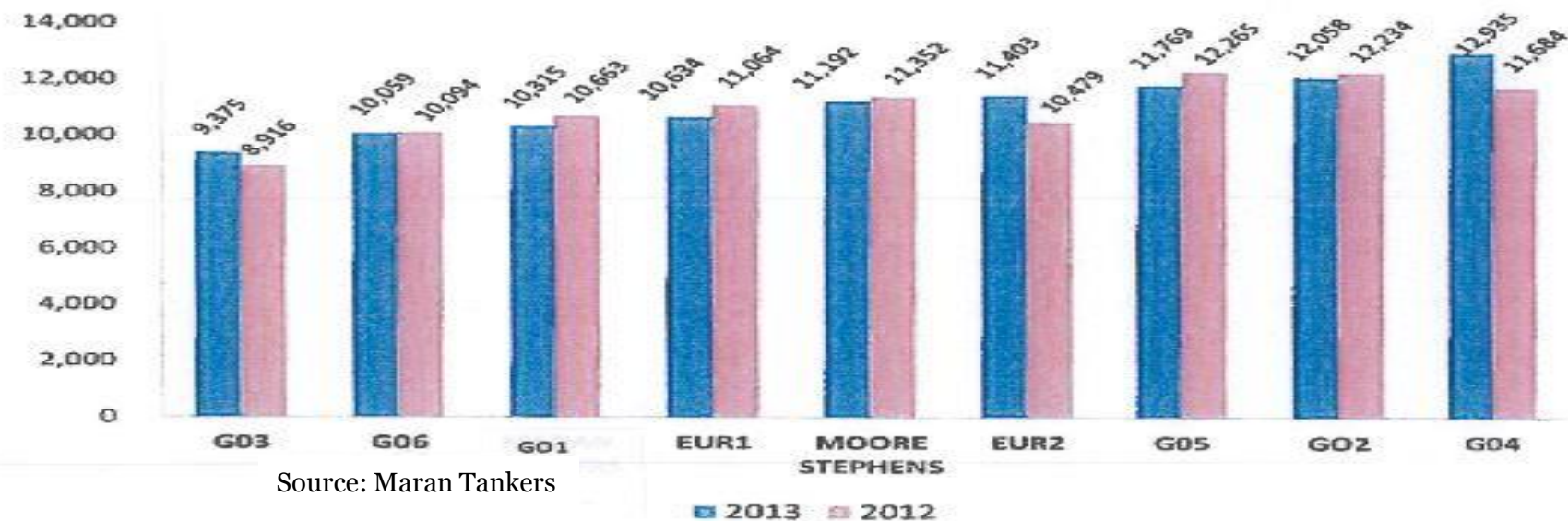
“Expenses must not
exceed revenues”

Aristotle 384-322 BC



OPEX comparison

TOTAL VLCC OPEX		2013	2012	2011	3yr change
1	G03	9,375	8,916	9,277	1%
2	G06	10,059	10,094	10,319	-3%
3	G01	10,315	10,663	10,592	-3%
4	EUR1	10,634	11,064	13,350	-20%
5	MOORE STEPHENS	11,192	11,352	11,732	-5%
6	EUR2	11,403	10,479	10,635	7%
7	G05	11,769	12,265	12,146	-3%
8	G02	12,058	12,234	12,479	-3%
9	G04	12,935	11,684	11,785	10%



Source: Maran Tankers

OPEX categories comparison

VLCC	A- company Full Year 2012	A- company Daily 2012	Moore Stephens Full Year 2012	Moore Stephens Daily 2012	Difference
Crew wages	1.811.203	4.962	1.470.091	4.028	18.83%
Provisions	130.168	356	94.558	259	27.38%
Crew other	254.749	697	233.067	639	8.44%
Crew total	2.196.120	6.016	1.797.716	4.926	18.13%
Lubricating oil	287.658	788	297.923	816	-3.54%
Stores other	157.416	431	194.789	534	-23.82%
Stores total	445.074	1.219	492.712	1.350	-10.71%
Repair & maintenance	389.260	1.066	261.953	718	32.68%
Spares	237.939	651	289.007	792	-21.49%
Repair & maintenance total	627.199	1.718	550.960	1.510	12.13%
Marine insurance	150.729	412	184.436	505	-22.29%
P&I insurance	221.647	607	214.295	587	3.33%
Insurance total	372.376	1.020	398.731	1.092	-7.04%
Registration costs	28.256	77	36.255	99	-27.89%
Sundry expenses	3.347	9	182.329	500	-5352.56%
Administration total	31.603	86	218.584	599	-591.77%
Total operating costs	3.672.375	10.061	3.458.703	9.477	5.81%

Cost cutting

Budget limits based on OPEXs comparison?

The results:

- The sources of spending are not identified.
- Cutting from wrong categories, increase the risk.
- Bias that cost control means lower quality and higher risk



Can we trust OPEX comparisons?

- Categories with different content
- Different operating routes
- Hidden numbers game
- COST – RISK connection

The benefit of analyzing OPEX

- Where we stand in comparison with others.
- Confirm actual costs against the budget.
- Confirm specific results of actions and procedures.
- Blatant mistakes.
- The initial OPEX comparison is only the beginning of the evaluation.

Hash out the costs

Crewing (42-55% of OPEX)

- Number of crew
- Wages
- Overlapping period
- Training
- Travel
- Insurance
- Manning Agency

		TANKER		2014-04-10			
Greek Flag		Greek Flag		Greek Flag		Foreign Flag	
	2014		2014		2014		2014
Master	12.000 €	Master	12.350 €	Master	12.350 €	Master	12.550 €
C/Off	9.650 €	C/Off	9.400 €	C/Off	10.000 €	C/Off	10.000 €
2/Off	6.380 €	2/Off	6.000 €	2/Off Jr	4.000 €	2/Off JR	4.000 €
2/Off Jr	3.900 €	2/Off Jr	4.000 €	2/Off	6.000 €	2/Off	6.350 €
2/Off Fill	\$ 3.950	2/Off Fill	\$ 4.200	2/Off Fill	\$ 4.150	2/Off Fill	\$ 4.350
	3.900 €						
C/Eng	11.800 €	C/Eng	12.250 €	C/Eng	12.250 €	C/Eng	12.450 €
2/Eng	9.650 €	2/Eng	9.400 €	2/Eng	9.950 €	2/Eng	9.950 €
3/Eng	6.380 €	3/Eng	6.000 €	3/Eng	6.400 €	3/Eng	6.350 €
		3/Eng Jr	4.000 €				
3/Eng Fil	\$ 3.950	3/Eng Fil	\$ 4.000	3/Eng Fil	\$ 4.150	3/Eng Fil	\$ 4.150
EI/Eng Foreign	\$ 6.500	EI/Eng Foreign	5.000 €	EI/Eng UKR	5.000 €	EI/Eng UKR	5.000 €
EI/Eng GR	5.000 €	EI/Eng GR		EI/Eng Fil	\$ 4.500	EI/Eng Fil	\$ 4.500
BSN	4.000 €	BSN		BSN		BSN	
BSN Fil		BSN Fil	\$ 1.900	BSN Fil	\$ 1.850	BSN Fil	\$ 1.850
PMN	4.600 €	PMN		PMN		PMN	
PMN Fil		PMN Fil	\$ 2.400	PMN Fil	\$ 2.400	PMN Fil	\$ 2.400
Donkeyman	3.700 €	Donkeyman		Donkeyman		Donkeyman	
Cook	4.600 €	Cook		Cook		Cook	
Cook Fil		Cook Fil	\$ 2.000	Cook Fil	\$ 2.000	Cook Fil	\$ 2.000
Cadet 1st Year	1.200 €	Cadet 1st Year	1.000 €	Cadet 1st Year	1.000 €	Cadet 1st Year	1.000 €
Cadet 2nd Year	1.650 €	Cadet 2nd Year	1.560 €	Cadet 2nd Year	1.560 €	Cadet 2nd Year	1.560 €
Apr Officer		Apr Officer	1.800 €	Apr Officer	1.800 €	Apr Officer	1.800 €
Greek Flag		Foreign Flag		Greek Flag		Foreign Flag	
	2014		2014		2014		2014
Master	12.000 €	Master	12.400 €	Master	12.100 €	Master	12.000 €
C/Off	9.350 €	C/Off	9.750 €	C/Off	9.980 €	C/Off	9.500 €
2/Off Jr	3.750 €			2/Off	6.500 €	2/Off	6.150 €
2/Off	6.250 €	2/Off		2/Off Jr	3.285 €	2/Off Jr.	3.650 €
2/Off Fill	\$ 4.000	2/Off Fill	\$ 4.000	2/Off Fill	\$ 4.200	2/Off Fill	\$ 4.200
C/Eng	11.750 €	C/Eng	12.300 €	C/Eng	11.770 €	C/Eng	11.900 €
2/Eng	9.350 €	2/Eng	9.750 €	2/Eng	9.865 €	2/Eng	9.500 €
3/Eng	6.250 €	3/Eng		3/Eng	6.370 €	3/Eng	6.150 €
3/Eng Jr	3.750 €			3/Eng Jr	3.285 €	3/Eng Jr	3.650 €
3/Eng Fil	\$ 3.500	3/Eng Fil	\$ 4.000	3/Eng Fil	\$ 4.200	3/Eng Fil	\$ 4.200
EI/Eng Foreign	5.250 €	EI/Eng Foreign	5.250 €	EI/Eng Foreign	5.200 €	EI/Eng Foreign	
EI/Eng GR		EI/Eng GR		EI/Eng GR		EI/Eng GR	7.000 €
				EI/Eng Fil	\$ 4.600		
BSN		BSN		BSN	5.255 €	BSN	
BSN Fil	ITF	BSN Fil	ITF	BSN Fil	\$ 2.188	BSN Fil	\$ 2.300
PMN		PMN		PMN		PMN	
PMN Fil	ITF	PMN Fil	ITF	PMN Fil	\$ 2.188	PMN Fil	\$ 2.300
Donkeyman		Donkeyman		Donkeyman		Donkeyman	
Cook	4.100 €	Cook	4.100 €	Cook		Cook	
Cook Fil		Cook Fil		Cook Fil	\$ 2.350	Cook Fil	\$ 3.200
Cadet 1st Year	1.300 €	Cadet 1st Year		Cadet 1st Year	1.500 €	Cadet 1st Year	1.500 €
Cadet 2nd Year	1.900 €	Cadet 2nd Year		Cadet 2nd Year	1.500 €	Cadet 2nd Year	1.500 €

Nickels and Dimes

- Allotment handling fee : 20 USD
- Communication charge : 5 USD
- Documentation fee: 25 USD

• USD $20+5+25=50$

x 22 crew x 3 times x 20 ships = **66,000 USD !!**

Repairs & Maintenance

10-15% of the OPEX(of which 4-9% for spares)

Maintenance works carried out by subcontractors (VLCC 10 years)			
TYPE	NUMBER OF WORKS	TOTAL COST (\$)	DAILY COST (\$)
SCHEDULED	8	38,647	105
UNSCHEDULED	2	60,151	164
UNSCH. ELECTRONICS	4	15,461	42
YEARLY TOTAL	14	114,258	313

- **Spare parts cost:** List of Critical equipment, list of critical parts, genuine parts policy, purchasing procedures, forwarding.
- **Plan maintenance:** makers recommendations or performance monitoring.

Lubricants (7-9% of OPEX)

BN70 Cylinder Oil, price in USD per 100 Liters (2013- 2014)						
Supplier/Port	Singapore	Galveston	Marseilles	Yokaichi	Santos	Yearly cost difference between supply ports for VLCC (120,000ltrs)
A.	154.50	170.50	194.50	210.50	319.00	197,400 USD
B.	159.17	197.17	181.17	234.17	225.17	90,000 USD
C.	166.56	182.24	200.23	240.33	272.44	105,880 USD
Yearly cost difference between suppliers for VLCC (120,000ltrs)	14,472 USD	32,004 USD	22,872 USD	35,796 USD	112,596 USD	

- **Adjusting Feed rate**

VLCC with MCR: 31640 kW

With Feed Rate 0.90 g/kWh Cyl. oil consumption: 642 liters/day (at 85% of MCR)

With Feed Rate 0.95 g/kWh Cyl. oil consumption: 680 liters/day (at 85% of MCR)

Feed rate difference of 0.05 g/kWh : 38 ltrs/day, 60.8 USD per day, 13,376 USD/Year

- **Feed rate optimization**

The feed rate adjustment following a Cylinder Condition monitoring Program.

VLCC results: actual Cyl. Oil consumption reduction 4.2% , **saving 8,100 USD/year**

(Cyl. oil price: 1.6 USD/liter – Singapore price)

Class Expenses

- Scheduled surveys
- Unscheduled surveys
- Travelling expenses
- Overtime

5 years Fee Agreements

Agreements for VLCC for the period 5-10 years age			
	5 year fee	Annual fee	Terms and Conditions
Vessel A	113,400 USD	22,680 USD	Standard terms and conditions. Overtime and traveling time are not included.
Vessel B	163,200 USD	32,640 USD	The fee covers overtime and traveling time.
Vessel C	63,600 USD	12,720 USD	The agreement is applicable only to a specific port!

Voyage Planning

Optimize route, speed, trim,
but **also**

- Agents
- Works carried out by subcontractors
- Spare parts delivery
- Crew exchange
- S/E Attendances
- Car transportation
- Launch transportation
- Hotel Accommodation



Agreements with local service providers to be considered

Launch cost: **800 USD** paid through Agent.
280 USD paid cash.

Dry-dock cost

▶	DRY-DOCK	2013	% DIFF 1ST	2012	%
1	G05	286	0%	230	24%
2	G03	658	130%	930	-29%
3	G06	964	237%	930	4%
4	G07	964	237%	502	92%
5	G01	964	237%	396	143%
6	MOORE STEPHENS	964	237%	930	4%
7	G08	964	237%	502	92%
8	G02	964	238%	930	4%
9	G09	1,073	276%	328	227%
10	G04	1,093	283%	1,093	0%

Source: Maran Tankers

- Dry-docking frequency, Preparation, Specification, Yard, Subcontractors.

Dry-dock cost

- The dry-dock jobs are part of the Maintenance Plan.
- Crew tasks through the management period.
- **Anchor chains replacement**
 - Cost of new anchor chains 127 U3 (26 lengths) **257,400 USD**
 - Cost of building spec. upgrade, chain/windlasses **≈30,000 USD**
- **Planning ship's life**
 - New building specification upgrade.
 - Investing in new Technologies.

Stringent Accounting

- Budget preparation & approval
- Job orders
- Confirmation of the Job
- Invoices approval
- Payments

Cost Center	Annual Budget	Present Cost	Pending Orders
C-01	\$\$	\$\$	\$\$
C-02	\$\$	\$\$	\$\$
C-03	\$\$	\$\$	\$\$
.....			

From the black sheep's mouth

- Cost reduction does not always mean increased Risk.
- Higher OPEX – Higher Quality? Not necessarily.
- Nickels and Dimes matter.
- Cost control means create, evaluate, redefine procedures. Limiting the budget can only resolve temporarily problems of insolvency.



From the black sheep's mouth

- Information from the industry.
- Planning ship's life.
- Evaluate new technologies.
- Thinking twice before spending.
Analyze the impact of the decisions
on different cost categories.



Management Systems and Tools for sustainability

- David and Goliath



The proper tools and **skills** for the development of a strong management system.

Healthy Management System

As good check-up results show excellent health, so good KPIs and OPEX results guarantee sustainability and long-term profit.



Thank you for your attention