Gersemi Research

08 February 2018

Independence & Integrity

$f(\lambda) = a_0 + \beta_1 \lambda^{\tau}, R^2 \approx 1$

We have never been so positive towards all our covered segments. We see 109% return over the next year in our optimized portfolio

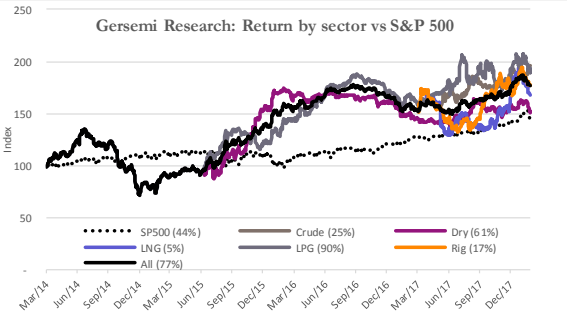
2018: Firing on all Cylinders

Never before have we been so optimistic across all sub-segments of the shipping/oil service sectors simultaneously as we now are for 2018. All segments have either just entered the expansionary phase of the business cycle, or will experience the inflection point in 2018. Thus, we find ourselves in an extraordinary situation where a potential 109% return over the next year is being dependent on careful capital allocation. In this report, we outline our top picks for 2018 in terms of timing, segments and shares, focusing on maximizing return/risk.

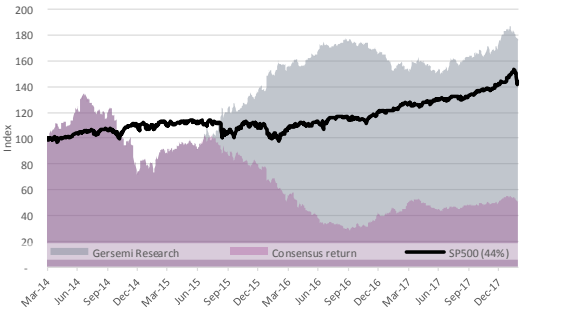
Key opportunities: We have short- & long-term BUY recommendations on Dry Bulk, LNG Carriers, LPG Carriers and Rig, while we have a short-term HOLD on Oil Tankers. The latter is a tough call as we also see the largest upside in this segment over a one-year horizon. We believe Oil Tanker shares will be weak in 1H18, creating opportunity to accumulate shares ahead of the cyclical inflection point in mid-'18.

Key concerns: As we began preparing this report in late January, our main concerns where: 1) A broad market correction/crash, 2) a significant decline in oil prices (negative for Oil Services, LNG & LPG) and 3) a significant uptick in newbuild contracting. As of today, our first concern is under development and #2 still hangs in the balance. Turmoil in the equity markets is an unfortunately part of the life of an investor, but can also be used opportunistically to rebalance the portfolio. Although not immune against broad share index movements, our universe has rather low correlations to index ranging from 0.21 (LPG Carriers) to 0.61 (LNG Carriers).

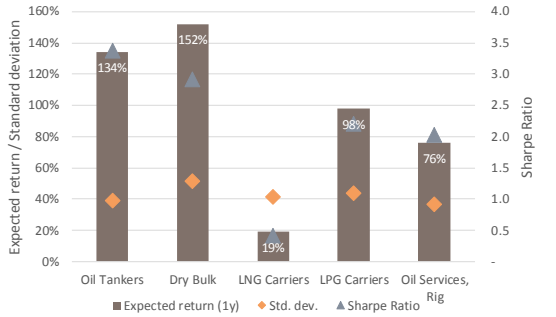
Sector share prices



GR performance vs consensus



Segment overview



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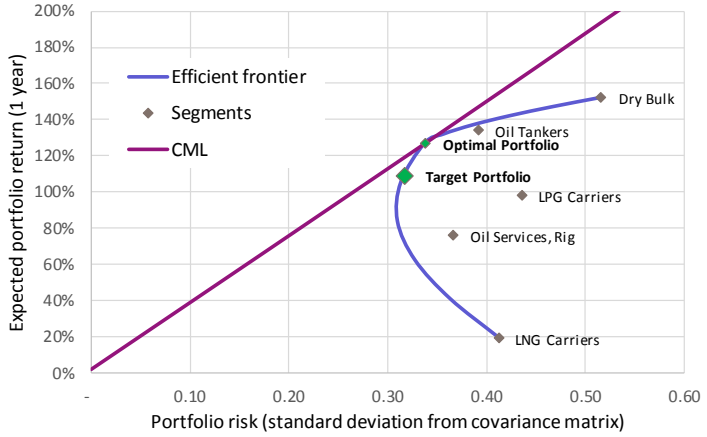
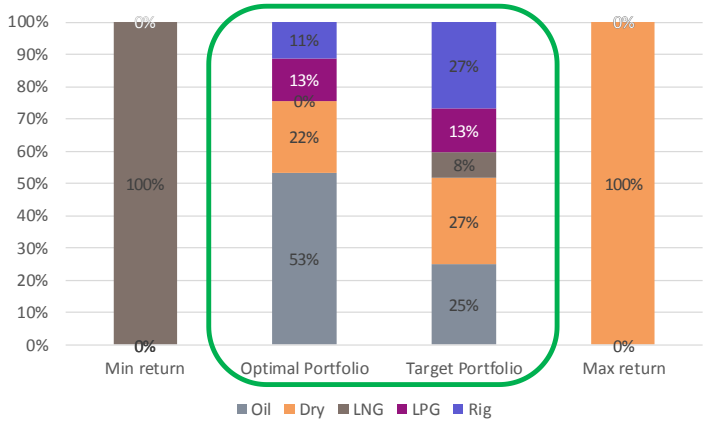
Portfolio optimization



Portfolio allocation between segments



Source: Gersemi Research, Bloomberg, company data

Disclaimer: The publisher currently has investments in some of the companies covered in this report. More disclaimers at the end of this document

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Segment details toward the end of this document:

Dry Bulk
LNG Carriers
LPG Carriers
Oil Tankers
Oil Services, Rig

Disclaimers

Our Universe at a Glance: Portfolio Allocation

Portfolio Allocation 2018

	Return (1y)	Buy/Sell	Allocation
Dry Bulk	152%	Now→mid'18	26.7%
LNG Carriers	19%	Now	8.0%
LPG Carriers	98%	Now	13.4%
Oil Tankers	134%	1H18	25.0%
Rig	76%	Now	26.9%
SUM	109%		100%

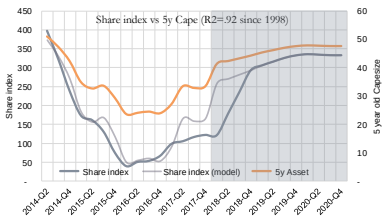
Dry Bulk

Rec. (3m/1y): Buy / Buy

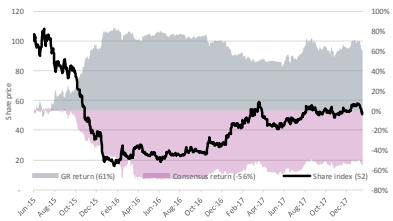
Company highlights

	TP	vs P	P/NAV	ε	P/E '18
GNK	26	+110%	0.76	0.16	7.4
SBLK	21	+100%	0.98	0.23	5.1
DSX	6.7	+96%	0.72	0.18	12

Cycle



RoI: GR vs consensus



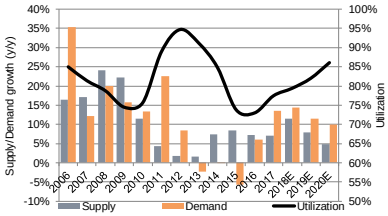
LNG Carriers

Rec. (3m/1y): Buy / Buy

Company highlights

	TP	vs P	P/NAV	ε	P/E '18
FLNG	16	+46%	0.98	0.23	17

Cycle



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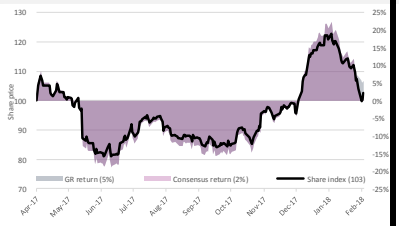


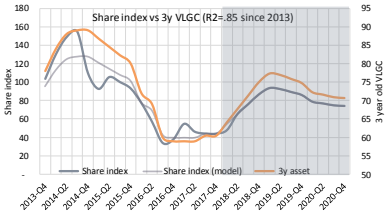
LPG Carriers

Rec. (3m/1y): Buy / Buy

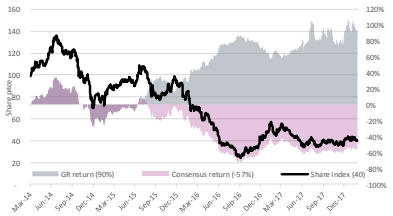
Company highlights

	TP	vs P	P/NAV	ε	P/E '18
Avance	66	+213%	0.5	0.22	11
LPG	15	+99%	0.6	0.17	39
BWLPG	74	+108%	0.7	0.21	21

Cycle



RoI: GR vs consensus



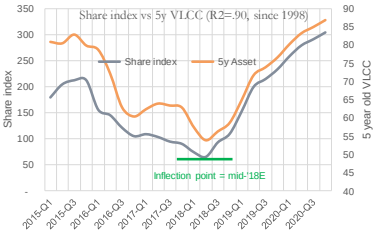
Oil Tankers

Rec. (3m/1y): Hold / Buy

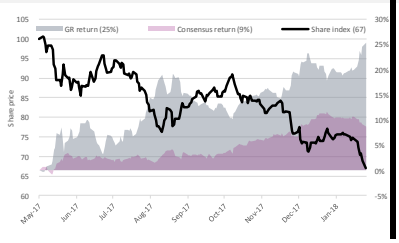
Company highlights

	TP	vs P	P/NAV	ε	P/E '18
NAT	2.3	+16%	0.8	0.18	n.a.
EURN	8.1	+4%	1.0	0.18	n.a.

Cycle



RoI: GR vs consensus



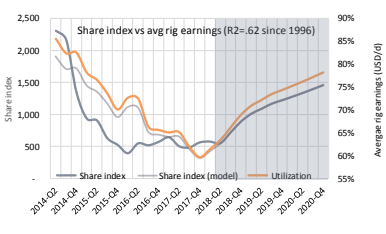
Oil Services, Rig

Rec. (3m/1y): Buy / Buy

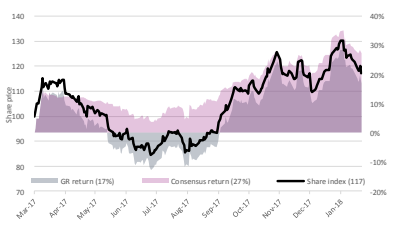
Company highlights

	TP	vs P	P/NAV	ε	P/E '18
BDRILL	61	+83%	1.4	0.18	n.a.
NODL	116	+81%	0.9	0.14	n.a.
ESV	13	+161%	0.5	0.21	n.a.

Cycle



RoI: GR vs consensus



Source: Gersemi Research, Bloomberg, company data, www

Our Universe at a Glance: Company Overview

						Return since initiation			P/NAV			EV/EBITDA				Dividend yield			
Company	Sector	Rec.	Target Price	Last Price		Date	GR	Consensus	Now	1y fwd	ε	2017	2018	2019	2020	2017	2018	2019	2020
DHT US	Oil	**SELL**	3.1	3.5	-12%	26-May/17	14%	-21%	0.73	0.97	0.23	9.1	21.0	7.5	4.2	5%	2%	5%	12%
EURN US	Oil	**HOLD**	8.1	7.8	4%	19-May/17	-4%	1%	1.00	0.86	0.18	11.5	32.2	8.9	5.1	2%	1%	8%	18%
FRO US	Oil	**SELL**	2.7	4.1	-33%	15-May/17	34%	0%	1.35	2.46	0.42	14.0	54.2	12.9	7.2	7%	0%	0%	6%
NAT US	Oil	**HOLD**	2.3	2.0	16%	19-May/17	63%	63%	0.76	0.79	0.18	9.2	23.0	5.7	3.1	19%	9%	32%	34%
TNK US	Oil	**SELL**	0.7	1.1	-39%	22-May/17	44%	0%	0.96	1.26	0.37	13.0	27.8	7.8	3.8	7%	10%	10%	10%
Average, Oil Tankers*					**-13%**		**30%**	**9%**	**0.96**	**1.27**	**0.28**	**11.4**	**31.6**	**8.6**	**4.7**	**8%**	**4%**	**11%**	**16%**
2020 NS	Dry	**BUY**	57	46	24%				2.51	0.53	2.44		0.0	37.5	5.0	0%	0%	0%	0%
BULK NO	Dry	**BUY**	198	113	76%	21-Apr/17	10%	0%	1.02	0.62	0.13	17.0	4.4	3.4	2.9	0%	13%	32%	36%
DSX US	Dry	**BUY**	6.7	3.4	96%	22-Jun/15	18%	-43%	0.72	0.42	0.18	29.6	5.9	3.1	2.0	0%	9%	12%	18%
EGLE US	Dry	**BUY**	7.1	4.6	54%	06-Mar/17	-15%	-20%	0.77	0.48	0.15	21.1	7.3	5.0	4.1	0%	11%	17%	24%
GNK US	Dry	**BUY**	26.0	12.4	110%	07-Mar/17	2%	10%	0.76	0.47	0.16	16.9	4.6	2.9	2.4	0%	18%	27%	48%
GOGL US	Dry	**BUY**	12.5	8.1	55%	22-Jun/15	120%	-67%	1.24	0.70	0.20	17.6	7.7	5.4	4.4	1%	13%	18%	23%
SALT US	Dry	**BUY**	9.2	7.1	29%	22-Jun/15	98%	-57%	0.88	0.57	0.20	50.8	9.7	7.1	6.0	0%	7%	13%	15%
SB US	Dry	**HOLD**	3.6	3.2	13%	28-Apr/17	-5%	0%	2.32	0.88	0.49	10.9	7.3	5.2	4.4	0%	16%	25%	33%
SBLK US	Dry	**BUY**	21.0	10.5	100%	22-Jun/15	54%	-108%	0.98	0.54	0.23	13.7	5.7	4.1	3.4	0%	29%	32%	41%
SBULK NO	Dry	**BUY**	61	40	53%	03-Mar/17	3%	-8%	0.88	0.59	0.14	27.1	5.9	4.0	3.0	0%	7%	13%	19%
SHIP US	Dry	**BUY**	2.0	1.0	100%	05-Apr/17	18%	18%	1.53	0.55	0.62	15.9	4.2	2.7	1.8	0%	16%	22%	35%
Average, Dry Bulk*					**65%**		**30%**	**-28%**	**1.24**	**0.58**	**0.45**	**22.1**	**5.7**	**7.3**	**3.6**	**0%**	**13%**	**19%**	**27%**
ALNG NO	LNG	**HOLD**	4.7	4.6	2%	28-Apr/17	-28%	-29%	0.86		0.35	73.1	14.2	10.1	6.9	0%	0%	0%	13%
FLNG NO	LNG	**BUY**	16	11	46%	06-Apr/17	-10%	-10%	0.98		0.23		14.6	9.3	5.9	0%	3%	11%	19%
GLOG US	LNG	**HOLD**	21	19	10%	21-Apr/17	51%	43%	3.49		1.00	8.6	8.1	7.5	6.0	3%	3%	3%	4%
Average, LNG Carriers*					**19%**		**4%**	**1%**	**1.78**		**0.53**	**40.8**	**12.3**	**9.0**	**6.2**	**1%**	**2%**	**5%**	**12%**
AVANCE NO	LPG	**BUY**	66	21	213%	11-Mar/14	151%	-80%	0.51	0.37	0.22	51.3	7.0	3.4	4.5	0%	15%	55%	32%
BWLPG NO	LPG	**BUY**	74	36	108%	11-Mar/14	108%	-40%	0.65	0.52	0.21	14.3	8.9	4.4	5.6	0%	7%	31%	23%
LPG US	LPG	**BUY**	15.0	7.6	99%	07-May/14	38%	-55%	0.56	0.41	0.17	16.6	9.5	4.6	6.2	0%	0%	26%	17%
Average, LPG Carriers*					**140%**		**99%**	**-58%**	**0.57**	**0.43**	**0.20**	**27.4**	**8.5**	**4.1**	**5.4**	**0%**	**7%**	**37%**	**24%**
SOFF NO	OSV	**BUY**	10.0	5.6	79%														
BDRILL NO	Rig	**BUY**	61	33	83%	13-Mar/17	17%	17%	1.42	1.31	0.18	0.0	0.0	20.1	12.1	0%	0%	0%	0%
ESV US	Rig	**BUY**	13.0	5.0	159%	22-Mar/17	-33%	-32%	0.50	0.41	0.21	12.5	12.9	6.8	4.7	0%	3%	10%	8%
NE US	Rig	**BUY**	6	4	47%	31-Mar/17	-26%	0%	1.44	0.96	0.60	8.5	9.7	6.2	5.0	0%	1%	4%	6%
NODL NO	Rig	**BUY**	116	64	81%	21-Mar/17	6%	6%	0.91	0.76	0.14			13.8	8.9	0%	0%	6%	11%
RDC US	Rig	**BUY**	19	13	44%	29-Mar/17	-6%	68%	0.92	0.75	0.15	6.9	11.8	10.7	7.4	0%	0%	0%	0%
Average, Oil Services*					**82%**		**-8%**	**12%**	**1.04**	**0.84**	**0.26**	**7.0**	**8.6**	**11.5**	**7.6**	**0%**	**1%**	**4%**	**5%**
Average of all segments*					**59%**		**31%**	**-13%**	**1.12**	**0.78**	**34%**	**21.7**	**13.3**	**8.1**	**5.5**	**2%**	**5%**	**15%**	**17%**

**Excluding discontinued companies*

Source: Gersemi Research, Bloomberg, company data, www

Portfolio Allocation

Method

Markowitz' portfolio optimization

We use a variant of Markowitz' portfolio optimization method including the use of a covariance matrix between our covered segments, calculating the efficient frontier and the capital market line (CML). We use a generic US treasury note with one-year tenor as a proxy for the risk-free rate as our goal is to allocate capital efficiently over a one-year horizon.

Results

History going back to 1990

Our data inputs are our Gersemi Research's share index for each segment we cover, with history from 1990 for Dry Bulk and Rig, 1998 for Oil Tankers, 2003 for LNG Carriers and 2014 for LPG Carriers. We calculate annualized standard deviation based on quarterly returns and use our forecast return for each segment to reach the Sharpe Ratio.

Key statistics from time series					
(annulized)	Oil Tankers	Dry Bulk	LNG Carriers	LPG Carriers	Oil Services, Rig
Mean	7.3%	11.9%	20.5%	-11.7%	13.1%
Var	0.15	0.27	0.17	0.19	0.13
sigma	0.39	0.52	0.41	0.44	0.37
E(r) 1y	134%	152%	19%	98%	76%
Sharpe	3.37	2.91	0.41	2.20	2.02

Dry Bulk shows the highest expected return, while Oil Tankers has the highest Sharpe Ratio

As we can see, Dry Bulk has historically had the highest volatility in returns at σ=0.52, while the other segments are fairly aligned around 0.4. Hence, despite that we forecast the highest return over the next year in the Dry Bulk segment (+152%), the Sharpe Ratio is inferior to Oil Tankers where the risk is lower and expected return still is a very decent 134%.

Rather low correlation between the segments: Positive for optimization

The next step is the calculate the covariance between the segments in order to optimize the risk/return through efficient portfolio allocation. As we can see below, the segments are not highly correlated, which is a good thing in terms of optimizing risk/return. Not surprisingly, the highest correlation is between sectors which are positively correlated with energy prices (LNG Carriers & Oil Services). However, we note that LPG Carriers are not much correlated with the two aforementioned segments, which is most likely due to the relatively short history of the time series.

Covariance matrix					
	Oil Tankers	Dry Bulk	LNG Carriers	LPG Carriers	Oil Services, Rig
Oil Tankers	0.15	0.11	0.04	0.07	0.06
Dry Bulk	0.11	0.27	0.11	0.10	0.07
LNG Carriers	0.04	0.11	0.17	0.04	0.08
LPG Carriers	0.07	0.10	0.04	0.19	0.05
Oil Services, Rig	0.06	0.07	0.08	0.05	0.13

Correlation matrix					
	Oil Tankers	Dry Bulk	LNG Carriers	LPG Carriers	Oil Services, Rig
Oil Tankers	1.00	0.47	0.24	0.41	0.40
Dry Bulk	0.47	1.00	0.41	0.43	0.38
LNG Carriers	0.24	0.41	1.00	0.30	0.57
LPG Carriers	0.41	0.43	0.30	1.00	0.26
Oil Services, Rig	0.40	0.38	0.57	0.26	1.00

Source: Gersemi Research, Bloomberg, company data, www

Calculation the efficient frontier

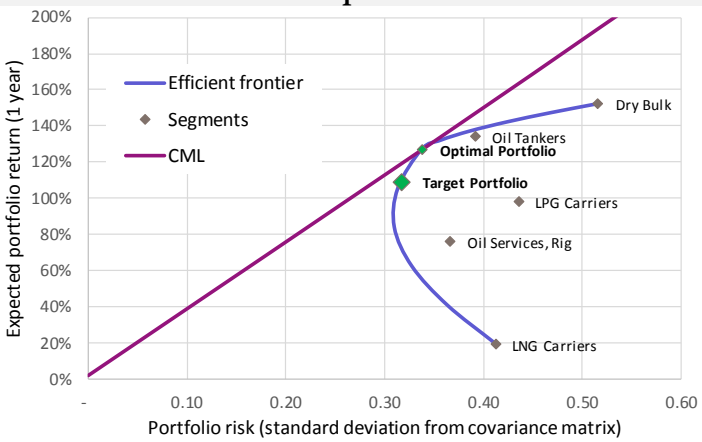
The last step is to calculate the efficient frontier which is summarized in the table below.

	Portfolios										
Weights	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11
Crude	0%	11%	21%	32%	43%	53%	43%	32%	21%	11%	0%
Dry	0%	4%	9%	13%	18%	22%	38%	53%	69%	84%	100%
LNG	100%	80%	60%	40%	20%	0%	0%	0%	0%	0%	0%
LPG	0%	3%	5%	8%	11%	13%	11%	8%	5%	3%	0%
Rig	0%	2%	4%	7%	9%	11%	9%	7%	4%	2%	0%
SUM	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Return	19%	41%	62%	84%	105%	127%	132%	137%	142%	147%	152%
sigma	0.41	0.36	0.33	0.31	0.31	0.34	0.36	0.39	0.42	0.47	0.52
Sharpe	0.41	1.06	1.84	2.64	3.30	3.70	3.64	3.49	3.30	3.10	2.91

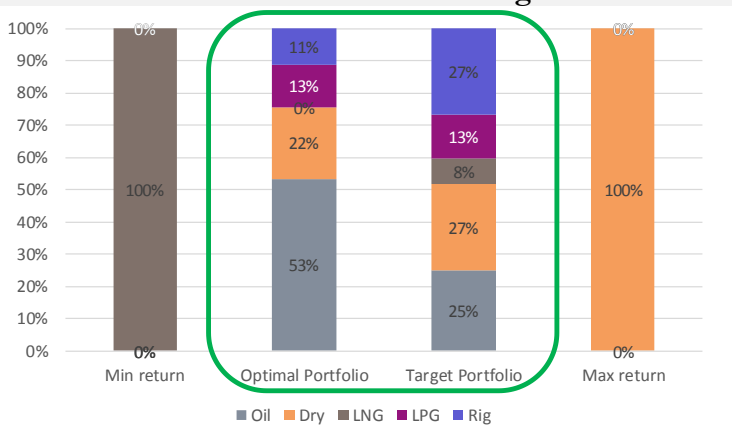
Optimal Portfolio has an expected return of 127% and a standard deviation of 0.34 (Sharpe Ratio = 3.7)

Portfolio #1 is obtained by minimizing return. Not the best portfolio allocation strategy, but merely to produce the minimum point of our efficient frontier with the constraints of no short selling and zero capital allocated to cash. The result is 100% allocation to LNG Carriers as can be seen in the graph below. Next, we calculate portfolio #6 which is the "Optimal Portfolio" which maximizes the Sharpe Ratio. Lastly, we solve for the portfolio with the highest return, which is 100% allocation to the Dry Bulk segment in portfolio #11. The intermediate portfolios are intended to produce a smooth efficient frontier in the graph below.

Portfolio optimization



Portfolio allocation between segments



We chose to diversify beyond what we calculate to be the optimal portfolio to reach our Target Portfolio

The attentive reader has noticed the "Target Portfolio" in the graph above, which is our preferred portfolio allocation for 2018 and reflected on page 3. There are several reasons we have chosen to deviate from the optimal portfolio allocation as suggested by our model: 1) The model suggests a 53% portfolio allocation to Oil Tankers which we believe represents too high concentration risk towards one segment. 2) The limited history in some segments, especially LPG Carriers, is likely resulting in a sub-optimal covariance matrix.

Thus, we have adjusted our allocation as per the column chart above, but leave it to our readers to find the correct capital allocation for themselves.

Source: Gersemi Research, Bloomberg, company data, www

Gersemi Research

06 February 2018

Independence & Integrity

$f(\lambda) = a_0 + \beta_1 \lambda^{\tau}, R^2 \approx 1$

#BUY #drybulk #equities on highly attractive risk/reward, with average 152% 1y upside to shares (σ=0.52). Rise in contracting the largest risk

Dry Bulk BUY

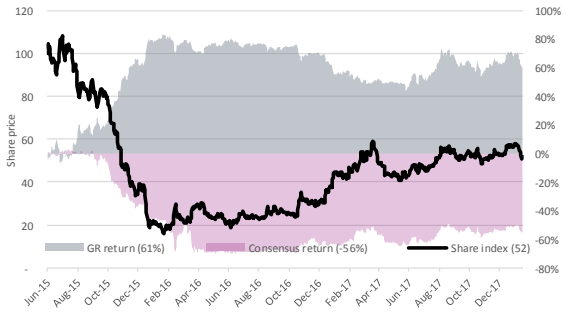
Large Upside Outweighs the Risk

The Dry Bulk segment shows continued signs of strength amidst the current low season and as we approach Chinese Golden Week (15/Feb). The BDI has averaged 1,225 YTD (+38% y/y) and Capes $15/k (+43%). We forecast steady rising fleet utilization in 2018E and 2019E with appreciating asset prices as a result. We see a 152% upside to Dry Bulk shares on average over the next year, although at a rather wide range out outcomes (σ=0.52). We reiterate our BUY on the segment as the risk/reward as highly attractive in a historical context.

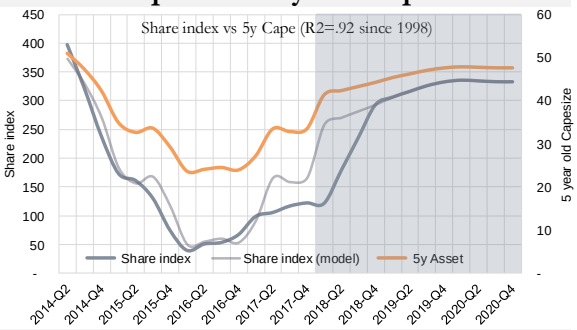
Market fundamentals: We forecast 2018E to be the second consecutive year of rising utilization with demand growth of 4.4% outpacing net supply growth of a mere 1.7%. Net supply growth of 1.8% in 2019E should lead to further utilization improvements, but the recent uptick in contracting is our main concern for the segment and could lead to a cyclical inflection point in 2020/2021E. Before that, we see asset prices appreciating 42% and shares rising 173%.

Top picks: GNK (BUY, 26) has a very strong cash generation (dividend potential) and low net LTV in addition to one the highest discounts to NAV. SBLK (BUY, 21) has a similar cash story, but is currently trading close to NAV. However, a higher elasticity to asset values leads to a 1y fwd NAV on par with GNK and DSX (BUY, 6.7). The latter is also supported by a cash flow and NAV story, but ranks sub-par due to management's conservative approach to both operational and financial leverage through the cycle (=lower dividend pay-out ratio). BULK (BUY, 198) is also a top pick being a large Capesize "pure"-play with listing in NY scheduled for 2018.

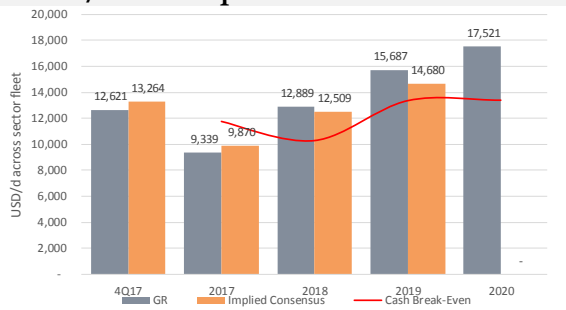
Sector share prices



Share prices vs 5y old Capesize



TCE/d across peers: GR vs consensus



Gersemi Research / Analysts

Joakim Hannisdahl

Head of Research

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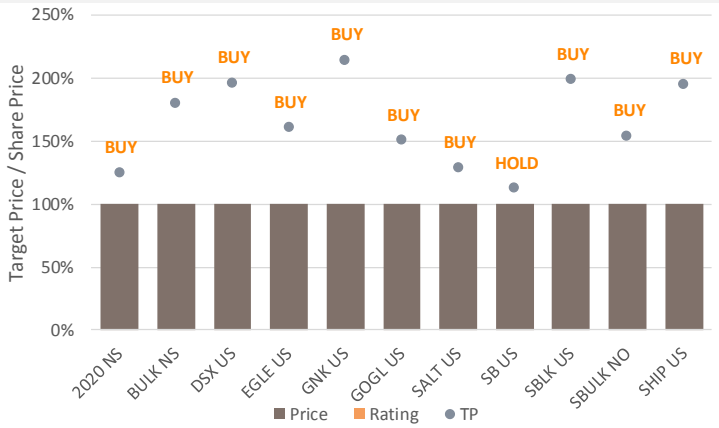
Sector overview

			Recommendations & upside				P/NAV	
	Mcap	Turnover	Rec.	TP	P	+/-	Now	1y fwd
2020 NS	36	-	BUY	57	46	25%	2.51	0.53
BULK NS	248	-	BUY	198	110	80%	1.02	0.62
DSX US	357	2.4	BUY	6.7	3.4	96%	0.72	0.42
EGLE US	337	2.0	BUY	7.1	4.4	61%	0.77	0.48
GNK US	434	1.4	BUY	26	12	114%	0.76	0.47
GOGL US	1,173	14.9	BUY	12	8	51%	1.24	0.70
SALT US	575	4.4	BUY	9.2	7.2	29%	0.88	0.57
SB US	333	1.5	HOLD	3.6	3.2	12%	2.32	0.88
SBLK US	671	5.5	BUY	21	11	99%	0.98	0.54
SBULK NO	184	1.2	BUY	62	40	54%	0.88	0.59
SHIP US	38	1.1	BUY	2.0	1.0	95%	1.53	0.55
Average	435	3.4				69%	1.11	0.58

Sector overview

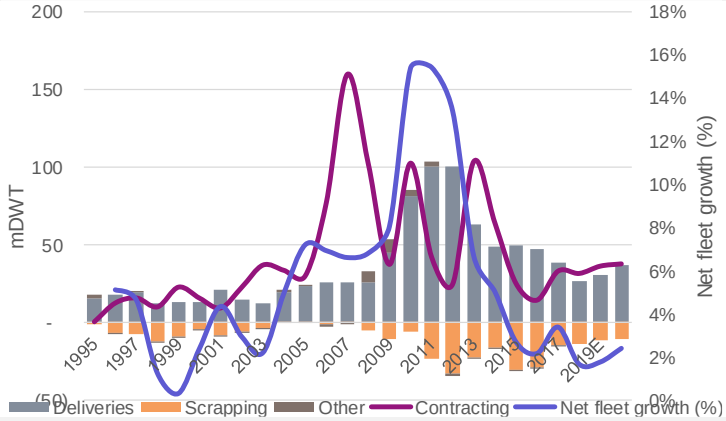


Source: Gersemi Research, Bloomberg, company data

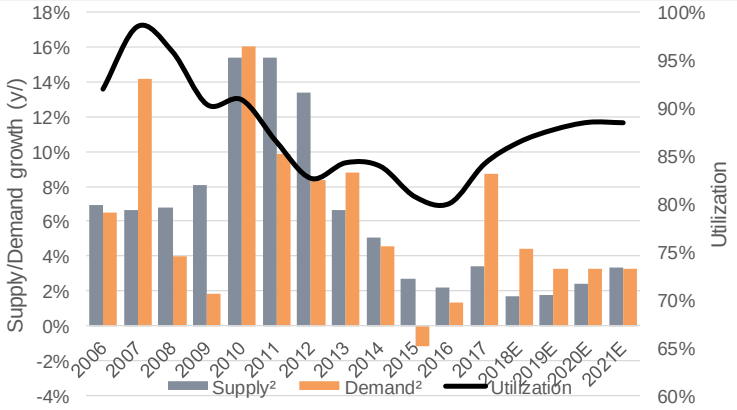
Disclaimer: The publisher currently has investments in some of the companies covered in this report. More disclaimers at the end of this document

Market Balance

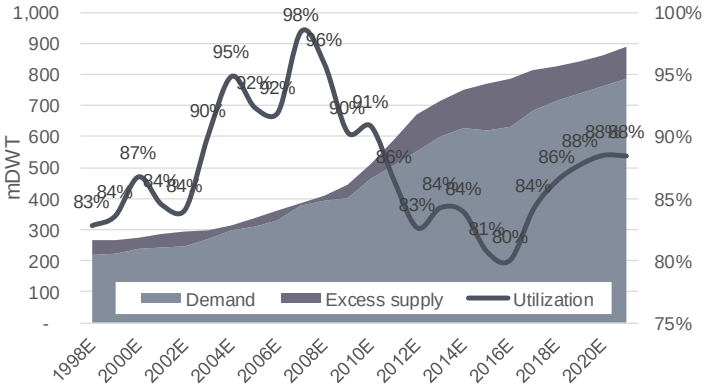
Supply



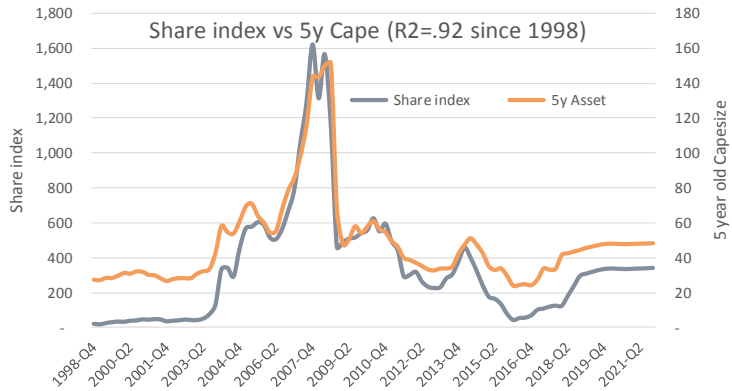
Supply/Demand



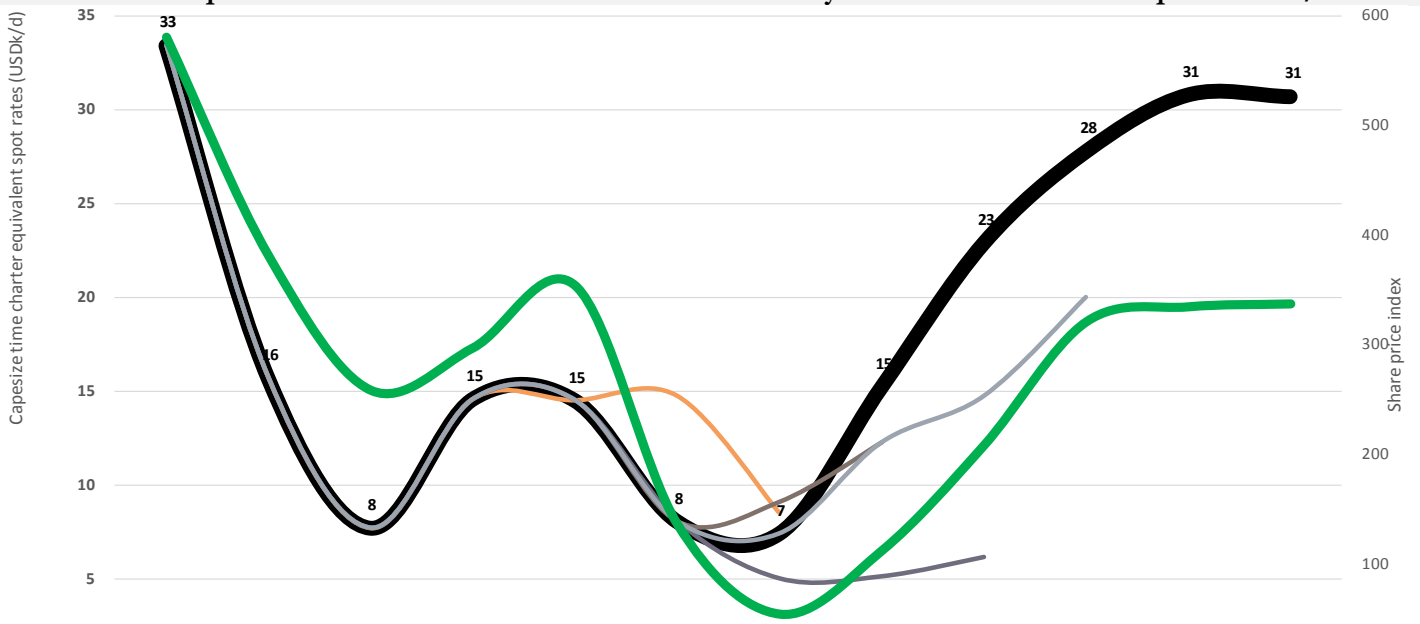
Supply/Demand



Shares highly correlated with 5y old vessel values



GR historical Capesize forecasts vs actuals: We concluded early that shares would collapse in 2015/16



	2010	2011	2012	2013	2014	2015	2016	2017	2018E	2019E	2020E	2021E
Actuals/Forecast	33,406	15,699	7,717	14,578	14,515	8,074	7,421	15,215	22,882	27,767	30,789	30,694
Dec/14	33,406	15,699	7,717	14,578	14,515	14,759	8,541					
Jun/15	33,406	15,699	7,717	14,578	14,515	8,068	9,121	12,287				
Apr/16	33,406	15,699	7,717	14,578	14,515	8,074	5,007	5,120	6,146			
Jun/17	33,406	15,699	7,717	14,578	14,515	8,074	7,421	12,266	14,732	19,997		
Share index (rhs)	581	381	258	297	354	135	53	111	208	321	334	337

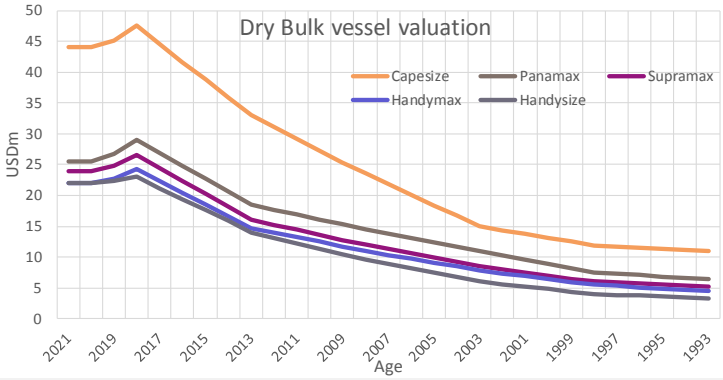
Source: Gersemi Research, Bloomberg, company data, www

Asset Valuation

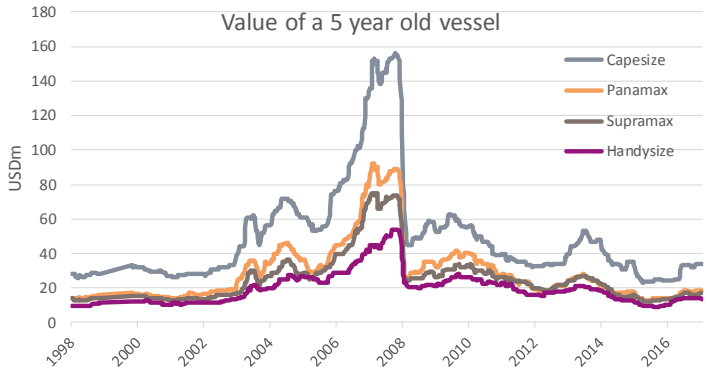
Asset valuation overview

Summary	Capesize	Panamax	Supramax	Handymax	Handysize
NB	44.0	25.5	24.0	22.0	22.0
resale	47.5	29.0	26.5	24.3	23.0
5y	33.0	18.5	16.0	14.7	14.0
10y	23.5	14.5	12.0	11.0	9.5
15y	15.0	11.0	8.5	7.8	6.0
20y	11.9	7.5	6.0	5.5	4.0
scrap	10.9	6.4	5.2	4.5	3.3

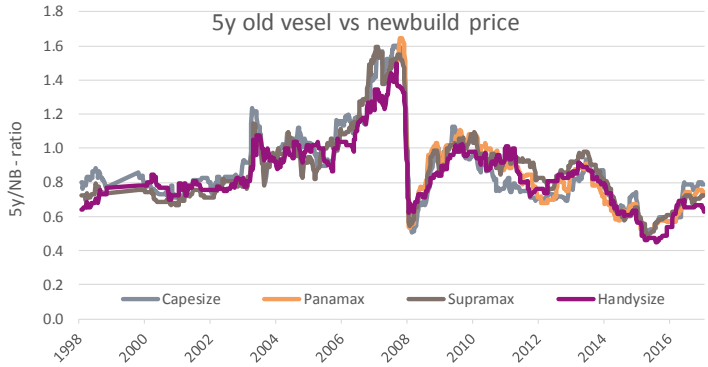
Asset valuation overview



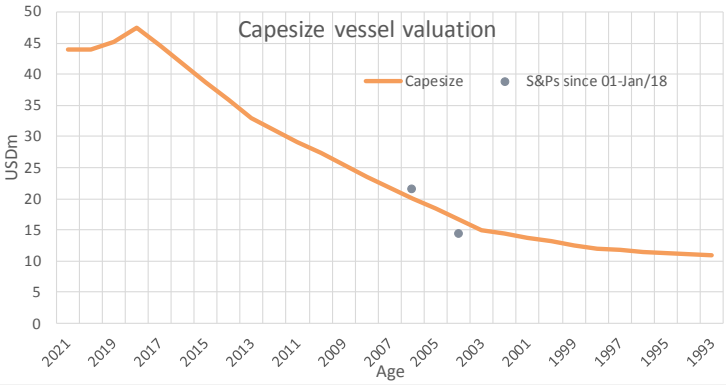
Historical 5y old vessel values



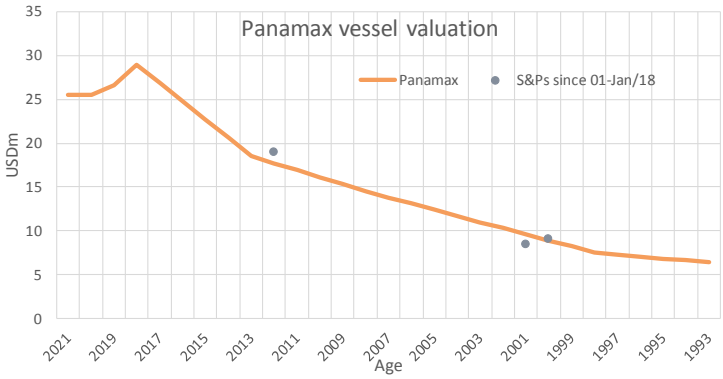
Historical price ratio, 5y/newbuild



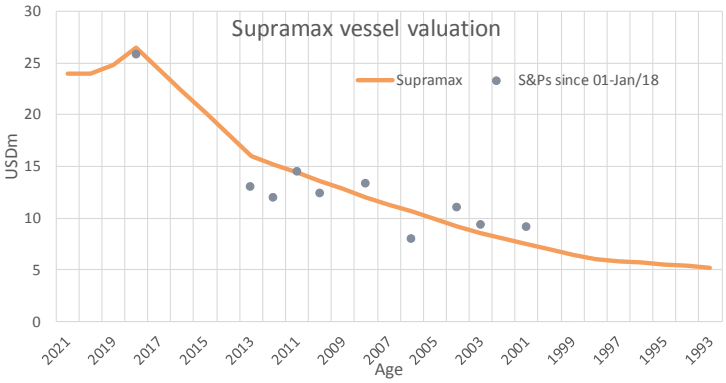
Capesize valuation vs recent S&Ps



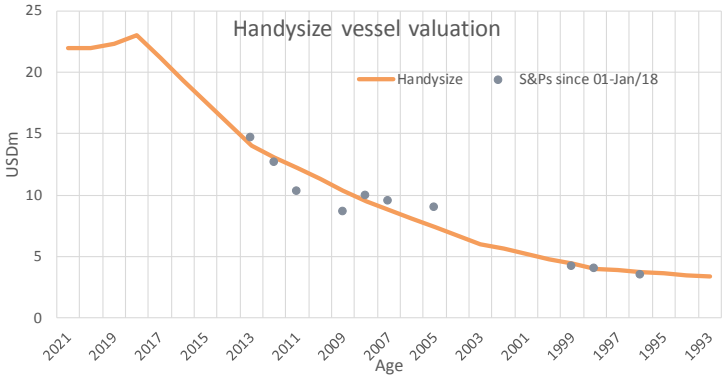
Pana-/Kamsarmax valuation vs recent S&Ps



Supra-/Ultramax valuation vs recent S&Ps



Handysize valuation vs recent S&Ps



Source: Gersemi Research, Bloomberg, company data, www

Econometrics

Supply/Demand (mDWT)																
Dry Bulk, base case	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deliveries[1]	26	25	25	45	81	100	100	63	48	49	47	38	26	31	37	38
Scrapping[1]	(2)	(1)	(6)	(11)	(7)	(23)	(33)	(23)	(16)	(31)	(29)	(15)	(14)	(12)	(11)	(11)
Other[1]	(1)	(0)	7	9	4	4	(1)	(0)	(0)	(1)	(1)	(0)	0	(0)	0	0
Contracting[1]	*76*	*159*	*101*	*37*	*102*	*42*	*24*	*103*	*64*	*25*	*14*	*33*	*31*	*36*	*37*	*38*
Supply[2]	**360**	**384**	**410**	**443**	**511**	**590**	**669**	**714**	**750**	**770**	**787**	**813**	**827**	**841**	**862**	**891**
Δ y/y	*7%*	*7%*	*7%*	*8%*	*15%*	*15%*	*13%*	*7%*	*5%*	*3%*	*2%*	*3%*	*2%*	*2%*	*2%*	*3%*
Demand[2]	**331**	**378**	**393**	**400**	**464**	**510**	**553**	**601**	**629**	**621**	**629**	**684**	**714**	**738**	**762**	**787**
Δ y/y	*6%*	*14%*	*4%*	*2%*	*16%*	*10%*	*8%*	*9%*	*5%*	*-1%*	*1%*	*9%*	*4%*	*3%*	*3%*	*3%*
Utilization[2]	**92%**	**98%**	**96%**	**90%**	**91%**	**86%**	**83%**	**84%**	**84%**	**81%**	**80%**	**84%**	**86%**	**88%**	**88%**	**88%**
BDI[2] (Index)	**3,188**	**7,097**	**6,347**	**2,622**	**2,762**	**1,551**	**922**	**1,207**	**1,106**	**715**	**675**	**1,149**	**1,606**	**1,883**	**2,055**	**2,049**
Cape, spot[2] (TCE/d)	45,260	116,535	105,214	42,774	33,406	15,699	7,717	14,578	14,515	8,074	7,421	15,215	22,882	27,767	30,789	30,694
Pana, spot[2] (TCE/d)	23,853	57,004	48,682	19,332	25,059	14,016	7,701	9,497	7,726	5,534	5,589	9,789	12,279	14,494	15,865	15,822
Supra, spot[2] (TCE/d)	22,680	47,604	41,290	17,351	22,477	14,409	9,459	10,296	9,819	6,941	6,244	9,183	13,027	14,738	15,796	15,763
Handy, spot[2] (TCE/d)	18,212	32,541	29,100	11,359	16,437	10,560	7,636	8,190	7,687	5,366	5,222	7,659	9,786	10,930	11,638	11,616
Cape, 5y[2] (USDm)	64	111	128	52	57	43	34	36	47	33	24	32	43	47	48	48
Pana, 5y[2] (USDm)	37	66	73	32	39	31	22	21	24	17	14	18	24	26	26	27
Supra, 5y[2] (USDm)	33	57	61	27	32	28	22	21	25	16	13	16	23	24	25	25
Handy, 5y[2] (USDm)	26	37	44	21	26	23	18	18	20	13	10	14	18	19	20	20
OB[2]	**89**	**177**	**303**	**317**	**310**	**278**	**184**	**142**	**181**	**149**	**112**	**70**	**76**	**81**	**88**	**86**
OB/Fleet[2]	**25%**	**46%**	**74%**	**71%**	**61%**	**47%**	**27%**	**20%**	**24%**	**19%**	**14%**	**9%**	**9%**	**10%**	**10%**	**10%**

Dry Bulk, low case	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deliveries[1]	26	25	25	45	81	100	100	63	48	49	47	38	33	27	23	15
Scrapping[1]	(2)	(1)	(6)	(11)	(7)	(23)	(33)	(23)	(16)	(31)	(29)	(15)	(7)	(6)	(5)	(5)
Other[1]	(1)	(0)	7	9	4	4	(1)	(0)	(0)	(1)	(1)	(0)	(0)	(0)	(0)	0
Contracting[1]	*76*	*159*	*101*	*37*	*102*	*42*	*24*	*103*	*64*	*25*	*14*	*33*	*14*	*12*	*11*	*10*
Supply[2]	**360**	**384**	**410**	**443**	**511**	**590**	**669**	**714**	**750**	**770**	**787**	**813**	**837**	**857**	**875**	**889**
Δ y/y	*7%*	*7%*	*7%*	*8%*	*15%*	*15%*	*13%*	*7%*	*5%*	*3%*	*2%*	*3%*	*3%*	*2%*	*2%*	*2%*
Demand[2]	**331**	**378**	**393**	**400**	**464**	**510**	**553**	**601**	**629**	**621**	**629**	**684**	**680**	**687**	**694**	**702**
Δ y/y	*6%*	*14%*	*4%*	*2%*	*16%*	*10%*	*8%*	*9%*	*5%*	*-1%*	*1%*	*9%*	*-1%*	*1%*	*1%*	*1%*
Utilization[2]	**92%**	**98%**	**96%**	**90%**	**91%**	**86%**	**83%**	**84%**	**84%**	**81%**	**80%**	**84%**	**81%**	**80%**	**79%**	**79%**
BDI[2] (Index)	**3,188**	**7,097**	**6,347**	**2,622**	**2,762**	**1,551**	**922**	**1,207**	**1,106**	**715**	**675**	**1,149**	**791**	**676**	**598**	**572**
Cape, spot[2] (TCE/d)	45,260	116,535	105,214	42,774	33,406	15,699	7,717	14,578	14,515	8,074	7,421	15,215	8,541	6,510	5,240	4,979
Pana, spot[2] (TCE/d)	23,853	57,004	48,682	19,332	25,059	14,016	7,701	9,497	7,726	5,534	5,589	9,789	5,776	4,855	4,262	4,138
Supra, spot[2] (TCE/d)	22,680	47,604	41,290	17,351	22,477	14,409	9,459	10,296	9,819	6,941	6,244	9,183	8,005	7,294	6,814	6,650
Handy, spot[2] (TCE/d)	18,212	32,541	29,100	11,359	16,437	10,560	7,636	8,190	7,687	5,366	5,222	7,659	6,427	5,951	5,631	5,521
Cape, 5y[2] (USDm)	64	111	128	52	57	43	34	36	47	33	24	32	29	28	-	-
Pana, 5y[2] (USDm)	37	66	73	32	39	31	22	21	24	17	14	18	16	15	-	-
Supra, 5y[2] (USDm)	33	57	61	27	32	28	22	21	25	16	13	16	17	16	-	-
Handy, 5y[2] (USDm)	26	37	44	21	26	23	18	18	20	13	10	14	14	13	-	-
OB[2]	**89**	**177**	**303**	**317**	**310**	**278**	**184**	**142**	**181**	**149**	**112**	**70**	**67**	**51**	**38**	**28**
OB/Fleet[2]	**25%**	**46%**	**74%**	**71%**	**61%**	**47%**	**27%**	**20%**	**24%**	**19%**	**14%**	**9%**	**8%**	**6%**	**4%**	**3%**

Dry Bulk, high case	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deliveries[1]	26	25	25	45	81	100	100	63	48	49	47	38	20	37	55	90
Scrapping[1]	(2)	(1)	(6)	(11)	(7)	(23)	(33)	(23)	(16)	(31)	(29)	(15)	(18)	(15)	(13)	(13)
Other[1]	(1)	(0)	7	9	4	4	(1)	(0)	(0)	(1)	(1)	(0)	0	0	0	0
Contracting[1]	*76*	*159*	*101*	*37*	*102*	*42*	*24*	*103*	*64*	*25*	*14*	*33*	*65*	*92*	*97*	*71*
Supply[2]	**360**	**384**	**410**	**443**	**511**	**590**	**669**	**714**	**750**	**770**	**787**	**813**	**820**	**834**	**862**	**929**
Δ y/y	*7%*	*7%*	*7%*	*8%*	*15%*	*15%*	*13%*	*7%*	*5%*	*3%*	*2%*	*3%*	*1%*	*2%*	*3%*	*8%*
Demand[2]	**331**	**378**	**393**	**400**	**464**	**510**	**553**	**601**	**629**	**621**	**629**	**684**	**749**	**790**	**834**	**880**
Δ y/y	*6%*	*14%*	*4%*	*2%*	*16%*	*10%*	*8%*	*9%*	*5%*	*-1%*	*1%*	*9%*	*9%*	*6%*	*6%*	*6%*
Utilization[2]	**92%**	**98%**	**96%**	**90%**	**91%**	**86%**	**83%**	**84%**	**84%**	**81%**	**80%**	**84%**	**91%**	**95%**	**97%**	**95%**
BDI[2] (Index)	**3,188**	**7,097**	**6,347**	**2,622**	**2,762**	**1,551**	**922**	**1,207**	**1,106**	**715**	**675**	**1,149**	**3,033**	**4,505**	**5,601**	**4,410**
Cape, spot[2] (TCE/d)	45,260	116,535	105,214	42,774	33,406	15,699	7,717	14,578	14,515	8,074	7,421	15,215	48,014	73,934	93,220	72,255
Pana, spot[2] (TCE/d)	23,853	57,004	48,682	19,332	25,059	14,016	7,701	9,497	7,726	5,534	5,589	9,789	23,676	35,430	44,175	34,668
Supra, spot[2] (TCE/d)	22,680	47,604	41,290	17,351	22,477	14,409	9,459	10,296	9,819	6,941	6,244	9,183	21,829	30,906	37,660	30,318
Handy, spot[2] (TCE/d)	18,212	32,541	29,100	11,359	16,437	10,560	7,636	8,190	7,687	5,366	5,222	7,659	15,672	21,743	26,260	21,350
Cape, 5y[2] (USDm)	64	111	128	52	57	43	34	36	47	33	24	32	70	91	-	-
Pana, 5y[2] (USDm)	37	66	73	32	39	31	22	21	24	17	14	18	39	51	-	-
Supra, 5y[2] (USDm)	33	57	61	27	32	28	22	21	25	16	13	16	34	43	-	-
Handy, 5y[2] (USDm)	26	37	44	21	26	23	18	18	20	13	10	14	26	33	-	-
OB[2]	**89**	**177**	**303**	**317**	**310**	**278**	**184**	**142**	**181**	**149**	**112**	**70**	**89**	**136**	**194**	**210**
OB/Fleet[2]	**25%**	**46%**	**74%**	**71%**	**61%**	**47%**	**27%**	**20%**	**24%**	**19%**	**14%**	**9%**	**11%**	**16%**	**22%**	**23%**

[1]Sum during period [2]Average during period

Forecast overview and change from last report

Delta table: Dry bulk shipping forecast summary

Δ y/y	2017	2018E	2019E	2020E	Average	2017	2018E	2019E	2020E
Supply	**3.4%**	**1.7%**	**1.8%**	**2.4%**	**Baltic Dry Index**	**1,149**	**1,606**	**1,883**	**2,055**
Supply, old	3.7%	1.6%	0.7%	1.7%	BDI, old	1,073	1,327	1,607	1,794
Δ	-0.3%	0.0%	1.1%	0.7%	Δ	77	279	277	261
Demand	**8.7%**	**4.4%**	**3.3%**	**3.3%**	**Capesize spot**	**15,215**	**22,882**	**27,767**	**30,789**
Demand, old	11.0%	4.3%	3.3%	3.3%	Capesize spot, old	13,419	17,970	22,897	26,199
Δ	-2.3%	0.1%	0.0%	0.0%	Δ	1,797	4,912	4,870	4,590
Utilization*	**84.1%**	**86.4%**	**87.7%**	**88.5%**	**Capesize 5y**	**31.8**	**42.8**	**46.6**	**47.7**
Utilization, old	73.9%	75.9%	77.9%	79.1%	Capesize 5y, old	32.3	38.9	42.6	45.0
Δ	10.2%	10.5%	9.8%	9.4%	Δ	(0.5)	3.9	3.9	2.7

**History restated*

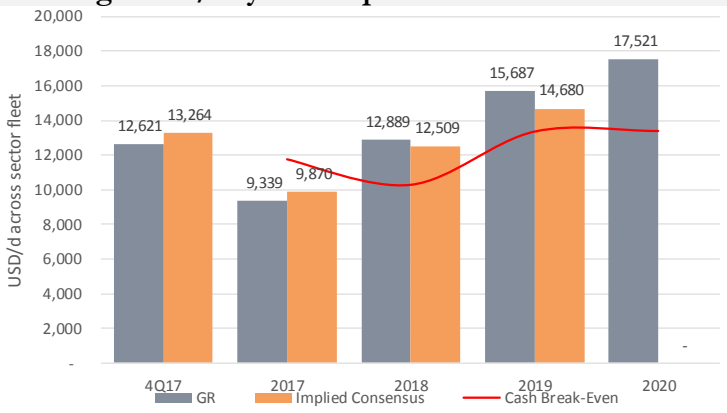
Source: Gersemi Research, Bloomberg, company data, www

Peer Group

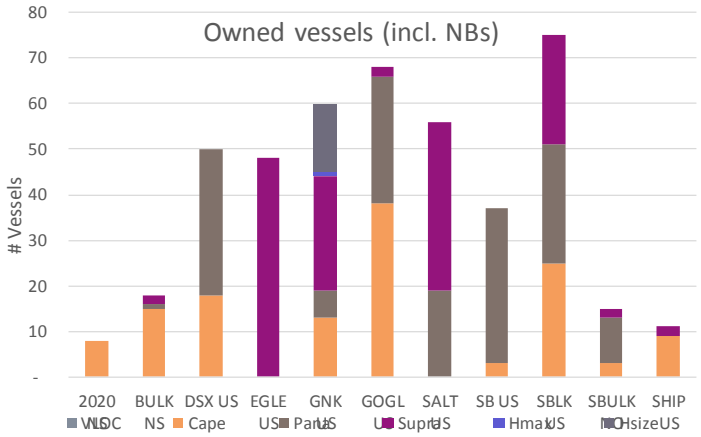
Valuation matrix

						P/NAV					EV/EBITDA				Liquidity/(GIBD + eq. capex)				FCF yield				Dividend yield			
USDm	Mcap	Turnover	P/sh	Value	+/-	NAV	Now	1y fwd	+40%	ε	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
2020 NS	36	-	46	57	25%	18	2.51	0.53	0.23	2.44		-	37.5	5.0	6%	-16%	-47%	-13%					0%	0%	0%	0%
BULK NS	248	-	110	198	80%	108	1.02	0.62	0.67	0.13	17.0	4.4	3.4	2.9	15%	47%	50%	54%	-89%	4%	34%	39%	0%	13%	32%	36%
DSX US	353	2.4	3.4	6.7	96%	4.8	0.72	0.42	0.41	0.18	29.6	5.9	3.1	2.0	7%	13%	27%	59%	-32%	31%	52%	64%	0%	9%	12%	18%
EGLE US	337	2.0	4.4	7.1	61%	5.7	0.77	0.48	0.48	0.15	21.1	7.3	5.0	4.1	21%	26%	28%	31%	-44%	14%	25%	31%	0%	11%	17%	24%
GNK US	433	1.4	12.3	26	114%	16.2	0.76	0.47	0.47	0.16	16.9	4.6	2.9	2.4	35%	38%	46%	50%	11%	29%	46%	56%	0%	18%	27%	48%
GOGL US	1,170	14.9	8.3	12.5	51%	6.7	1.24	0.70	0.68	0.20	17.6	7.7	5.4	4.4	22%	22%	26%	31%	-2%	8%	29%	34%	1%	13%	18%	23%
SALT US	575	4.4	7.2	9.2	29%	8.1	0.88	0.57	0.48	0.20	50.8	9.7	7.1	6.0	15%	12%	14%	16%	-16%	-4%	21%	25%	0%	7%	13%	15%
SB US	333	1.5	3.2	3.6	12%	1.4	2.32	0.88	0.78	0.49	10.9	7.3	5.2	4.4	12%	11%	12%	13%	2%	14%	39%	45%	0%	16%	25%	33%
SBLK US	672	5.5	10.6	21	99%	10.8	0.98	0.54	0.51	0.23	13.7	5.7	4.1	3.4	25%	24%	26%	29%	-9%	18%	45%	53%	0%	29%	32%	41%
SBULK NO	183	1.2	40.0	62	54%	45.3	0.88	0.59	0.57	0.14	27.1	5.9	4.0	3.0	49%	49%	49%	49%	-124%	13%	29%	34%	0%	7%	13%	19%
SHIP US	38	1.1	1.00	2.0	95%	0.65	1.53	0.55	0.51	0.62	15.9	4.2	2.7	1.8	9%	14%	20%	37%	-20%	50%	75%	94%	0%	16%	22%	35%
Average	**398**	**3.1**			**65%**		**1.24**	**0.58**	**0.53**	**0.45**	**22.1**	**5.7**	**7.3**	**3.6**	**20%**	**22%**	**23%**	**32%**	**-32%**	**18%**	**39%**	**48%**	**0%**	**13%**	**19%**	**27%**
Median	**337**	**1.5**			**61%**		**0.98**	**0.55**	**0.51**	**0.20**	**17.3**	**5.9**	**4.1**	**3.4**	**15%**	**22%**	**26%**	**31%**	**-18%**	**14%**	**36%**	**42%**	**0%**	**13%**	**18%**	**24%**

Avg. TCE/day across peer fleet vs consensus



Fleet overview



Source: Gersemi Research, Bloomberg, company data, www

Gersemi Research

07 February 2018

Independence & Integrity

$f(\lambda) = a_0 + \beta_1 \lambda^{\tau}, R^2 \approx 1$

#BUY #LNGC: Fundamentals still look good as we enjoy close to 4-year high earnings. Keep in mind seasonal softness ahead

LNG Carriers **BUY**

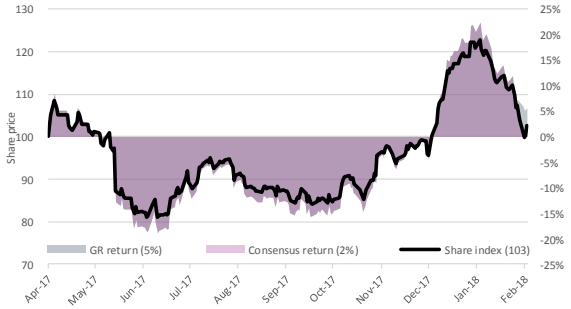
LNG is on Fire

The future for LNG as a cleaner source of energy is undoubtful, exemplified by China's 46% y/y rise in 2017 imports. A myriad of new export capacity is scheduled for the next two years, against which a large number of new vessels are being built. We reiterate our BUY on the segment, but believe risk/reward is less attractive than at the time of our December report due to share price appreciation, a seasonally soft period ahead and as the bull case is contingent on consecutive double-digit demand growth. We downgrade both ALNG and GLOG from buy to hold, but maintain our conviction on FLNG (BUY, 16).

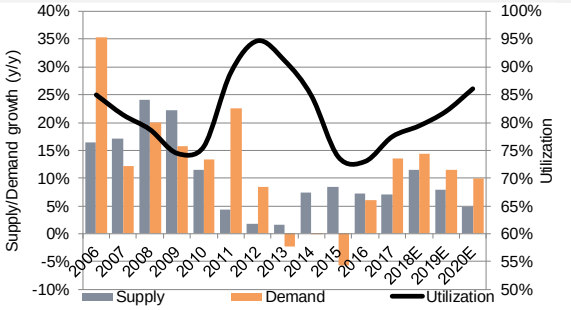
Market fundamentals: Spot rates for 160k cbm (T)DFDEs reached $85k/d in 4Q17, the highest rates in almost four years. We calculate a demand growth of 14% in 2017 vs net supply growth of 7%, leading to a 4%p rise in utilization to 79%. Looking towards 2018E and 2019E, we forecast annual demand growth (12-14%) to outpace supply growth (8-12%), leading to rising earnings and asset values. Recent increase in newbuild contracting and the possible delays in new export capacity are our main concerns.

FLNG (BUY, TP NOK 16): We highlight Flex LNG, mainly due to attractive earnings multiples and dividend capacity on a fully delivered basis. A P/NAV of 0.98 is also attractive given our view of asset values appreciating ~25% over the next two years. Add the most modern fleet amongst peers and Mr. Fredriksen as main sponsor, we expect the growth story to continue (LNG Carriers & FSRUs).

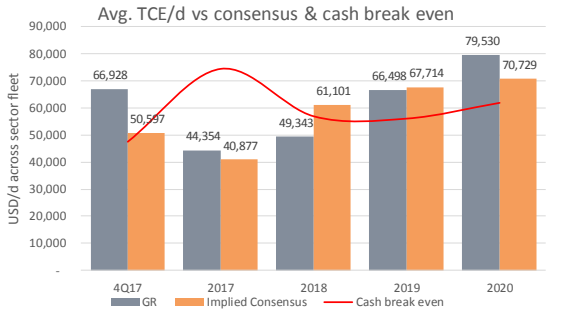
Sector share prices



Market balance



TCE/d across peers: GR vs consensus



Gersemi Research / Analysts

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Sector overview

			Recommendations & upside				Valuation		
USDm	Mcap	Turnover	Rec.	TP	P	+/-	NAV	P/NAV	ε
ALNG NO	76	0.2	**HOLD**	4.7	4.6	3%	5.3	0.86	0.35
FLNG NO	503	1.3	**BUY**	16	10.8	50%	11.0	0.98	0.23
GLOG US	1,553	8.0	**HOLD**	21	19.2	9%	5.5	3.49	1.00
Average	**711**	**3.2**	**BUY**			**21%**		**1.78**	**0.53**
Median	**503**	**1.3**	**BUY**			**9%**		**0.98**	**0.35**

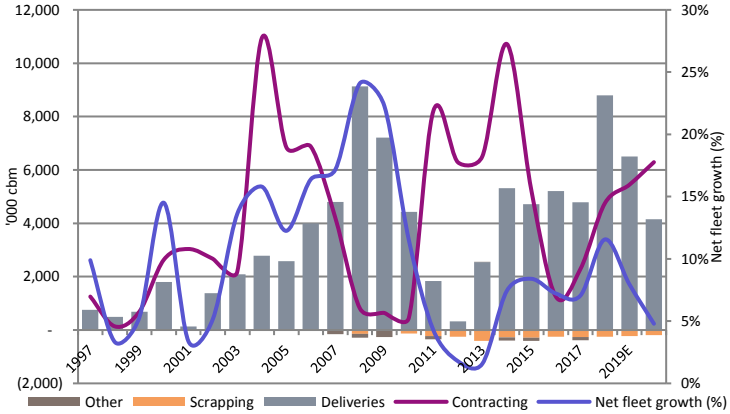
Sector overview

Source: Gersemi Research, Bloomberg, company data

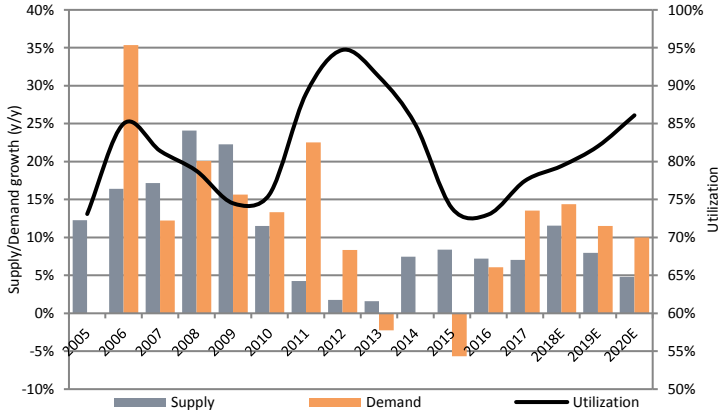
Disclaimer: The publisher currently has investments in some of the companies covered in this report. More disclaimers at the end of this document

Market Balance

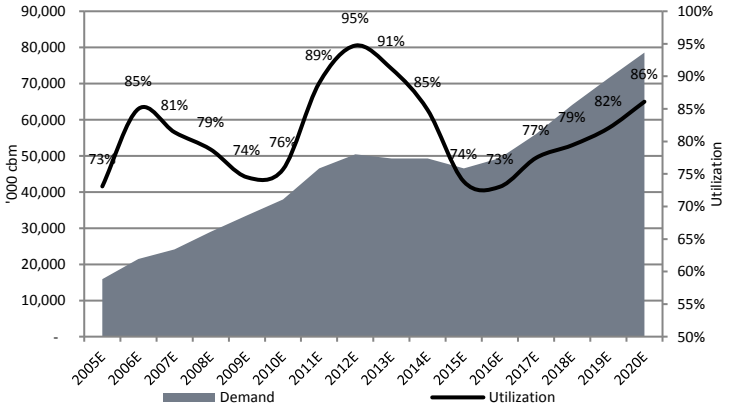
Supply



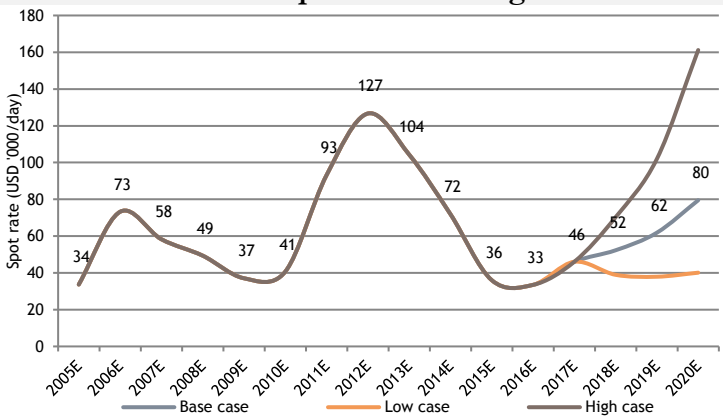
Supply/Demand



Supply/Demand



LNGC spot forecast range



Forecast overview and change from last report

Delta table: LNG shipping forecast summary

Δ y/y	2017	2018E	2019E	2020E	Average spot rate	2017	2018E	2019E	2020E
Supply	**7.1%**	**11.6%**	**8.0%**	**4.8%**	**MEGI 175k**	**62,001**	**69,052**	**79,848**	**99,769**
Supply, old	7.1%	11.3%	8.0%	4.2%	old	61,380	69,156	79,835	102,442
Δ	-0.1%	0.3%	-0.1%	0.6%	Δ	620	(104)	13	(2,673)
Demand	**13.6%**	**14.4%**	**11.5%**	**10.0%**	**DFDE 155k**	**46,058**	**52,303**	**61,865**	**79,510**
Demand, old	13.4%	14.4%	11.5%	10.0%	old	45,508	52,395	61,854	81,877
Δ	0.1%	0.0%	0.0%	0.0%	Δ	550	(92)	12	(2,367)
Utilization	**77%**	**79%**	**82%**	**86.1%**	**Turbine 150k**	**34,571**	**39,228**	**46,393**	**59,623**
Utilization, old	77%	80%	82%	86.6%	old	34,160	39,298	46,386	61,400
Δ	0.1%	-0.1%	0.0%	-0.5%	Δ	412	(70)	7	(1,777)

Source: Gersemi Research, Bloomberg, company data, www

Econometrics

Supply/Demand ('000 cbm)																
Base case	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deliveries[1]	3,994	4,797	9,134	7,213	4,434	1,833	323	2,539	5,314	4,714	5,208	4,794	8,798	6,502	4,156	2,666
Scrapping[1]	-	(29)	(145)	-	(128)	(225)	(251)	(412)	(269)	(281)	(256)	(260)	(248)	(226)	(193)	(166)
Other[1]	(0)	(129)	(139)	(264)	0	(126)	(0)	0	(126)	(126)	(0)	(124)	(0)	(0)	0	(0)
Contracting[1]	*6,875*	*4,201*	*814*	*640*	*461*	*8,215*	*6,289*	*6,513*	*10,720*	*5,231*	*1,250*	*2,286*	*4,753*	*5,445*	*6,292*	*7,125*
Supply[2]	**25,303**	**29,648**	**36,794**	**44,992**	**50,168**	**52,311**	**53,245**	**54,088**	**58,114**	**62,996**	**67,544**	**72,307**	**80,667**	**87,085**	**91,259**	**94,204**
Δ y/y	*16%*	*17%*	*24%*	*22%*	*12%*	*4%*	*2%*	*2%*	*7%*	*8.4%*	*7.2%*	*7.1%*	*11.6%*	*8.0%*	*4.8%*	*3.2%*
Demand[2]	**21,509**	**24,135**	**28,978**	**33,517**	**37,979**	**46,543**	**50,437**	**49,315**	**49,305**	**46,516**	**49,330**	**56,015**	**64,064**	**71,431**	**78,574**	**84,281**
Δ y/y	*35%*	*12%*	*20%*	*16%*	*13%*	*23%*	*8%*	*-2%*	*0%*	*-5.7%*	*6.1%*	*13.6%*	*14.4%*	*11.5%*	*10.0%*	*7.3%*
Utilization[2]	**85%**	**81%**	**79%**	**74%**	**76%**	**89%**	**95%**	**91%**	**85%**	**74%**	**73%**	**77%**	**79%**	**82%**	**86%**	**89%**
Spot rate[2] (USD '000/day)	**73,207**	**58,303**	**49,370**	**37,072**	**40,673**	**93,135**	**126,683**	**104,346**	**71,942**	**36,038**	**33,470**	**46,058**	**52,303**	**61,865**	**79,510**	**96,846**
OB[2]	22,411	23,044	19,115	10,184	5,350	6,545	12,249	17,391	19,667	24,680	22,544	19,986	15,162	12,916	13,710	16,853
OB/Fleet[2]	**89%**	**78%**	**52%**	**23%**	**11%**	**13%**	**23%**	**32%**	**34%**	**39%**	**33%**	**28%**	**19%**	**15%**	**15%**	**18%**

Low case	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deliveries[1]	3,994	4,797	9,134	7,213	4,434	1,833	323	2,539	5,314	4,714	5,208	4,794	9,316	6,259	3,639	2,415
Scrapping[1]	-	(29)	(145)	-	(128)	(225)	(251)	(412)	(269)	(281)	(256)	(260)	(248)	(226)	(193)	(166)
Other[1]	(0)	(129)	(139)	(264)	0	(126)	(0)	0	(126)	(126)	(0)	(124)	(0)	(0)	0	(0)
Contracting[1]	*6,875*	*4,201*	*814*	*640*	*461*	*8,215*	*6,289*	*6,513*	*10,720*	*5,231*	*1,250*	*2,286*	*3,853*	*3,862*	*4,440*	*4,878*
Supply[2]	**25,303**	**29,648**	**36,794**	**44,992**	**50,168**	**52,311**	**53,245**	**54,088**	**58,114**	**62,996**	**67,544**	**72,307**	**81,153**	**87,592**	**91,421**	**94,245**
Δ y/y	*16%*	*17%*	*24%*	*22%*	*12%*	*4%*	*2%*	*2%*	*7%*	*8.4%*	*7.2%*	*7.1%*	*12.2%*	*7.9%*	*4.4%*	*3.1%*
Demand[2]	**21,509**	**24,135**	**28,978**	**33,517**	**37,979**	**46,543**	**50,437**	**49,315**	**49,305**	**46,516**	**49,330**	**56,015**	**60,861**	**65,285**	**69,055**	**76,434**
Δ y/y	*35%*	*12%*	*20%*	*16%*	*13%*	*23%*	*8%*	*-2%*	*0%*	*-5.7%*	*6.1%*	*13.6%*	*8.6%*	*7.3%*	*5.8%*	*10.7%*
Utilization[2]	**85%**	**81%**	**79%**	**74%**	**76%**	**89%**	**95%**	**91%**	**85%**	**74%**	**73%**	**77%**	**75%**	**75%**	**76%**	**81%**
Spot rate[2] (USD '000/day)	**73,207**	**58,303**	**49,370**	**37,072**	**40,673**	**93,135**	**126,683**	**104,346**	**71,942**	**36,038**	**33,470**	**46,058**	**38,944**	**37,915**	**40,106**	**57,015**
OB[2]	22,411	23,044	19,115	10,184	5,350	6,545	12,249	17,391	19,667	24,680	22,544	19,986	14,599	11,112	10,542	11,990
OB/Fleet[2]	**89%**	**78%**	**52%**	**23%**	**11%**	**13%**	**23%**	**32%**	**34%**	**39%**	**33%**	**28%**	**18%**	**13%**	**12%**	**13%**

High case	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deliveries[1]	3,994	4,797	9,134	7,213	4,434	1,833	323	2,539	5,314	4,714	5,208	4,794	8,022	6,607	4,319	2,987
Scrapping[1]	-	(29)	(145)	-	(128)	(225)	(251)	(412)	(269)	(281)	(256)	(260)	(248)	(226)	(193)	(166)
Other[1]	(0)	(129)	(139)	(264)	0	(126)	(0)	0	(126)	(126)	(0)	(124)	(0)	(0)	0	(0)
Contracting[1]	*6,875*	*4,201*	*814*	*640*	*461*	*8,215*	*6,289*	*6,513*	*10,720*	*5,231*	*1,250*	*2,286*	*6,144*	*8,431*	*14,936*	*19,565*
Supply[2]	**25,303**	**29,648**	**36,794**	**44,992**	**50,168**	**52,311**	**53,245**	**54,088**	**58,114**	**62,996**	**67,544**	**72,307**	**79,978**	**86,222**	**90,379**	**93,433**
Δ y/y	*16%*	*17%*	*24%*	*22%*	*12%*	*4%*	*2%*	*2%*	*7%*	*8.4%*	*7.2%*	*7.1%*	*10.6%*	*7.8%*	*4.8%*	*3.4%*
Demand[2]	**21,509**	**24,135**	**28,978**	**33,517**	**37,979**	**46,543**	**50,437**	**49,315**	**49,305**	**46,516**	**49,330**	**56,015**	**67,267**	**77,848**	**88,898**	**105,791**
Δ y/y	*35%*	*12%*	*20%*	*16%*	*13%*	*23%*	*8%*	*-2%*	*0%*	*-5.7%*	*6.1%*	*13.6%*	*20.1%*	*15.7%*	*14.2%*	*19.0%*
Utilization[2]	**85%**	**81%**	**79%**	**74%**	**76%**	**89%**	**95%**	**91%**	**85%**	**74%**	**73%**	**77%**	**84%**	**90%**	**98%**	**113%**
Spot rate[2] (USD '000/day)	**73,207**	**58,303**	**49,370**	**37,072**	**40,673**	**93,135**	**126,683**	**104,346**	**71,942**	**36,038**	**33,470**	**46,058**	**70,301**	**102,014**	**161,197**	**316,403**
OB[2]	22,411	23,044	19,115	10,184	5,350	6,545	12,249	17,391	19,667	24,680	22,544	19,986	15,852	15,624	21,007	34,413
OB/Fleet[2]	**89%**	**78%**	**52%**	**23%**	**11%**	**13%**	**23%**	**32%**	**34%**	**39%**	**33%**	**28%**	**20%**	**18%**	**23%**	**37%**

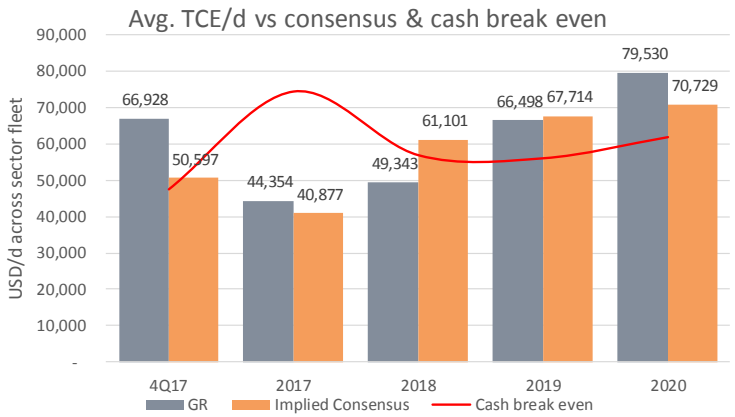
[1]Sum during period [2]Average during period

Peer Group

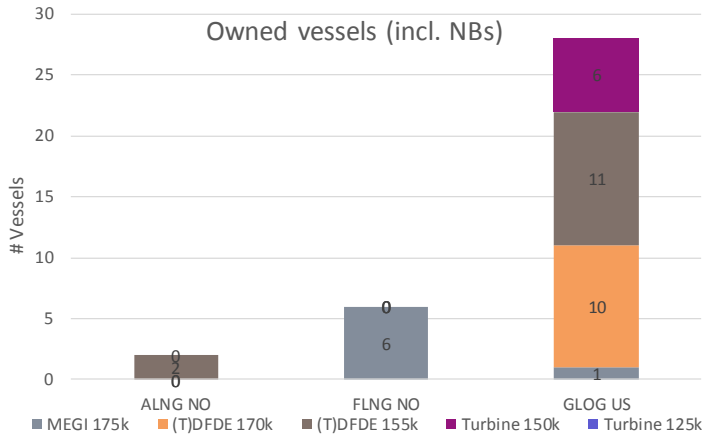
Valuation matrix

						P/NAV					EV/EBITDA				Liquidity/(GIBD + eq. capex)				FCF yield				Dividend yield			
USDm	**Mcap**	**Turnover**	**P/sh**	**Value**	**+/-**	**NAV**	**Now**	**1y fwd**	**+25%**	**ε**	**2017**	**2018**	**2019**	**2020**	**2017**	**2018**	**2019**	**2020**	**2017**	**2018**	**2019**	**2020**	**2017**	**2018**	**2019**	**2020**
ALNG NO	76	0.2	4.6	4.7	4%	5.3	0.86	-	0.46	0.35	73.1	14.2	10.1	6.9	11%	9%	7%	8%	-3%	28%	40%	29%	0%	0%	0%	13%
FLNG NO	503	1.3	10.8	16.6	54%	11.0	0.98		0.62	0.23		14.6	9.3	5.9	6%	22%	12%	14%	-17%	-37%	-37%	32%	0%	3%	11%	19%
GLOG US	1,553	8.0	19.2	21.5	12%	5.5	3.49	-	1.00	1.00	8.6	8.1	7.5	6.0	11%	6%	2%	2%	5%	-23%	-16%	21%	3%	3%	3%	4%
Average	**711**	**3.2**			**23%**		**1.78**	**0.00**	**0.69**	**0.53**	**40.8**	**12.3**	**9.0**	**6.2**	**9%**	**12%**	**7%**	**8%**	**-5%**	**-10%**	**-4%**	**28%**	**1%**	**2%**	**5%**	**12%**
Median	**503**	**1.3**			**12%**		**0.98**	**0.00**	**0.62**	**0.35**	**40.8**	**14.2**	**9.3**	**6.0**	**11%**	**9%**	**7%**	**8%**	**-3%**	**-23%**	**-16%**	**29%**	**0%**	**3%**	**3%**	**13%**

Avg. TCE/day across peer fleet vs consensus



Fleet overview



Source: Gersemi Research, Bloomberg, company data, www

Gersemi Research

07 February 2018

Independence & Integrity

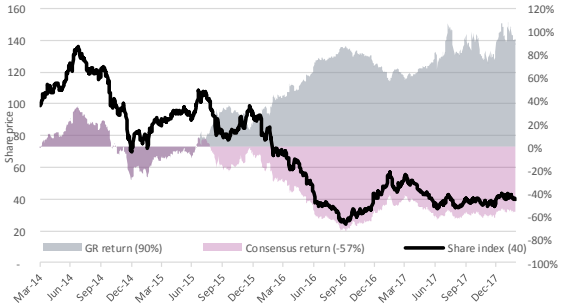
$f(\lambda) = a_0 + \beta_1 \lambda^{\tau}, R^2 \approx 1$

#BUY #LPG #VLGC #equities ahead of the imminent cyclical inflection point. We see 98% upside in 1y

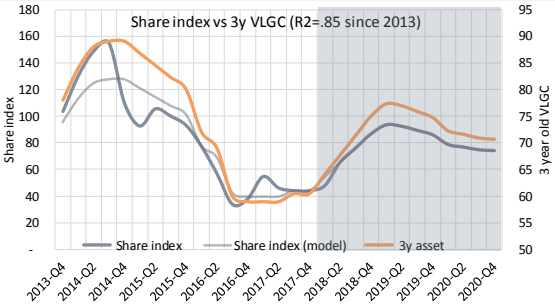
LPG Carriers

BUY

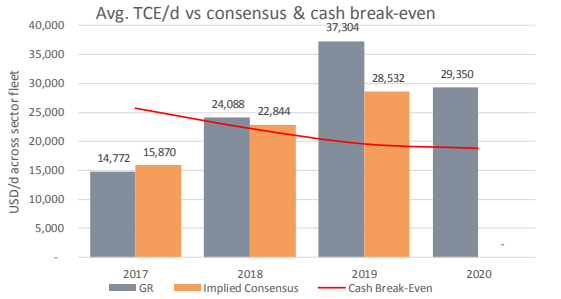
Sector share prices



Share prices vs 3y old VLGC



TCE/d across peers: GR vs consensus



Gersemi Research / Analysts

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1Q18 Marks the Spot

LPG shipping has moved from a scarce resource in 2014/2015 where regional LPG price differentials dictated the marginal revenue, to an oversupplied commodity shipping segment where marginal cost is the name of the game. However, we believe this will change in 2018E as vessel supply growth grinds almost to a halt and demand continues its rapid growth. We reiterate our BUY recommendation and forecast shares to rise 98% on average over the next year.

Market fundamentals: We believe 1Q18 will mark the trough and share prices to rally from seasonal and fundamental improvements in 2Q18 and beyond. We forecast a net supply growth of 0.6% q/q in 1Q18E to be followed by two quarters of negative supply growth, and an annualized growth rate below 3% throughout 2019E. This unusually low supply growth will form the foundation for the next expansionary phase of the cycle against what we forecast to be 9-10% annualized demand growth in 2018E/19E.

Top picks: AVANCE (BUY, 66) is our #1 pick trading at a P/NAV of 0.51 (peers 0.60) and 1y fwd NAV of 0.35 (0.47) even after applying a China-discount to its applicable fleet. Add historically high operational leverage and we see EV/EBITDA in '19E of 3.4 (4.5) and potential dividend yield of 55% (28%). LPG (BUY, 15) is ticking all the same boxes as Avance, but it ranks #2 as the discount is slightly lower across the board. BWLPG (BUY, 74) also has significant upside in our view, but the historically lower operational leverage from its industrial approach (ie COAs & TCs) means its not the best bet in the cyclical expansion.

Sector overview

			Recommendations & upside				Valuation		
USDm	Mcap	Turnover	Rec.	TP	P	+/-	NAV	P/NAV	ε
AVANCE NO	1,350	1.7	**BUY**	66	20.9	215%	40.8	0.51	0.22
BWLPG NO	4,958	4.9	**BUY**	74	34.9	112%	53.6	0.65	0.21
LPG US	437	2.8	**BUY**	15	7.9	89%	14.2	0.56	0.17
Average	**2,248**	**3.1**	**BUY**			**139%**		**0.57**	**0.20**
Median	**1,350**	**2.8**	**BUY**			**112%**		**0.56**	**0.21**

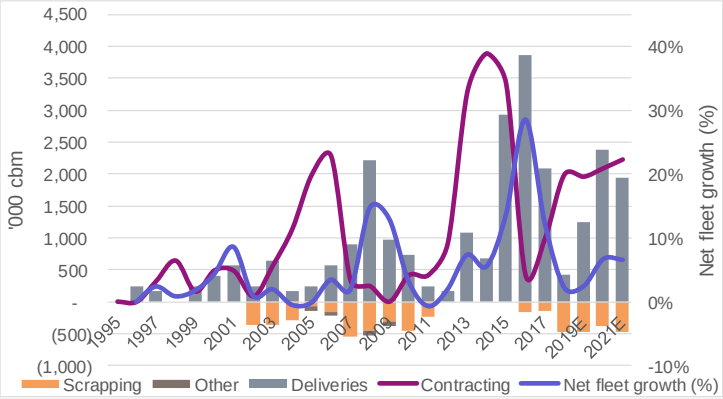
Sector overview

Source: Gersemi Research, Bloomberg, company data

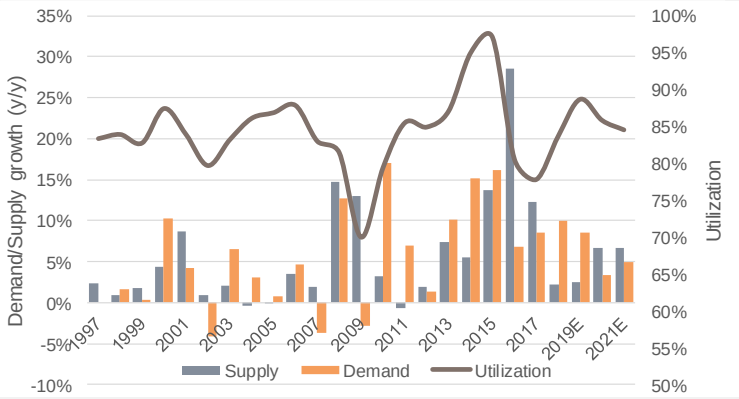
Disclaimer: The publisher currently has investments in some of the companies covered in this report. More disclaimers at the end of this document

Market Balance

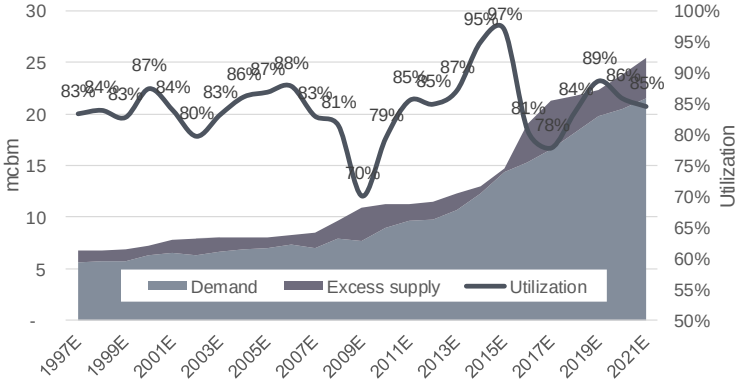
Supply



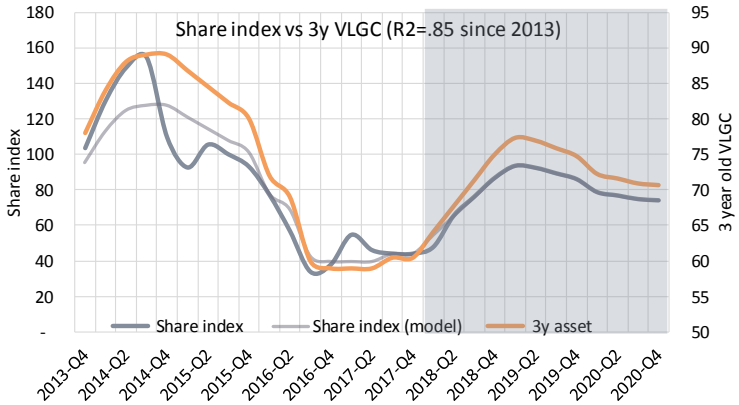
Supply/Demand



Supply/Demand



Shares highly correlated with 3y old vessel values



Forecast overview and change from last report

Delta table: LPG Carrier forecast summary

Δ y/y	2017	2018E	2019E	2020E	Avg spot	2017	2018E	2019E	2020E
Supply	**12.3%**	**2.2%**	**2.5%**	**6.7%**	**VLGC spot**	**14,162**	**25,695**	**40,522**	**31,017**
Supply, old	12.4%	3.0%	1.0%	1.4%	old	12,829	18,494	25,363	31,697
Δ	0.0%	-0.7%	1.5%	5.3%	Δ	1,333	7,201	15,159	(680)
Demand	**8.5%**	**9.9%**	**8.6%**	**3.3%**	**VLGC 3y**	**60**	**70**	**76**	**71**
Demand, old	6.3%	8.4%	6.0%	5.0%	old	62	67	71	73
Δ	2.2%	1.5%	2.6%	-1.7%	Δ	(2)	3	6	(2)
Utilization	**77.8%**	**83.6%**	**88.6%**	**85.8%**					
Utilization, old	73.3%	77.2%	81.0%	83.9%					
Δ	4.5%	6.5%	7.6%	1.9%					

Source: Gersemi Research, Bloomberg, company data, www

Econometrics

Demand/Supply ('000 cbm)																
Base case	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deliveries[1]	575	904	2,206	975	733	244	162	1,073	669	2,935	3,863	2,081	412	1,236	2,371	1,940
Scrapping[1]	(157)	(546)	(453)	(304)	(461)	(241)	-	-	-	-	(161)	(154)	(468)	(468)	(386)	(468)
Other[1]	(71)	(0)	(76)	(80)	0	(0)	(0)	(0)	-	-	-	-	-	-	-	-
Contracting[1]	*2,271*	*325*	*242*	*-*	*413*	*415*	*913*	*3,271*	*3,879*	*3,410*	*416*	*986*	*1,986*	*1,953*	*2,084*	*2,221*
Supply[2]	**8,279**	**8,438**	**9,685**	**10,945**	**11,297**	**11,223**	**11,447**	**12,292**	**12,979**	**14,760**	**18,977**	**21,316**	**21,791**	**22,332**	**23,832**	**25,407**
Δ y/y	*3%*	*2%*	*15%*	*13%*	*3%*	*-1%*	*2%*	*7%*	*6%*	*14%*	*29%*	*12%*	*2%*	*2%*	*7%*	*7%*
Demand[2]	**7,270**	**7,000**	**7,885**	**7,662**	**8,970**	**9,593**	**9,716**	**10,702**	**12,319**	**14,317**	**15,285**	**16,583**	**18,227**	**19,794**	**20,447**	**21,470**
Δ y/y	*5%*	*-4%*	*13%*	*-3%*	*17%*	*7%*	*1%*	*10%*	*15%*	*16%*	*7%*	*8%*	*10%*	*9%*	*3%*	*5%*
Utilization[2]	**88%**	**83%**	**81%**	**70%**	**79%**	**85%**	**85%**	**87%**	**95%**	**97%**	**81%**	**78%**	**84%**	**89%**	**86%**	**85%**
Spot rate[2] (USD/day)	**37,845**	**24,023**	**23,234**	**6,074**	**17,178**	**30,861**	**30,817**	**36,951**	**72,669**	**82,644**	**21,136**	**14,162**	**25,695**	**40,522**	**31,017**	**27,401**
Vessel value, 3y[2] (USDm)	**105**	**92**	**83**	**71**	**67**	**73**	**71**	**73**	**88**	**83**	**65**	**60**	**70**	**76**	**71**	**70**
OB[2]	**4,361**	**4,724**	**3,130**	**1,492**	**807**	**1,006**	**1,454**	**2,490**	**6,773**	**7,304**	**5,284**	**2,770**	**3,609**	**4,483**	**4,592**	**4,752**

Low case	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deliveries[1]	575	904	2,206	975	733	244	162	1,073	669	2,935	3,863	2,081	412	1,236	1,383	520
Scrapping[1]	(157)	(546)	(453)	(304)	(461)	(241)	-	-	-	-	(161)	(154)	(468)	(468)	(386)	(468)
Other[1]	(71)	(0)	(76)	(80)	0	(0)	(0)	(0)	-	-	-	-	-	-	-	-
Contracting[1]	*2,271*	*325*	*242*	*-*	*413*	*415*	*913*	*3,271*	*3,879*	*3,410*	*416*	*986*	*743*	*506*	*499*	*591*
Supply[2]	**8,279**	**8,438**	**9,685**	**10,945**	**11,297**	**11,223**	**11,447**	**12,292**	**12,979**	**14,760**	**18,977**	**21,316**	**21,937**	**22,712**	**23,721**	**24,009**
Δ y/y	*3%*	*2%*	*15%*	*13%*	*3%*	*-1%*	*2%*	*7%*	*6%*	*14%*	*29%*	*12%*	*3%*	*4%*	*4%*	*1%*
Demand[2]	**7,270**	**7,000**	**7,885**	**7,662**	**8,970**	**9,593**	**9,716**	**10,702**	**12,319**	**14,317**	**15,285**	**16,583**	**16,915**	**17,253**	**17,598**	**17,950**
Δ y/y	*5%*	*-4%*	*13%*	*-3%*	*17%*	*7%*	*1%*	*10%*	*15%*	*16%*	*7%*	*8%*	*2%*	*2%*	*2%*	*2%*
Utilization[2]	**88%**	**83%**	**81%**	**70%**	**79%**	**85%**	**85%**	**87%**	**95%**	**97%**	**81%**	**78%**	**77%**	**76%**	**74%**	**75%**
Spot rate[2] (USD /day)	**37,845**	**24,023**	**23,234**	**6,074**	**17,178**	**30,861**	**30,817**	**36,951**	**72,669**	**82,644**	**21,136**	**14,162**	**13,087**	**11,542**	**9,568**	**10,214**
Vessel value, 3y[2] (USDm)	**105**	**92**	**83**	**71**	**67**	**73**	**71**	**73**	**88**	**83**	**65**	**60**	**62**	**62**	**61**	**62**

High case	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deliveries[1]	575	904	2,206	975	733	244	162	1,073	669	2,935	3,863	2,081	412	1,236	2,896	3,327
Scrapping[1]	(157)	(546)	(453)	(304)	(461)	(241)	-	-	-	-	(161)	(154)	(468)	(468)	(386)	(468)
Other[1]	(71)	(0)	(76)	(80)	0	(0)	(0)	(0)	-	-	-	-	-	-	-	-
Contracting[1]	*2,271*	*325*	*242*	*-*	*413*	*415*	*913*	*3,271*	*3,879*	*3,410*	*416*	*986*	*2,680*	*3,449*	*3,519*	*3,472*
Supply[2]	**8,279**	**8,438**	**9,685**	**10,945**	**11,297**	**11,223**	**11,447**	**12,292**	**12,979**	**14,760**	**18,977**	**21,316**	**21,474**	**21,508**	**23,109**	**25,724**
Δ y/y	*3%*	*2%*	*15%*	*13%*	*3%*	*-1%*	*2%*	*7%*	*6%*	*14%*	*29%*	*12%*	*1%*	*0%*	*7%*	*11%*
Demand[2]	**7,270**	**7,000**	**7,885**	**7,662**	**8,970**	**9,593**	**9,716**	**10,702**	**12,319**	**14,317**	**15,285**	**16,583**	**18,241**	**20,065**	**22,072**	**24,279**
Δ y/y	*5%*	*-4%*	*13%*	*-3%*	*17%*	*7%*	*1%*	*10%*	*15%*	*16%*	*7%*	*8%*	*10%*	*10%*	*10%*	*10%*
Utilization[2]	**88%**	**83%**	**81%**	**70%**	**79%**	**85%**	**85%**	**87%**	**95%**	**97%**	**81%**	**78%**	**85%**	**93%**	**96%**	**94%**
Spot rate[2] (USD /day)	**37,845**	**24,023**	**23,234**	**6,074**	**17,178**	**30,861**	**30,817**	**36,951**	**72,669**	**82,644**	**21,136**	**14,162**	**29,021**	**61,175**	**74,454**	**67,865**
Vessel value, 3y[2] (USDm)	**105**	**92**	**83**	**71**	**67**	**73**	**71**	**73**	**88**	**83**	**65**	**60**	**74**	**94**	**94**	**90**
OB[2]	**4,361**	**4,724**	**3,130**	**1,492**	**807**	**1,006**	**1,454**	**2,490**	**6,773**	**7,304**	**5,284**	**2,770**	**4,019**	**6,095**	**7,398**	**7,830**
OB/Fleet[2]	**53%**	**56%**	**32%**	**14%**	**7%**	**9%**	**13%**	**20%**	**52%**	**49%**	**28%**	**13%**	**19%**	**28%**	**32%**	**30%**

[1]Sum during period [2]Average during period

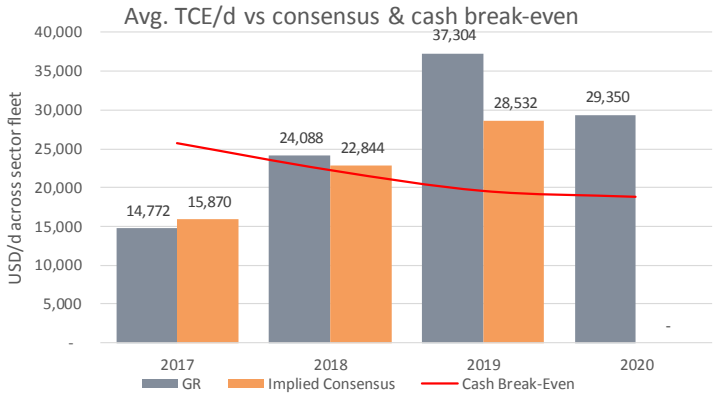
Source: Gersemi Research, Bloomberg, company data, www

Peer Group

Valuation matrix

						P/NAV					EV/EBITDA				Liquidity/(GIBD + eq. capex)				FCF yield				Dividend yield			
USDm	Mcap	Turnover	P/sh	Value	+/-	NAV	Now	1y fwd	+20%	ε	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
AVANCE NO	1,350	1.7	21	66	**217%**	40.8	0.51	0.37	0.35	0.22	51.3	7.0	3.4	4.5	11%	13%	14%	15%	19%	31%	76%	51%	0%	15%	55%	32%
BWLPG NO	4,958	4.9	35	74	**112%**	53.6	0.65	0.52	0.46	0.21	14.3	8.9	4.4	5.6	4%	5%	7%	8%	12%	18%	49%	38%	0%	7%	31%	23%
LPG US	437	2.8	7.9	15	**87%**	14.2	0.56	0.41	0.41	0.17	16.6	9.5	4.6	6.2	11%	11%	14%	15%	16%	18%	42%	28%	0%	0%	26%	17%
Average	**2,248**	**3.1**			**139%**		**0.57**	**0.43**	**0.41**	**0.20**	**27.4**	**8.5**	**4.1**	**5.4**	**9%**	**9%**	**12%**	**13%**	**16%**	**22%**	**56%**	**39%**	**0%**	**7%**	**37%**	**24%**
Median	**1,350**	**2.8**			**112%**		**0.56**	**0.41**	**0.41**	**0.21**	**16.6**	**8.9**	**4.4**	**5.6**	**11%**	**11%**	**14%**	**15%**	**16%**	**18%**	**49%**	**38%**	**0%**	**7%**	**31%**	**23%**

Avg. TCE/day across peer fleet vs consensus



Source: Gersemi Research, Bloomberg, company data, www

Gersemi Research

05 February 2018

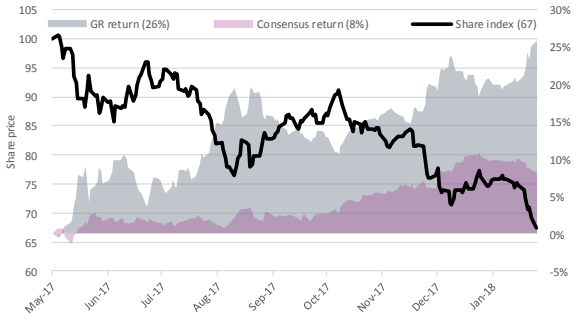
Independence & Integrity

$f(\lambda) = a_0 + \beta_1 \lambda^{\tau}, R^2 \approx 1$

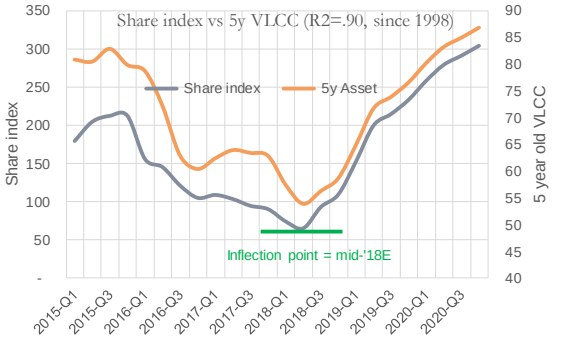
#HOLD #Oil #Tanker #equities: Further downside before cyclical inflection point mid-'18E

Oil Tankers HOLD

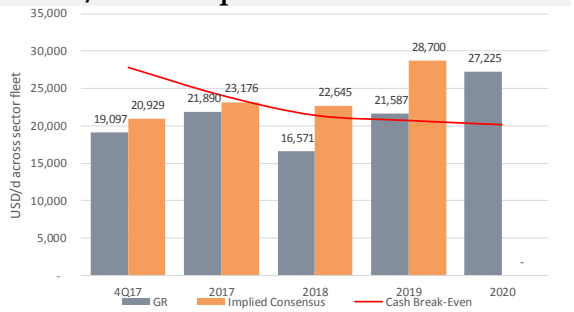
Sector return: Gersemi vs consensus



Shares prices vs 5y old VLCCs



TCE/d across peers: GR vs consensus



Gersemi Research / Analysts

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Point of Inflection Approaches

Beside a Hold recommendation during last year's short-lived seasonal winter market, we have maintained our Sell rating on the Oil Tankers segment due to deteriorating market fundamentals since 2015. We believe the cyclical inflection point will be in 2Q18E and see shares rising 134% on average over the next year, despite short-term downside. Our best play is to use the next six months to opportunistically accumulate shares ahead of the next winter season and consecutive annual improvements. We upgrade the segment from Sell to HOLD, mainly due to share price developments since our last report.

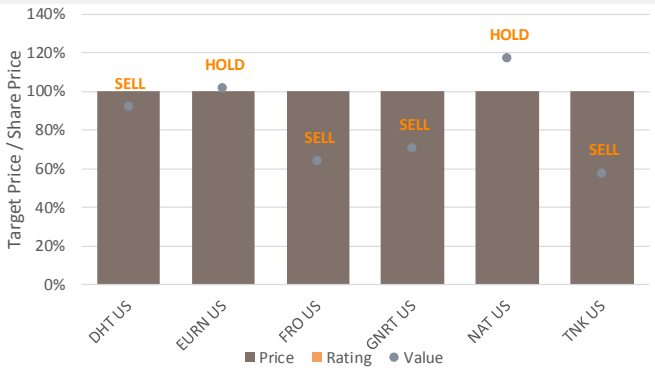
Market fundamentals: We forecast net fleet supply of 2.7% in 2018E vs 6.1% in 2017E. The diminishing supply growth is the main reason we believe 2018E will constitute the inflection point of this cycle. Our demand growth of 0.6% in 2018E is very low, and key focus will be on OPEC's June meeting and supply-side responsiveness to higher energy prices (i.e. US rig count). We expect demand to rise to 8.1% in 2019E on the back of strong global demand and increased exports.

Top picks: NAT (HOLD, TP 2.3) is trading at a rare discount to NAV and has by most measures successfully shored up its balance sheet. Were the company to regain yield pricing, we see $5.3/sh by 2019. EURN (HOLD, TP 8.1) recently announced the highly accretive acquisition of GNRT, the main reason we raise our TP from 6.0 to 8.1. For the less risk averse investor, we highlight TNK (SELL, TP 0.7). We see further downside amidst liquidity concerns, but a debt moratorium or other measures could be a significant kicker for the most leveraged company ahead of the cyclical upturn.

Sector overview

			Recommendations & upside				P/NAV	
	Mcap	Turnover	Rec.	TP	P	+/-	Now	1y fwd
DHT US	481	2.7	SELL	3.1	3.4	-8%	0.73	0.97
EURN US	1,266	5.8	HOLD	8.1	8.0	2%	1.00	0.86
FRO US	701	3.4	SELL	2.7	4.1	-35%	1.35	2.46
GNRT US	455	3.2			5.5		0.50	0.83
NAT US	282	5.9	HOLD	2.3	2.0	16%	0.76	0.79
TNK US	321	2.6	SELL	0.7	1.2	-39%	0.96	1.26
Average	**584**	**3.9**				**-13%**	**0.89**	**1.19**
Median	**468**	**3.3**				**-8%**	**0.86**	**0.91**

Sector overview

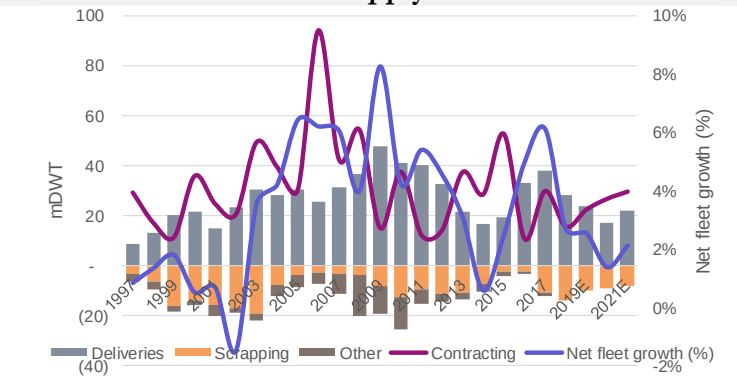


Source: Gersemi Research, Bloomberg, company data

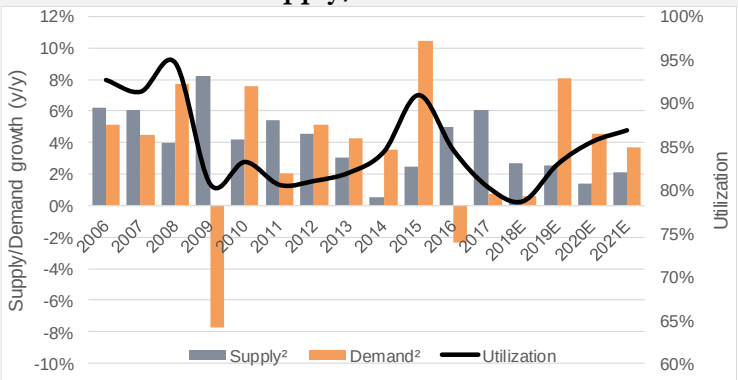
Disclaimer: The publisher currently has no investments in the companies covered in this report. More disclaimers at the end of this document

Market Balance

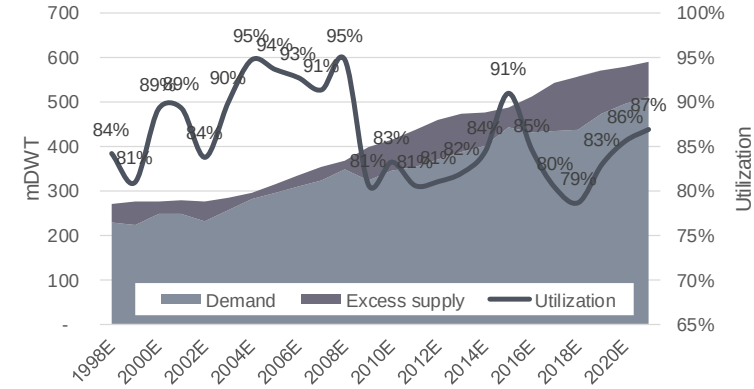
Supply



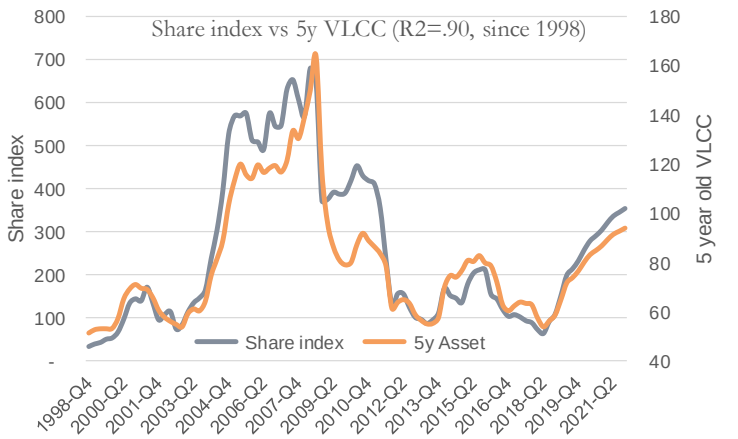
Supply/Demand



Supply/Demand



Shares prices & 5y old VLCCs highly correlated



Forecast overview and change from last report

Delta table: Oil Tanker forecast summary

Δ y/y	2017	2018E	2019E	2020E	Average spot rate	2017	2018E	2019E	2020E
Supply	**6.1%**	**2.7%**	**2.5%**	**1.4%**	**VLCC, base case**	**17,794**	**15,458**	**28,390**	**38,920**
Supply, old	6.1%	2.6%	2.4%	1.5%	old	18,108	18,974	26,796	34,665
Δ	0.0%	0.0%	0.2%	-0.2%	Δ	(314)	(3,517)	1,594	4,255
Demand	**0.7%**	**0.6%**	**8.1%**	**4.6%**	**Suezmax, base case**	**15,829**	**12,109**	**20,576**	**27,470**
Demand, old	1.0%	2.1%	5.5%	4.1%	old	15,958	14,388	19,512	24,667
Δ	-0.3%	-1.5%	2.6%	0.5%	Δ	(129)	(2,278)	1,064	2,803
Utilization	**80.3%**	**78.7%**	**82.9%**	**85.5%**	**Aframax, base case**	**13,872**	**11,030**	**16,967**	**21,801**
Utilization, old	80.5%	80.1%	82.6%	84.6%	old	13,966	12,628	16,221	19,835
Δ	-0.2%	-1.5%	0.3%	0.9%	Δ	(94)	(1,598)	746	1,965

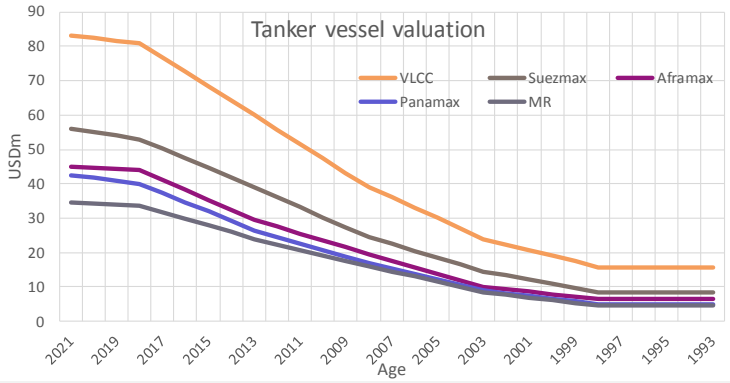
Source: Gersemi Research, Bloomberg, company data, www

Asset Valuation

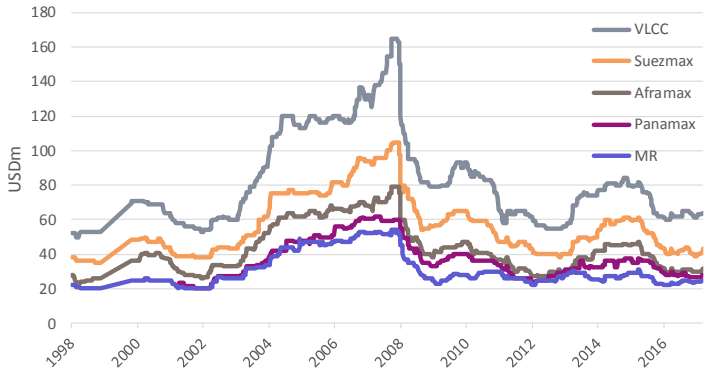
Asset valuation overview

Summary	VLCC	Suezmax	Aframax	Panamax	MR
NB	83.0	56.0	45.0	42.5	34.5
resale	81.0	53.0	44.0	40.0	33.5
5y	60.0	39.0	29.5	26.5	24.0
10y	39.0	24.5	19.5	17.0	16.0
15y	24.0	14.5	10.0	9.0	8.5
20y	15.8	8.5	6.5	5.0	4.6
scrap	15.8	8.5	6.5	5.0	4.6

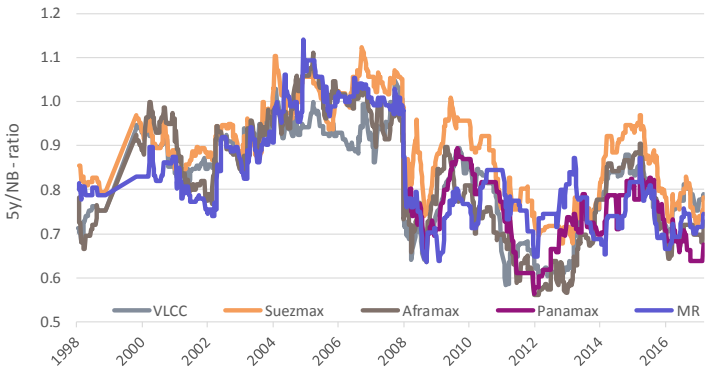
Asset valuation overview



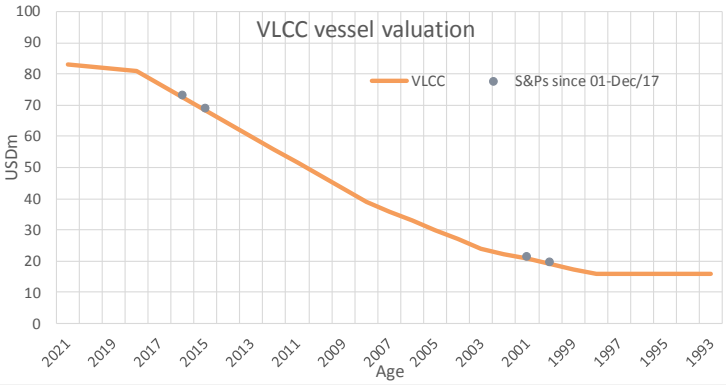
Historical 5y old vessel values



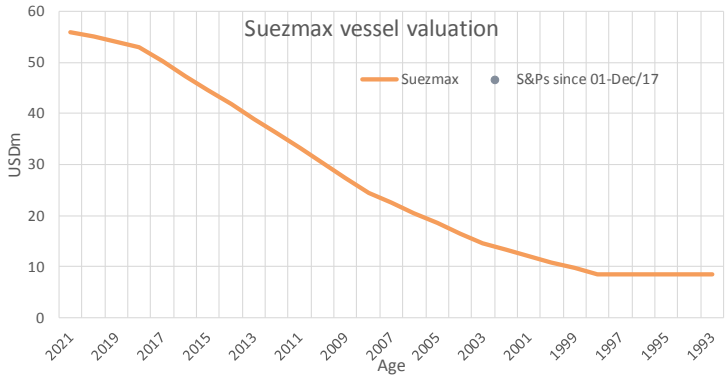
Historical price ratio, 5y/newbuild



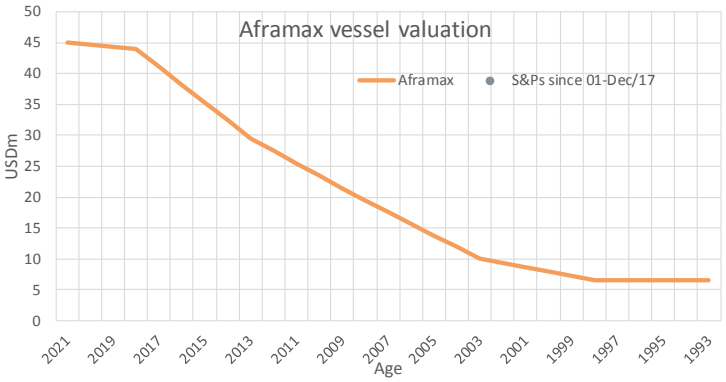
VLCC valuation vs recent S&Ps



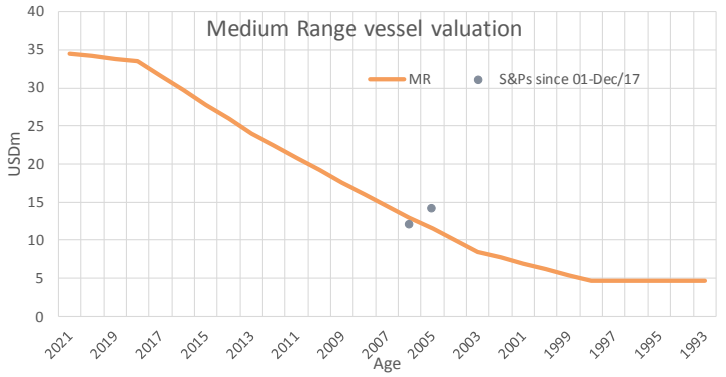
Suezmax valuation vs recent S&Ps



Aframax valuation vs recent S&Ps



Medium Range valuation vs recent S&Ps



Source: Gersemi Research, Bloomberg, company data, www

Econometrics

Oil Tankers, base case	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deliveries[1]	41	40	32	21	17	19	33	38	28	24	17	22
Scrapping[1]	(13)	(10)	(12)	(11)	(8)	(2)	(3)	(11)	(14)	(10)	(9)	(8)
Other[1]	(13)	(6)	(3)	(3)	(3)	(2)	(1)	(1)	(0)	(0)	0	(0)
Contracting[1]	*37*	*12*	*14*	*37*	*28*	*52*	*10*	*30*	*15*	*22*	*26*	*29*
Supply[2]	**415**	**438**	**458**	**472**	**474**	**486**	**510**	**541**	**556**	**570**	**578**	**590**
Δ y/y	*4%*	*5%*	*5%*	*3%*	*1%*	*2%*	*5%*	*6%*	*3%*	*3%*	*1%*	*2%*
Demand[2]	**346**	**353**	**371**	**387**	**400**	**442**	**431**	**435**	**437**	**473**	**494**	**512**
Δ y/y	*8%*	*2%*	*5%*	*4%*	*4%*	*10%*	*-2%*	*1%*	*1%*	*8%*	*5%*	*4%*
Utilization[2]	**83%**	**81%**	**81%**	**82%**	**84%**	**91%**	**85%**	**80%**	**79%**	**83%**	**86%**	**87%**
Oil Tankers[2] (TCE)	**15,537**	**12,007**	**12,558**	**13,626**	**17,930**	**31,036**	**18,047**	**11,655**	**9,992**	**15,174**	**19,393**	**21,907**
VLCC, spot[2] (TCE)	34,060	18,596	21,187	18,621	30,015	64,846	41,908	17,794	15,458	28,390	38,920	45,195
Suezmax, spot[2] (TCE)	27,864	18,432	16,908	15,511	27,791	46,713	27,799	15,829	12,109	20,576	27,470	31,578
Aframax, spot[2] (TCE)	17,690	12,378	12,541	14,131	24,705	37,954	23,142	13,872	11,030	16,967	21,801	24,682
MR, spot[2] (TCE)	10,692	10,638	10,589	13,464	12,517	21,444	12,166	10,213	9,063	11,774	13,981	15,297
VLCC, 5y[2] (USDm)	87	77	63	56	74	81	68	63	56	72	84	92
Suezmax, 5y[2] (USDm)	62	54	45	40	50	60	49	41	38	48	55	60
Aframax, 5y[2] (USDm)	44	39	31	29	39	46	36	30	29	37	43	47
MR, 5y[2] (USDm)	27	29	25	26	27	28	25	24	22	27	29	30
OB[2]	**129**	**107**	**70**	**56**	**71**	**85**	**91**	**70**	**61**	**52**	**56**	**64**
OB/Fleet[2]	**31%**	**24%**	**15%**	**12%**	**15%**	**17%**	**18%**	**13%**	**11%**	**9%**	**10%**	**11%**

[1]Sum during period [2]Average during period

Oil Tankers, low case	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deliveries[1]	41	40	32	21	17	19	33	38	33	22	14	14
Scrapping[1]	(13)	(10)	(12)	(11)	(8)	(2)	(3)	(11)	(7)	(5)	(5)	(4)
Other[1]	(13)	(6)	(3)	(3)	(3)	(2)	(1)	(1)	(0)	(0)	(0)	(0)
Contracting[1]	*37*	*12*	*14*	*37*	*28*	*52*	*10*	*30*	*11*	*11*	*11*	*12*
Supply[2]	**415**	**438**	**458**	**472**	**474**	**486**	**510**	**541**	**563**	**584**	**595**	**605**
Δ y/y	*4%*	*5%*	*5%*	*3%*	*1%*	*2.5%*	*5.0%*	*6.1%*	*4.1%*	*3.7%*	*1.8%*	*1.8%*
Demand[2]	**346**	**353**	**371**	**387**	**400**	**442**	**431**	**435**	**433**	**444**	**456**	**469**
Δ y/y	*8%*	*2%*	*5%*	*4%*	*4%*	*10%*	*-2.4%*	*0.7%*	*-0.4%*	*2.7%*	*2.7%*	*2.7%*
Utilization[2]	**83%**	**81%**	**81%**	**82%**	**84%**	**91%**	**85%**	**80%**	**77%**	**76%**	**77%**	**77%**
Oil Tankers[2] (TCE)	**15,537**	**12,007**	**12,558**	**13,626**	**17,930**	**31,036**	**18,047**	**11,655**	**8,417**	**8,197**	**8,590**	**9,007**
VLCC, spot[2] (TCE)	34,060	18,596	21,187	18,621	30,015	64,846	41,908	17,794	11,527	10,976	11,958	13,000
Suezmax, spot[2] (TCE)	27,864	18,432	16,908	15,511	27,791	46,713	27,799	15,829	9,668	9,307	9,950	10,632
Aframax, spot[2] (TCE)	17,690	12,378	12,541	14,131	24,705	37,954	23,142	13,872	9,226	8,973	9,423	9,902
MR, spot[2] (TCE)	10,692	10,638	10,589	13,464	12,517	21,444	12,166	10,213	8,239	8,124	8,330	8,548
VLCC, 5y[2] (USDm)	87	77	63	56	74	81	68	63	52	40	41	43
Suezmax, 5y[2] (USDm)	62	54	45	40	50	60	49	41	35	29	29	31
Aframax, 5y[2] (USDm)	44	39	31	29	39	46	36	30	27	21	22	23
MR, 5y[2] (USDm)	27	29	25	26	27	28	25	24	21	20	21	21
OB[2]	**129**	**107**	**70**	**56**	**71**	**85**	**91**	**70**	**59**	**40**	**34**	**30**
OB/Fleet[2]	**31%**	**24%**	**15%**	**12%**	**15%**	**17%**	**18%**	**13%**	**10%**	**7%**	**6%**	**5%**

Oil Tankers, high case	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Deliveries[1]	41	40	32	21	17	19	33	38	24	25	21	28
Scrapping[1]	(13)	(10)	(12)	(11)	(8)	(2)	(3)	(11)	(18)	(13)	(11)	(11)
Other[1]	(13)	(6)	(3)	(3)	(3)	(2)	(1)	(1)	(0)	(0)	(0)	(0)
Contracting[1]	*37*	*12*	*14*	*37*	*28*	*52*	*10*	*30*	*20*	*30*	*43*	*56*
Supply[2]	**415**	**438**	**458**	**472**	**474**	**486**	**510**	**541**	**550**	**561**	**568**	**584**
Δ y/y	*4%*	*5%*	*5%*	*3%*	*1%*	*2.5%*	*5.0%*	*6.1%*	*1.7%*	*1.8%*	*1.4%*	*2.7%*
Demand[2]	**346**	**353**	**371**	**387**	**400**	**442**	**431**	**435**	**450**	**480**	**512**	**547**
Δ y/y	*8%*	*2%*	*5%*	*4%*	*4%*	*10%*	*-2.4%*	*0.7%*	*3.6%*	*6.7%*	*6.7%*	*6.7%*
Utilization[2]	**83%**	**81%**	**81%**	**82%**	**84%**	**91%**	**85%**	**80%**	**82%**	**86%**	**90%**	**94%**
Oil Tankers[2] (TCE)	**15,537**	**12,007**	**12,558**	**13,626**	**17,930**	**31,036**	**18,047**	**11,655**	**13,719**	**19,804**	**29,673**	**40,028**
VLCC, spot[2] (TCE)	34,060	18,596	21,187	18,621	30,015	64,846	41,908	17,794	24,759	39,947	64,578	90,422
Suezmax, spot[2] (TCE)	27,864	18,432	16,908	15,511	27,791	46,713	27,799	15,829	18,199	28,143	44,268	61,188
Aframax, spot[2] (TCE)	17,690	12,378	12,541	14,131	24,705	37,954	23,142	13,872	15,300	22,272	33,579	45,444
MR, spot[2] (TCE)	10,692	10,638	10,589	13,464	12,517	21,444	12,166	10,213	11,013	14,196	19,359	24,777
VLCC, 5y[2] (USDm)	87	77	63	56	74	81	68	63	60	93	130	167
Suezmax, 5y[2] (USDm)	62	54	45	40	50	60	49	41	40	61	83	106
Aframax, 5y[2] (USDm)	44	39	31	29	39	46	36	30	31	48	66	85
MR, 5y[2] (USDm)	27	29	25	26	27	28	25	24	23	31	38	45
OB[2]	**129**	**107**	**70**	**56**	**71**	**85**	**91**	**70**	**64**	**62**	**75**	**99**
OB/Fleet[2]	**31%**	**24%**	**15%**	**12%**	**15%**	**17%**	**18%**	**13%**	**12%**	**11%**	**13%**	**17%**

[1]Sum during period [2]Average during period

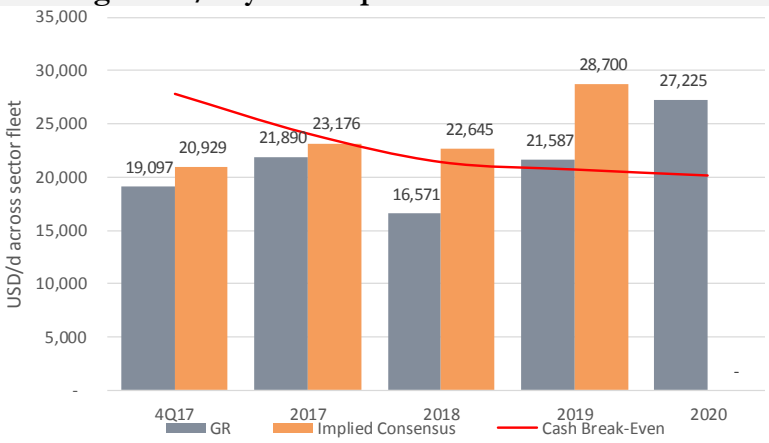
Source: Gersemi Research, Bloomberg, company data, www

Peer Group

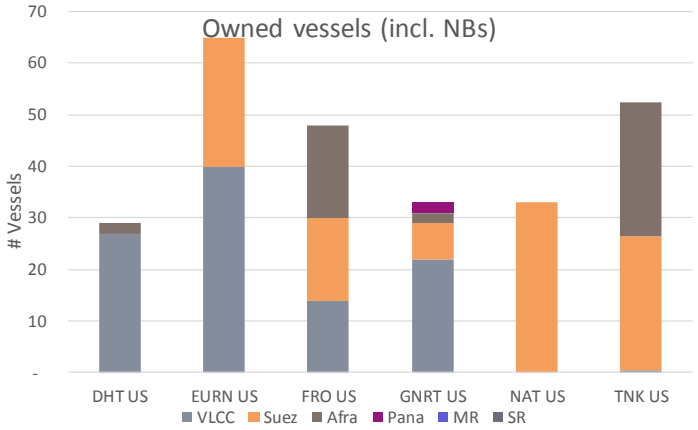
Valuation matrix

						P/NAV					EV/EBITDA				Liquidity/(GIBD + eq. capex)				FCF yield				Dividend yield			
USDm	Mcap	Turnover	P/sh	Value	+/-	NAV	Now	1y fwd	-10%	ε	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
DHT US	481	2.7	3.4	**3.1**	-8%	4.6	0.73	0.97	0.96	0.23	9.1	21.0	7.5	4.2	12%	4%	5%	18%	-60%	-45%	22%	45%	5%	2%	5%	12%
EURN US	1,266	5.8	8.0	**8.1**	2%	7.9	1.00	0.86	1.22	0.18	11.5	32.2	8.9	5.1	15%	14%	14%	21%	8%	-12%	17%	29%	2%	1%	8%	18%
FRO US	701	3.4	4.1	**2.7**	-36%	3.1	1.35	2.46	2.35	0.42	14.0	54.2	12.9	7.2	11%	2%	2%	8%	-79%	-39%	8%	35%	7%	0%	0%	6%
GNRT US	455	3.2	5.5	**3.9**	-29%	10.9	0.50	0.83	0.68	0.26	40.0	23.6	10.1	5.8	15%	6%	3%	9%	96%	-4%	17%	42%	0%	0%	0%	0%
NAT US	282	5.9	2.0	**2.3**	17%	2.6	0.76	0.79	0.93	0.18	9.2	23.0	5.7	3.1	30%	22%	15%	25%	1%	-40%	31%	62%	19%	9%	32%	34%
TNK US	321	2.6	1.2	**0.7**	-42%	1.2	0.96	1.26	1.53	0.37	13.0	27.8	7.8	3.8	6%	-7%	-6%	6%	5%	1%	36%	73%	7%	10%	10%	10%
Average	**584**	**3.9**			**-16%**		**0.89**	**1.19**	**1.28**	**0.27**	**16.1**	**30.3**	**8.8**	**4.9**	**15%**	**7%**	**5%**	**14%**	**-5%**	**-23%**	**22%**	**47%**	**7%**	**4%**	**9%**	**13%**
Median	**468**	**3.3**			**-19%**		**0.86**	**0.91**	**1.09**	**0.25**	**12.2**	**25.7**	**8.3**	**4.6**	**14%**	**5%**	**4%**	**13%**	**3%**	**-26%**	**20%**	**43%**	**6%**	**2%**	**6%**	**11%**

Avg. TCE/day across peer fleet vs consensus



Fleet overview



Source: Gersemi Research, Bloomberg, company data, www

Gersemi Research

05 February 2018

Independence & Integrity

$f(\lambda) = a_0 + \beta_1 \lambda^{\tau}, R^2 \approx 1$

#BUY #OilService #Rig on slowly improving fundamentals. We see 76% upside in one year and attractive risk/reward

Oil Services Rig

BUY

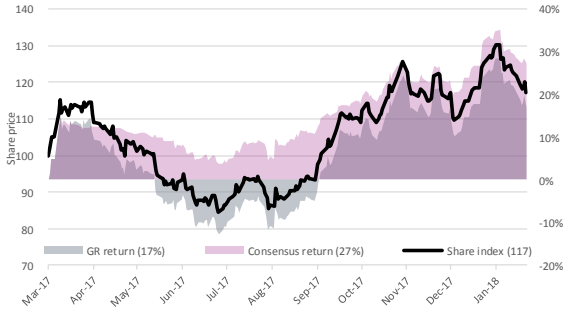
Improvements Ahead

Energy prices have staged a significant comeback since the trough in early 2016, and the investment cycle for energy companies has finally entered the expansionary phase. Though still early, we finally see increasing utilization and rising earnings/asset values in the offshore rig space going forward. We believe share prices troughed in 2016/2017 and forecast an average upside of 76% y/y for the segment. We reiterate our BUY recommendation and highlight BDRILL, NODL and ESV as our top picks.

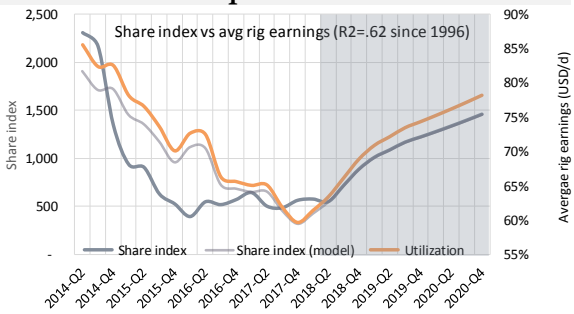
Key investment opportunities: E&P companies are increasing their capex budgets and the number of FIDs are on the rise. Although rigs are experiencing abysmal utilization levels, we believe the cyclical inflection point is behind us. Our econometric approach suggests shares to rise 76% on average over the next year, with a standard deviation of 0.37 (vs 0.42 across our universe). This is attractive risk/return in our view.

Top picks: Mr. Trøim's Borr Drilling (BUY, NOK 61) acquired a large fleet of jackups at the trough, enabling a cash break even which is below most peers. We also find the strategic partnership with Schlumberger attractive, potentially increasing fleet utilization. Former partner, Mr. Fredrisken, has formed Northern Drilling (BUY, NOK 116) to play the cycle all the time Seadrill remains in disarray. Attractive multiples on a fully delivered basis, further growth ahead and a likely M&A target. Ensco (BUY, USD 13) is the riskier bet, but with additional upside attached. Our target implies a 141% share appreciation, though contingent on the economics of its older units.

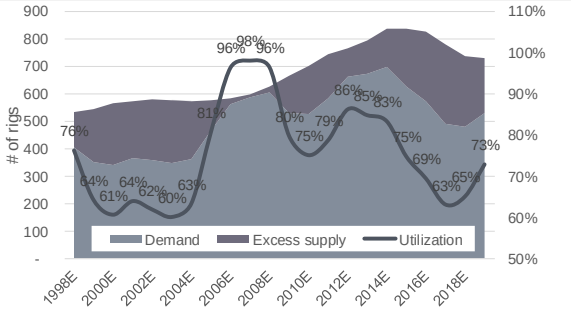
Sector share prices



Share price forecast



Market balance



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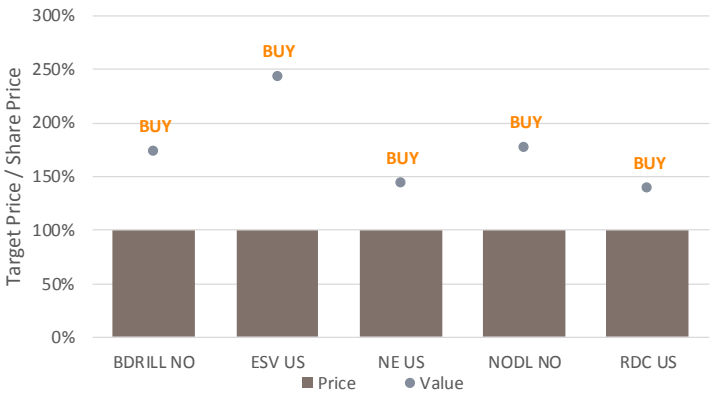
Sector overview

			Recommendations & upside			
USDm	Mcap	Turnover	Rec.	TP	P	+/-
BDRILL NO	2,105	4.8	**BUY**	61	34.4	77%
ESV US	2,355	76.8	**BUY**	13	5.4	141%
NE US	1,061	37.1	**BUY**	6.0	4.3	39%
NODL NO	654	0.7	**BUY**	116	65.8	76%
RDC US	1,744	39.9	**BUY**	19	13.8	38%
Average	**1,584**	**31.9**	**BUY**			**74%**
Median	**1,744**	**37.1**	**BUY**			**76%**

Sector overview



Source: Gersemi Research, Bloomberg, company data

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Peer Group

Valuation matrix

						P/NAV				EV/EBITDA			
USDm	Mcap	Turnover	P/sh	Value	+/-	Now	1y fwd	+50%	ε	2017	2018	2019	2020
BDRILL NO	2,105	4.8	34	60	73%	1.4	1.3	0.7	0.18	-	-	20.1	12.1
ESV US	2,355	76.8	5.4	13.1	143%	0.5	0.4	0.2	0.21	12.5	12.9	6.8	4.7
NE US	1,061	37.1	4.3	6.2	44%	1.4	1.0	0.4	0.60	8.5	9.7	6.2	5.0
NODL NO	654	0.7	66	116	77%	0.9	0.8	0.5	0.14			13.8	8.9
RDC US	1,744	39.9	14	19	39%	0.9	0.8	0.5	0.15	6.9	11.8	10.7	7.4
Average	**1,584**	**31.9**			**75%**	**1.0**	**0.8**	**0.5**	**0.3**	**7.0**	**8.6**	**11.5**	**7.6**
Median	**1,744**	**37.1**			**73%**	**0.9**	**0.8**	**0.5**	**0.2**	**7.7**	**10.7**	**10.7**	**7.4**

	P/E (adj.)				Liquidity/(GIBD + eq. capex)				FCF yield				Dividend yield			
USDm	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
BDRILL NO	-	-	54.0	17.0	59%	22%	11%	28%	-63%	-38%	-10%	3%	0%	0%	0%	0%
ESV US	-	-	55.2	14.2	15%	14%	21%	27%	-38%	-2%	16%	17%	0%	3%	10%	8%
NE US	-	-	-	-	14%	9%	8%	10%	22%	6%	18%	26%	0%	1%	4%	6%
NODL NO			14.3	8.2	73%	71%	25%	27%	-60%	0%	-49%	16%	0%	0%	6%	11%
RDC US					47%	50%	50%	55%	7%	4%	4%	9%	0%	0%	0%	0%
Average	**0.0**	**0.0**	**30.9**	**9.9**	**41%**	**33%**	**23%**	**29%**	**-26%**	**-6%**	**-4%**	**14%**	**0%**	**1%**	**4%**	**5%**
Median	**0.0**	**0.0**	**34.1**	**11.2**	**47%**	**22%**	**21%**	**27%**	**-38%**	**0%**	**4%**	**16%**	**0%**	**0%**	**4%**	**6%**

Source: Gersemi Research, Bloomberg, company data, www

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