LNG Shipping Market

13 June 2018

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LNG Shipping Market – June 2018

- Shipping Rates
- Shipping Activity
- LNG Trade
- LNG Carrier Fleet
- LNGC Market Forecast

Sources: Fearnleys
Note:

LNG Shipping Market – June 2018

- ❑ **Shipping Rates**
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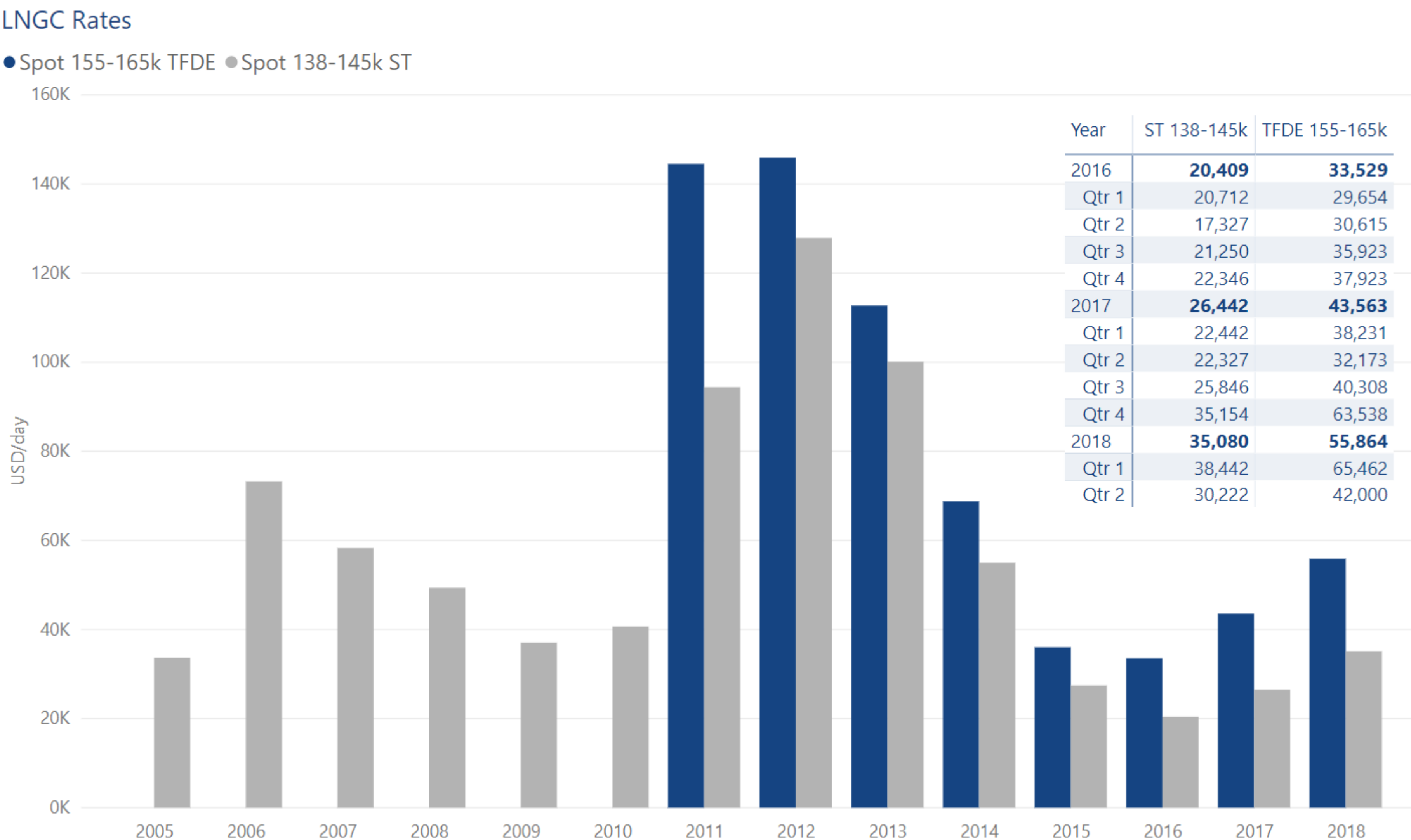
Sources: Fearnleys
Note:

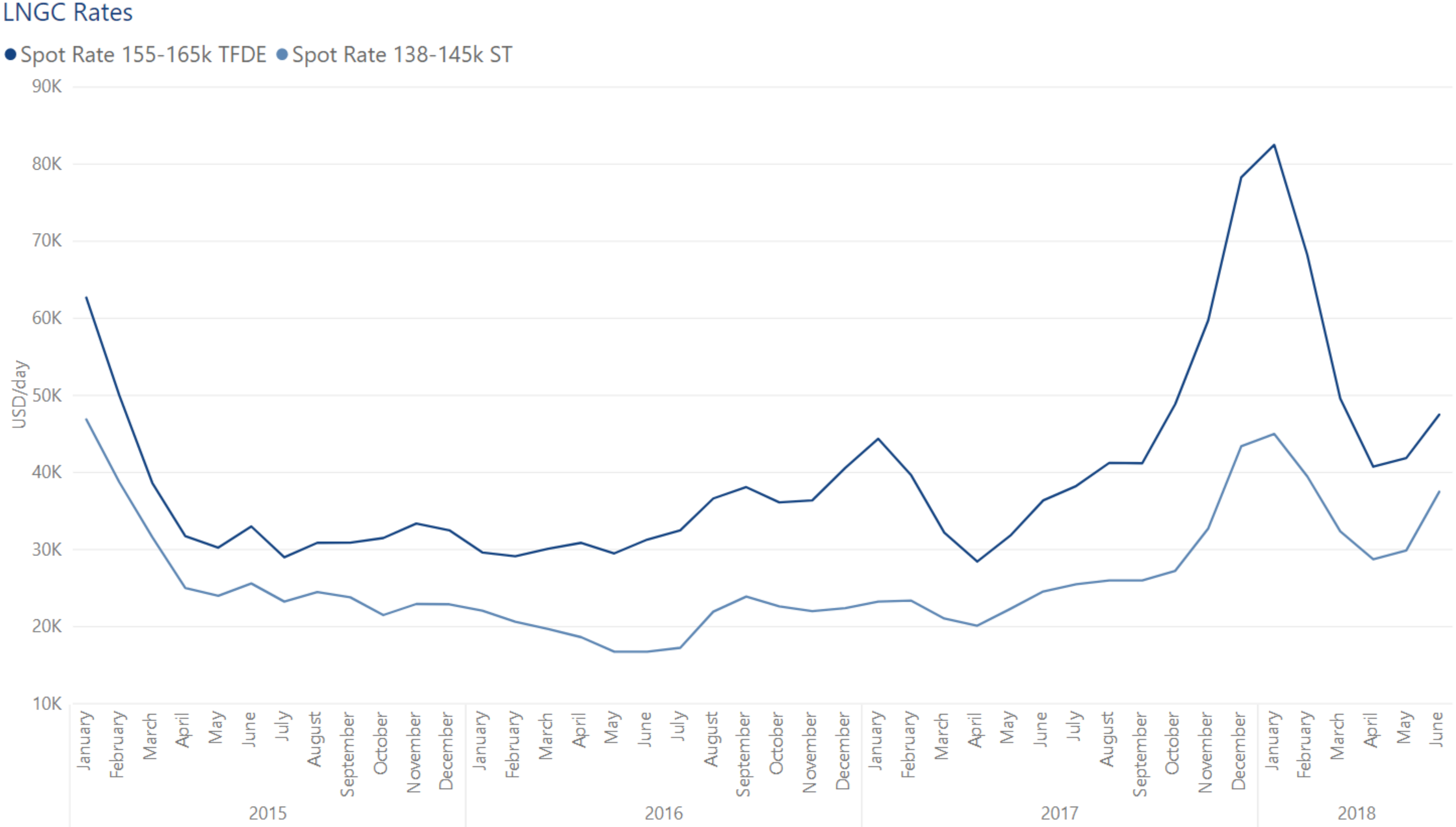
Spot rates continue to recover…



Year	ST 138-145k	TFDE 155-165k
2016	**20,409**	**33,529**
Qtr 1	20,712	29,654
Qtr 2	17,327	30,615
Qtr 3	21,250	35,923
Qtr 4	22,346	37,923
2017	**26,442**	**43,563**
Qtr 1	22,442	38,231
Qtr 2	22,327	32,173
Qtr 3	25,846	40,308
Qtr 4	35,154	63,538
2018	**35,080**	**55,864**
Qtr 1	38,442	65,462
Qtr 2	30,222	42,000

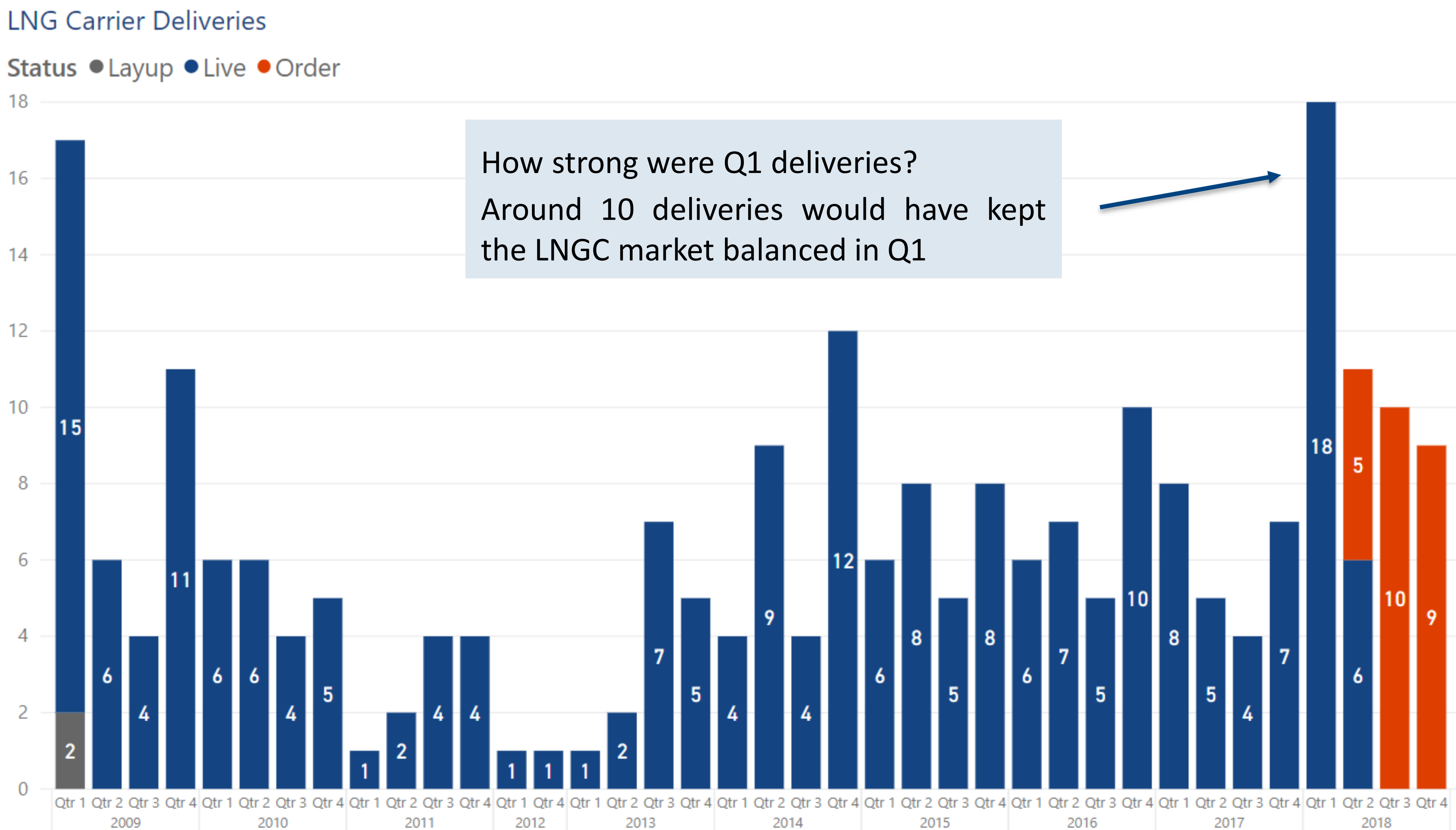
Sources: Fearnleys
Note: Data until 1st June 2018

…with high seasonality



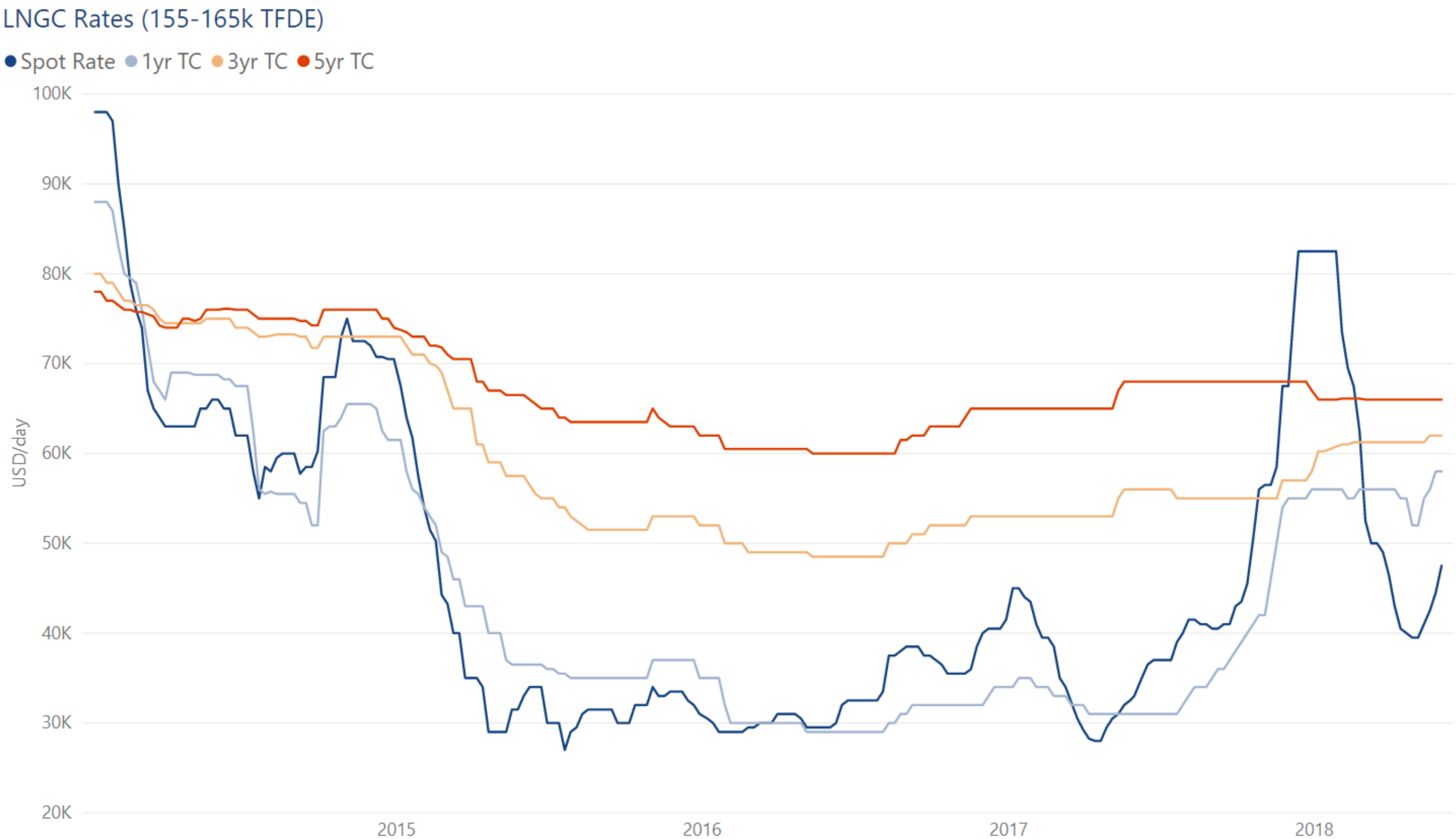
Sources: Fearnleys
Note: Data until 1st June 2018

Q1 2018 affected by record LNG carrier deliveries



Sources: Fearnleys
Note: Updated end-May

Mid-Term rates have also recovered from 2016 lows



Sources: Fearnleys
Note: Data until 1st June 2018

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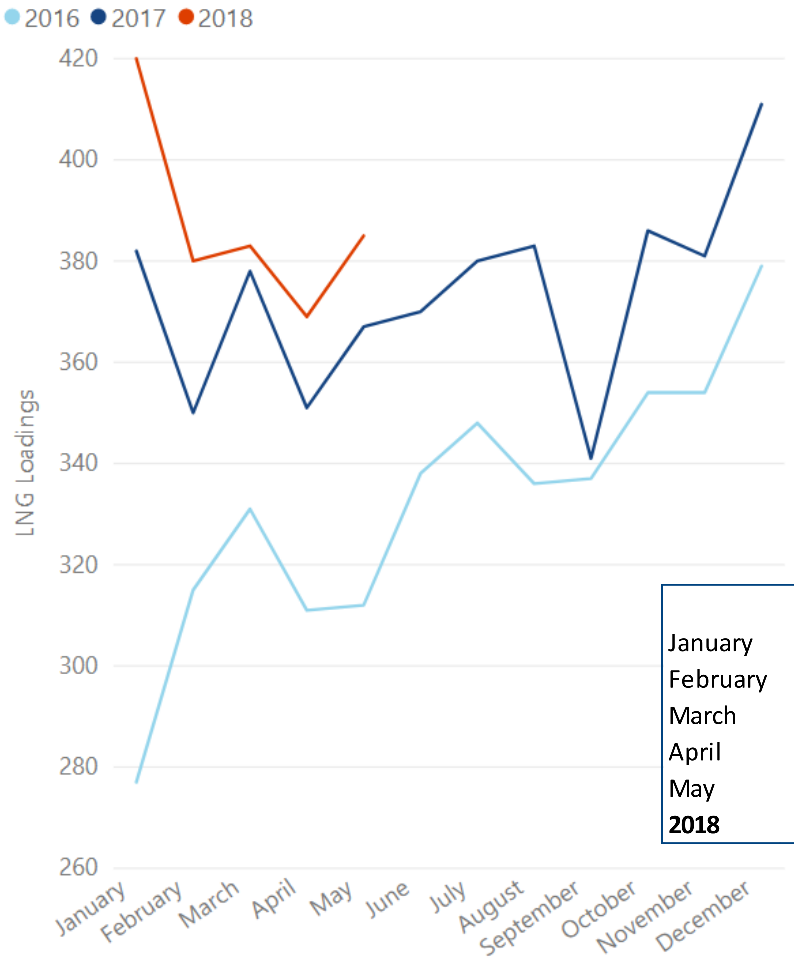
Sources: Fearnleys
Note:

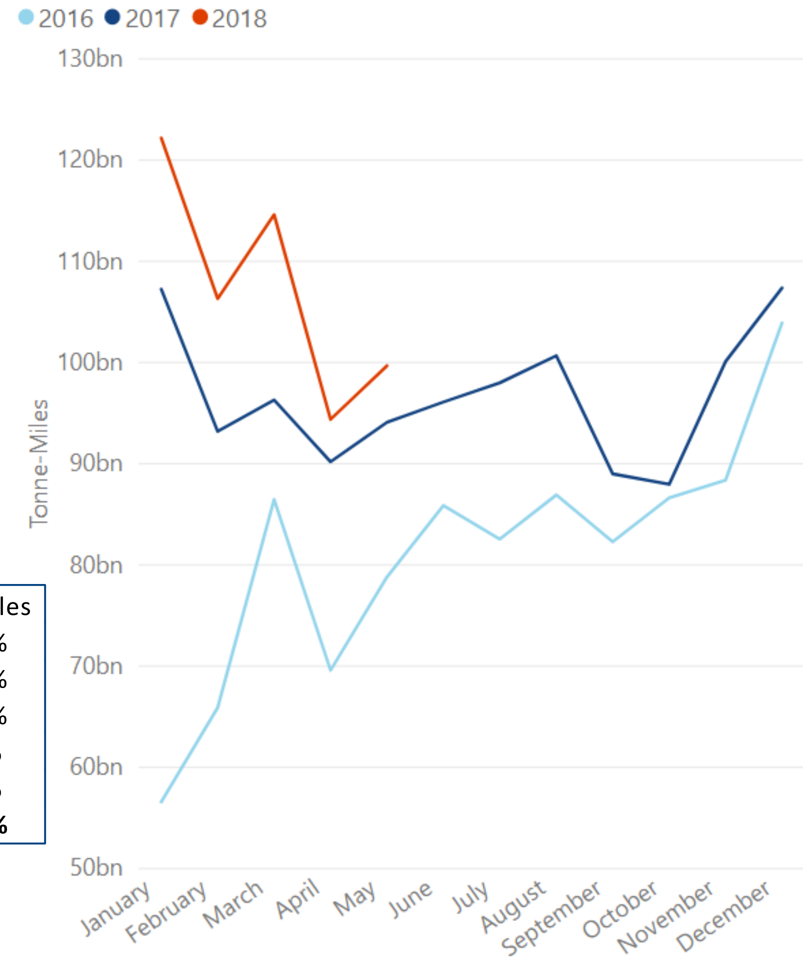
LNG trade and shipping demand keeps growing

LNG # Loadings



	Loadings	Ton-Miles
January	9.9%	13.9%
February	8.6%	14.1%
March	1.3%	19.0%
April	5.1%	4.6%
May	4.9%	6.0%
2018	**6.0%**	**11.7%**

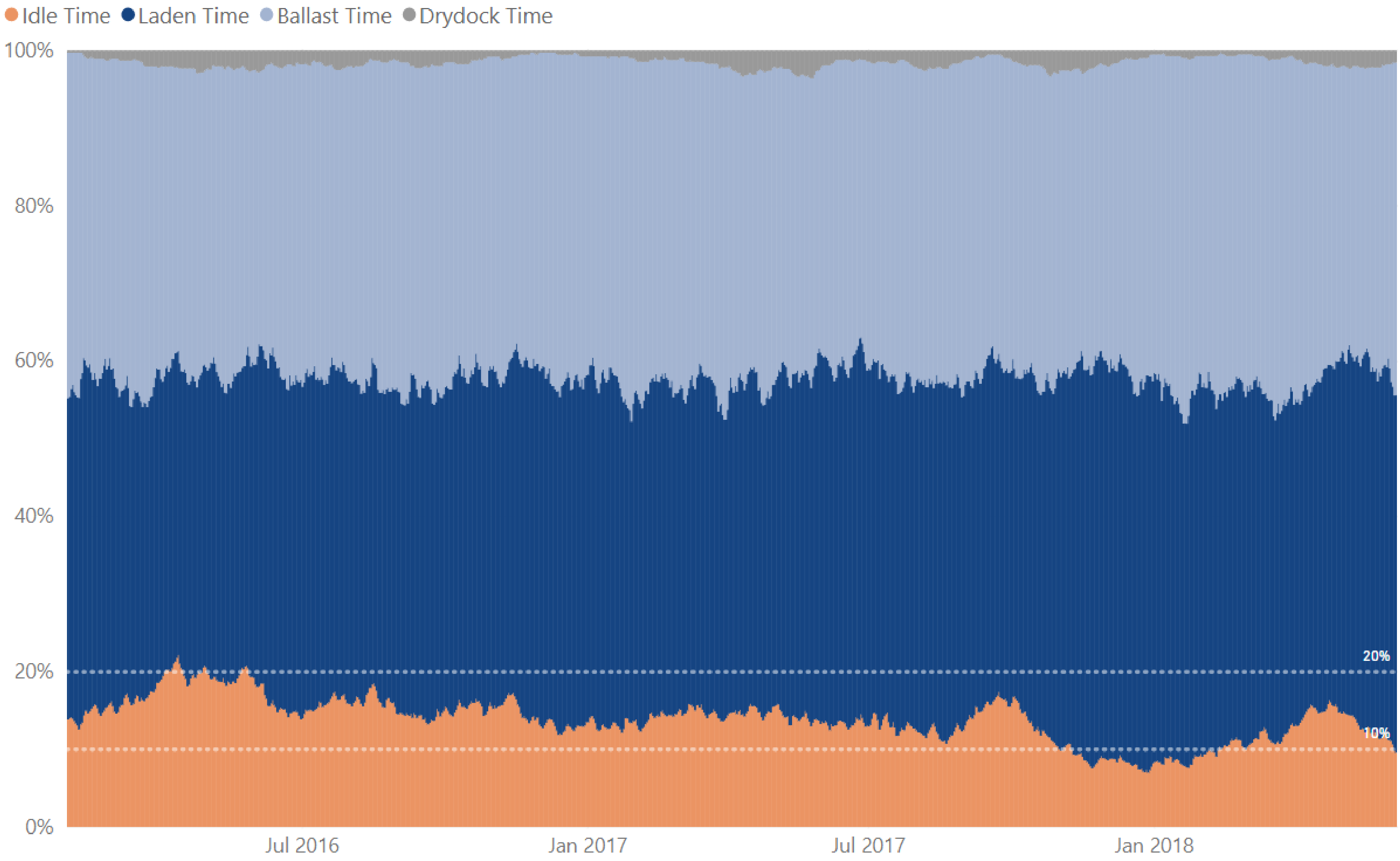
Tonne-Miles



Volume below the expected 9.5% (28mt) for the year
LNGC demand above the expected 11% for the year

Sources: Fearnleys
Note: Loadings measured by loading date, ton-miles measured by discharge date.

LNGC Utilisation recovering strongly from shoulder months



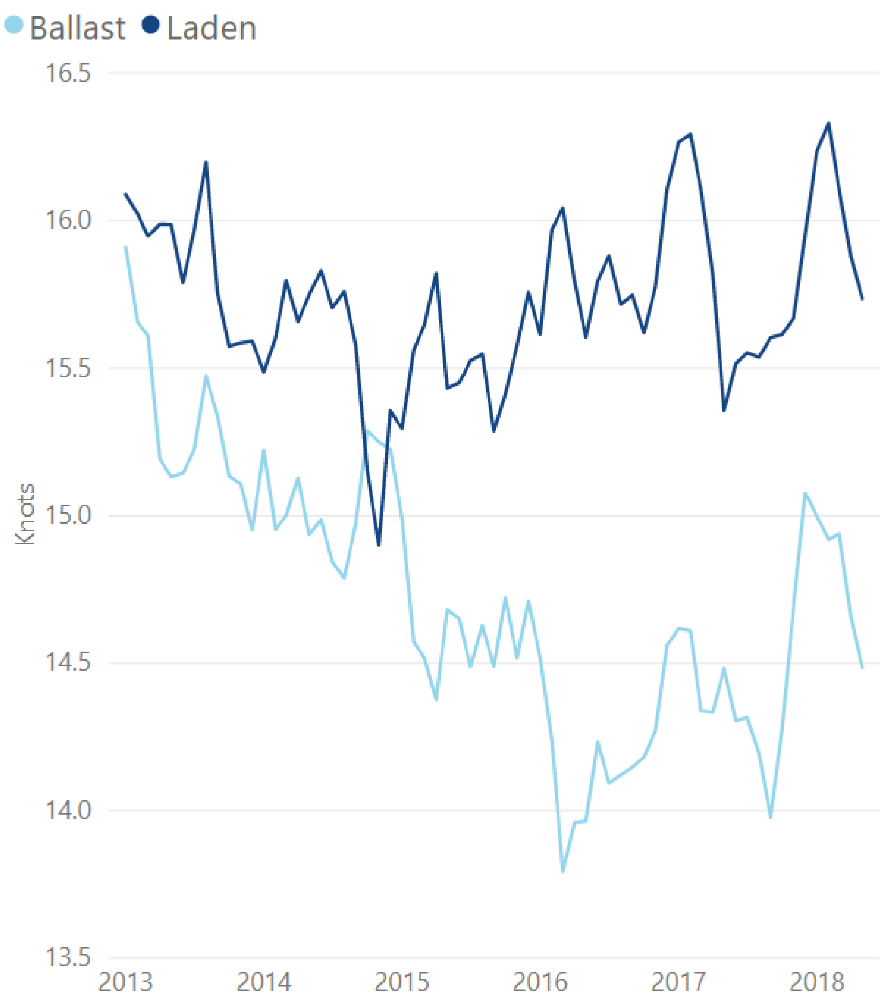
Sources: Fearnleys
Note:

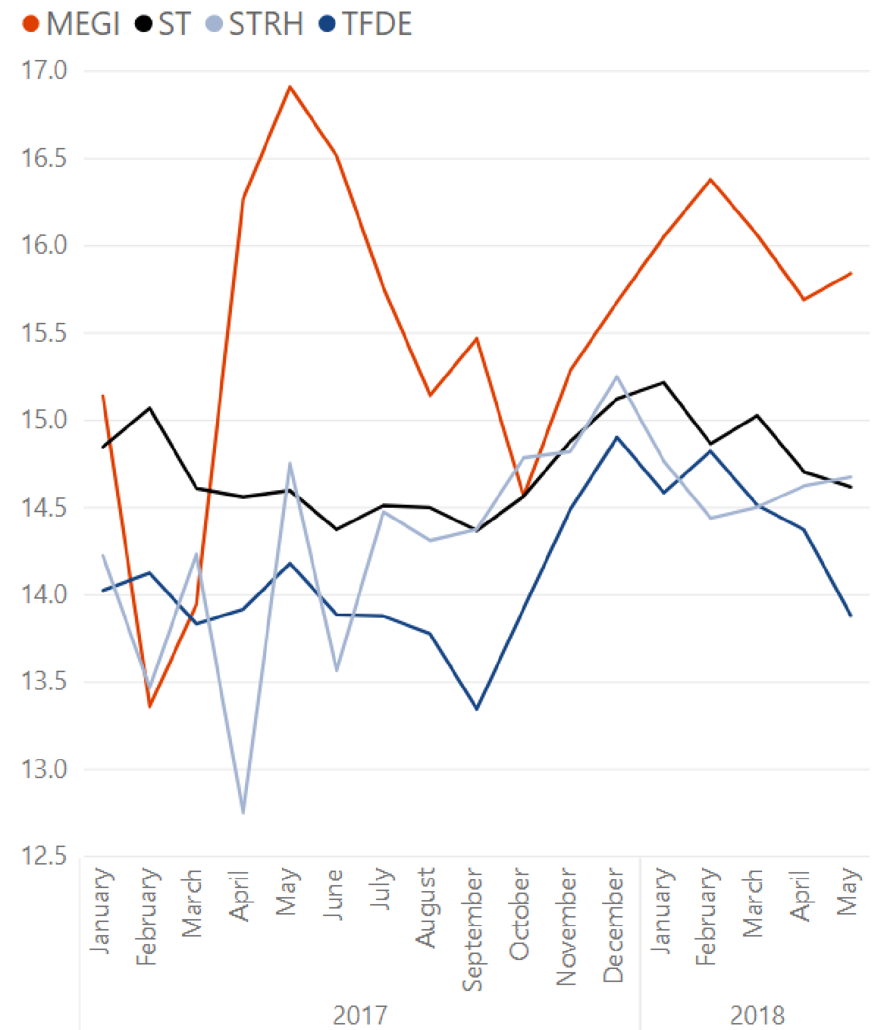
LNG Carriers Speed

Ballast speed recovering and aligned with activity. Winter levels back to those seen in 2014.

MEGIs are showing off their efficiency.

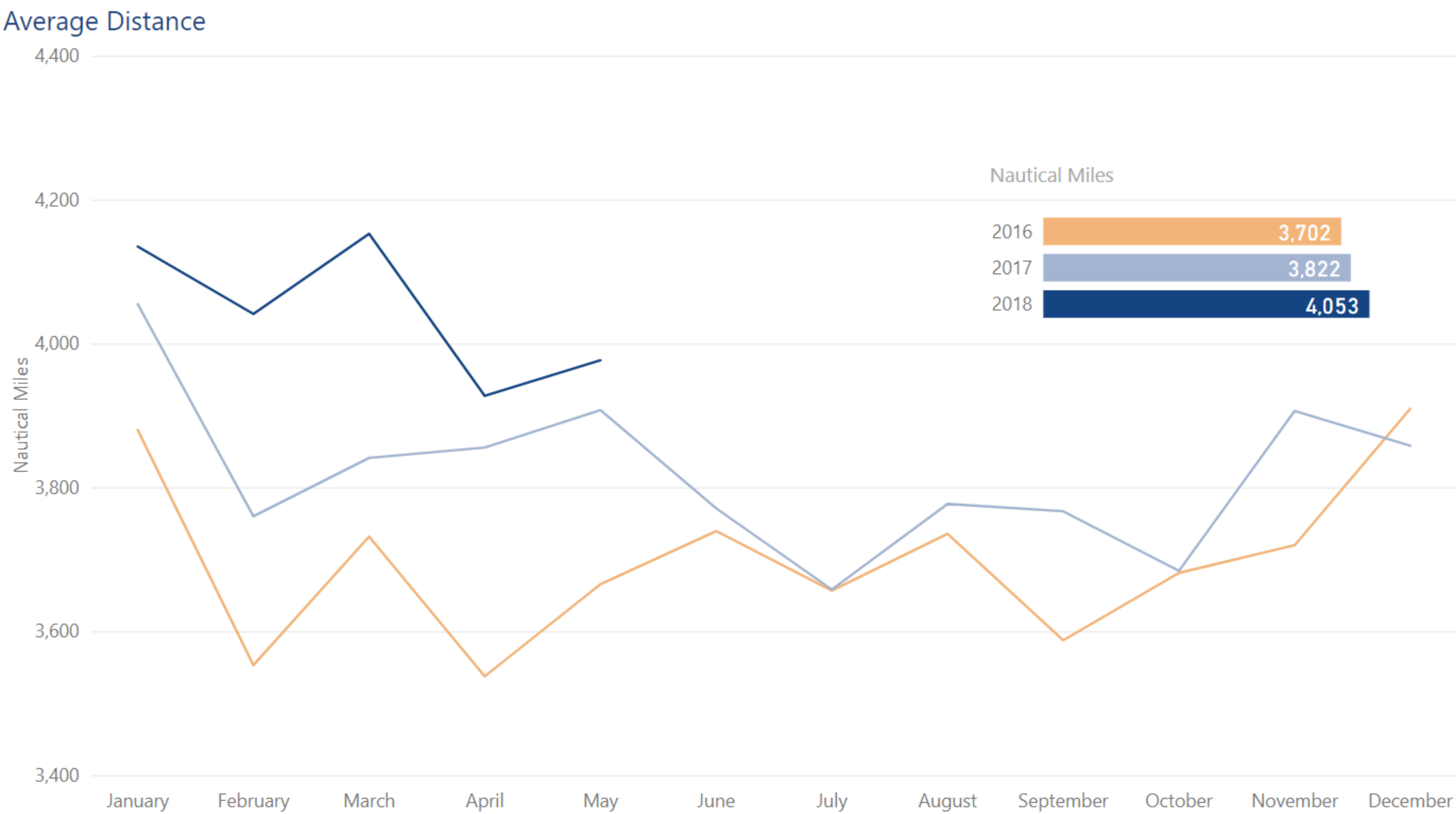
By Tank Condition	By Propulsion





Sources: Fearnleys
Note: Sailing 135km3<LNGC<182km3

LNG is travelling longer distances

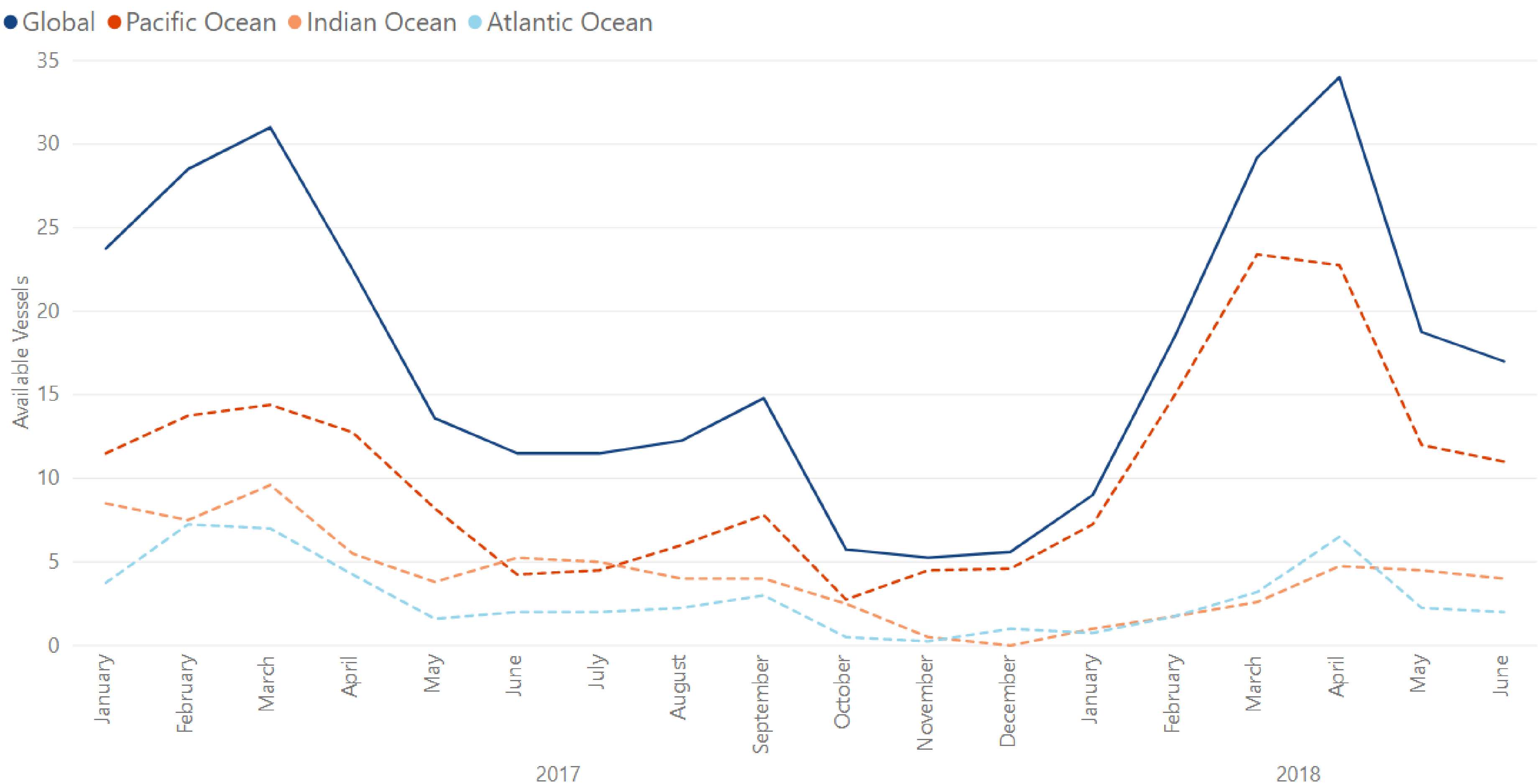


Sources: Fearnleys
Note:

Spot Market - Vessel Availability

Prompt availability following seasonality.

Prompt LNGC Availability

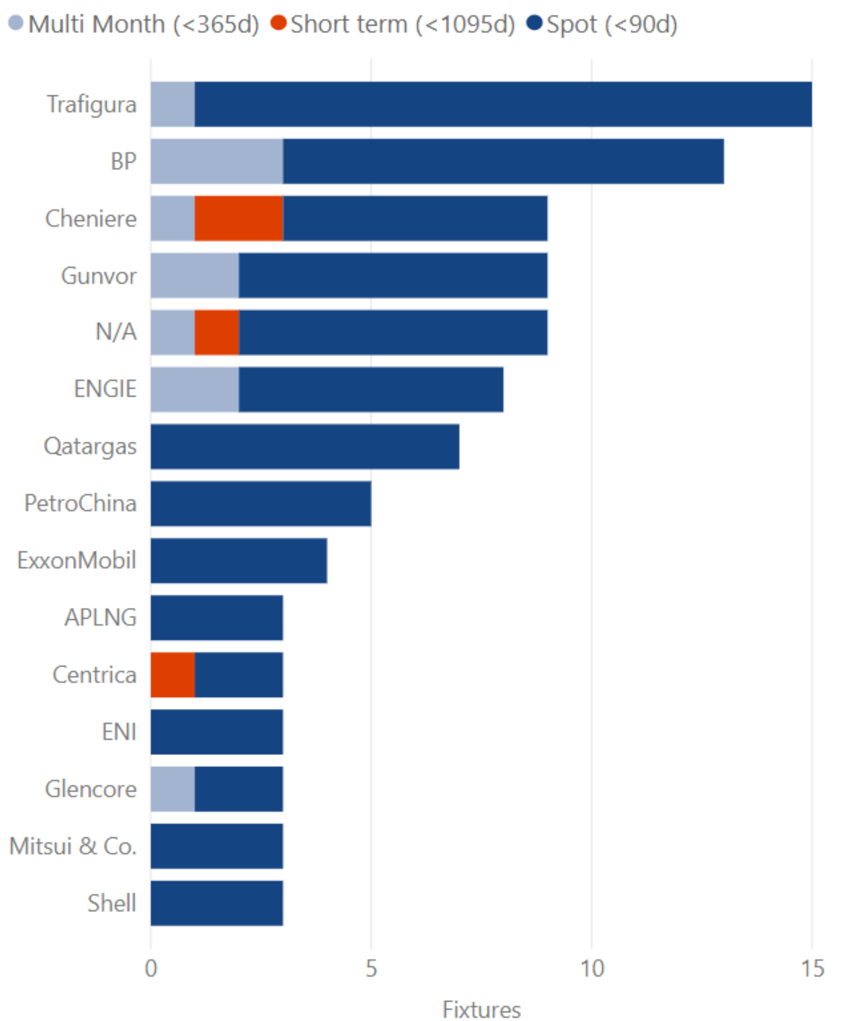


Sources: Fearnleys Weekly
Note:

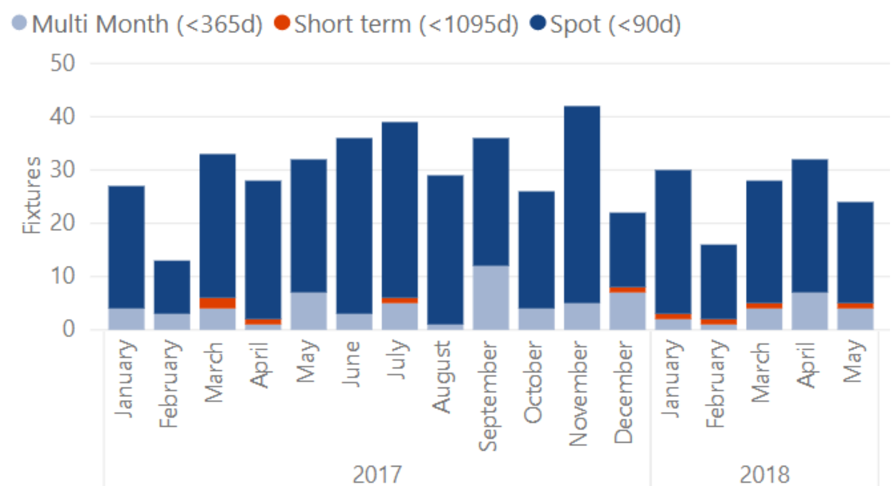
Short-term fixtures and Charterers

Short-term fixtures in level of last year…

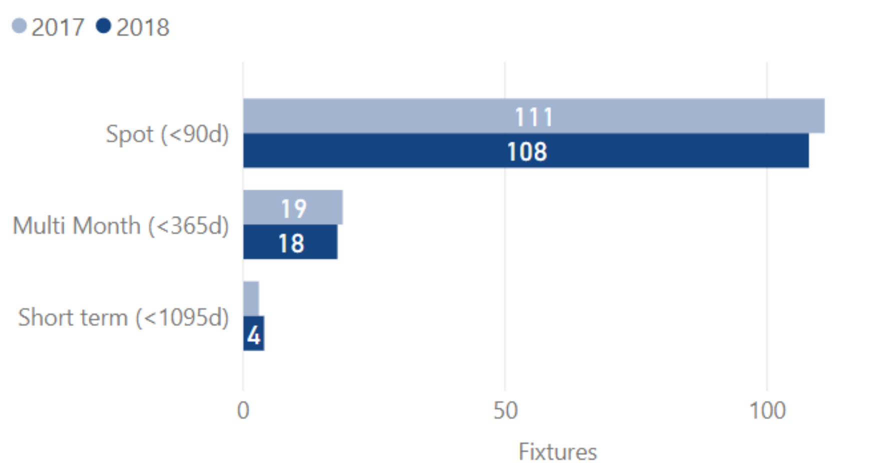
Top 10 Charterers 2018



Short-Term Fixtures



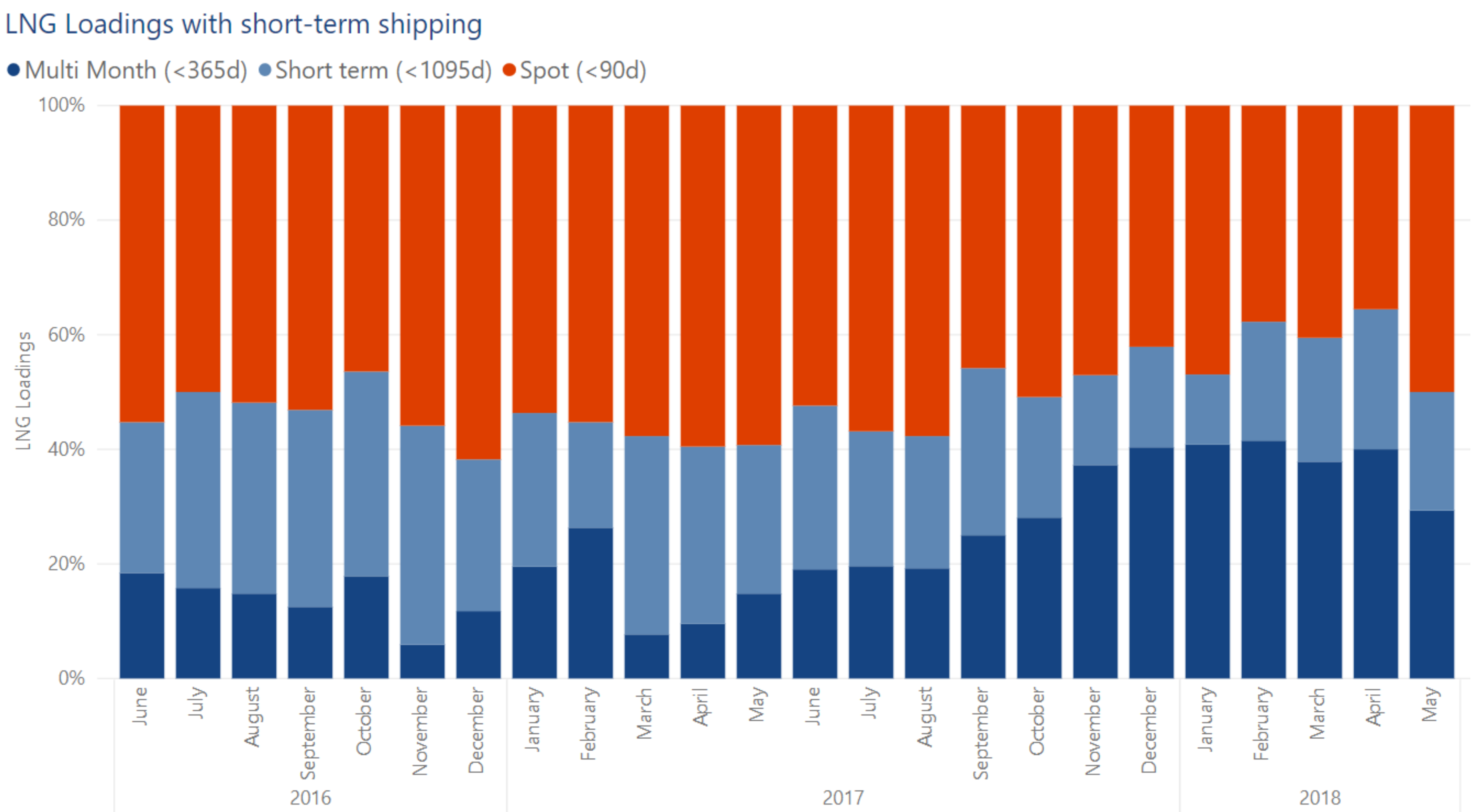
Short-Term Fixtures – 2018 vs 2017 YTD



Sources:Fearnleys
Note: Updated 28 February 2018 however some february charters could be confirmed during March.

Short-term loadings

Multi-month fixtures are taking a larger share of short-term trade



Sources:Fearnleys
Note: Updated 28 February 2018 however some february charters could be confirmed during March.

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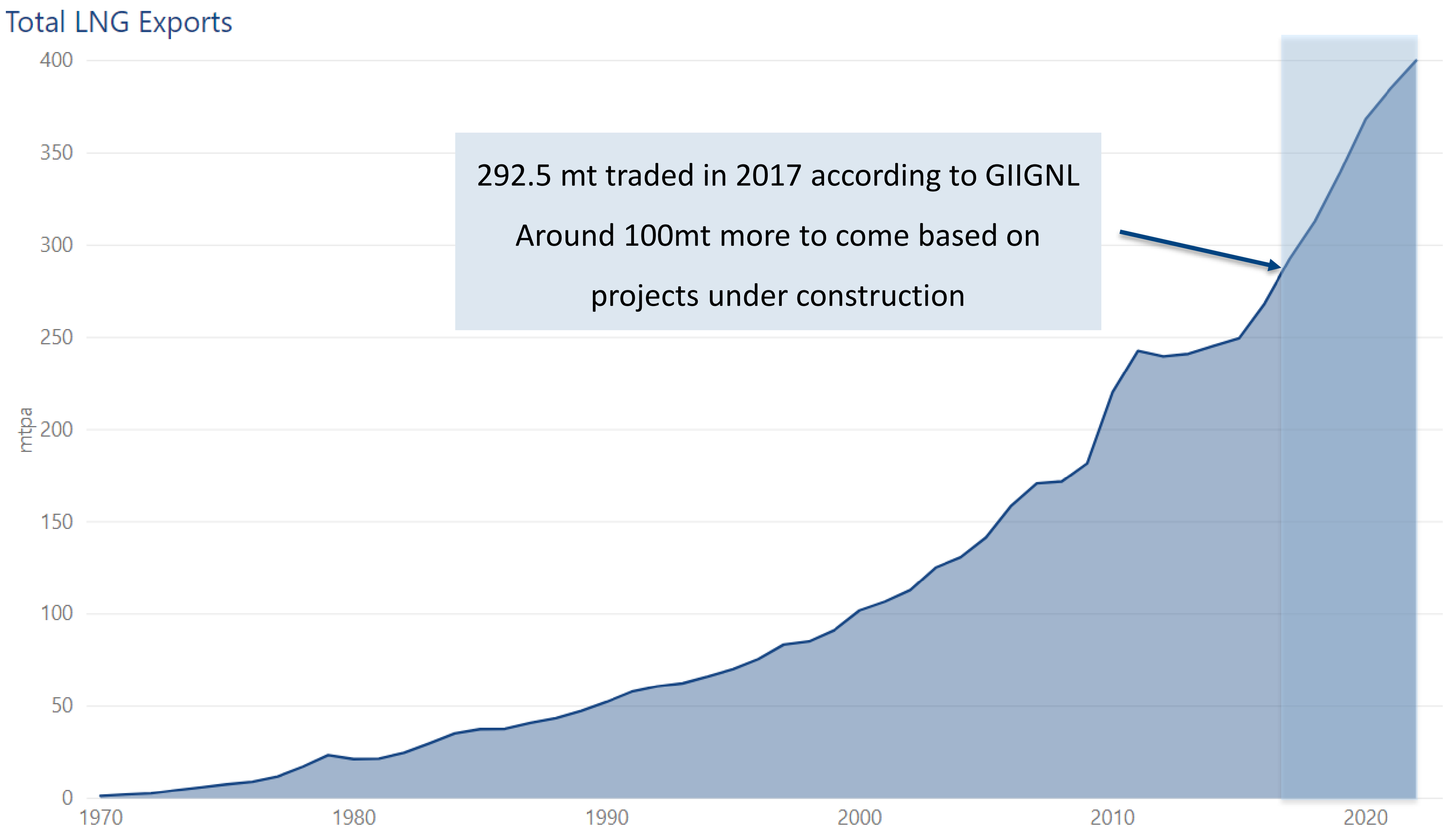
Sources: Fearnleys
Note:

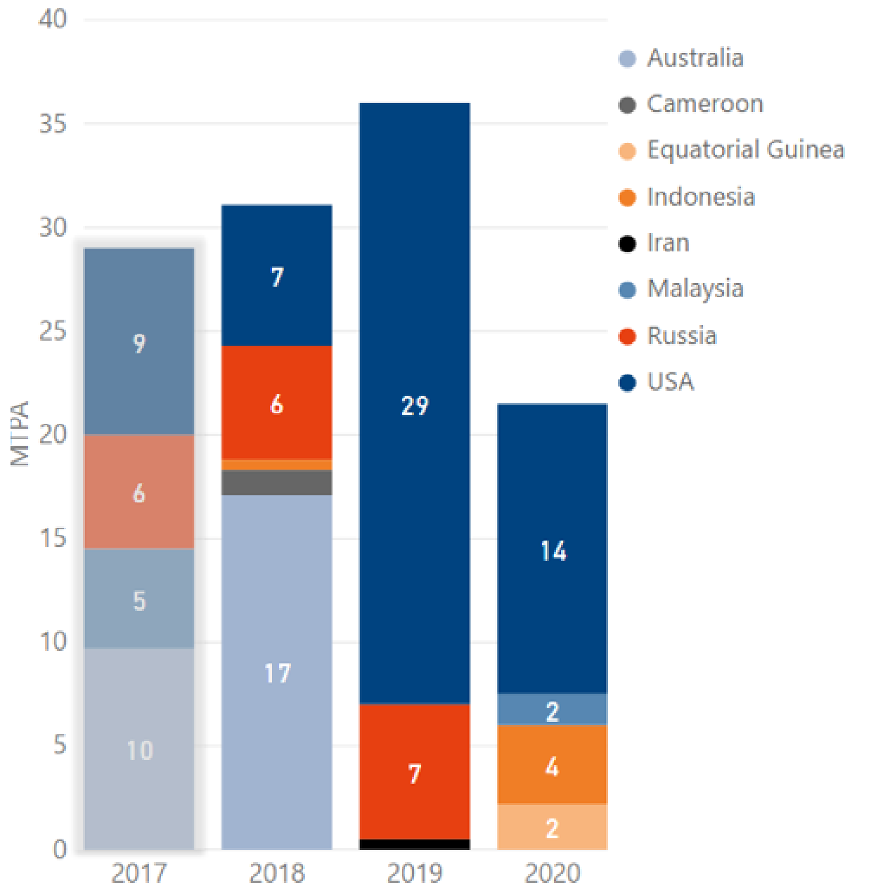
Still riding the LNG wave!



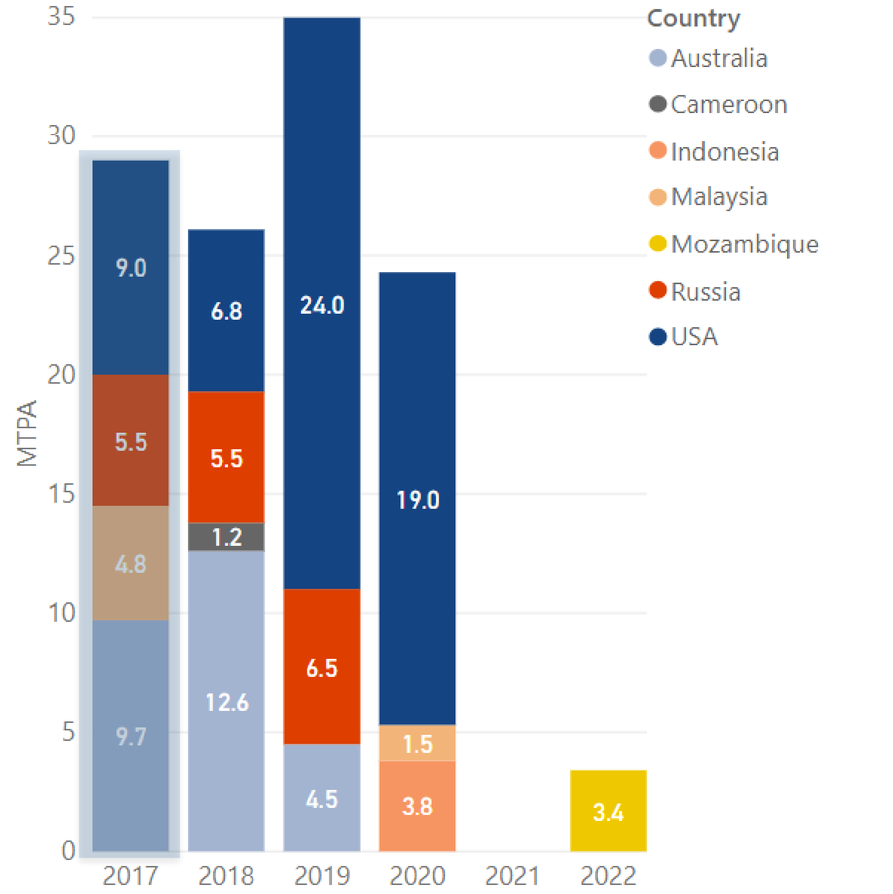
Sources: GIIGNL, Fearnleys
Note: 2018-2022 data is a reference

LNG Projects

Last year



Now



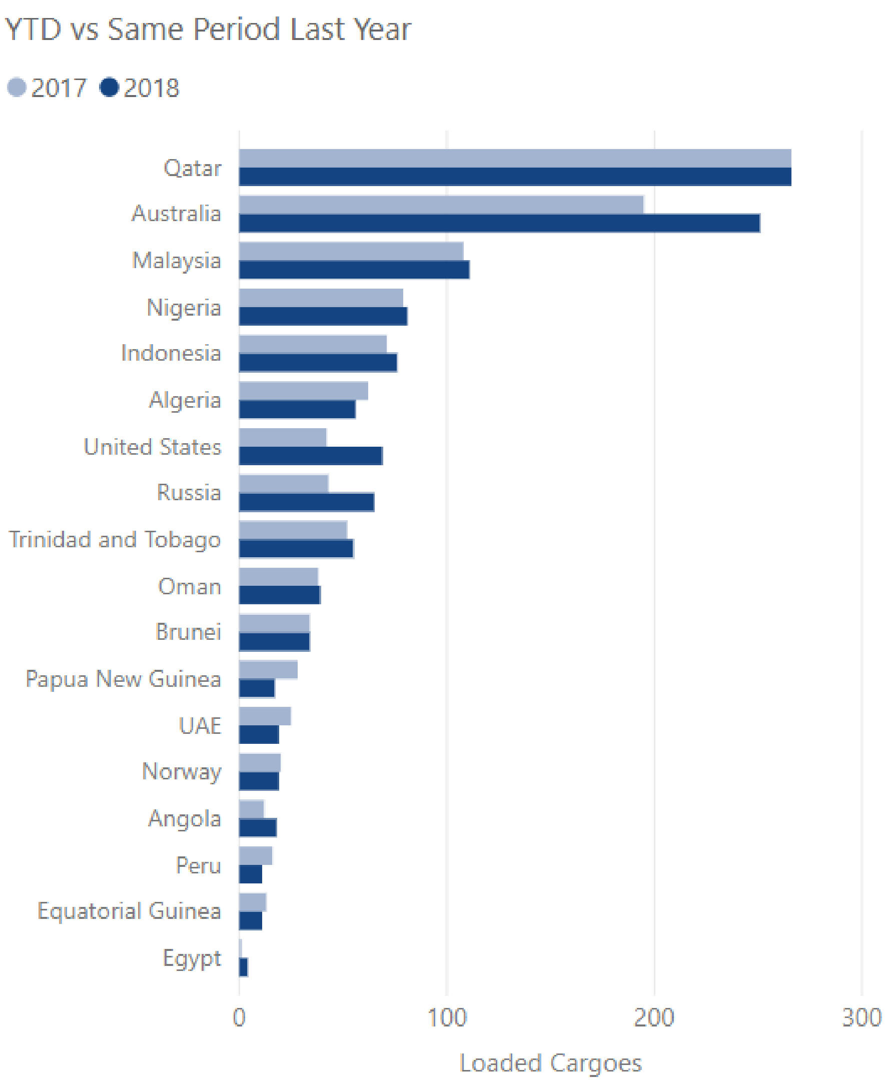
Smoother supply curve, less oversupply 2019/2020

Not necessarily bad for LNGCs as this supports healthy LNG price and trade

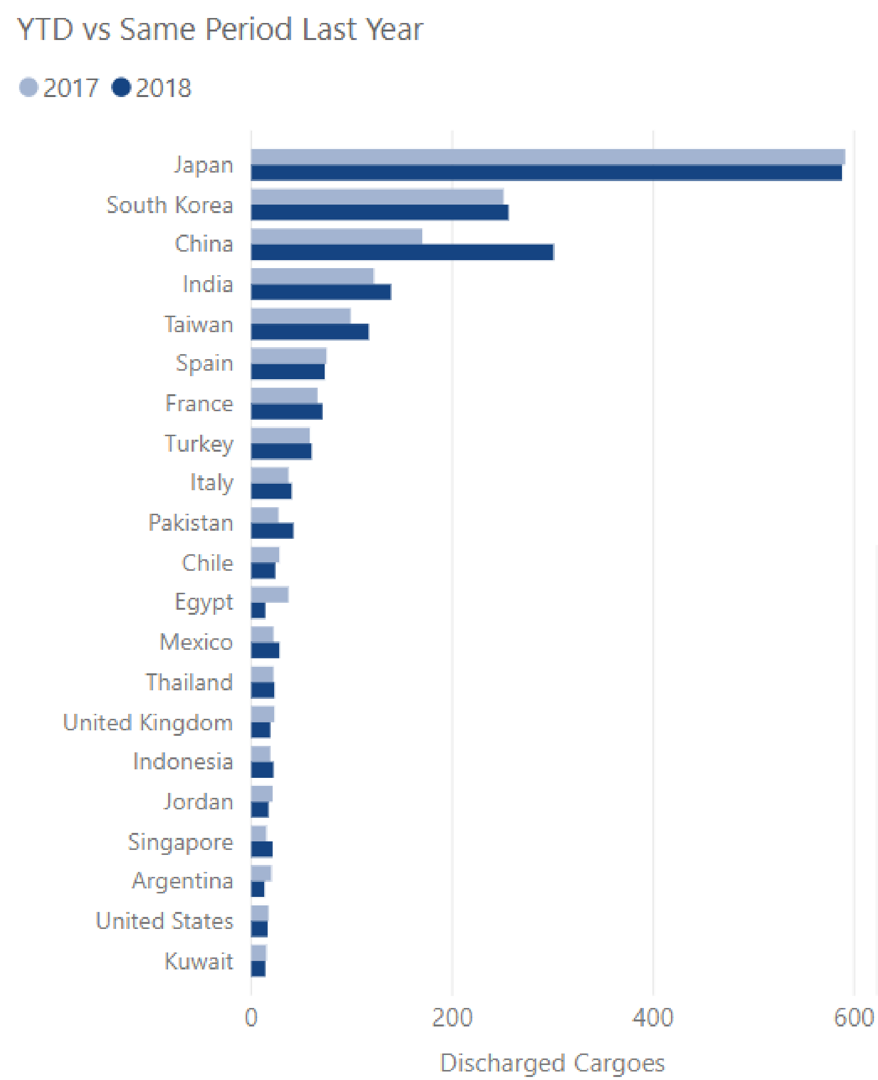
Sources: Fearnleys
Note:

Exports & Imports (YoY)

Exports



Imports

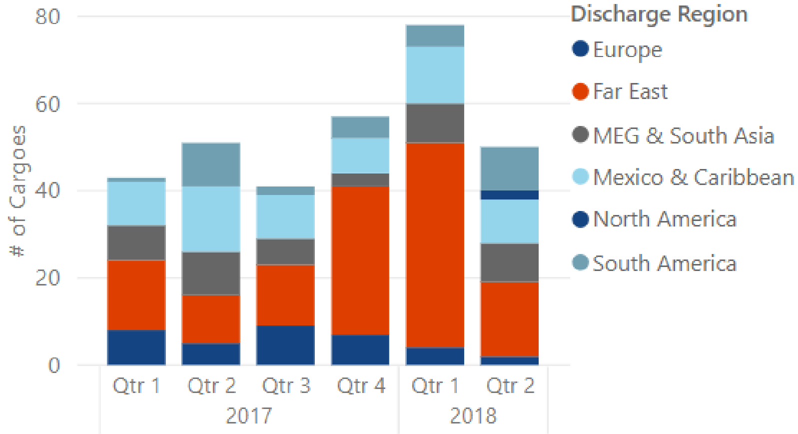


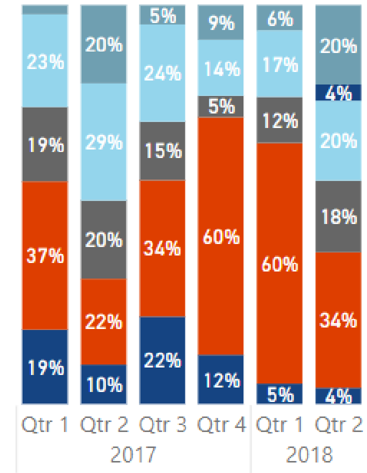
Sources: Fearnleys
Note: Based on in-house tracking data. Jan-May data included. Only top import countries are represented in slide.

US LNG comes with a lot of shipping demand

US LNG is heading to Asia more than expected and not all of it is taking the shortest route.

US Exports

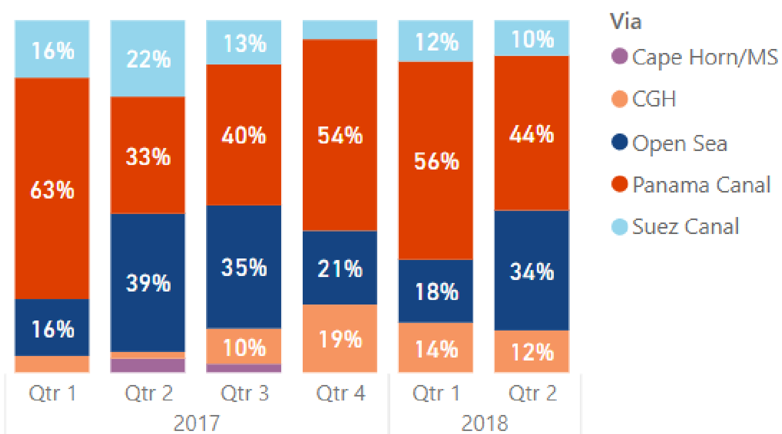




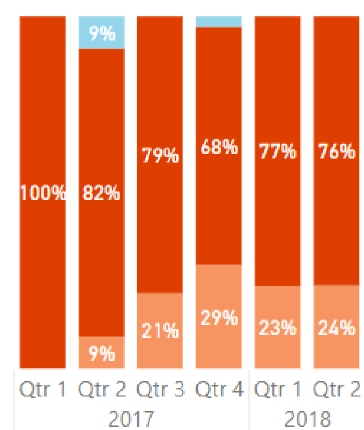
Average Distance (miles)

Quarter	2017	2018
Qtr 1	7,071	8,422
Qtr 2	6,192	7,004
Qtr 3	6,720	
Qtr 4	8,740	
Total	**7,253**	**7,868**

Routes - Total US LNG



Routes - US LNG to Far East

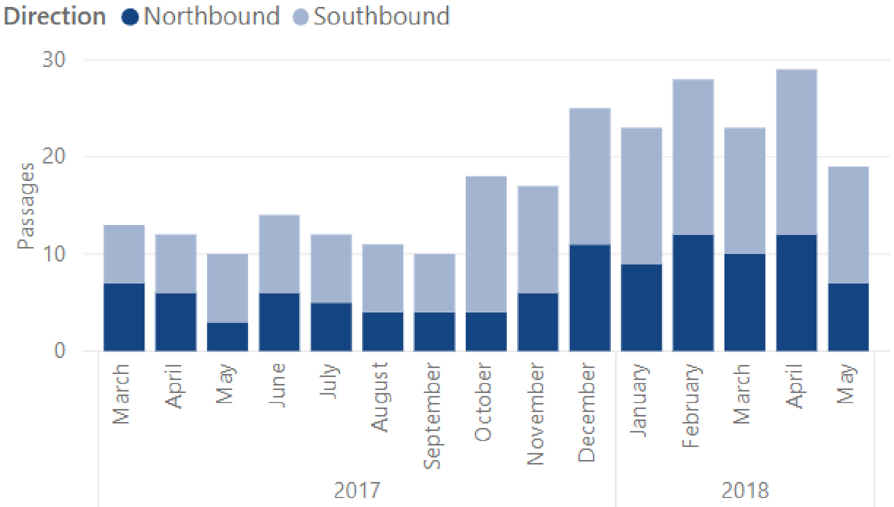


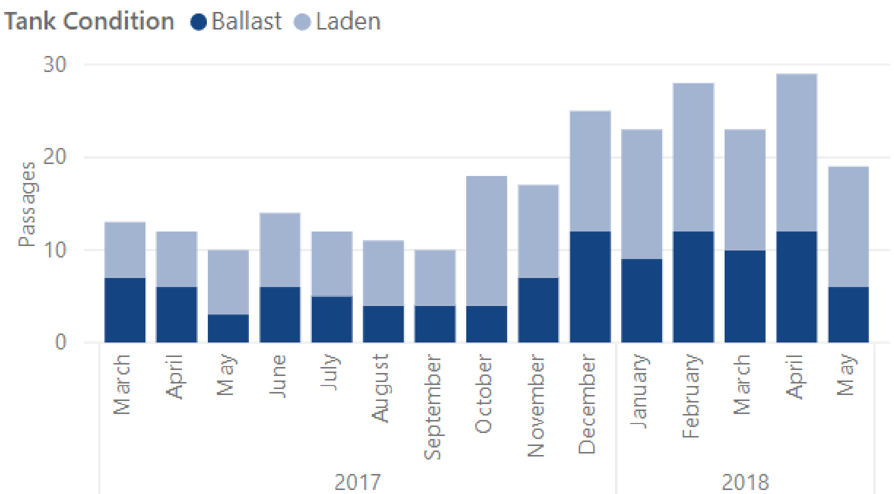
Sources: Fearnleys
Note: Updated 28 February 2018.

Panama Canal

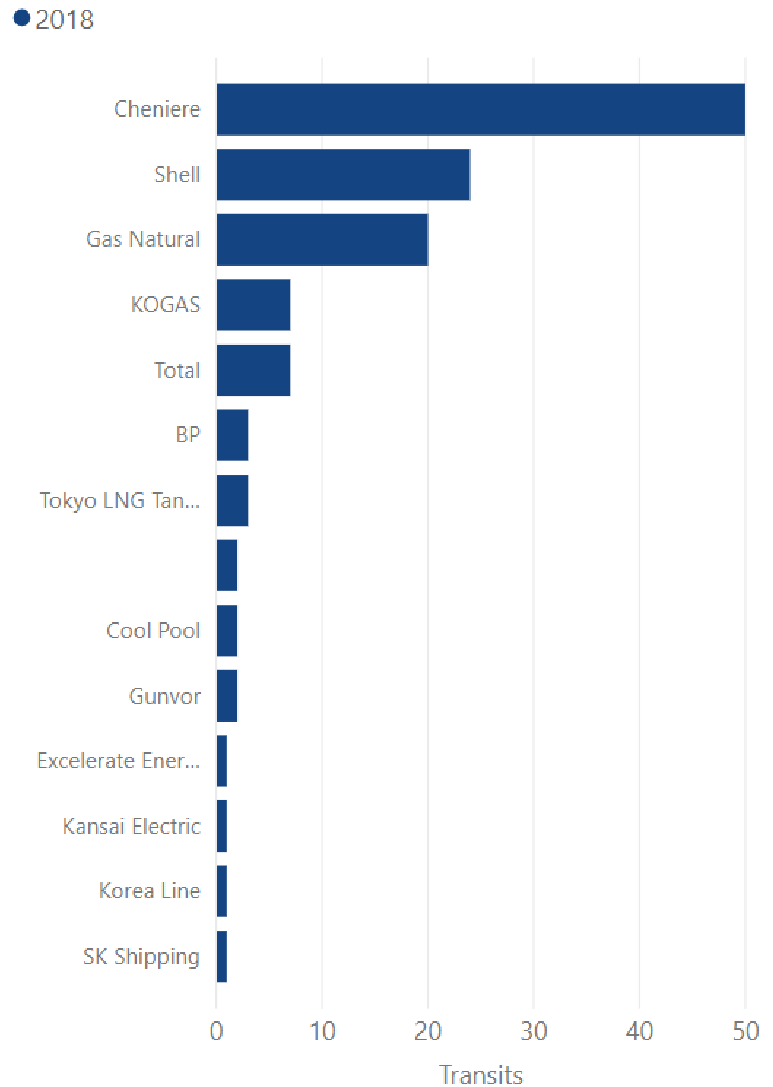
Occasional double and triple transits are needed during winters.

LNGC Transits via Panama Canal





Top Charterers via Panama

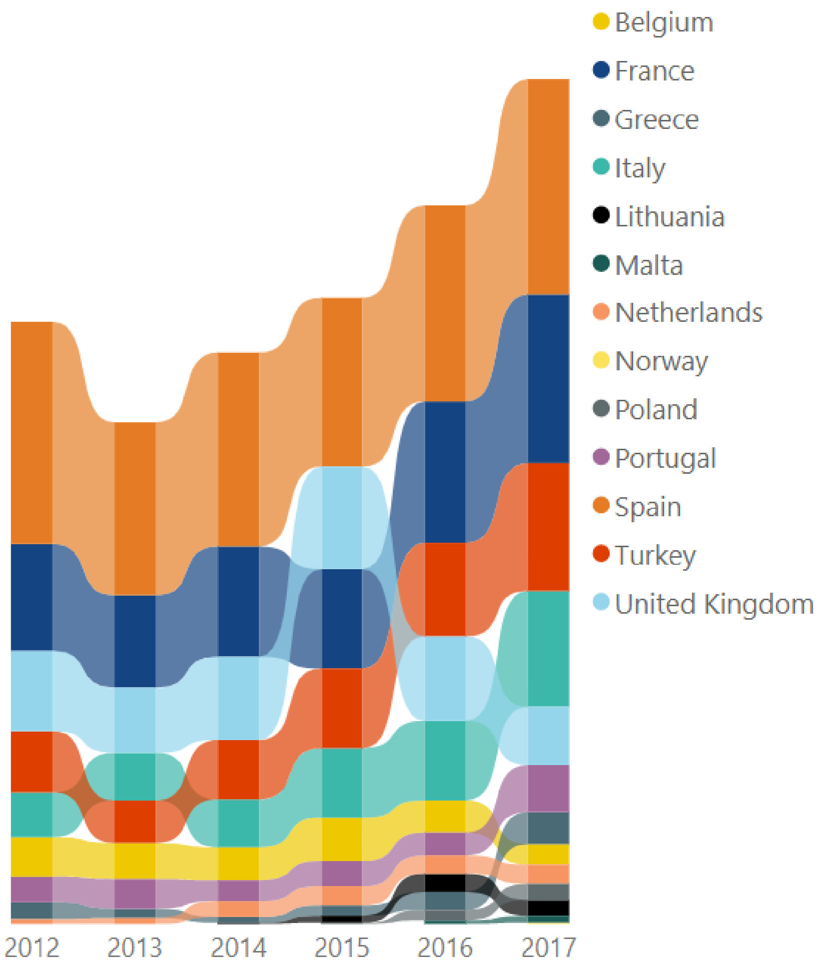


Sources:Fearnleys
Note:

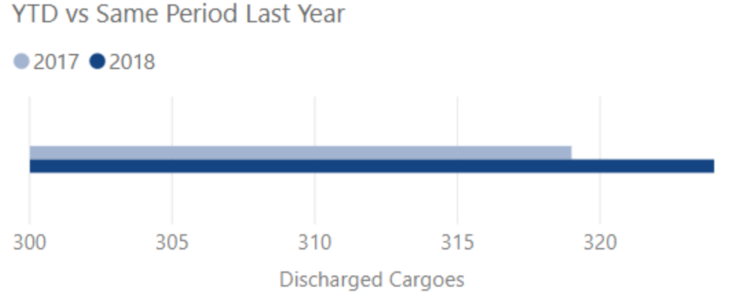
European Imports and re-loadings

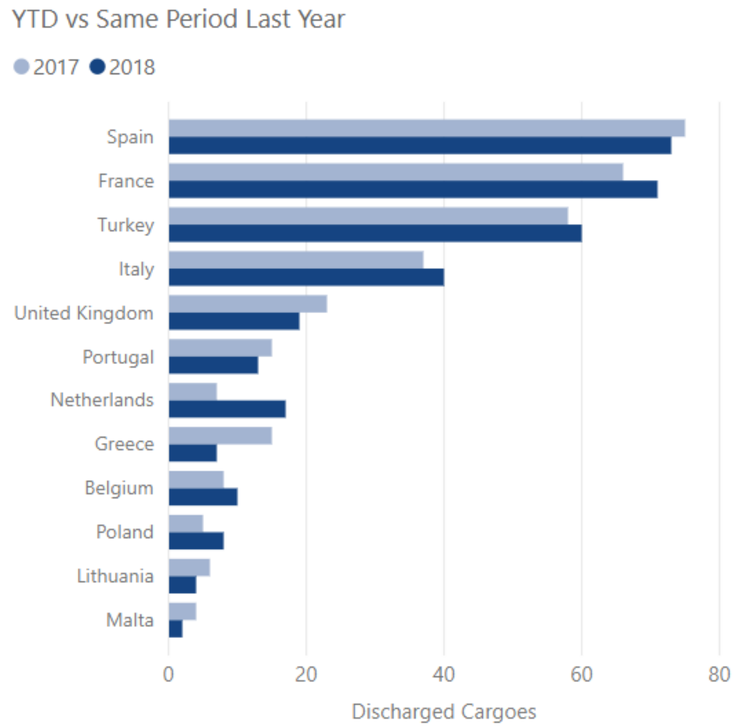
Imports grew around 20% in 2017, over 13% in 2018 YTD.

Annual LNG Discharges in Europe



European discharges YTD



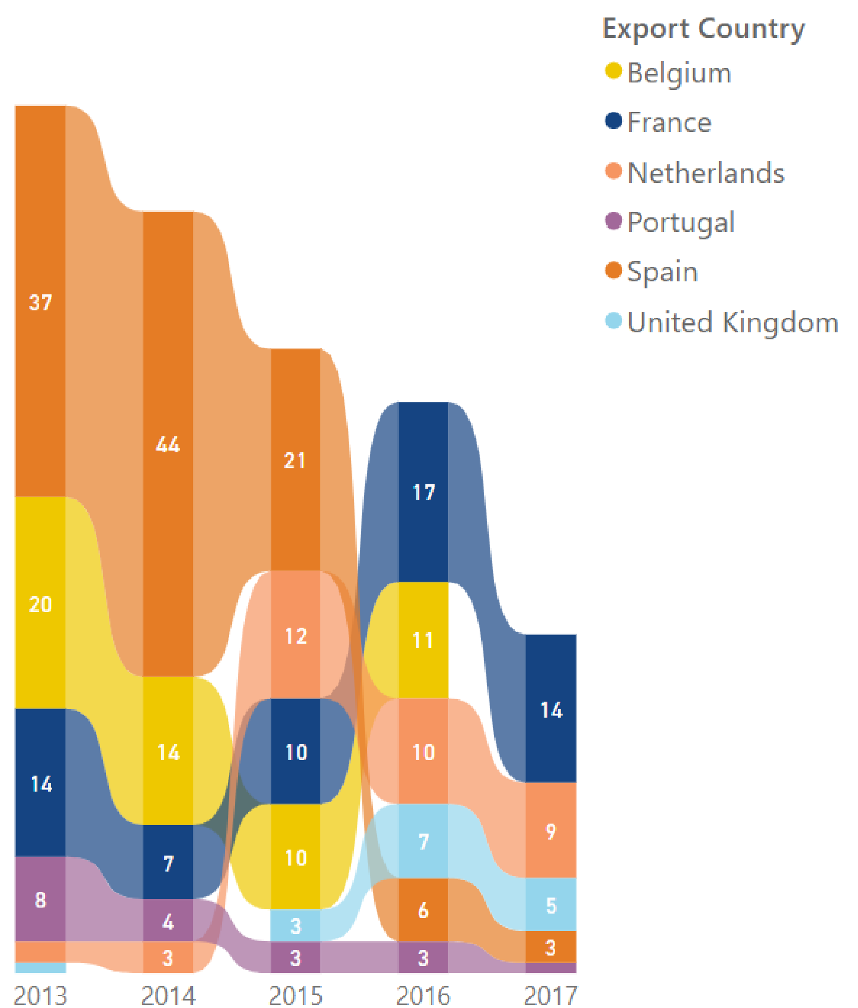


Sources: Fearnleys
Note: Period Jan-May. Q2 not complete for re-loadings stats.

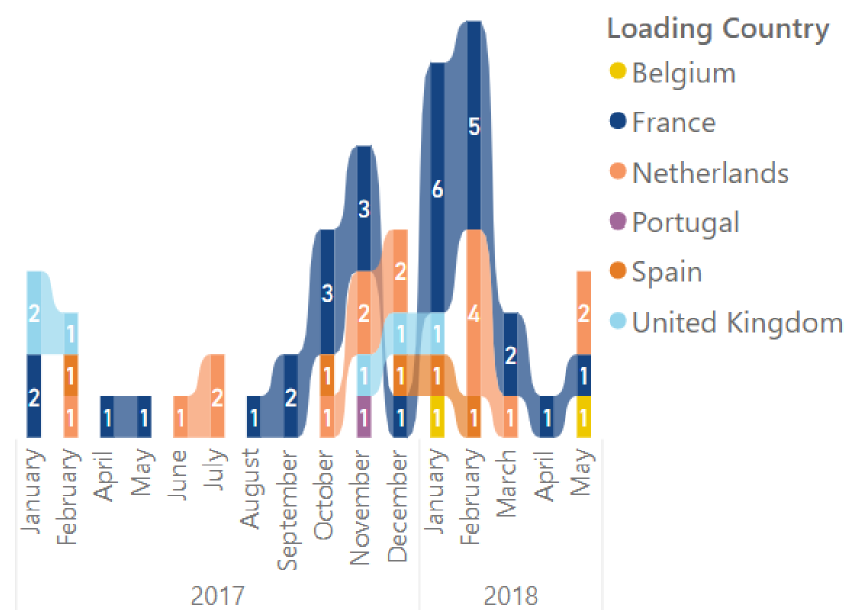
European re-exports recovering

LNG prices and Yamal volumes are helping to reverse the annual drop in European re-exports.

Annual Re-Exports (# Cargoes)



Monthly Re-Exports (# Cargoes)



Yamal LNG Discharges

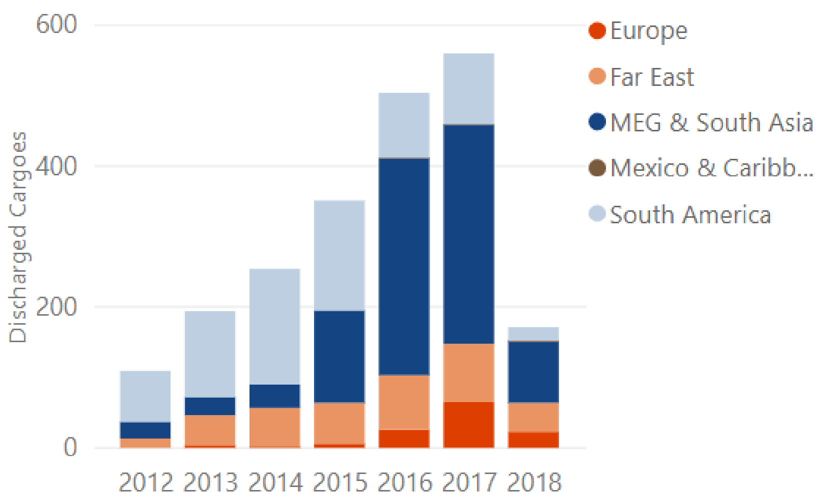
Destination Country	2017	2018	Total
France		13	**13**
Netherlands	1	8	**9**
United Kingdom	1	3	**4**
Belgium	1	2	**3**
Spain		1	**1**
Total	**3**	**27**	**30**

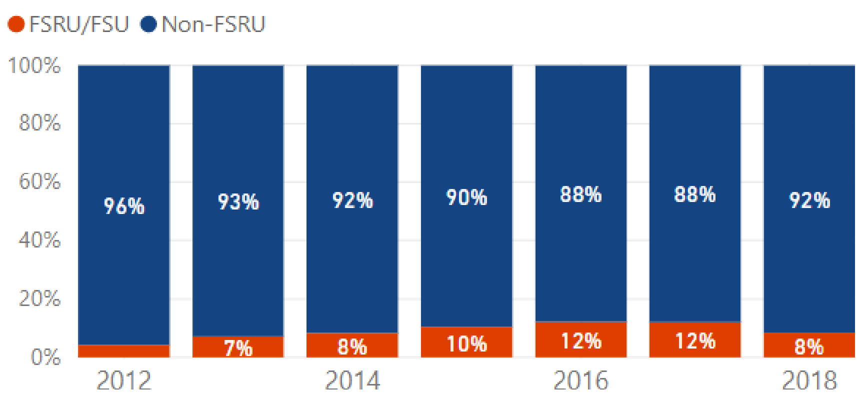
Sources: Fearnleys
Note: Until May 2018

FSRU Overview - LNG Imports via Floating Solutions

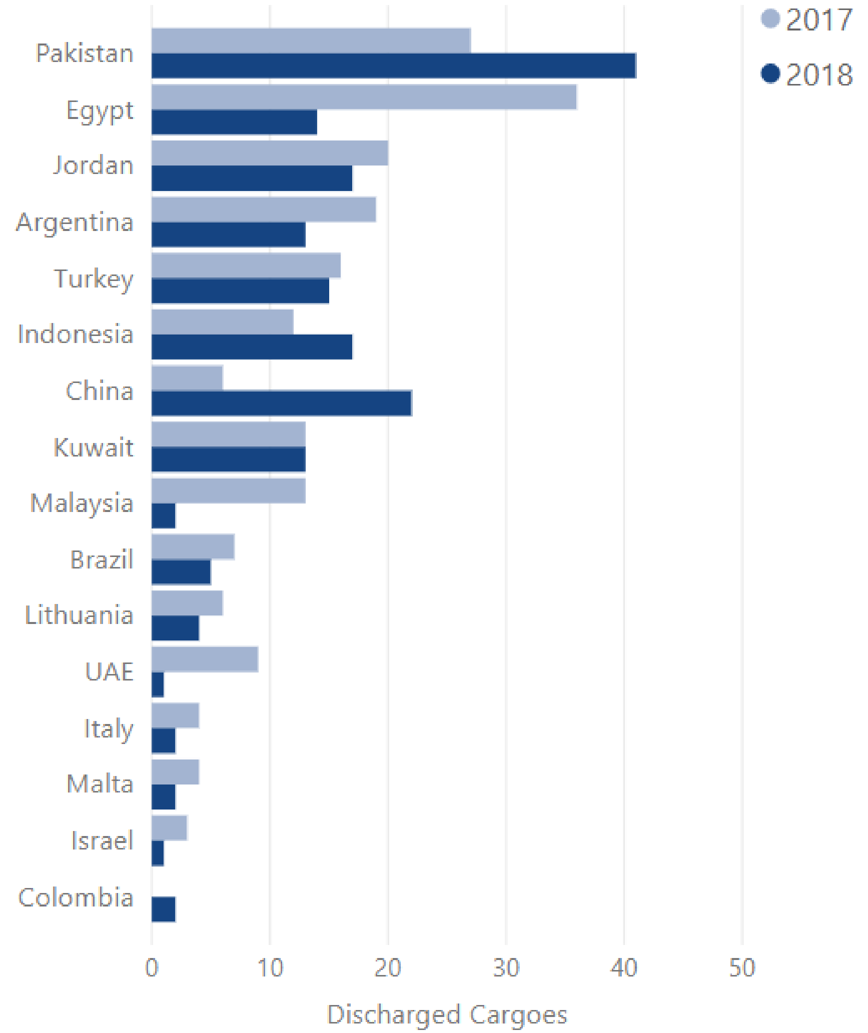
Imports via floating solutions slowing down in 2018 in total, but Pakistan and China growing strongly. Bangladesh soon an important addition to this club.

LNG Discharges (Via FSRU/FSU)





Top Import Countries (via FSRU/FSU)



Sources: Fearnleys
Note: Until May 2018

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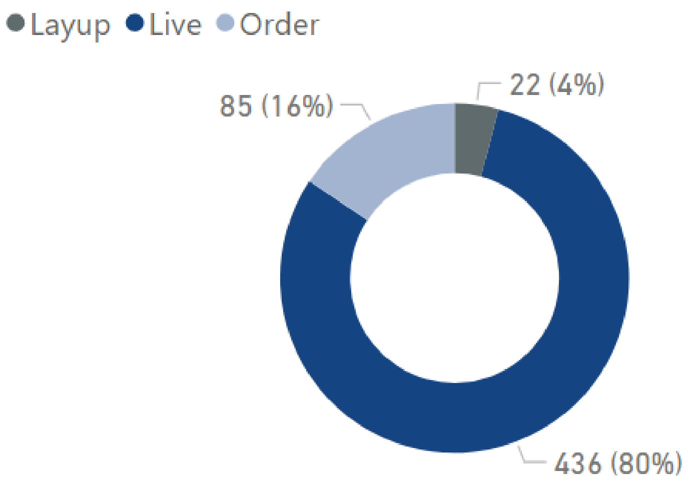
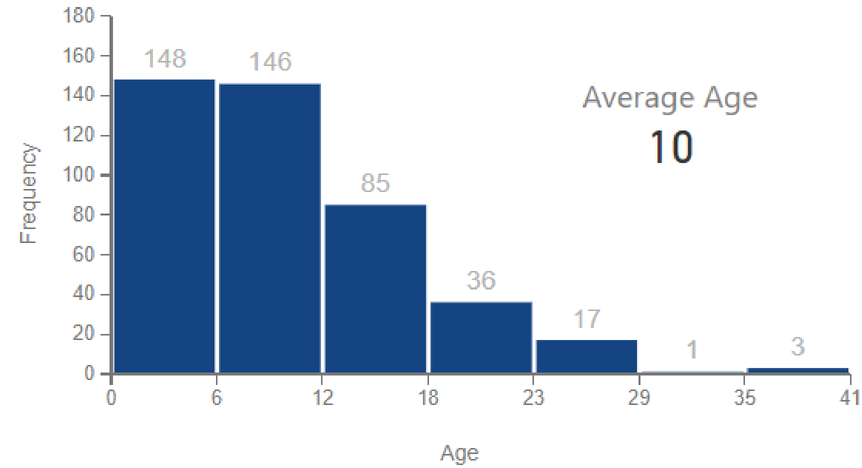
Note:

LNGC Fleet Overview

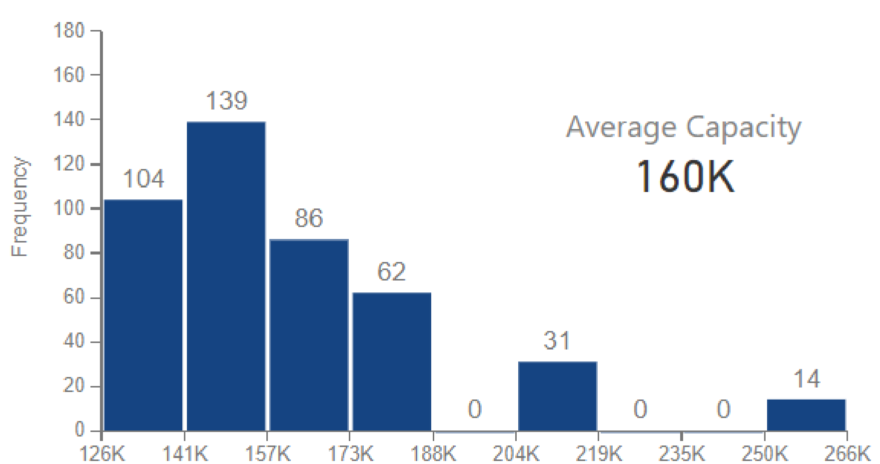
Fleet by Status



Fleet by Age

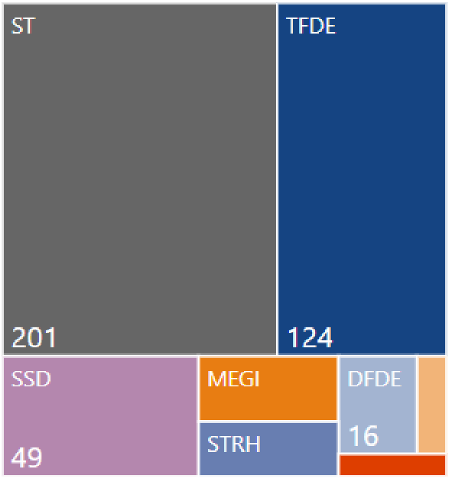


Fleet by Capacity

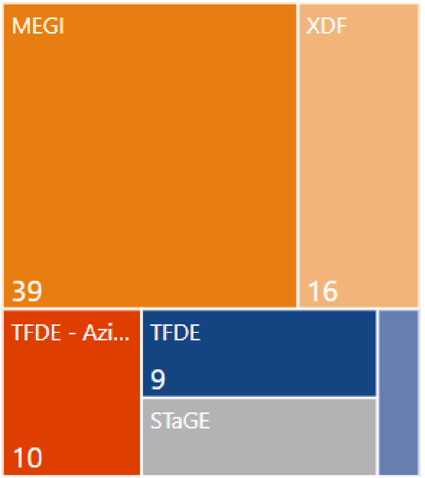


Fleet by Propulsion

Live LNG Carriers



Ordered LNG Carriers

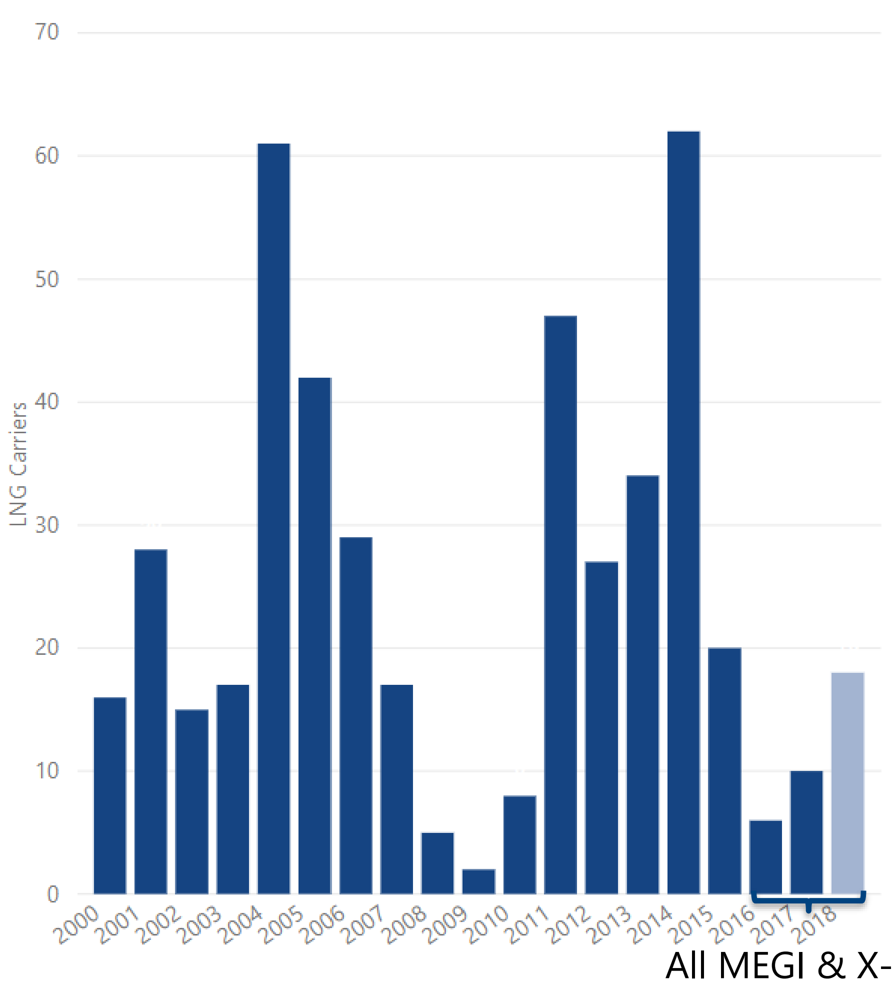


Sources:Fearnleys
Note:

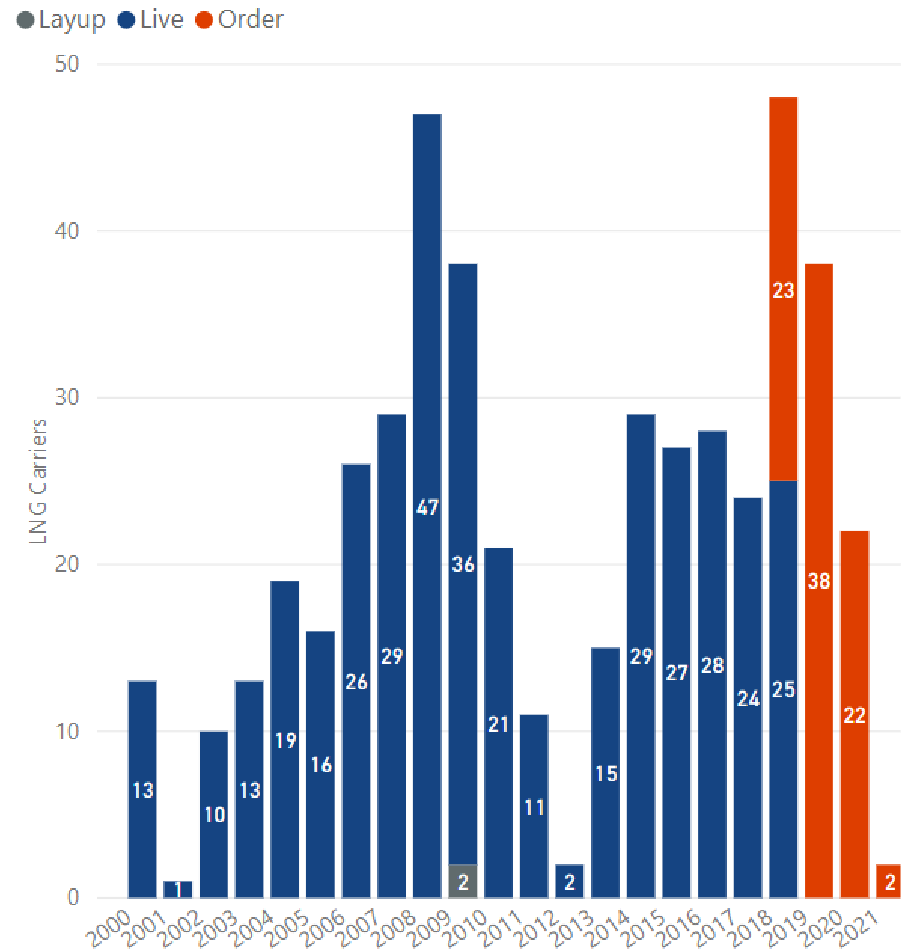
NB Orders & Deliveries

Large deliveries expected in 2018/19, although some slippage is expected. Many DDs in 2018.
Orders recovering but still below 2000-2015's average of 27 LNGCs.

Orders - LNG Carriers



Deliveries - LNG Carriers

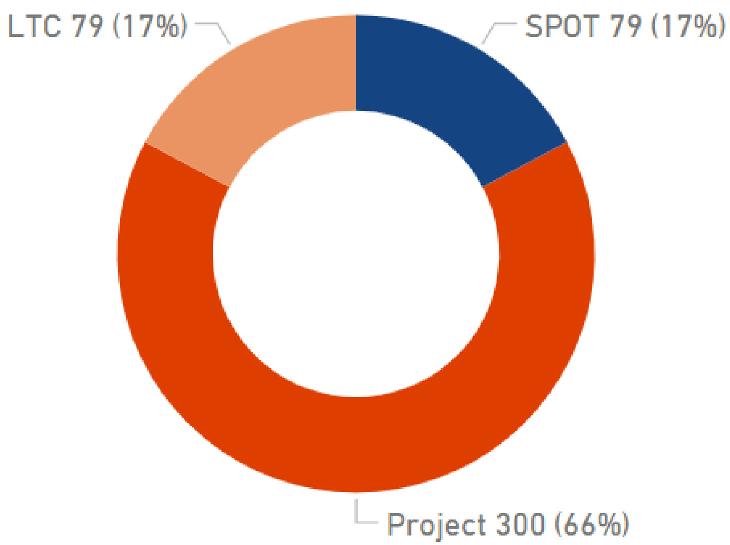


Sources:Fearnleys
Note:

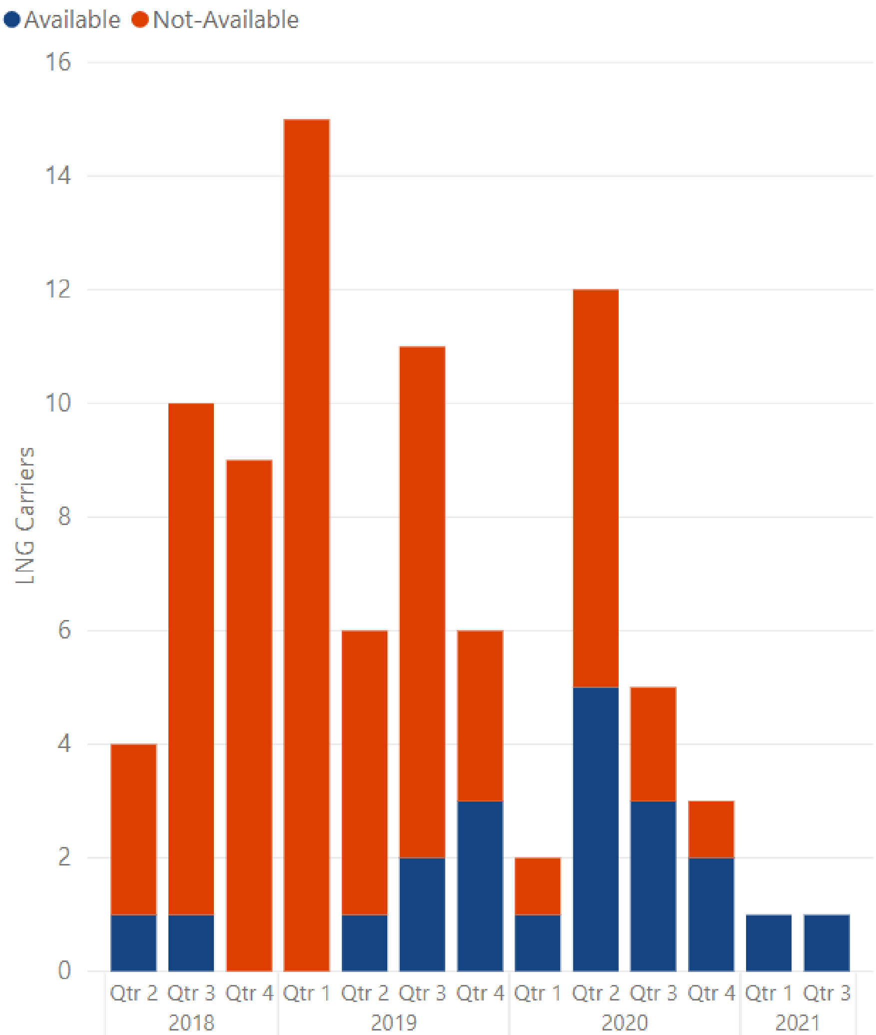
Commercial Types and Availability

Large deliveries expected in 2018/19, although some slippage is expected. Many DDs in 2018.

Live Fleet by Commercial Type



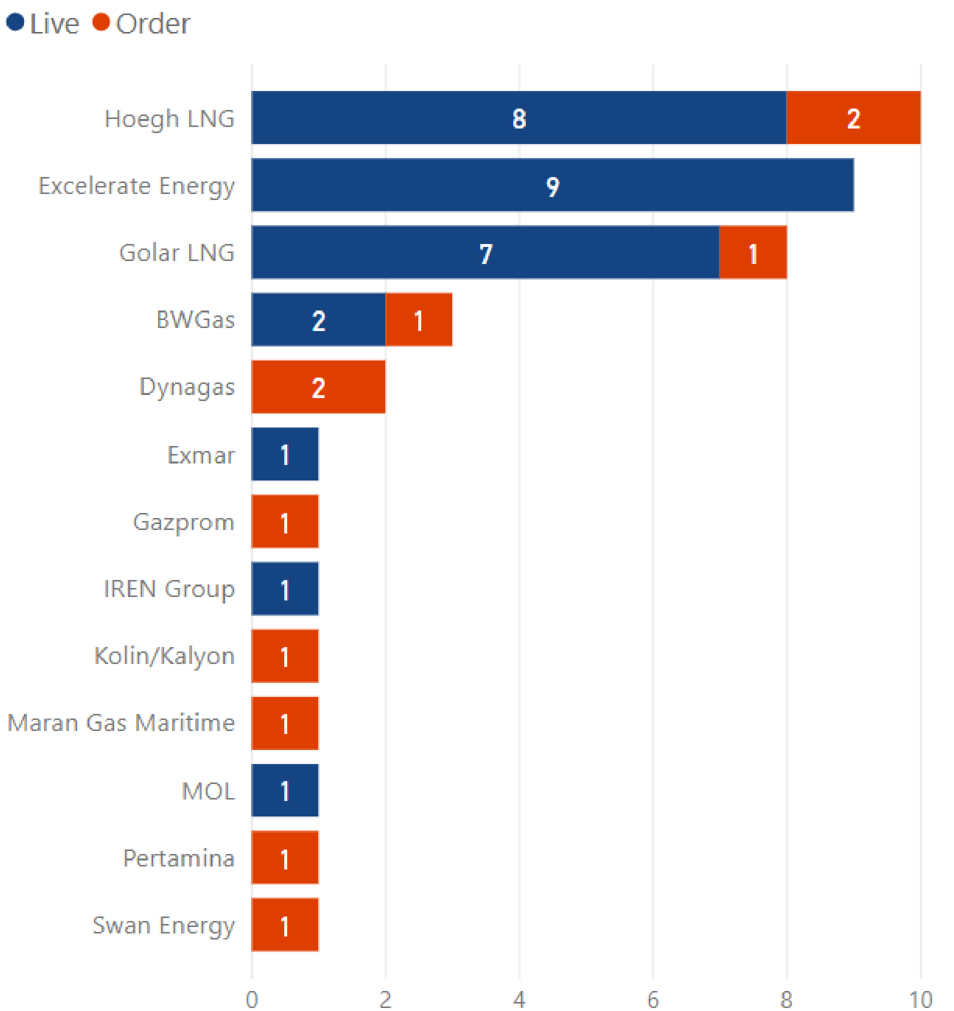
Availability in Orderbook



Sources:Fearnleys
Note:

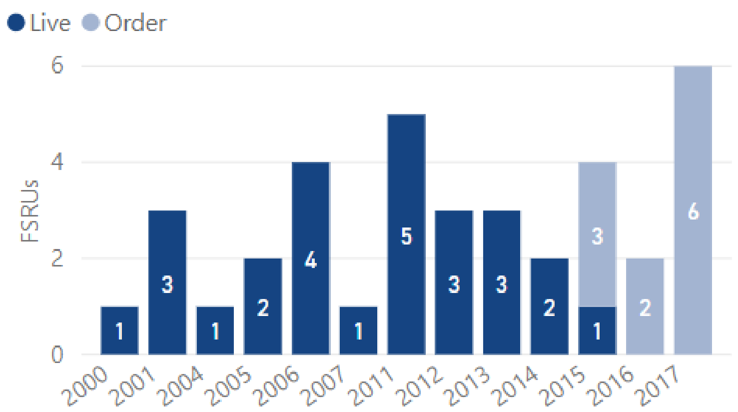
FSRU Overview- Fleet

FSRU Fleet by Owners

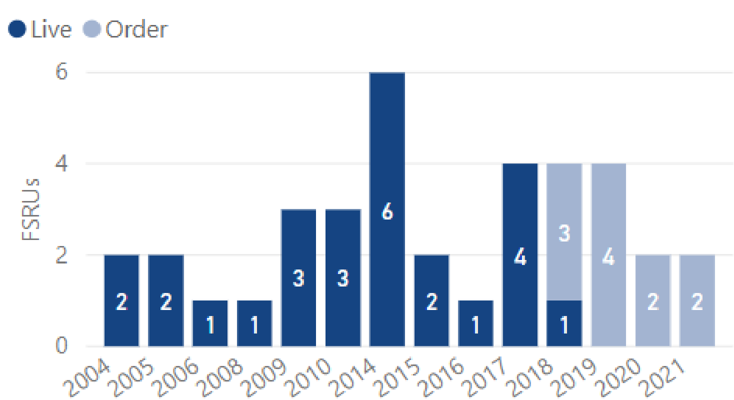


FSRUs Deliveries & Orders

FSRU Orders



FSRU Deliveries



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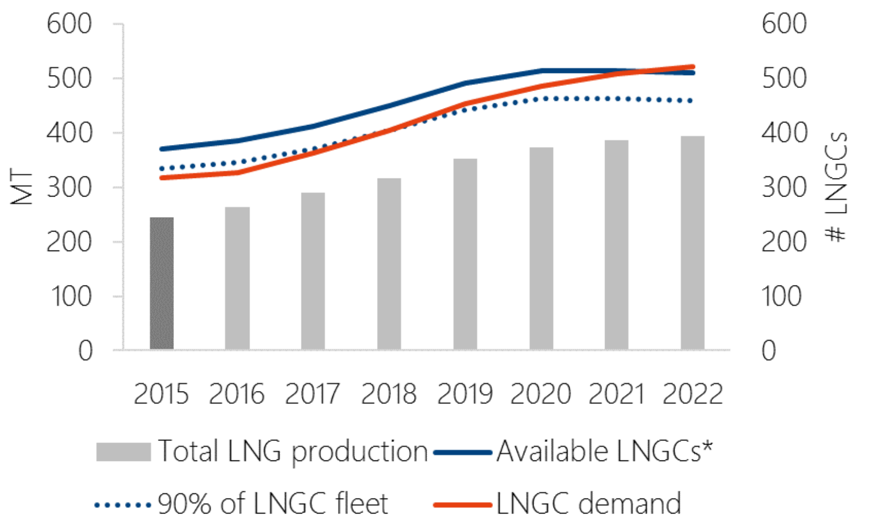
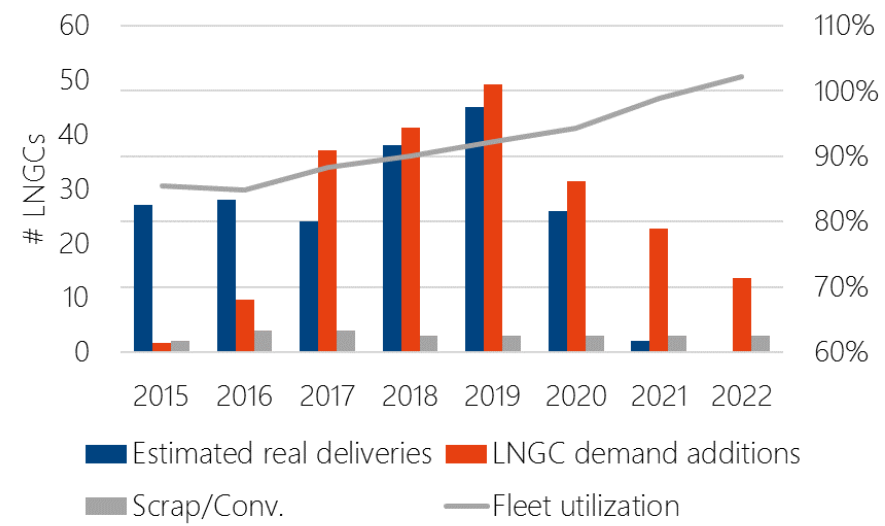
Sources: Fearnleys
Note:

Base Case

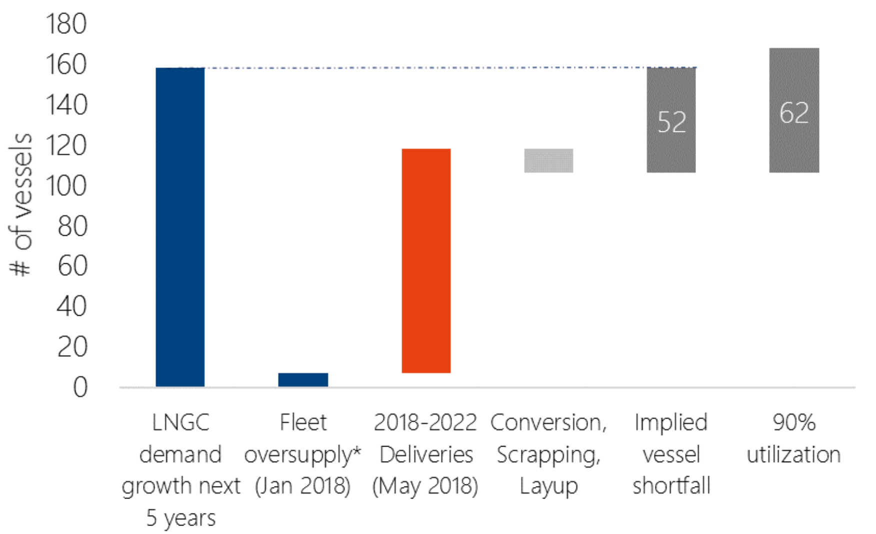
LNG Exports & LNG Shipping



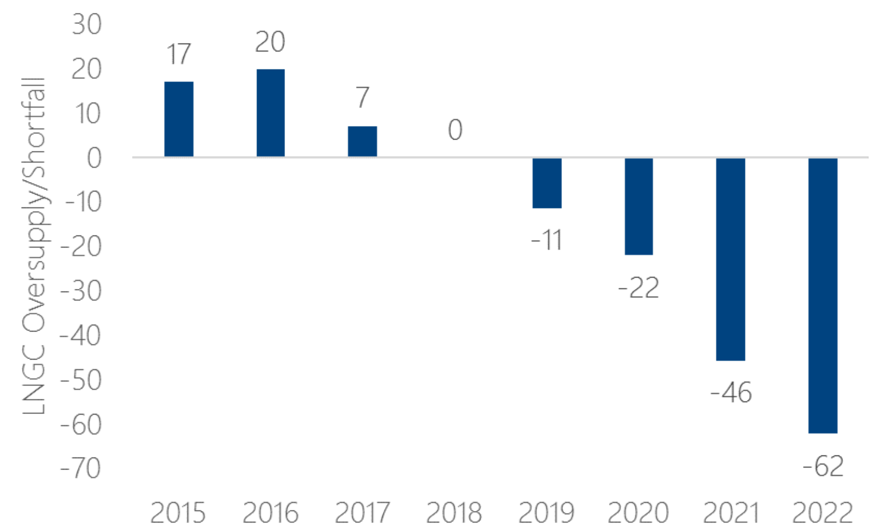
Additional LNGC Demand/Supply



2018-2022 LNGC Shortfall



LNGC Oversupply/Shortfall



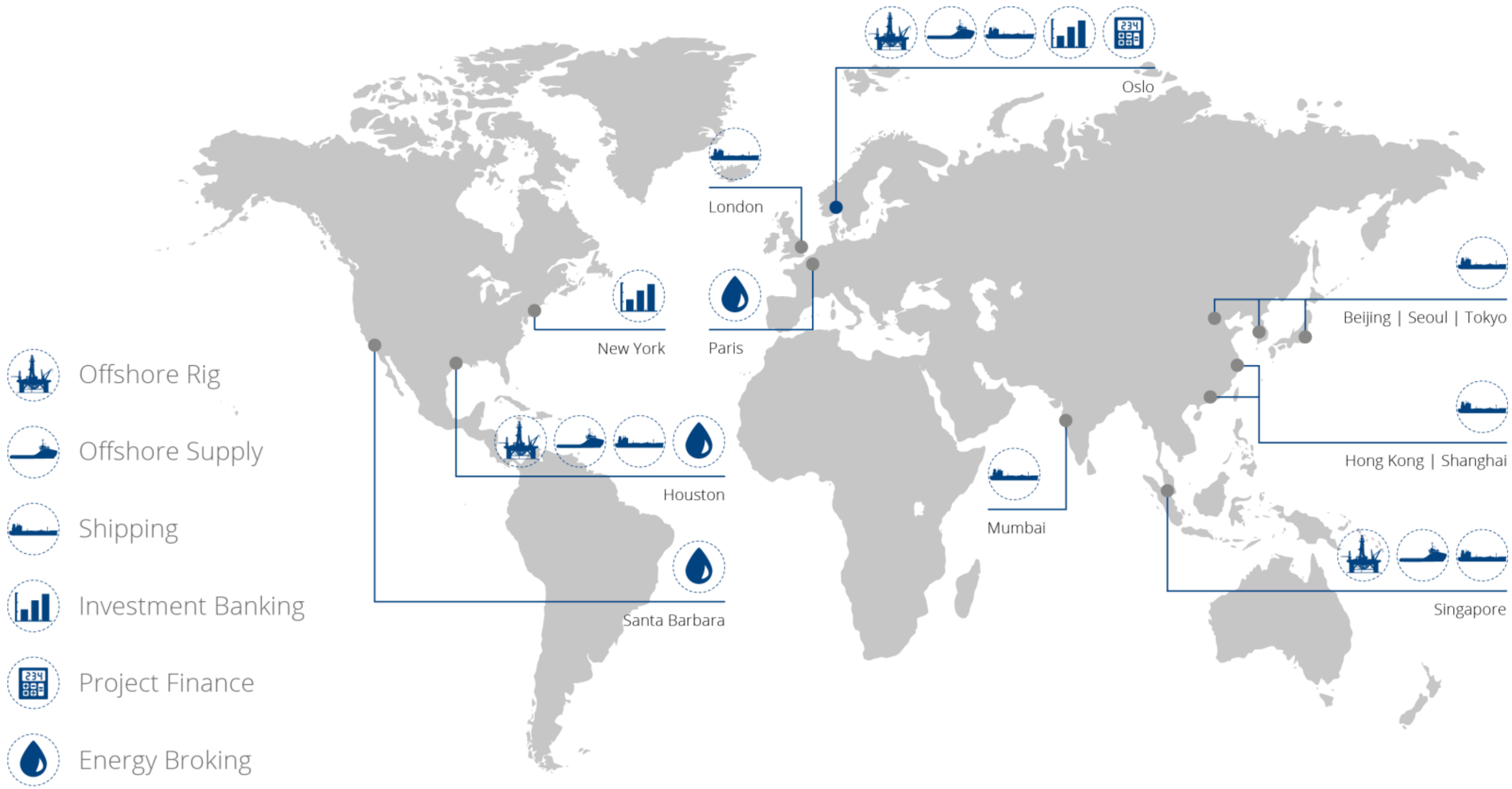
Sources: Fearnleys

Note: LNGC Supply and Demand are both measured in actual units, but to model market balance we model a 10% overcapacity is needed, hence a requirement of 0.9 carrier will be enough to utilize 1 carrier per year in a balanced market with normal charter rates.

Final Remarks

- Chinese LNG demand still strong in short and mid-term
- Stronger oil price and project delays increases LNG price and arb
- Timing of LNGC deliveries 2H18/2019 still something to follow
- 2018 NB orders YTD still not enough to cover for capacity coming online by 2020
- LNG shipping Market expected to continue recovery (with seasonality)

Sources: Fearnleys
Note:



Oslo	Houston	New York	Seoul	Tokyo
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The Astrup Fearnley Global Network

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Base Case

Main Assumptions	Sensitivities – 2020 LNGC Market
LNG trade growth 2018-2020 ~ 9% p.a. (85 mt) 2018-2022 ~ 6.5% p.a. (106 mt)	LNG trade growth 2018-2020 ~ 7% p.a. (65 mt) LNGC requirements decrease by 25-35 units
US LNG average distance -> 7600 miles Europe 40% Asia Panama 50% Asia/Middle East 5% Latam 5%	US LNG average distance -> 7200 miles Europe 50% Asia Panama 40% LNGC requirements decrease by 5 units
Average speed adjusting to LNGC market 2017 -> 15 knots 2020 -> 16 knots	Average speed constant at 15 knots LNGC requirements increase by 20 units
Slippage in LNGC deliveries, peak 2019	
More re-exports due to strong Asian demand & Yamal	Re-exports stay at 2017 level (~3mt) LNGC requirements decrease by 5 units
~ 3 LNGCs p.a. out of market (conv./layup)	

Sources: Fearnleys
Note: