



Overview of Global Offshore Accommodation Markets *Outlook in the wake of the oil price slump*

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Offshore accommodation fleet / orderbook

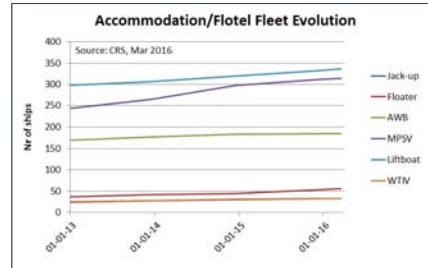
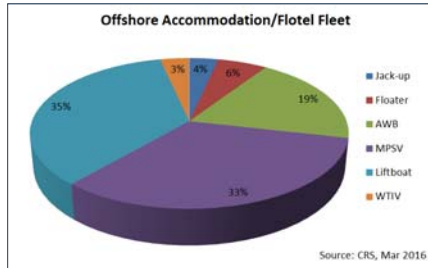


Global accommodation/flotel fleet and orderbook (Source: CRS, March 2016)

Asset type	Fleet		Orderbook		
	Nr	k GT	Nr	k GT	% fleet
Jack-up	33	191.8	13	190.1	39.4%
Floater (semi/vessel)	54	1 081.4	29	580.6	51.8%
Accommodation barge (AWB)	184	1 231.8	8	89.0	4.3%
Multi-Purpose Support (MPSV)	314	1 952.9	70	470.8	22.3%
Self-elevating platform/Liftboat	336	495.8	54	314.5	16.1%
Wind Turbine Installation (WTIV)	33	443.5	4	50.1	12.1%
Total	956	5397.2	178	1614.1	18.6%



Offshore accommodation fleet / orderbook

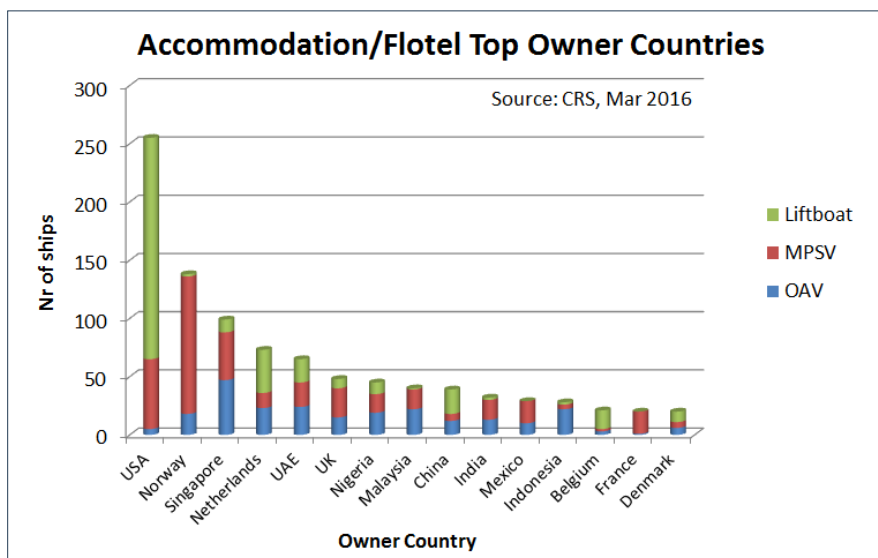


- Fast growth of Liftboat, MPSV and Accommodation Floater fleets
- High orderbook to fleet ratio's for Jack-up Accommodation and Accommodation Floaters, while Accommodation Barges flat
- Shift to operation in deeper water
- Offshore wind still niche market

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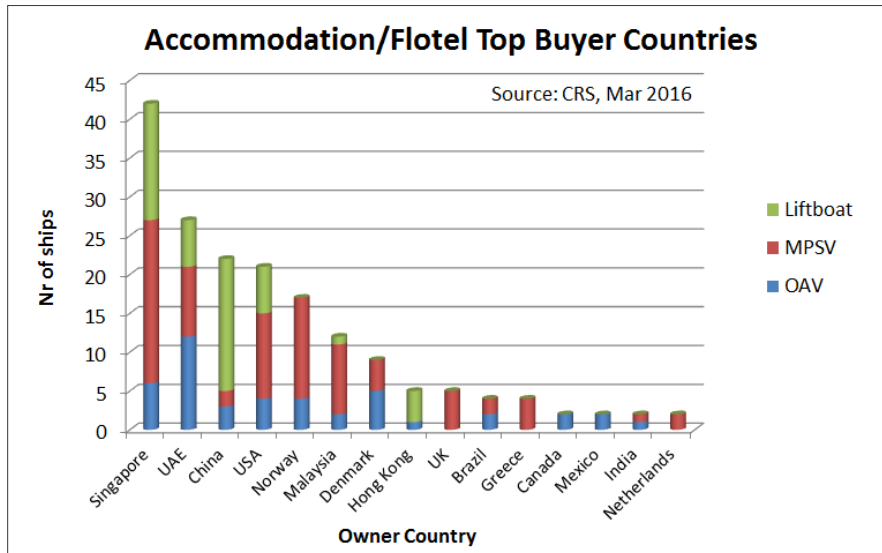
Offshore accommodation fleet



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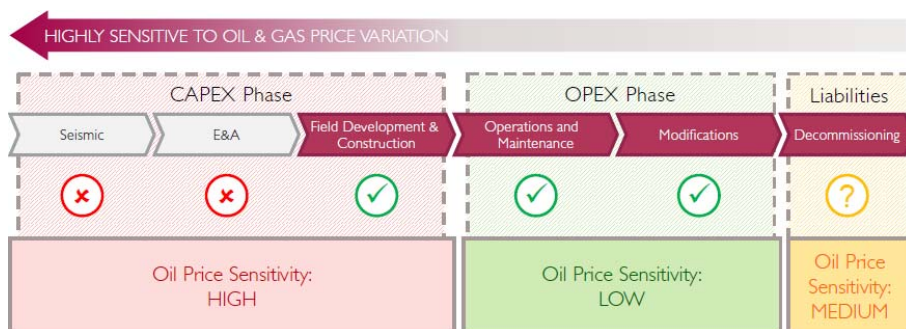
Offshore accommodation orderbook



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Market drivers & oil price impact

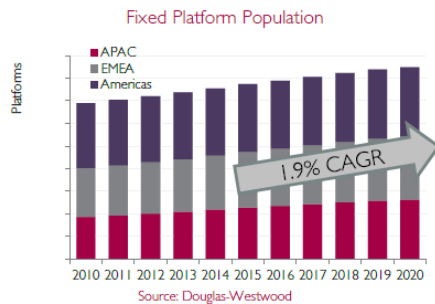


Source: Douglas-Westwood

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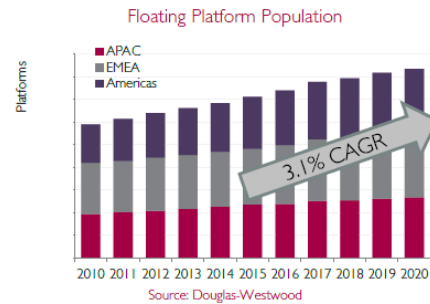
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Market drivers – Production platforms/units



- Platform population drives M&O
- Less than 5% of platforms in water depth > 300m
- Strongest growth in APAC at 2.9%
- North Sea platform remains flat (low exploration investment)

Source: Douglas-Westwood



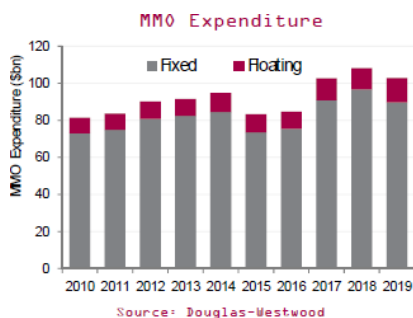
- FPU fleet growth (deep water)
- Golden triangle key demand driver for accommodation
- Fewer orders than expected
- FPU tonnage drives regional PoB requirements

Source: Douglas-Westwood

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Market drivers – Offshore MMO



- Decline in offshore MMO less severe than drilling
- Opex markets less susceptible to oil price, while representing 70% of spending
- Decline 2015/16 driven by pricing pressure and delay of major and "non-essential" work
- Fundamentals strong until end of decade

Source: Douglas-Westwood

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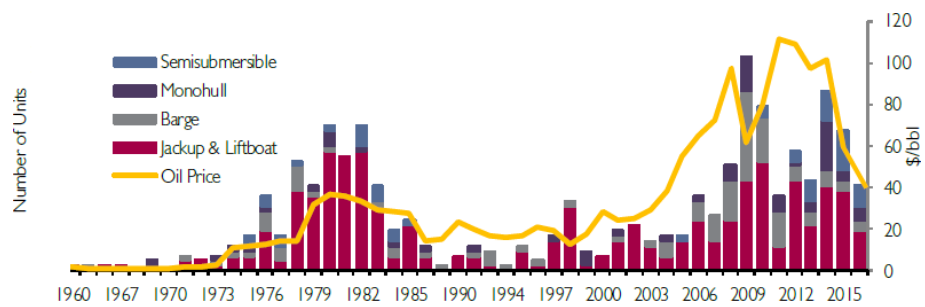
Accommodation unit types and suitability



Jackup Barges	Lift Boats	Barges	Monohull Vessels	Semisubmersibles
70 – 475 POB	30 – 150 POB	40 – 900 POB	200 – 800 POB	230-812 POB
Shallow	Shallow	Shallow / Mid	ALL	ALL
Harsh	Harsh	Benign	Intermediate	Harsh
Africa	Africa	Africa	Africa	Africa
Asia	Asia	Asia	Asia	Asia
Australasia	Australasia	Australasia	Australasia	Australasia
Eastern Europe	Eastern Europe	Eastern Europe	Eastern Europe	Eastern Europe
Latin America	Latin America	Latin America	Latin America	Latin America
Middle East	Middle East	Middle East	Middle East	Middle East
North America	North America	North America	North America	North America
Western Europe	Western Europe	Western Europe	Western Europe	Western Europe

Source: Douglas-Westwood

Global accommodation supply



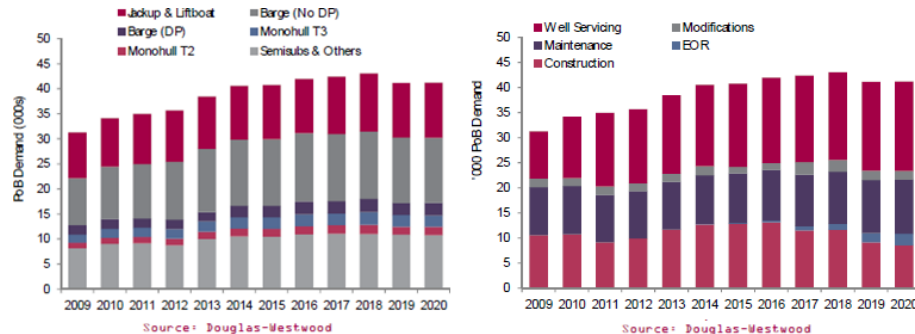
Source: Douglas-Westwood

Major trends

- Average PoB increased from ~100 (1970s) to ~300 (post-2000)
- Average deck space increased > 200%
- Crane capacity increased to ~300 mt
- Approx 1/3 annual increase of DP3 units since 2006

Source: Douglas-Westwood

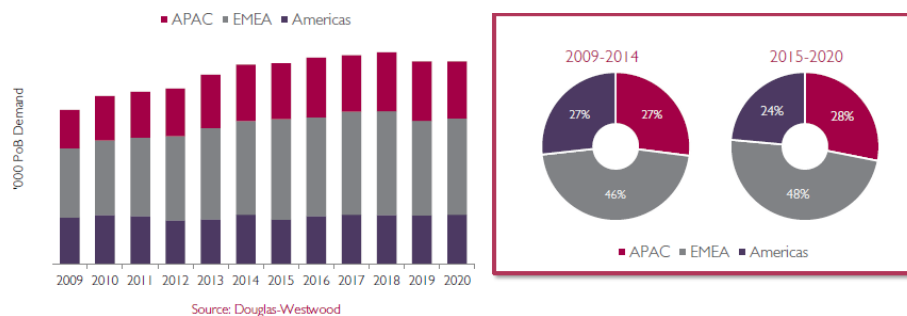
Global accommodation demand



- Market to remain steady, peaking 2016-2018 before reaching plateau
- Shallow water units dominate PoB demand (DP units negatively affected)
- LoF support to dominate activity (>70% of PoB demand over 2015-2020)
- Decline in construction support (-7.7% CAGR 2015-2020)

Source: Douglas-Westwood

Regional accommodation demand



- Asia, Western Europe and North America dominate demand
- North Sea PoB demand for construction support set to drop (-18% CAGR)
- Australasia important for LNG construction projects, but region remains small
- Latin America second largest growth market with demand for semi-subs and large monohulls

Source: Douglas-Westwood

New opportunities?



Decommissioning

- North Sea decommissioning growing at a steady pace to \$24bn 2015-2024
- North Sea: ~10 times fewer platforms than North America, but large assets
- Life extension remains primary focus and delays decommissioning activity
- Low oil price could speed up decommissioning projects
- Accommodation support could be limited by purpose built vessels

Source: Douglas-Westwood



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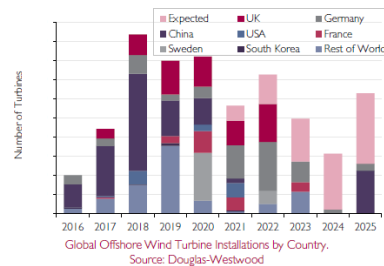
New opportunities?



Offshore wind

- About 11,600 turbines to be installed over next 10 years
- China, UK and Germany will account for 54% of installations (over 1,600 turbines will be installed offshore UK by 2025)
- Installation costs for turbines and offshore infrastructure (expected to peak at nearly \$10bn in 2018)
- Ongoing maintenance of wind farms will see an annualised growth rate of 13% to 2025, reaching levels over \$9.5bn

Source: Douglas-Westwood



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