Pareto Securities

April 2016

OSV Market Outlook

The Offshore market is facing systemic shock – you can't hide from it

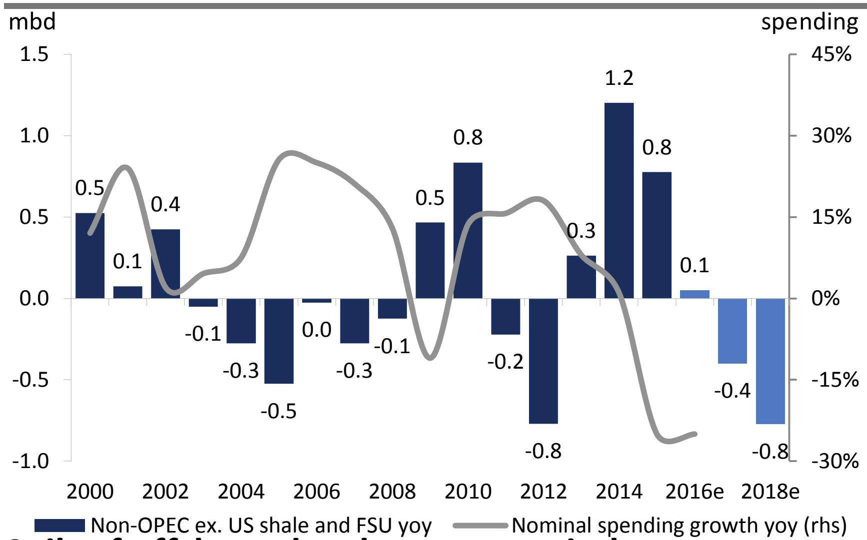
David Palmer
Direct: +65 6408 9802
Mobile: +65 9295 7507
Email: david.palmer@paretosec.com

We will see “Blood”- too many companies, too much equipment and insufficient cash flow to attract new capital…..

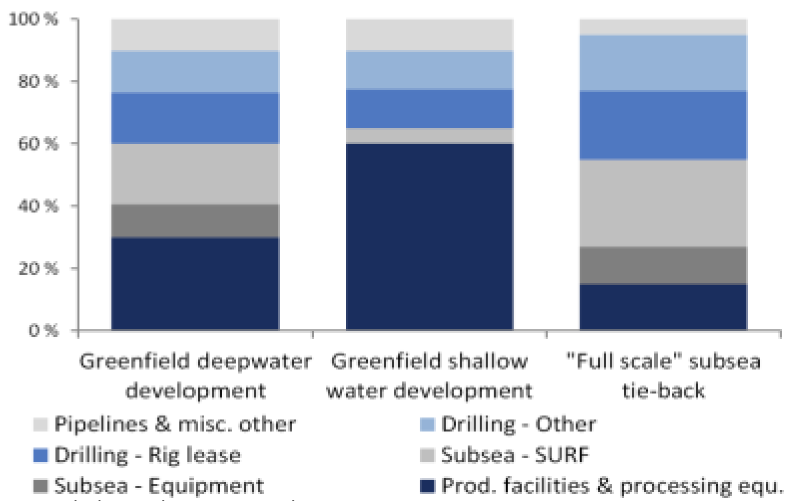
Signals	Drivers	Trend	Insights
	Offshore spending cut 20-25% in 2016	–	Significant activity declines in 2016 and 2017. Oil companies’ budgets have shrunk considerably. E&P firms are “Penny–Pinching”.
	Working rig count – can’t see the bottom	–	Rig market – bad to worse - highest scrapping since 1990s. Jackup demand down 21% y/y, excluding Middle East. Re-contracting is slow. Drowning in over–supply - 166/498 JU and 108/295 Floaters stacked. Armada of layups of Rigs/OSVs – at least 1,300 OSVs idle.
	Shrinking OSV orderbook – Slower deliveries delay recovery	–	“Stuck in a Glut“ Excess capacity in all offshore segments - Wall of newbuilds to be delivered – 374 units reported and as many as 200 unreported from Chinese yards – 149 AHTS (8% of fleet) and 225 PSVs on order (14% of fleet). Significant slippage (>50%) to continue. There will be no new orders – banks will not finance them.
	OSV utilization/charter rates still falling – Cash flow declining	–	Rates down 50-60%, utilization down 20-30% depending on market. Only 47 reported sales in 2015. Vessel value impairments are now the norm. Severely declining cash flows.
	Tender activity slow- Subsea with lowest sanction in 15 years	–	“Canary in mine shaft” seismic-died – tender activity and seismic spending at all time low (-30%). Downturn worst in 20 years. Contract rates below opex. Subsea – US$ 380bn worth of projects delayed or cancelled. Main plays are in consolidation.
	Oil fundamentals showing “silent recovery “	+	Severe correction in oil price - USD 41/bbl. An eventual cocktail of demand growth and production depletion and reduced capex will push oil price back up.
	Bank uncertainty leading to “Credit Void”	–	Loan renegotiations – little new lending. Refinancing support but limited capex. Increased liquidity/ counterparty risks. Pandora’s box of troubles for CFO’s.
	Oil service stocks: Bear Heaven	–	Major offshore OSV/Rig companies have lost 60-80% of value. Significant asset writedowns. Stocks move with oil price. Forward P/E are rising-race to the bottom.
	Oil demand accelerating - Depletion of cash positive fields	+	Shale growth slowing, only 15% viable at US$40 and 50% at US$55 per bbl. Expected balanced market in 2H 2017, with improvement starting in 2H 2016.
	New contracting models – simplified service requirements	+	Oilcos locking in future requirements at 50% lower cost. Restructuring starting with trend pointing to standardization and simplification in service requirements. New contracting models emerging, but loss of qualified personnel implies potential capability gaps.
	Cost deflation - project re-evaluation gathering pace	+	Project sanctioning and FIDs gathering pace as project economics and development costs improve. Early signs of market stabilization..

Sharply negative E&P spending outlook, Oilcos achieved impressive cost reductions some longer term projects becoming viable.

Non-OPEC production* growth vs E&P spending



Spilt of offshore development capital cost



Oil Market Balance – 2013-2020e

		2013	2014	2015	2016e	2017e	2018e	2019e	2020e
Demand									
OECD	mbd	46.0	45.7	46.2	46.2	46.2	46.4	46.5	46.5
Non-OECD	"	45.9	47.1	48.3	49.3	50.3	51.1	52.0	53.0
World	"	**91.9**	**92.8**	**94.5**	**95.5**	**96.5**	**97.5**	**98.5**	**99.5**
Growth y/y									
OECD	"	*0.1*	*(0.3)*	*0.5*	*0.0*	*0.0*	*0.2*	*0.1*	*0.0*
Non-OECD	"	*1.1*	*1.2*	*1.2*	*1.0*	*1.0*	*0.8*	*0.9*	*1.0*
World	"	***1.2***	***0.9***	***1.7***	***1.0***	***1.0***	***1.0***	***1.0***	***1.0***
Production									
Non-OPEC	mbd	54.5	57.0	58.2	57.5	57.1	56.9	57.1	57.8
*- US Lower 48**	"	5.7	6.8	7.4	6.6	6.7	7.2	7.8	8.4
- FSU		13.9	13.9	14.0	13.9	13.9	13.9	13.9	13.9
OPEC NGLs	"	6.3	6.4	6.7	6.9	7.0	7.1	7.2	7.3
Growth y/y									
Non-OPEC	"	***1.3***	***2.5***	***1.3***	***(0.7)***	***(0.4)***	***(0.2)***	***0.2***	***0.7***
*- US Lower 48**	"	*1.0*	*1.2*	*0.5*	*(0.8)*	*0.1*	*0.5*	*0.6*	*0.6*
- Rest of world	"	*0.3*	*1.3*	*0.8*	*0.1*	*(0.4)*	*(0.7)*	*(0.4)*	*0.1*
Call-on-OPEC	**mbd**	**31.1**	**29.5**	**29.6**	**31.0**	**32.4**	**33.5**	**34.2**	**34.4**
OPEC production	"	**30.5**	**30.3**	**31.4**	**32.0**	**32.5**	**32.9**	**33.3**	**33.7**
- Growth y/y	"	(0.8)	(0.1)	1.0	0.7	0.4	0.4	0.4	0.4
- Iran growth y/y	"	(0.3)	0.1	0.1	0.3	0.3	0.2	0.2	0.2
Surplus/deficit	"	**(0.5)**	**0.9**	**1.7**	**1.0**	**0.1**	**(0.7)**	**(1.0)**	**(0.8)**

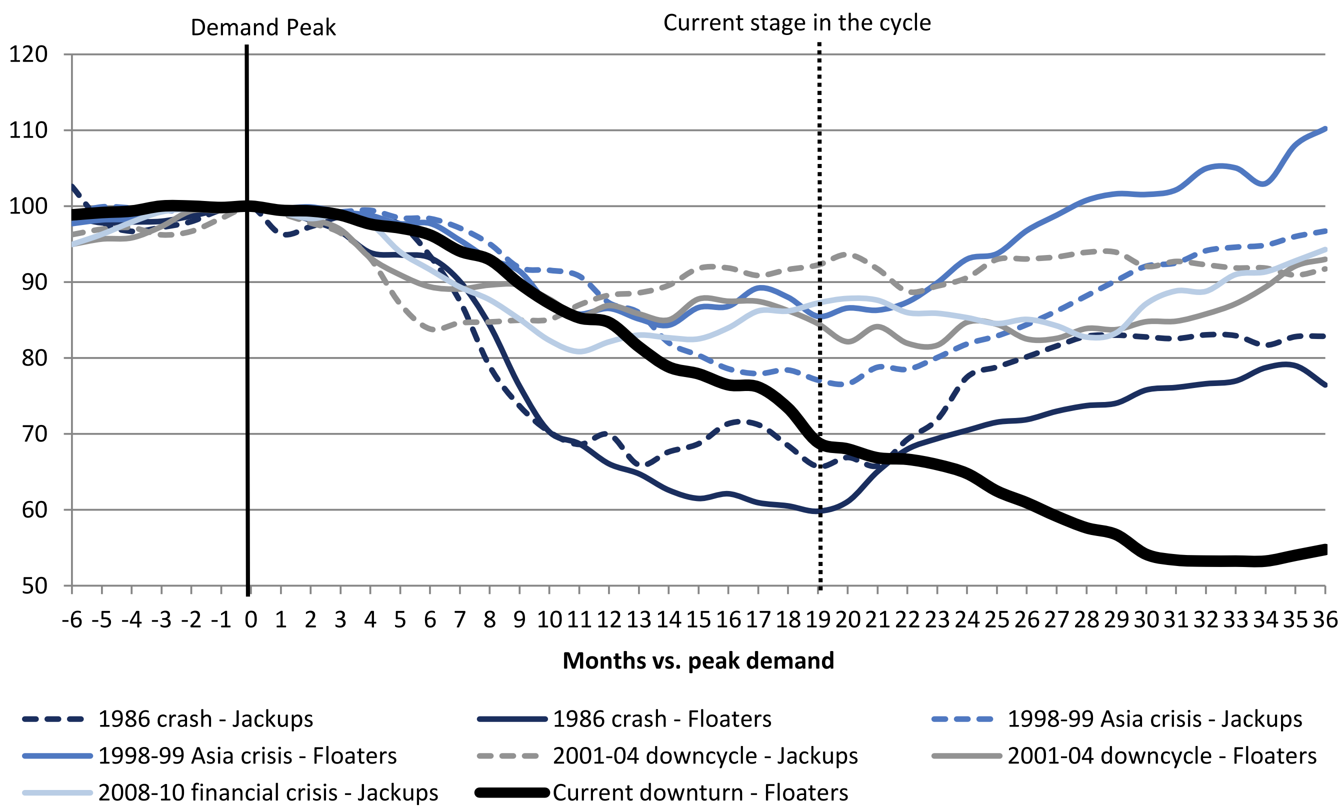
**Excluding Gulf of Mexico*

* Ex US shale production growth

Source: IEA, Woodmac, company disclosures, Pareto Research

Rig market – downcycle will be deeper than expected; recovery expected in 28 months from April/May 2014

Rig demand as % of peak demand – Previous downcycles

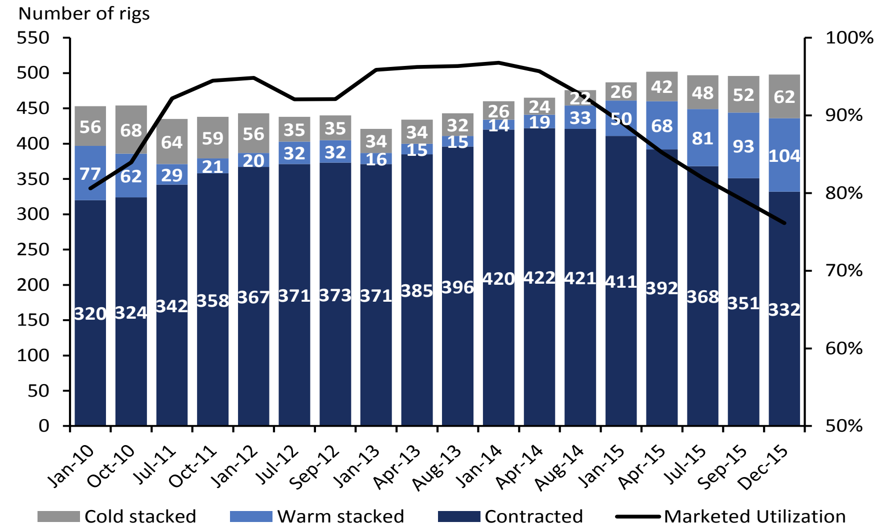


- This downcycle expected to be longer than other downcycles (except 1986)
  - Lack of near term visibility on tendering activity
  - Demand already past peak before oil price plummeted following prolonged upcycle with oilcos' struggling with budgets at USD 100/bbl Brent
  - ~47% decline projected as compared to average decline in previous downturns of ~20%
- Market expected to reach trough in 1H'2016
- On average, the time from peak to trough demand in previous down cycles was ~20 months, while demand has started rebounding materially after ~20 months
  - Stable (higher) oil price needed for demand recovery
- Our current projections imply ~31 months from peak in April/May 2014 to trough in Nov/Dec 2016 and ~38 months before demand starts rebounding
  - Much larger proportion of drilling related to longer running development campaigns

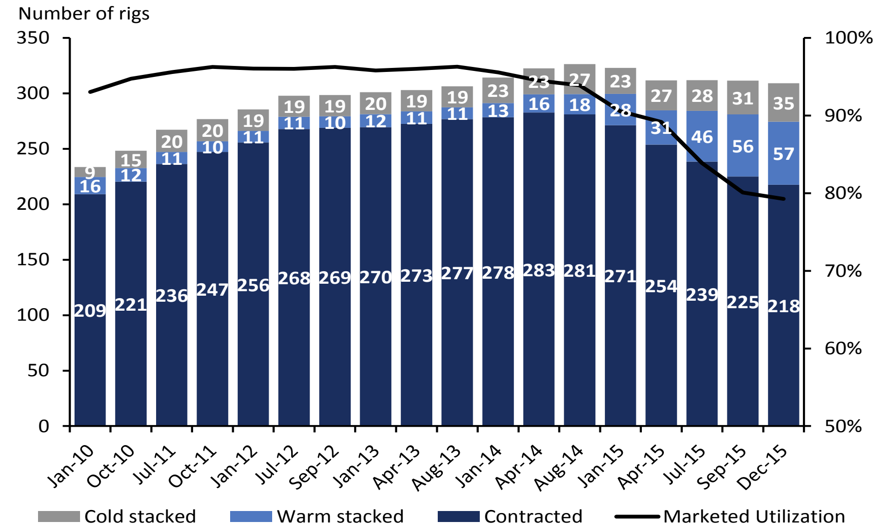
Source: Pareto Research, IHS Petrodata

Jan 2016 -133 fewer working rigs (79 Jackups and 54 Floaters) than Jan-15….

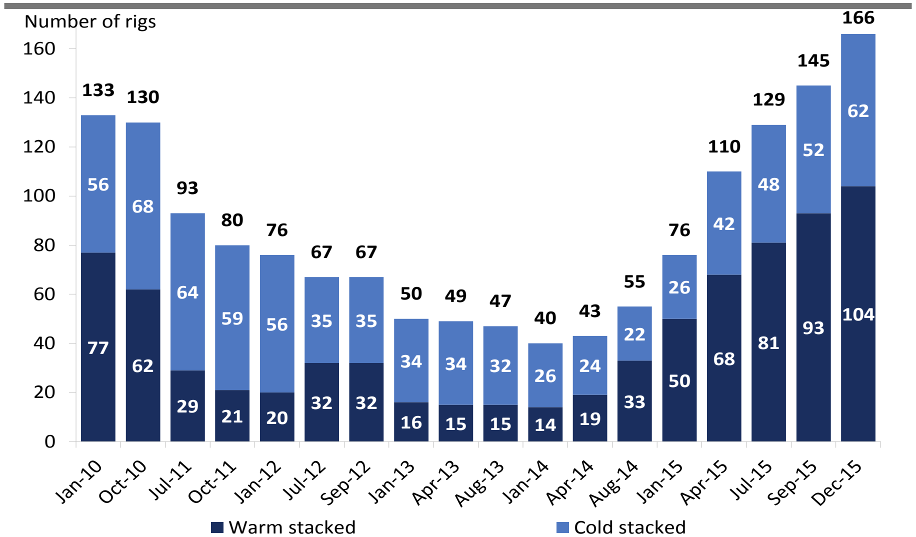
Jackups – fleet utilization overview



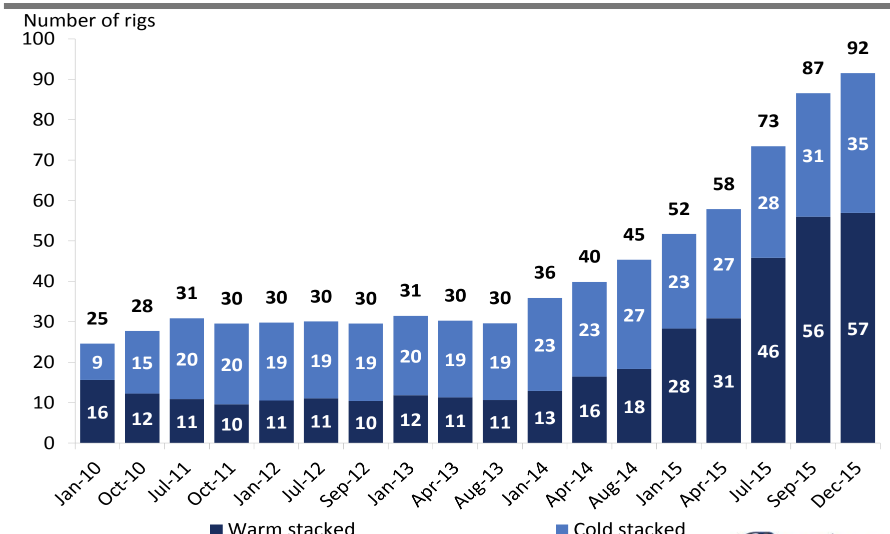
Floaters – fleet utilization overview



Jackups – stacked units overview



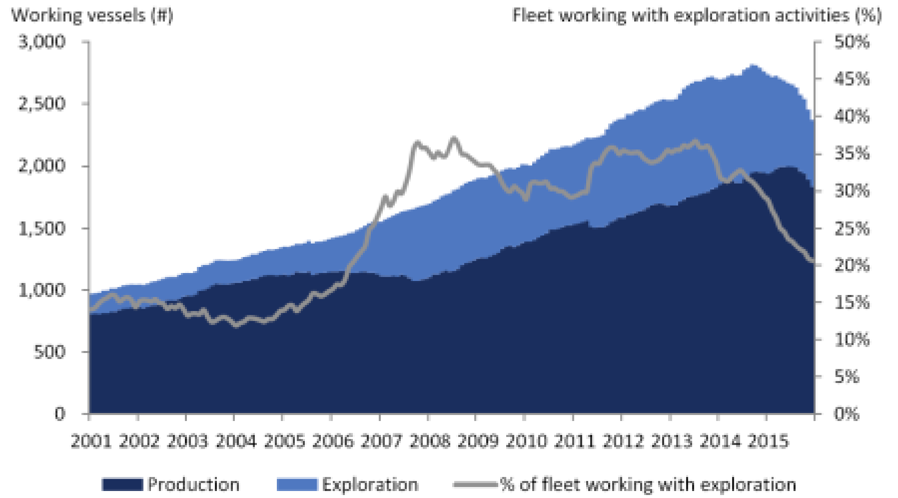
Floaters – stacked units overview



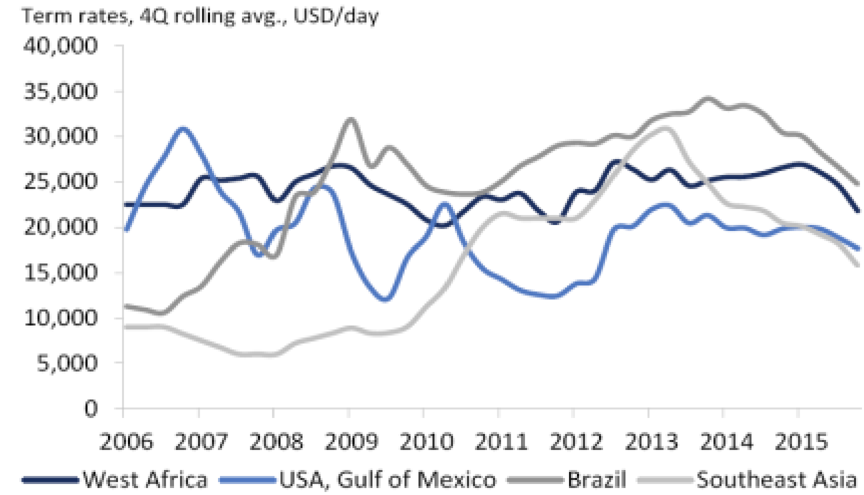
Source: Pareto Research, IHS Petrodata

OSV market – Supply imbalance persistent. 1300 vessels idle /600 stacked.

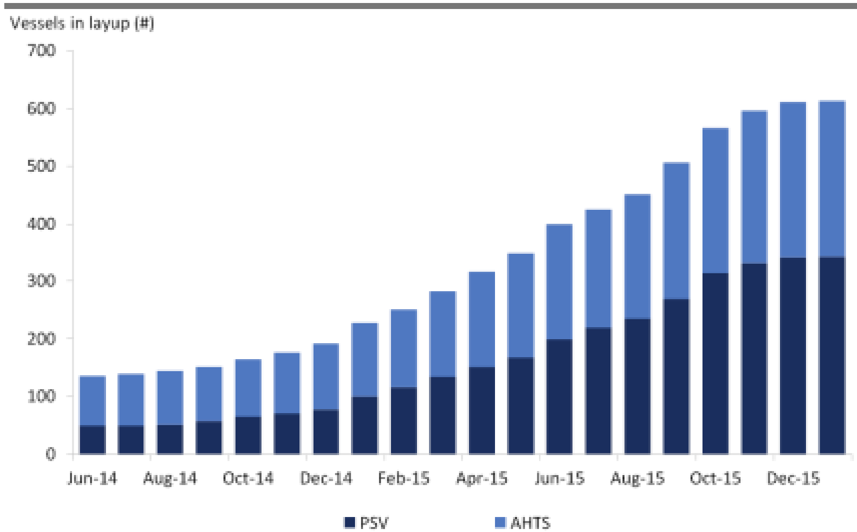
OSV fleet development of working vessels



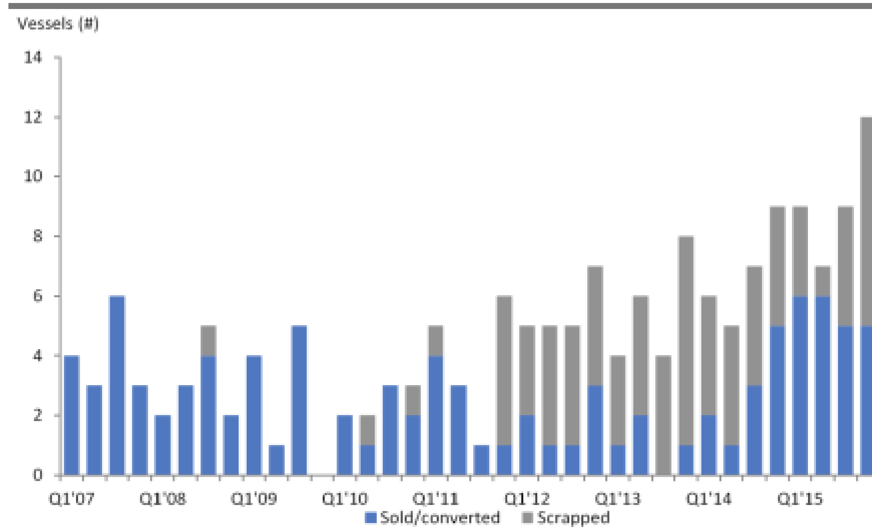
OSV term rates



OSVs – stacked units overview



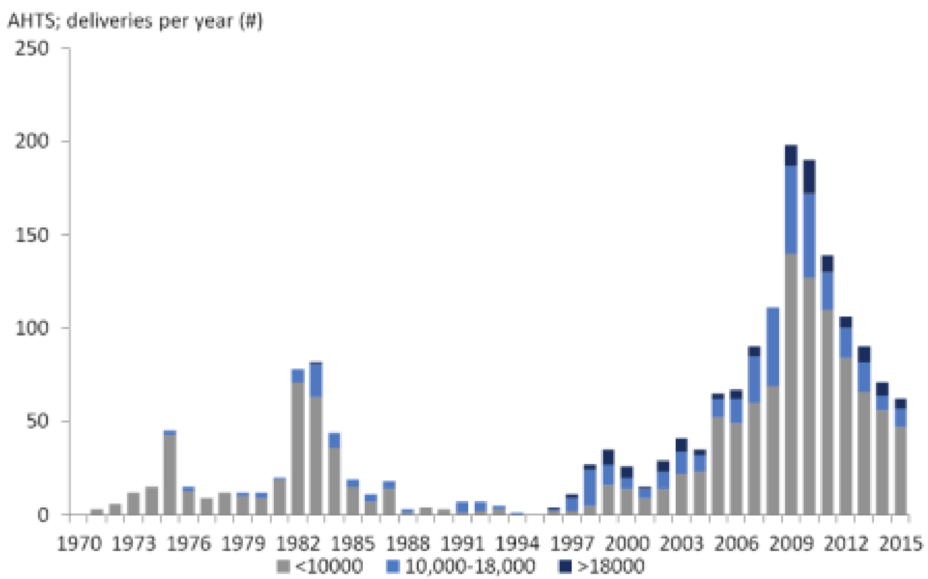
OSV attrition



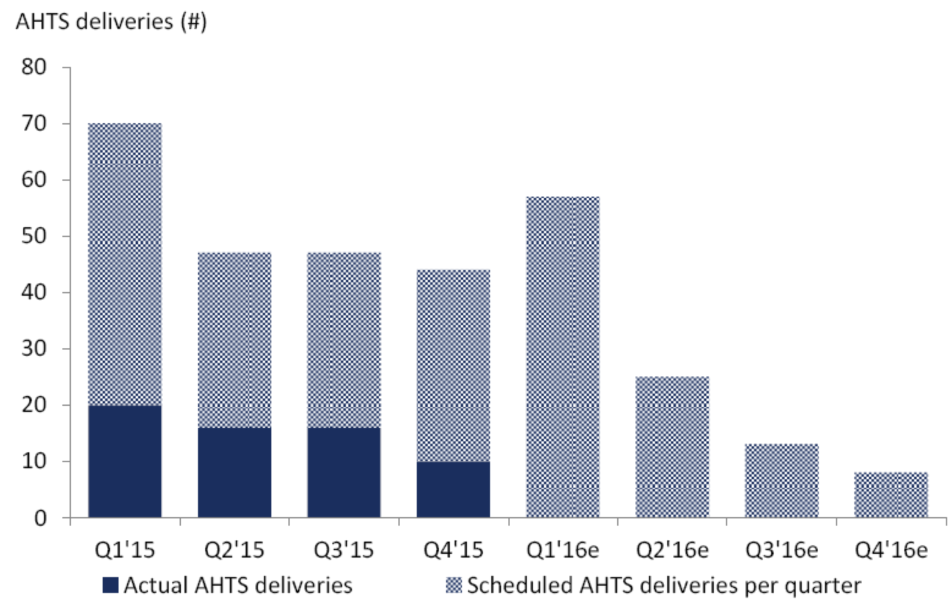
Source: Pareto Research, IHS Petrodata

AHTS fleet – increasingly challenging fundamentals

Global AHTS fleet profile



Scheduled and delivered AHTS orders per quarter

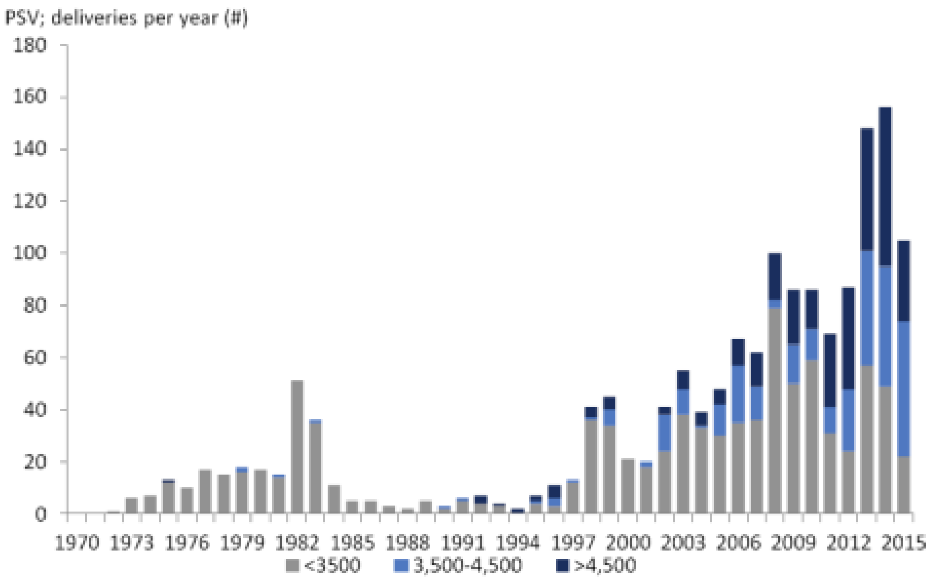


- Fleet profile: 1,889 AHTS in current fleet, with 149 (8%) on order (likely to be understated)
  - 60 expected be delivered in 2016e – net of slippage and scrapping
- Orderbook dominated by smaller AHTS, few orders for high-end AHTS, with vessels mainly to be delivered from China, India, Malaysia and Norway
- Suspected conversions of PSV orders to AHTS, resulting in an increase in orderbook over the past six months

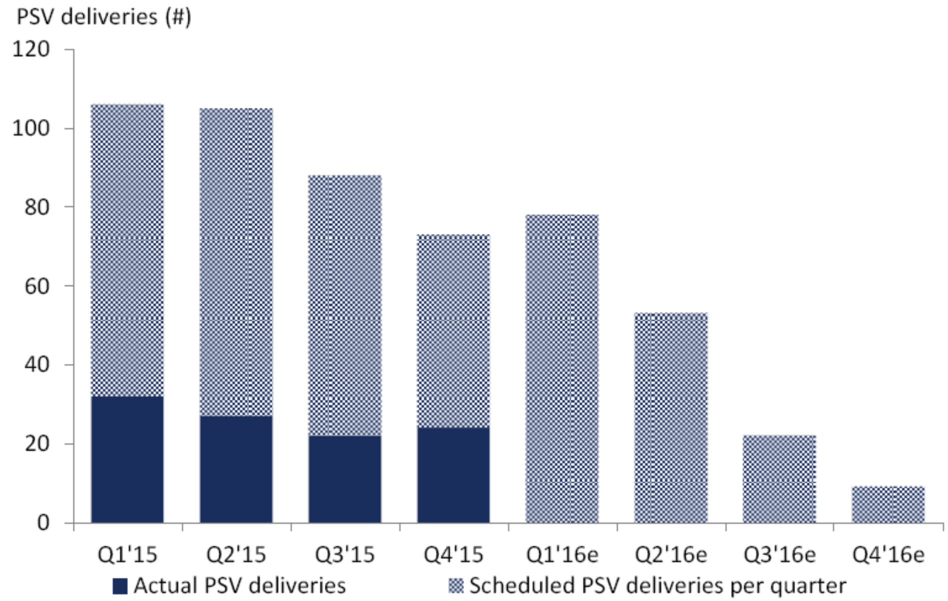
Source: Pareto Research, IHS Petrodata

PSV fleet – market imbalance huge

Global PSV fleet profile



Scheduled and delivered PSV orders per quarter

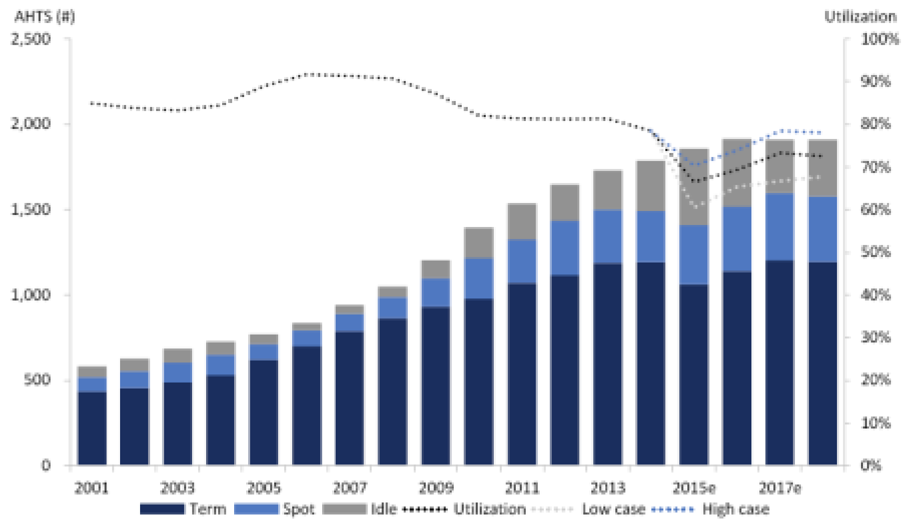


- Fleet profile: 1,673 PSVs in current fleet, with 225 (14%) on order (likely to be understated)
  - 110 expected be delivered in 2016e – net of slippage and scrapping
- Large PSVs have dominated the PSV orderbook, with vessels mainly to be delivered from China, India, Malaysia and Norway
- We also anticipate that a number of vessels currently under construction will not be delivered, or not enter the market as PSVs

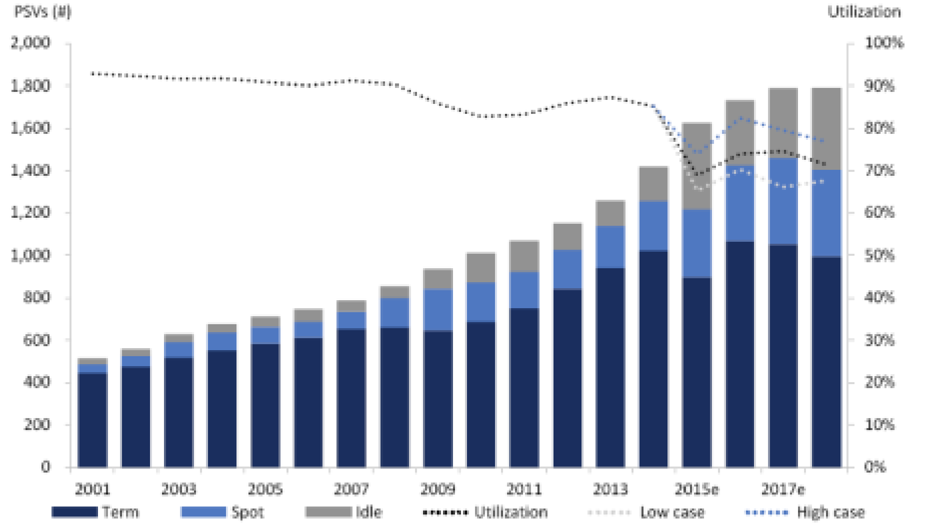
Source: Pareto Research, IHS Petrodata

OSV supply/demand balance underpins market prospects

AHTS supply/demand model



PSV supply/demand model



- Anticipated supply growth of 3% annually for AHTS fleet
- Expected AHTS term demand ~1,150 vessels in 2016e
  - We expect the supply surplus to decrease as older vessels get scrapped and there will be few new orders for newbuilds for 2017
- Expected utilization of 69%
  - Fleet surplus of ~800 vessels

- Anticipated supply growth of 8% annually for PSV fleet
- Expected PSV term demand ~1,000 vessels in 2016e
  - Higher spot utilization assumption than for AHTS as vessels that have historically worked term are now performing the same work under spot charters
- Expected utilization of 74%
  - Fleet surplus of ~600 vessels

Source: Pareto Research, IHS Petrodata

We will see "Blood"- too many companies, too much equipment and insufficient cash flow to attract new capital…..

Signals	Drivers	Trend	Insights
	Offshore spending cut 20-25% in 2016	−	Significant activity declines in 2016 and 2017. Oil companies' budgets have shrunk considerably. E&P firms are "Penny–Pinching".
	Working rig count – can't see the bottom	−	Rig market – bad to worse - highest scrapping since 1990s. Jackup demand down 21% y/y, excluding Middle East. Re-contracting is slow. Drowning in over–supply - 166/498 JU and 108/295 Floaters stacked. Armada of layups of Rigs/OSVs – at least 1,300 OSVs idle.
	Shrinking OSV orderbook – Slower deliveries delay recovery	−	"Stuck in a Glut" Excess capacity in all offshore segments - Wall of newbuilds to be delivered – 374 units reported and as many as 200 unreported from Chinese yards – 149 AHTS (8% of fleet) and 225 PSVs on order (14% of fleet). Significant slippage (>50%) to continue. There will be no new orders – banks will not finance them.
	OSV utilization/charter rates still falling – Cash flow declining	−	Rates down 50-60%, utilization down 20-30% depending on market. Only 47 reported sales in 2015. Vessel value impairments are now the norm. Severely declining cash flows.
	Tender activity slow- Subsea with lowest sanction in 15 years	−	"Canary in mine shaft" seismic-died – tender activity and seismic spending at all time low (-30%). Downturn worst in 20 years. Contract rates below opex. Subsea – US$ 380bn worth of projects delayed or cancelled. Main plays are in consolidation.
	Oil fundamentals showing "silent recovery "	+	Severe correction in oil price - USD 41/bbl. An eventual cocktail of demand growth and production depletion and reduced capex will push oil price back up.
	Bank uncertainty leading to "Credit Void"	−	Loan renegotiations – little new lending. Refinancing support but limited capex. Increased liquidity/ counterparty risks. Pandora's box of troubles for CFO's.
	Oil service stocks: Bear Heaven	−	Major offshore OSV/Rig companies have lost 60-80% of value. Significant asset writedowns. Stocks move with oil price. Forward P/E are rising-race to the bottom.
	Oil demand accelerating - Depletion of cash positive fields	+	Shale growth slowing, only 15% viable at US$40 and 50% at US$55 per bbl. Expected balanced market in 2H 2017, with improvement starting in 2H 2016.
	New contracting models – simplified service requirements	+	Oilcos locking in future requirements at 50% lower cost. Restructuring starting with trend pointing to standardization and simplification in service requirements. New contracting models emerging, but loss of qualified personnel implies potential capability gaps.
	Cost deflation - project re-evaluation gathering pace	+	Project sanctioning and FIDs gathering pace as project economics and development costs improve. Early signs of market stabilization..

Contact details and disclaimer

Oslo (Norway)
Pareto Securities AS
Dronning Mauds gate 3
PO Box 1411 Vika
N-0115 Oslo
NORWAY

Tel: +47 22 87 87 00
Fax: +47 22 87 87 10

Stavanger (Norway)
Pareto Securities AS
Haakon VIIs gate 8
PO Box 163
N-4001 Stavanger
NORWAY

Tel: +47 51 83 63 00
Fax: +47 51 83 63 51

Bergen (Norway)
Pareto Securities AS
Olav Kyrres gate 22
PO Box 933
N-5808 Bergen
NORWAY

Tel: +47 55 55 15 00
Fax: +47 55 55 15 50

Kristiansand (Norway)
Pareto Securities AS
Dronningensgate 3
N-4611 Kristiansand
NORWAY

Tel: +47 21 50 74 20
Fax: +47 21 50 74 99

Trondheim (Norway)
Pareto Securities AS
Nordre gate 11
PO Box 971 Sentrum
N-7410 Trondheim
NORWAY

Tel: +47 21 50 74 60
Fax: +47 21 50 74 61

Pareto Shipping AS
Dronning Mauds gate 3
PO Box 1411 Vika
N-0115 Oslo
NORWAY

Tel: +47 22 87 87 00
Fax: +47 22 87 87 10

Pareto Offshore AS
Dronning Mauds gate 3
PO Box 1411 Vika
N-0115 Oslo
NORWAY

Tel: +47 22 87 87 00
Fax: +47 22 87 87 10

Copenhagen (Denmark)
Pareto Securities AS
Langebrogade 5
DK-1411 Copenhagen K
DENMARK

Tel: +45 88 51 00 61

Stockholm (Sweden)
Pareto Öhman AB
Berzelii Park 9
PO Box 7415
S-103 91 Stockholm
SWEDEN

Tel: +46 8 402 50 00
Fax: +46 8 20 00 75

Malmö (Sweden)
Pareto Öhman AB
Stortorget 13
S-211 22 Malmö
SWEDEN

Tel: +46 40 750 20
Fax: +46 40 750 30

Helsinki (Finland)
Pareto Securities Finland Oy
Aleksanterinkatu 44, 6th floor
FI-00100 Helsinki
FINLAND

Tel: +358 9 8866 6000
Fax: +358 9 8866 6060

New York (US)
Pareto Securities Inc
150 East 52nd Street, 29th Floor
New York NY 10022
USA

Tel: +1 212 829-4200
Fax: +1 212 829-4201

Singapore
Pareto Securities Asia Pte Ltd
16 Collyer Quay #27-02
Hitachi Tower
Singapore 049318
SINGAPORE

Tel:+65 6408 9800
Fax: +65 6408 9819

Rio de Janeiro (Brazil)
Pareto Securities Ltda
Av. Presidente Wilson 231
9° andar
Rio de Janeiro, RJ 20030-021
BRAZIL

Tel:+55 21 3578-5620
Fax: +55 21 3578-5599

www.paretosec.com | Bloomberg: PASE (go) | Reuters: PARETO