Deutsche Bank Markets Research

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Global

Oil and Gas
Oil Services &
Equipment

Periodical Early Morning Riser

Date 19 August 2016

The Recovery Roadmap

How to play the recovery

The bumpy oil price recovery will lead to a pickup in oilfield spending that is subdued and uneven. In this report, we quantify the timing and rate of recovery of the key oilfield service sector sub-segments and map these onto a global oilfield equipment & service company exposure guide providing a roadmap to the recovery. Most preferred: Halliburton, Hunting, Superior Energy & Wood. The rebalancing oil market will lead prices ...

Oil price collapse induced spending cuts are curtailing supply and rebalancing the market. However, today's oil price is insufficient to incentivize enough investment to maintain balance, and as such, we expect it to recover further.

... and spending modestly yet unevenly higher

However, given a slowing pace of demand growth (from above trend levels), high inventories and low-cost, quick-to-respond US shale production, oil prices are unlikely to move smoothly or swiftly higher, we think. Combined with the oil producers' need to adjust to a more cashflow- and capital-constrained outlook we see a bumpy, uneven and ultimately tempered recovery in oilfield spending. Against this backdrop, we expect production related and US onshore oriented spend to preferentially absorb oil producers' scarce capital.

Navigate the recovery in spending with our global exposure guide

Using proprietary Rystad (industry consultants) analyses we quantify the timing and rate of recovery of the key oilfield service sector sub-segments under our base case scenario (\$65 per barrel long-term). Used in combination with our c50 company global oilfield equipment & service exposure guide, we provide a handy roadmap to navigate the recovery in spend.

Most preferred: US - Halliburton / Superior Energy and UK - Hunting / Wood

Our most preferred stocks offer exposure to the early-cycle pickup in US onshore activity and in general, favour those stocks that can aid the oil producers' desire to raise production from existing assets or complete previously drilled wells, amongst having other attractive attributes, in our view.

- Halliburton (HAL,N, \$45.10, Buy \$50 PT): Preferred US large-cap: Significant exposure to a US onshore-led cyclical recovery; a L/T secular winner as they structurally lower costs and drive efficiency (for it and clients) higher. <u>LINK</u>
- Hunting (HTG.L, 460p, Buy 560p PT): Preferred UK mid-cap: With debt covenants waived we see few better pure-play opportunities to gain leveraged, non-commoditised exposure to the pickup in US shale production activity. <u>LINK</u>
- Superior (SPN.N, \$17.49, Buy \$24 PT): Preferred US mid-cap: Leveraged exposure to US prod.-related spend plus by maintaining its equipment, lowering costs and preserving liquidity it can quickly respond to the pickup. We see overseas growth potential as larger players retrench. LINK
- Wood (Buy 830p PT): Preferred UK large-cap: Low-risk exposure to early-cycle spend (US onshore facilities support & b/f engineering) bolstered by relentless cost discipline, incumbent relationships & modest leverage. LINK.

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Top picks Halliburton (HAL.N),USD45.10 Buy Hunting (HTG.L),GBP471.75 Buy Superior Energy Service (SPN.N),USD17.49 Wood Group (WG.L),GBP732.50 Buy Source: Deutsche Bank

Recent Oilfield Equipment & Service News

Wood lands lucrative Tengiz contract: Wood was awarded the \$700m multi-phase automation contract for the recently sanctioned Tengiz field expansion. <u>LINK</u>

Technip-DOF vessel starts Petrobras contract: The Technip/DOF JV have taken delivery of the Skandi Acu pipelay vessel (the first of four), which will go on an eight year hire to Petrobras. LINK

Bids being prepared for UAE sour gas field: After the deadline was pushed back, Amec and Technip, amongst others, have until August, 28 to submit bids on a study for a major offshore gas development in Abu Dhabi, August, 10. LINK

Subsea 7 makes niche acquisition: Subsea 7 has expanded its services capacity with the bolt-on acquisition of Swagelining, a polymer pipeline lining technology firm, August, 10. <u>LINK</u>

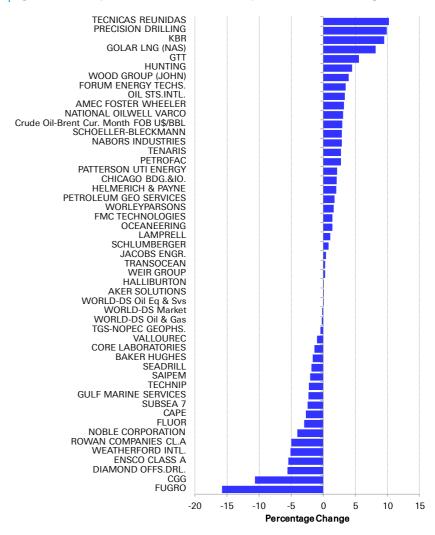
Nearing debt maturities increase risks: Oilfield services and equipment companies face \$110bn of maturing debt in the next five years, and many of them will likely be unable to meet their obligations, according to ratings agency Moody's, August, 9. <u>LINK</u>

Cameron LNG expansion faces delay: Sempra announced that Train-4 of Cameron LNG could be delayed beyond 1H17 due to one of the project partners being unwilling to invest, August, 8. <u>LINK</u>

Middle East chemicals plant bid deadline extended: The Farabi Chemicals company has extended the EPC bid deadline on its Yanbu chemical plant until September, 8. Pre-qualified companies include: Petrofac and Saipem, amongst others, August, 7. <u>LINK</u>

Eni concludes Mozambique deal: While unconfirmed, according to sources with knowledge of the matter, Eni has concluded talks to sell a stake in its planned Mozambique LNG development to ExxonMobil, August, 5. LINK

Figure 1: Weekly stock, sector and market performance (% change)



Source: Deutsche Bank, DataStream



Oil Services & Equipment Early Morning Riser

Roadmap to the Recovery

The bumpy oil price recovery will lead to a pickup in oilfield spending that is subdued and uneven, we think. In this report, we quantify the timing and rate of recovery of the key oilfield service sector sub-segments and map these onto a global oilfield equipment & service company exposure guide providing a roadmap to the recovery. Most preferred: Halliburton, Hunting, Superior Energy & Wood.

Positioning for an uneven oil price recovery. The impacts of two years of sizeable spending cuts are curtailing supply and nudging the global oil market towards balance. As such, the oil price and global capital expenditure for some oilfield equipment and service sub-segments should reach a trough and begin to inflect higher (albeit by varying degrees) thereafter, we think.

That said, given macroeconomic uncertainties, which may further weigh on slowing (and already above trend) oil demand growth, stubbornly high inventories and low-cost, quick-to-respond US shale production, oil prices are unlikely to move smoothly or swiftly higher, we think. Against this complex backdrop, the oil price recovery is likely to be bumpy and prone to exogenous shocks, in our view.

Furthermore, there is clear emerging evidence of some North America shale companies being able to raise oil production guidance while keeping capital expenditure flat. However, these are generally in the minority with most stating they require around \$60 per barrel to get back to oil production growth.

In effect though the combination of lower costs (via cost cutting and savings) and efficiency gains (above and below ground) have lead to many companies being able to do significantly more for less. While some of these cost apparent savings are cyclical, plenty are not, with many of the observed technological gains, structural. This, we think, in turn could lead to depressed levels of some sub-sector spending relative to recent history, in our view.

Moreover, combined with the oil producers' need to adjust to a more cashflow- and capital-constrained outlook we think the recovery in oilfield

spend will ultimately be tempered and uneven when compared to prior cycles. Against this backdrop, we expect production related and US onshore oriented spend to preferentially absorb oil producers' scarce capital. Therefore, we do not see a return to uniform sector-wide growth anytime soon.

Our base case scenario, which assumes \$65 per barrel long-term, implies a modestly bullish outlook. We see 5% CAGR through to 2020 under our base case scenario albeit there are wide underlying sub-segment variations and this is still dramatically less than prior to the collapse. For example, pre-oil price collapse spending drove 10% CAGR 2011-14, on our estimates.

Roadmap to the recovery. Using proprietary Rystad analyses and based upon our base case oil price scenario, which assumes a \$65 per barrel long-term (that is to say we exclude projects, which do not generate a positive return assuming a 10% cost of capital and a \$65 per barrel long-term oil price; this assumption may be entirely wrong for a number of reasons not least companies may assume a lower cost of capital and/or be willing to sanction projects for any number of other reasons besides direct economic justification) we quantify the timing and rate of recovery of the respective oilfield equipment and service sub-segments.

Figure 2: Projected year over year change in oilfield sub-sector spend assuming a \$65 per barrel long-term oil price assumption – our base case

\$65 L/T	2015	2016	2017	2018	2019	2020	4Y CAGR
Maintenance Services	-12%	-8%	4%	6%	7%	7%	6%
Operational and Professional Services	-12%	-10%	3%	5%	6%	8%	5%
Engineering	-32%	-31%	-6%	11%	34%	-6%	7%
Offshore Construction	-14%	-13%	-18%	-22%	-14%	12%	-11%
Onshore Construction	-21%	-33%	4%	1%	11%	12%	7%
Well Service	-28%	-23%	6%	10%	9%	10%	9%
Drilling Tools and Commodites	-27%	-21%	6%	9%	10%	9%	8%
Offshore Rigs	-16%	-22%	2%	-2%	6%	9%	4%
Onshore Rigs	-33%	-27%	8%	14%	10%	10%	11%
Other Construction	-20%	-21%	-1%	-3%	-1%	8%	1%
Topside and Processing Equipment	-12%	-20%	-7%	-9%	-5%	7%	-4%
Subsea Equipment and Installation	-13%	-15%	-12%	-8%	-1%	20%	-1%
Transportation and Logistics	-15%	-15%	0%	8%	6%	8%	5%
Seismic and G&G	-26%	-19%	0%	15%	14%	6%	9%
Non-Upstream	-26%	-21%	-14%	11%	11%	13%	5%

Source: Deutsche Bank, Rystad

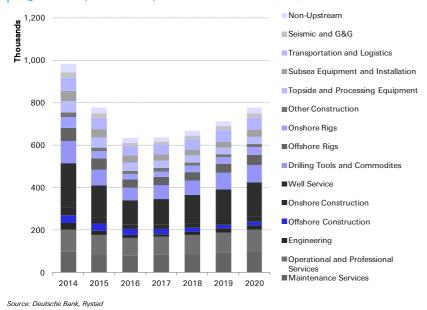


In Figure 2, we show the forecast year over year change in sub-segment spend through to 2020 assuming a \$65 per barrel cutoff. On average, our analysis finds four year CAGR 2016-20, which ranges from -11% (offshore construction) to +11% (onshore rigs) across the 15 major oilfield service sub-segments.

In the near-term, the starkest contrast exists between offshore construction -18% / subsea equipment and installation -12% and onshore rigs +8% in 2017 compared to 2016. Looking slightly further out, we forecast a sharp pickup in engineering design, onshore rigs and seismic and G&G in 2018 over 2017.

Figure 3 puts the absolute recovery in spend into context, illustrating that under a \$65 per barrel long-term oil price assumption, global oilfield service sector spend in 2020 is still forecast to be c20% below the 2014 peak.

Figure 3: Projected oilfield sub-sector spend assuming a \$65 per barrel long-term oil price assumption – our base case (\$m)



In Figure 4, we show the same analyses but this time assuming a \$55 per barrel long-term oil price assumption and as before we exclude all project

related spend that does not generate a positive return below this price. Many of the same trends are observed albeit they are in general amplified in comparison to the \$65 scenario e.g., offshore construction -17% CAGR 2016-20 versus -11% assuming \$65 per barrel.

Due to their position on the higher end of the cost curve, the subsegments, which show the greatest relative sensitivity to the lower oil price assumption, are offshore/onshore construction and topside and processing equipment, we find.

As before, we show in Figure 5 the absolute level of oilfield sector spend in 2020, which is forecast to be some 30% below the 2014 peak assuming a \$55 per barrel long-term oil price assumption.

Figure 4: Projected year over year change in oilfield sub-sector spend assuming a \$55 per barrel long-term oil price assumption

\$55 L/T	2015	2016	2017	2018	2019	2020	4Y CAGR
Maintenance Services	-12%	-8%	3%	5%	6%	7%	6%
Operational and Professional Services	-12%	-10%	2%	4%	5%	7%	4%
Eningeering	-32%	-35%	-10%	6%	38%	-8%	5%
Offshore Construction	-14%	-13%	-19%	-26%	-22%	3%	-17%
Onshore Construction	-21%	-36%	-2%	-6%	-3%	13%	0%
Well Services	-28%	-25%	2%	8%	6%	9%	6%
Drilling Tools and Commodities	-27%	-23%	2%	6%	7%	7%	5%
Offshore Rigs	-16%	-22%	1%	-6%	4%	4%	1%
Onshore Rigs	-33%	-30%	3%	12%	7%	9%	8%
Other Construction	-20%	-23%	-4%	-6%	-5%	7%	-2%
Topside and Processing Equipment	-12%	-21%	-10%	-12%	-14%	2%	-9%
Subsea Equipment and Installation	-13%	-15%	-14%	-10%	-8%	18%	-5%
Transportation and Logistics	-15%	-15%	-1%	6%	4%	6%	4%
Seismic and G&G	-26%	-20%	-2%	11%	12%	4%	6%
Non-Upstream	-26%	-21%	-17%	6%	6%	8%	0%

Exposure guide. To help navigate what we think will be a subdued and uneven recovery in spending, in Figure 6 we show the sub-segment exposure for c50 global oilfield equipment and service companies using the same 15 major sub-segments as outlined above.

The 50 oilfield service companies account for over \$500bn of market value and represent the full spectrum of services ranging from designers and engineers to deepwater drillship and installation vessel owners i.e., assetlight to asset-heavy companies.

Highlighted in green and red we show the top and bottom sub-sectors for 2017 over 2016 relative changes in sub-segment spend, respectively. That is to say, drilling tools and other related commodities (fluids and sand *etc.*),

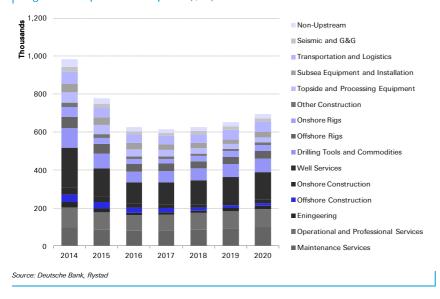


onshore rigs and well service are expected to drive spend higher in 2017 over 2016.

Whereas, offshore construction spend, subsea equipment and installation and topside processing and equipment are all expected to fall further in 2017 when compared to 2016.

Critical however, is that this outlook is based upon current leading edge pricing. Therefore, further offshore cost deflation and/or inversely onshore cost inflation could dramatically alter this perspective.

Figure 5: Projected oilfield sub-sector spend assuming a \$55 per barrel long-term oil price assumption (\$m)



The companies with the greatest exposure to the near-term, forecast upturn in activity include Halliburton (Buy covered by Mike Urban), Nabors (Buy covered by Mike Urban), Helmerich and Payne (non-covered), Franks International (non-covered), Hunting (Buy) and Weatherford (Buy covered by Mike Urban), amongst others.

Conversely, the companies with the greatest exposure to relatively less buoyant sub-segments in the near-term anyway include Aker Solutions

(non-covered), FMC (non-covered), Oceaneering (Buy covered by Mike Urban), and Subsea 7 (non-covered), amongst others.

That is not say that anything, which is exposed to a more buoyant end market over the near-term will outperform (or vice versa) due to the contribution from other factors that influence a stock price that this analyses does not capture e.g., capital structure, expectations, rate of change and valuation to name a few. Likewise, sub-sector buoyancy does not reflect profitability or an, in general, improving business and other factors, such as, internal cost cutting, efficiency gains and improving market share could have a more meaningful impact, in our view. With this in mind we outline our top US and UK picks below.

How to play the recovery? Our most preferred stocks from the US and UK.

Preferred US large-cap: Halliburton (Buy covered by Mike Urban) is our preferred US large-cap as the company is among the best positioned to take advantage of the production-led cyclical recovery we see emerging. We think, it is one of a very few players able to structurally lower cost (both their own and for their customers) and raise efficiency. These high-value low-cost companies are likely to be the secular winners in the current lower for longer environment.

Preferred US mid-cap: Superior Energy Services (Buy covered by Mike Urban) is our most preferred US mid-cap as we like its leverage toward production related spend. The company has used the downturn to position itself to respond early in a recovery by maintaining its equipment, lowering its cost structure, and preserving liquidity. Its customer base in the US are likely to be early responders to improvements in commodity prices, while it can benefit in growing its international footprint as some larger players retrench.

Preferred UK large-cap: Wood is not as directly exposed to the sharp, near-term expected pickup in US onshore drilling activity as some but its exposure to US onshore manpower, brownfield engineering and maintenance related activity will begin to pick up in 2017, and according to our analysis driving strong through to decade end growth when compared to peers, we think. With exposure to early-cycle spend via manpower, maintenance and brownfield engineering plus the sustainability of its competitive advantage, balanced with stable through cycle returns and conservative leverage, Wood offers an attractive investment opportunity.



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Moreover, at c12x PE and c7x EV/EBITDA 2018 we think it looks too cheap for such a high-quality stock with sector leading earnings momentum.

Preferred UK mid-cap: Of the UK-listed stocks where we have coverage, Hunting is the earliest cycle beneficiary. Hunting supplies, higher margin non-commoditised components used in onshore US production related activity (e.g., fracturing guns), which is leading the recovery in global oilfield related spend. To put that into context, around 95% of its end market exposure is earlier cycle. Given debt covenants have been waived; we see few better leveraged pure-play opportunities in the UK to gain exposure to the early cycle pickup in US onshore spending. At 1.2x EV/Sales and 9.6x EV/EBITDA in 2018, Hunting's valuation is not cheap but it looks undemanding versus history and US onshore exposed peers, too.

See 'Rebalancing But Not Rebounding' for an in-depth analyses of the UK oilfield service sector outlook, underlying drivers and our top picks.



Figure 6: Global oilfield equipment and service exposure guide. Highlighted are the top (green) and bottom (red) three relative change sectors in 2017/16

	Drilling Tools and Commidities	Engineering	Maintenance Services	Offshore Rigs	Offshore Construction	Onshore Rigs	Operational and Professional	Onshore Construction	Other S Construction	eismic and G&G	Subsea Equipment and Installation	Topside and Processing Equipment	Transportation and Logistics	Well Service	Non- upstream
Aker Solutions		13%	15%		3%		2%		9%		59%				
Amec FW		8%	8%		2%			5%							789
Baker Hughes	16%	0%					0%			4%	1%			73%	69
Bourbon Offshore											18%		82%		
CGG Veritas										100%					
Core Laboratories	23%									66%				11%	
Diamond Offshore				100%											
ENSCO				96%											40
FMC Technologies			1%		0%		1%				70%	19%		4%	69
Forum Energy Technologies	7%		1%		5,1						16%	30%		32%	149
Frank's International	19%										5%			77%	
Fugro		2%								68%	16%			10%	30
GE	1%	2,0	1%				0%			0070	2%	1%		2%	939
Halliburton	13%	0%	170				370			4%	0%	170		82%	55
Helmerich & Payne	1370	0,0		8%		92%				7/0	370			J2 /0	
Hunting	47%		1%	070		32 /s					2%	1%		48%	19
Jacobs	47 /0	2%	4%								270	1%		1%	929
KBR		7%	1%		2%		1%	2%	0%			1 70	1%	1 /0	859
		11%	17%		33%		3%	270	15%				170		229
Lamprell McDermott		18%	12%		33%		3%	1%	15%		27%		2%		79
	40/	18%	12%		33%	86%	1%	170			21%	00/	2%	10%	17
Nabors	1%		9%		1%	86%	1%				0%	2% 48%		6%	40
National Oilwell Varco	35%		9%	4000/	1%						0%	48%		6%	19
Noble Drilling				100%											
Ocean Rig			70/	100%			001				700/				
Oceaneering			7%				9%				70%	3%			109
Oil States International						7%					50%	37%		6%	
Patterson-UTI						61%								38%	19
Petrofac		16%	6%		4%		8%	16%	2%			5%		1%	429
PGS										100%					
Precision Drilling	2%		2%			70%	1%					4%		21%	
Rowan				100%											
Saipem		9%	2%	9%	18%	6%	2%	6%			27%				209
SBM Offshore		4%	5%		31%		38%		9%						129
Schlumberger	10%		2%	0%		2%	0%			8%	6%	9%		60%	29
Schoeller-Bleckmann	19%											17%		64%	
Seadrill				96%											49
Subsea 7		7%	8%		9%						76%				
Superior Energy	19%	3%	8%				5%					3%		62%	
Technip		12%			17%			4%			43%		5%		189
Tenaris	38%		0%								3%			1%	58%
TGS Nopec										100%					
Weir	0%		0%									17%		5%	789
TMK	61%														399
Transocean		1%		98%										1%	
Vallourec	65%														359
Weatherford	6%					8%		0%		1%				86%	
Wood Group		34%	24%		5%		9%								289
WorleyParsons		16%	10%		7%				1%		7%	1%			589

Source: Deutsche Bank *For ease of comparability certain sub-segments have been grouped together





APPENDIX

Page 8 Deutsche Bank AG/London

Figure 7: Global Oilfield Equipment and Service Sector Valuations. Share prices August 11, 2016

	Rating	Crncy	Target	Close	Upside	\$Mcap		PE			RoE			EV/Sales		1	EV/EBIT			EV/EBITD/	A		FCFY	
	naung	Cility	larget	ciose	Opside	эмсар	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
Engineers																								
Amec	Hold	GBP	470	460	2%	2,367	8.7	8.3	7.7	2.4	8.4	10.9	0.5	0.5	0.5	30.8	17.2	14.2	13.1	10.1	9.2	10.5	8.7	9.8
Cape*	-	GBP	-	181	-	283	7.4	7.4	6.4	22.5	20.0	20.9	0.5	0.5	0.4	7.3	7.3	6.6	5.3	5.2	4.8	NA	NA	NA
Chicago	Buy	USD	43	35	25%	3,561	7.0	6.9	7.7	22.6	18.4	14.1	0.5	0.4	0.4	5.8	5.3	5.3	4.7	4.3	4.2	12.5	16.0	14.5
Fluor	Hold	USD	52	52	0%	7,233	15.4	15.2	16.0	14.8	13.4	11.4	0.3	0.3	0.3	7.8	7.3	7.3	6.3	6.0	5.9	9.0	5.5	5.7
Jacobs	Hold	USD	53	54	-1%	6,555	17.6	16.4	16.3	6.7	8.3	7.6	0.6	0.5	0.5	14.0	10.4	10.3	11.6	8.9	8.9	5.4	5.7	5.8
KBR	Hold	USD	14	15	-9%	2,187	12.1	13.4	13.8	18.4	18.9	15.9	0.4	0.4	0.4	7.0	7.3	6.9	6.1	6.4	6.1	-3.5	2.8	8.6
Petrofac	Hold	GBP	770	766	1%	3,514	20.9	18.2	20.2	22.1	27.7	22.8	0.9	0.9	0.9	16.1	12.9	13.8	8.9	8.2	8.8	-1.7	7.7	6.6
Tecnicas*	-	EUR	-	30	-	1,906	12.9	12.0	12.2	30.0	28.1	24.6	0.3	0.3	0.3	6.9	6.4	6.5	6.2	5.8	5.9	-1.3	8.4	7.5
Wood	Buy	GBP	800	686	17%	3,448	14.3	13.3	11.8	5.5	6.5	7.6	0.6	0.6	0.5	13.0	11.3	9.1	8.1	7.3	6.2	4.9	8.9	11.1
Worley	Sell	AUD	6	8	-23%	1,449	11.3	13.0	12.4	8.2	6.9	7.0	0.4	0.5	0.4	8.3	8.8	7.8	6.3	6.5	5.8	7.9	20.9	11.0
Median							12.5	13.1	12.3	16.6	15.9	12.8	0.5	0.5	0.4	8.0	8.1	7.5	6.3	6.5	6.0	5.4	8.4	8.6
<u>Offshore</u>																								
Aker*	-	NOK	-	246	-	2,133	19.4	15.0	13.6	5.8	9.0	8.4	1.1	1.2	1.2	22.6	19.1	18.1	7.5	6.9	6.8	27.1	30.1	30.0
Saipem*	-	EUR	-	0	-	4,337	16.1	17.6	14.9	4.3	3.2	3.6	0.6	0.6	0.6	10.6	12.5	11.6	4.7	5.2	5.1	11.8	14.3	13.0
Subsea 7*	-	NOK	-	88	-	3,428	11.0	39.2	27.9	5.8	1.5	2.0	0.7	8.0	0.7	5.9	21.0	15.0	3.1	5.1	4.6	-0.1	0.6	1.0
Technip*	-	EUR	-	49	-	6,756	11.0	16.0	16.9	11.6	7.5	7.0	0.4	0.4	0.4	4.5	5.9	6.1	3.4	4.1	4.1	4.6	2.0	5.2
Median							13.6	16.8	15.9	5.8	5.4	5.3	0.6	0.7	0.7	8.3	15.8	13.3	4.0	5.1	4.8	8.2	8.1	9.1
F																								
Equipment		Hen		25		F 010	27.7	25.5	10.5			100				10.2	10.5		10.0	10.5		4.5		2.0
FMC*	-	USD	-	26	-	5,810	27.7	26.4	18.5	7.1	7.7	10.9	1.3	1.4	1.3	19.2	18.6	14.1	10.9	10.6	8.8	4.5	5.2	3.6
Core Labs*	-	USD	-	115	-	5,083	73.0	48.8	31.7	76.4	97.2	137.7	8.7	7.8	6.5	55.1	40.0	26.1	43.9	31.9	22.3	2.1	2.1	3.3
GTT*	-	EUR	-	27	-	1,123	8.2	8.7	11.6	107.1	85.9	61.6	3.9	4.0	4.8	6.4	6.5	8.0	6.2	6.5	8.2	10.9	11.5	8.9
Gulf Marine	Buy	GBP	150	32	372%	142	1.9	NA	NA	16.1	NA	NA	1.9	NA	NA	4.5	NA	NA	3.6	NA	NA	5.3	0.0	0.0
Golar*	-	USD	-	18	-	1,707	NM	NM	16.2	-9.6	-2.2	9.4	43.9	15.1	6.7	NM	122.2	13.7	NM	31.0	9.2	-19.3	-37.3	-4.3
Hunting	Buy	GBP	560	426	31%	863	NM	744.1	32.3	-5.5	0.1	2.3	1.8	1.3	1.1	NM	114.6	19.4	NM	16.4	9.1	5.8	6.5	4.6
Lamprell*	-	GBP	-	71	-	308	6.1	8.0	6.9	6.7	5.7	5.1	0.1	0.1	0.1	1.6	1.8	1.7	1.2	1.3	1.2	-4.9	38.5	19.5
NOV*	-	USD	-	33	-	12,594	NM	NM	35.5	-2.9	-1.5	2.5	1.9	1.8	1.5	NM	NM	27.6	53.4	23.7	10.8	8.8	2.0	1.3
Tenaris*	-	USD	-	12	-	16,130	158.9	44.5	24.9	1.3	3.5	5.7	3.0	2.5	2.1	305.4	38.5	17.8	19.3	12.9	9.4	1.8	0.3	2.0
Schoeller	Hold	EUR	50	56	-11%	1,009	NM	33.9	23.2	-2.3	6.1	8.6	3.4	2.9	2.4	NM	19.7	13.9	21.2	9.2	7.8	6.6	2.6	2.3
Vallourec*	-	EUR	-	3	-	1,643	NM	NM	NM	-23.3	-10.1	-3.5	0.9	0.8	0.7	NM	NM	NM	NM	34.0	9.4	-32.9	-20.4	-14.4
Weir*	-	GBP	-	1469		4,232	23.2	19.8	17.1	10.7	12.2	14.7	2.3	2.2	2.1	28.0	18.5	16.2	14.9	13.4	11.8	4.9	5.1	5.1
Median							23.2	30.1	20.9	4.0	5.7	8.6	2.1	2.2	2.1	19.2	19.7	15.2	14.9	13.4	9.2	4.7	2.3	2.8
Seismic																								
CGG*	-	EUR	-	19	-	494	NM	NM	NM	-22.7	-11.7	-9.5	1.9	1.8	1.6	NM	63.4	23.3	5.8	4.6	4.0	-28.9	-6.7	21.2
Fugro*	-	EUR	-	13	-	1,241	NM	NM	24.3	-3.6	-0.4	3.5	0.9	1.0	0.9	198.5	43.6	16.6	8.6	7.7	6.1	7.8	6.6	5.3
PGS*	-	NOK	-	17	-	507	NM	NM	NM	-14.3	-10.3	-3.2	2.4	2.1	1.8	NM	NM	44.4	6.0	4.7	3.7	-5.3	-2.4	0.7
TGS*	-	NOK	-	140	-	1,721	543.7	43.1	20.0	0.0	3.7	7.4	4.1	3.7	3.1	120.2	25.9	13.2	5.2	4.6	3.8	0.5	0.3	0.4
Median							543.7	43.1	22.2	-9.0	-5.3	0.1	2.1	1.9	1.7	159.3	43.6	19.9	5.9	4.7	3.9	-2.4	-1.0	3.0
<u>Diversified</u>																								
Baker	Hold	USD	52	47	10%	20,137	NM	185.9	22.4	-15.1	0.8	7.0	2.0	1.8	1.4	NM	59.4	13.2	70.1	12.7	7.0	18.3	3.3	6.0
Halliburton	Buy	USD	50	44	14%	37,639	NM	35.1	13.7	-46.6	12.1	29.3	2.9	2.5	1.9	78.3	22.8	11.2	22.1	12.9	8.0	-10.1	3.7	6.8
Schlumberger	Buy	USD	110	81	35%	112,924	64.0	27.0	13.6	-2.0	10.3	19.6	4.1	3.4	2.6	46.0	20.6	11.1	17.4	11.6	7.6	3.1	4.5	6.7
Weatherford	Buy	USD	8	5	48%	4,830	NM	NM	15.5	-36.4	-7.6	8.9	1.9	1.6	1.2	NM	53.3	10.8	27.8	9.1	5.2	-4.0	5.8	10.8
Median							64.0	35.1	14.6	-25.7	5.6	14.2	2.5	2.1	1.7	62.2	38.1	11.1	24.9	12.2	7.3	-0.4	4.1	6.8
Onshore Drillers																								
		Hen		-		C 022	NING	NINA	NIN 4	2.2	2.4	0.1	4.5			NINA	NINA	NINA	17.0	17.0	11.0		1.0	1.0
H&P*		USD		63		6,832	NM	NM	NM	-2.2	-3.1	-0.1	4.5	4.4	3.3	NM	NM	NM	17.2	17.0	11.8	5.0	1.0	1.9
Nabors	Buy	USD	12	9	30%	2,624	NM	NM	201.7	-20.3	-1.0	0.4	2.7	2.3	1.9	NM	51.0	28.7	15.7	5.9	5.3	2.6	8.3	5.6
Patterson	Buy	USD	22	20	11%	2,927	NM	NM	NM	-13.2	-10.8	-3.4	3.8	3.0	1.9	NM	NM	NM	16.2	10.2	5.7	7.3	-1.9	2.9
Precision	Hold	CAD	5	5	8%	1,364	NM	NM	NM	-9.0	-7.9	-0.8	3.7	2.6	1.8	NM	NM	26.4	16.4	10.8	6.0	5.6	4.8	8.7
Median								-	201.7	-11.1	-5.5	-0.4	3.7	2.8	1.9		51.0	27.6	16.3	10.5	5.8	5.3	2.9	4.3
Offshore Drillers																								
Diamond	Hold	USD	18	21	-16%	2,944	18.1	15.8	72.3	-11.6	5.0	1.1	3.1	2.8	2.8	17.3	12.5	24.7	7.3	6.0	7.5	-1.6	14.2	11.5
Ensco	Hold	USD	10	9	15%	2,613	5.2	12.0	NM	12.2	2.6	-0.7	2.0	2.1	2.3	6.7	8.8	18.2	4.3	5.0	6.9	59.5	8.4	3.7
Noble	Buy	USD	41	33	23%	14,330	NM	NA	NA	-4.4	NA	NA	5.9	NA	NA	NM	NA	NA	10.6	NA	NA	10.4	0.0	0.0
Rowan	Hold	USD	20	14	38%	1,816	7.4	12.4	NM	4.9	2.8	-4.2	1.8	1.7	2.1	7.3	8.9	NM	3.8	3.9	7.8	39.2	21.2	4.7
Seadrill	Hold	USD	3	3	5%	1,454	2.4	29.9	NA	5.7	0.5	NA	2.3	3.2	NA	7.2	40.2	NA	4.1	8.2	NA	88.9	-55.9	0.0
															2.2									-20.4
Transocean	Hold	USD	9	11	-18%	4,027	22.1	NM	NM	2.7	-0.6	-2.3	2.7	2.3	2.3	14.4	19.9	91.9	6.3	6.0	7.4	9.4	-28.9	-20.4

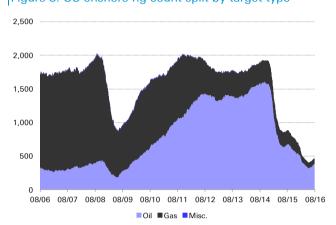
Source: Deutsche Bank, *No coverage, estimates are derived from Bloomberg and DataStream





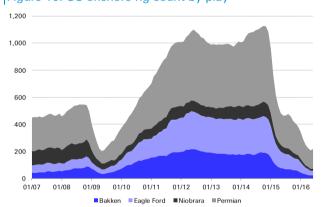
US Tight Oil Tracker

Figure 8: US onshore rig count split by target type



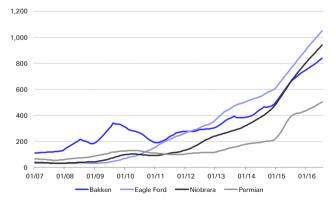
Source: Deutsche Bank, DataStream

Figure 10: US onshore rig count by play



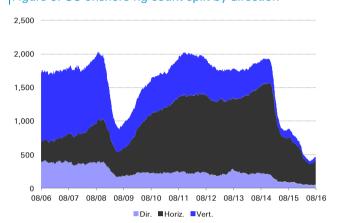
Source: Deutsche Bank, DataStream

Figure 12: US onshore new-oil production per rig



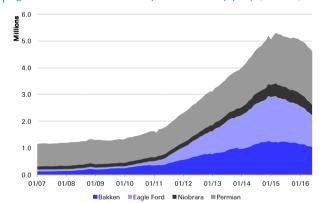
Source: Deutsche Bank, DataStream

Figure 9: US onshore rig count split by direction



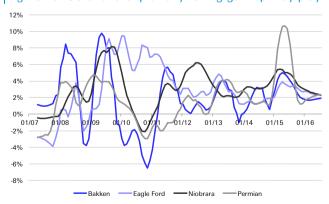
Source: Deutsche Bank, DataStream

Figure 11: US onshore oil production by play (mbo/d)



Source: Deutsche Bank, DataStream

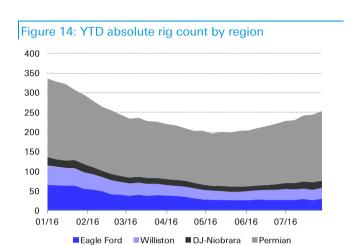
Figure 13: US onshore quarterly rolling gain split by play



Source: Deutsche Bank, DataStream



US YTD & Long-Term Rig Forecasts



Source: Deutsche Bank, Baker Hughes

Eagle Ford

Source: Deutsche Bank, Baker Hughes



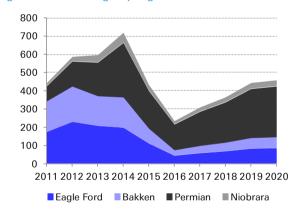
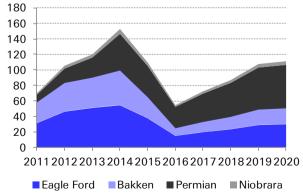


Figure 18: Footage drilled by region

Source: Deutsche Bank, Spears

Source: Deutsche Bank, Spears



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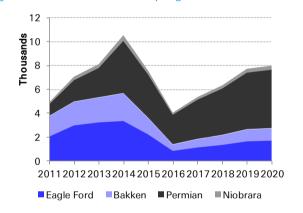
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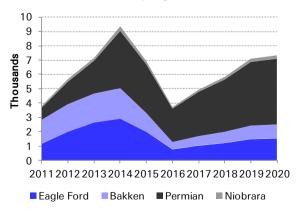
Figure 15: Rebased YTD rig count by region

Figure 17: New wells drilled by region



Source: Deutsche Bank, Spears

Figure 19: Oil wells drilled by region



Source: Deutsche Bank, Spears



Global Project Tracker

Figure 20: Wood Mackenzie's Quarterly FID Tracker*

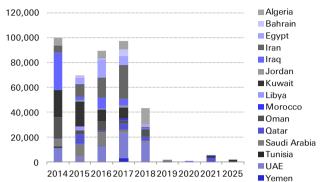
Project	Country	Development type	Resource theme	Operator	FID date	Capex, \$m	Reserves, mboe	NPV10 \$m	Post-tax IRR	NPV10 breakeven
Chouchet El Atrous	Tunisia	Onshore	Conventional onshore	Mazarine Energy	2016	107	14	109	70%	4
Akatara	Indonesia	Onshore	Conventional onshore Conventional	Ramba Energy	2016	110	12	60	48%	28
Butch	Norway	Subsea	shelf Conventional	Centrica Repsol Oil &	2016	708	43	228	25%	36
Ca Rong Do	Vietnam United	FPSO	shelf Conventional	Gas Canada	2016	925	83	527	36%	40
Utgard UK	Kingdom	Subsea	shelf	Statoil LLOG	2016	173	12	74	23%	42
Taggart (MC 816)	United States	Subsea	Deepwater	Exploration	2016	260	19	9	12%	58
lara Entorno	Brazil	FPSO	Deepwater Conventional	Petrobras	2017	6,194	528	5,719	26%	26
Zarat	Tunisia United	Fixed platform	shelf Conventional	PA Resources	2017	1,650	145	551	20%	28
Marconi	Kingdom	Subsea	shelf	Engie E&P	2017	128	20	157	66%	31
Sepia	Brazil	FPSO	Deepwater Conventional	Petrobras	2017	3,425	377	3,791	32%	33
Block 10BB	Kenya Islands	Onshore	onshore	Tullow Oil	2017	3,000	451	2,334	27%	39
Sea Lion	(Malvinas)	FPSO	Deepwater	Premier Oil	2017	2,062	214	1,759	33%	39
Ande Ande Lumut	Indonesia	FPSO	Heavy oil Conventional	Santos	2017	872	75	95	17%	49
Block 13T	Kenya	Onshore	onshore Conventional	Tullow Oil	2017	1,358	149	629	20%	50
Block 2	Uganda	Onshore	onshore Conventional	Tullow Oil	2017	2,179	320	840	22%	52
Block 1	Uganda	Onshore	onshore Conventional	Total	2017	5,119	900	1,240	17%	57
Cosmos Fields	Tunisia	FPSO Production semi-	shelf	Medco Energi	2017	182	7	22	33%	57
Vito (MC 984)	United States	submersible	Deepwater Conventional	Shell	2017	6,165	298	574	14%	59
Benoy	Chad	Onshore	onshore	CPC	2017	626	40	152	17%	60
Itaipu Morskoye	Brazil Russian	FPSO	Deepwater Conventional	BP	2017	3,049	154	273	14%	63
(Laganski)	Federation	Onshore	shelf	PetroResurs	2018	665	157	1,073	55%	20
Carcara	Brazil	FPSO	Deepwater	Petrobras	2018	5,736	980	4,377	36%	33
Libra	Brazil	FPSO	Deepwater	Petrobras	2018	31,567	5,104	13,267	23%	49
Uge	Nigeria	FPSO	Deepwater	ExxonMobil	2019	3,875	230	845	20%	47
Aparo (OML 132)	Nigeria	FPSO	Deepwater	Chevron	2019	2,192	117	225	12%	53
IDD	Indonesia	Gas FPU	LNG - deepwater	Chevron	2019	8,975	602	418		54
Leda	Angola	Subsea	Deepwater	BP	2019	3,569	202	422	13%	57
Abadi	Indonesia	Floating LNG (FLNG)	LNG - deepwater	INPEX Masela	2020	6,733	1,555	1,573	16%	20
Maromba	Brazil	FPSO	Heavy oil	Petrobras Repsol Sinopec	2020	1,213	169	759	49%	46
BM-C-33	Brazil	FPSO	Deepwater	Brasil	2021	15,948	1,516	3,107	15%	49
Sul de Lula	Brazil	FPS0	Deepwater	Petrobras	2023	898	109	591	38%	34
Source: Deutsche Bar	nk, Wood Macken	zie *Excluding projects the	at do not deliver a gre	eater than 10% IRR and	l have a breakeve	n above the \$65 pe	er barrel			

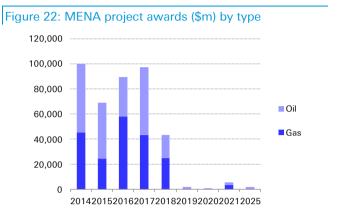
Page 12 Deutsche Bank AG/London



Middle East and North Africa Projects

Figure 21: MENA project awards (\$m) by country





Source: Deutsche Bank, MEED

Source: Deutsche Bank, MEED

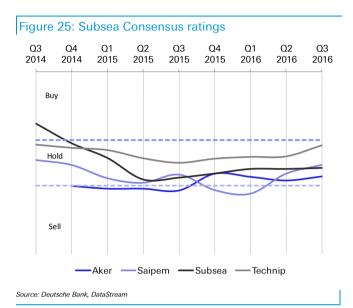
Figure 23: MENA projects above \$300m and expected to be awarded in 2016

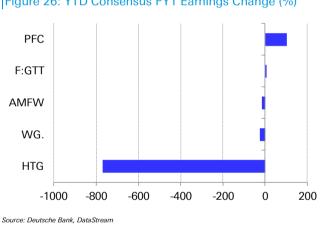
Name	Country Name	Industry	SubSector	Net
WTPS- Khor Al-Zubair Terminal	Iraq	Oil	Oil Tank	300
IOOC - Kish Gas Development (Phase 2 & 3)	Iran	Gas	Gas Extraction	4,500
Emirates LNG - New LNG Regasification & Storage Facility: EPC-2	UAE	Gas	Gas Tank	700
Saudi Aramco - Re-route Pipelines in Ras Tanura Area	Saudi Arabia	Gas	Gas Pipeline	500
Saudi Aramco- Gas Treatment Units at Uthmaniyah	Saudi Arabia	Gas	Gas Processing Plant	850
Gulf Petrochem - Fujairah Oil Terminal	UAE	Oil	Oil Tank	300
IPIC - Phase II: Fujairah Refinery - Offsites & Utilities (EPC 2)	UAE	Oil	Oil Refinery	1,500
ADCO - Qusahwira Field Development Phase II	UAE	Oil	Oil Extraction	800
Takreer - Processing Offshore Crude Project at Ruwais Refinery	UAE	Oil	Oil Refinery	3,000
Saudi Aramco - Yanbu-North Jeddah Products Pipeline	Saudi Arabia	Oil	Oil Pipeline	600
Emirates LNG - New LNG Regasification & Storage Facility: EPC-1	UAE	Gas	Gas Tank	1,000
ENOC - Jebel Ali Refinery Expansion	UAE	Oil	Oil Refinery	1,000
KOC - Jurassic Non Associated: Phase 2: East Raudhatain field (RFP2031266)	Kuwait	Gas	Gas Extraction	1,800
Qatargas :Zekreet Gasoline Production Facility - Pipelines: Phase 1	Qatar	Oil	Oil Refinery	300
IGEDC - IGAT 9 Gas Trunkline	Iran	Gas	Gas Pipeline	8,500
NISOC - Gas & NGL 1700	Iran	Gas	Gas Processing Plant	541
Sonelgaz - Hassi R'Mel - Sidi Laâdjel Pipeline	Algeria	Gas	Gas Pipeline	450
KOC - Jurassic Non Associated: Phase 2: West Raudhatain field: (RFP2031266)	Kuwait	Gas	Gas Extraction	1,800
KEC/Turkish Petroleum Overseas/Kogas - Mansouriya Field Development Project	Iraq	Gas	Gas Extraction	1,500
Iranian Oil Terminals Company - Jask Oil Terminal	Iran	Oil	Oil Tank	2,500
Sonatrach - Rhourde El Baguel LPG Plant	Algeria	Gas	Gas Processing Plant	1,000
Genel Energy - Miran Gas Field Development	Iraq	Gas	Gas Processing Plant	2,250
Saudi Aramco - Ras Tanura Refinery Clean Fuel Project: Package 2	Saudi Arabia	Oil	Oil Refinery	1,000
Saudi Aramco- Qassim to Hail Pipeline	Saudi Arabia	Oil	Oil Pipeline	300
KOC - Crude Transit Pipeline from North Kuwait to CMM	Kuwait	Oil	Oil Pipeline	350
OGC - Salalah LPG Extraction Plant	Oman	Gas	Gas Extraction	500
DRPIC - Duqm Refinery: Offsite & Utilities (EPC 2)	Oman	Oil	Oil Refinery	2,200
IPIC - Phase I: Fujairah Refinery - Process Units (EPC 1)	UAE	Oil	Oil Refinery	2,000
BP/CNPC/SOC - Rumaila Oil Field Development: Produced Water Reinjection Unit	Iraq	Oil	Oil Extraction	400
ZADCO - Facilities Capacity Enhancement Project	UAE	Oil	Oil Extraction	500
Groupement Isarene - Ain Tsila Gas Condensate Field Development	Algeria	Gas	Gas Extraction	2,000
Sonelgaz - Hassi Messaoud - El Oued Pipeline	Algeria	Gas	Gas Pipeline	400
ADCO - New Tie-In Southeast: Package D	UAE	Oil	Oil Pipeline	300
Saudi Aramco - Ras Tanura Refinery Clean Fuel Project: Package 1	Saudi Arabia	Oil	Oil Refinery	2,000
DRPIC - Duqm Refinery: Process Unit (EPC 1)	Oman	Oil	Oil Refinery	2,200
Naftec - Algiers Refinery Rehabilitation	Algeria	Oil	Oil Refinery	1,090
KEC/Turkish Petroleum Overseas/Kogas - Mansouriya Field Development: CPF	Iraq	Gas	Gas Extraction	1,000
Sonatrach – Hassi R'mel Oil and Gas Field Debottlenecking	Algeria	Gas	Gas Extraction	500
CNOOC/IDC/TPAO-Maysan Oil Field Development : Trunk Line Phase 2	Iraq	Oil	Oil Pipeline	300
Source: Deutsche Bank, MEED				

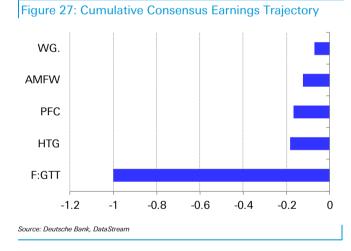


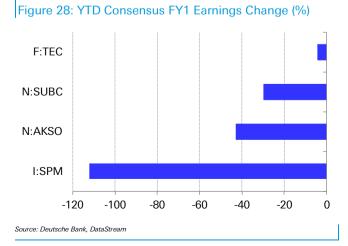
Consensus Ratings and Earnings

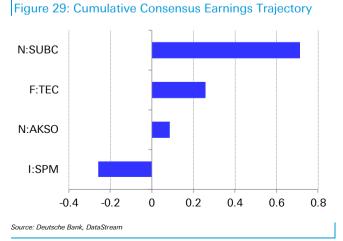
Figure 24: Engineering & Equipment Consensus ratings Q2 Q3 Q4 Q1 2014 2014 2015 2015 2015 2015 2016 2016 2016 Buy Sell —Petrofac —Wood —GTT —Hunting Source: Deutsche Bank, DataStream Figure 26: YTD Consensus FY1 Earnings Change (%) PFC







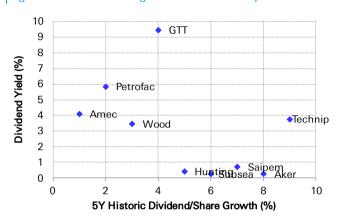






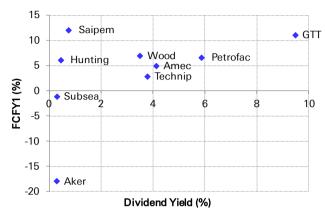
Dividends and Earnings

Figure 30: 5Y Dividend growth vs. dividend yield



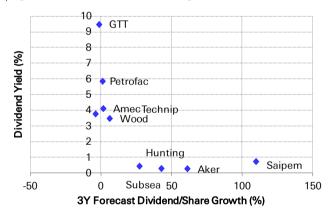
Source: Deutsche Bank, DataStream

Figure 31: Dividend yield vs. FCFY1 yield



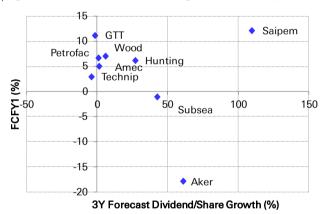
Source: Deutsche Bank, DataStream

Figure 32: 3Y forecast dividend growth vs. Yield



Source: Deutsche Bank, DataStream

Figure 33: 3Y Forecast dividend growth vs. FCF yield



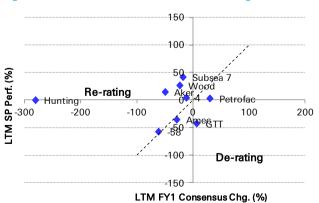
Source: Deutsche Bank, DataStrean

Figure 34: Performance vs. Earnings

			LTM FY1	
		LTM SP	EPS Rev.	LTM Re-
Name	FY2 PE	Perf. (%)	(%)	rating
AMEC FOSTER WHEELER	10	-35	-29	10%
PETROFAC	9	2	30	-2%
WOOD GROUP (JOHN)	15	25	-24	12%
GTT	9	-43	7	-24%
HUNTING	200	-1	-281	447%
AKER SOLUTIONS	39	15	-49	36%
SAIPEM	18	-58	-61	9%
SUBSEA 7	41	38	-18	33%
TECHNIP	16	5	-12	-3%
Median	16	2	-24	10%
Median ex-Hunting	15	1	-21	10%

Source: Deutsche Bank, DataStream

Figure 35: LTM FY1 Performance vs. Earnings



Source: Deutsche Bank, DataStream



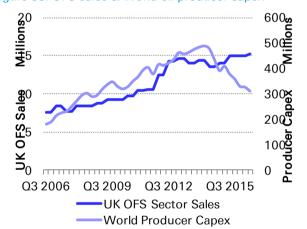
Capex

Figure 36: UK Oilfield Sector PE vs. capex change



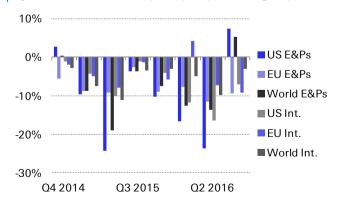
Source: Deutsche Bank, DataStream

Figure 38: OFS sales & World oil producer capex



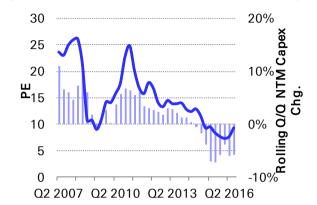
Source: Deutsche Bank, DataStream

Figure 40: 1Y Forward capex by oil producer group



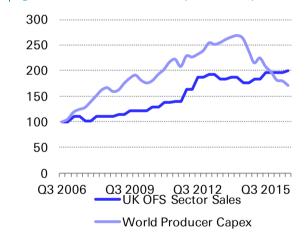
Source: Deutsche Bank, DataStream

Figure 37: UK Oilfield Sector PE vs. NTM capex change



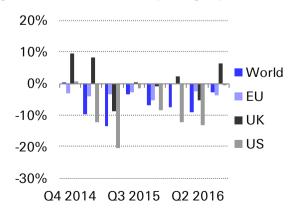
Source: Deutsche Bank, DataStream

Figure 39: OFS sales vs. world producer capex (rebased)



Source: Deutsche Bank, DataStream

Figure 41: 1Y Forward sales by OFS group

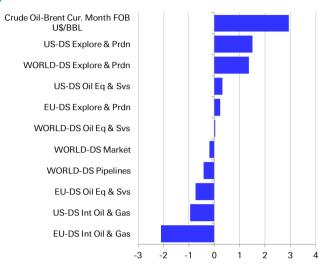


Source: Deutsche Bank, DataStream

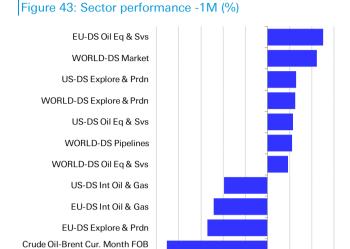


Sub-Sector Performance

Figure 42: Sector performance -1W (%)



Source: Deutsche Bank, DataStream

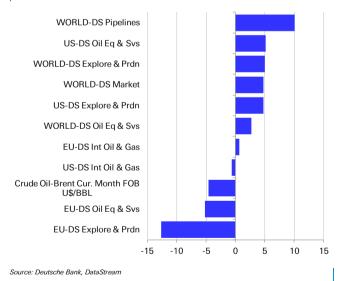


-10 -8 -6 -4

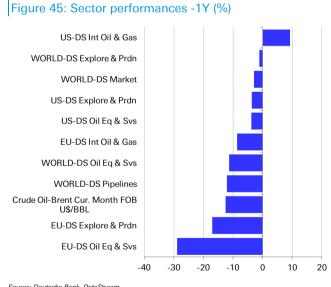
Source: Deutsche Bank, DataStream

U\$/BBL

Figure 44: Sector performances -3M (%)



Source: Deutsche Bank, DataStream





Sector Valuation Charts



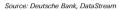
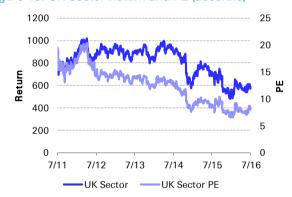
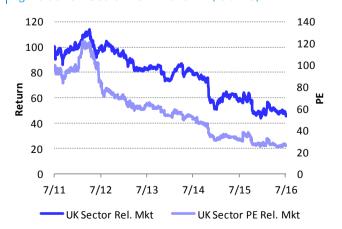


Figure 48: UK Sector Return and PE (absolute)



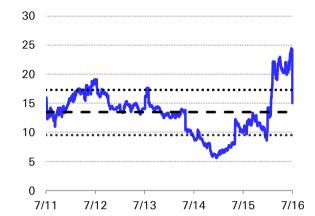
Source: Deutsche Bank, DataStream

Figure 50: UK Sector Return and PE (relative)



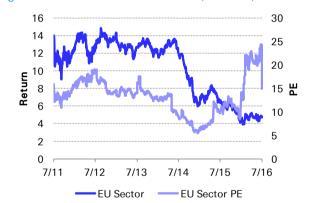
Source: Deutsche Bank, DataStream

Figure 47: EU Oilfield Services PE1



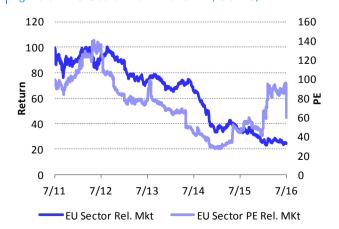
Source: Deutsche Bank, DataStream

Figure 49: EU Sector Return and PE (absolute)



Source: Deutsche Bank, DataStream

Figure 51: EU Sector Return and PE (relative)



Source: Deutsche Bank, DataStream

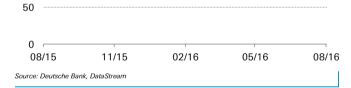
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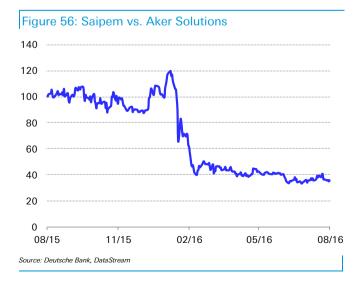


Stock Switch Charts



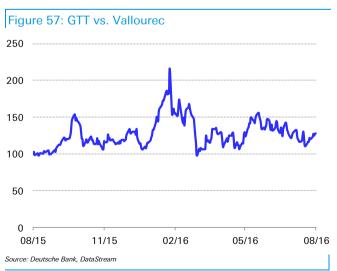














Appendix 1

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Disclosure checklist			
Company	Ticker	Recent price*	Disclosure
Hunting	HTG.L	4.66 (GBP) 18 Aug 16	3
Wood Group	WG.L	726.60 (GBp) 18 Aug 16	6,9
Halliburton	HAL.N	45.10 (USD) 17 Aug 16	1,7,8,14,15
Superior Energy Service	SPN.N	17.49 (USD) 17 Aug 16	NA

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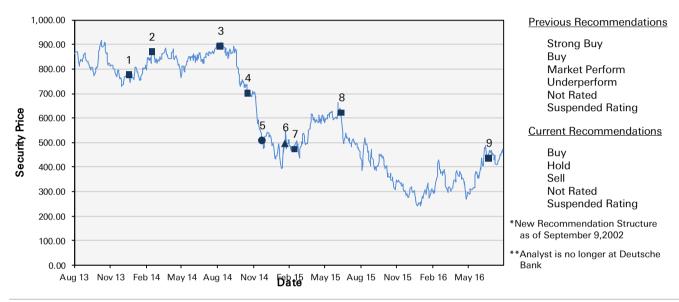


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Historical recommendations and target price: Hunting (HTG.L) (as of 8/18/2016)



1.	06/01/2014
Yos	hida**

2. 06/03/2014: Yoshida**

3. 28/08/2014: Yoshida**

4. 05/11/2014: Yoshida**

5. 12/12/2014: Sebastian Yoshida** Buy, Target Price Change GBP900.00 Sebastian

Buy, Target Price Change GBP950.00 Sebastian

Buy, Target Price Change GBP1,000.00 Sebastian

Buy, Target Price Change GBP900.00 Sebastian

Downgrade to Hold, Target Price Change GBP700.00

6. 09/02/2015: Upgrade Sebastian Yoshida**

7. 05/03/2015: Yoshida**

8. 02/07/2015: Yoshida** 9. 11/07/2016: Upgrade to Buy, Target Price Change GBP600.00

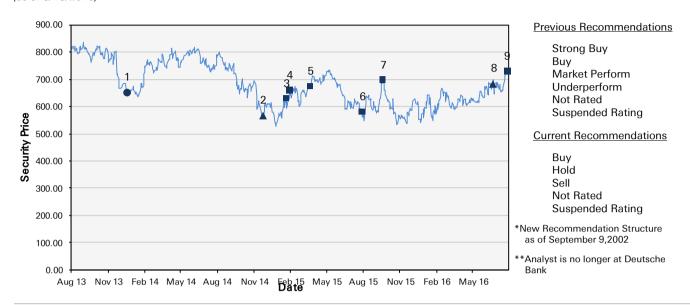
Buy, Target Price Change GBP570.00 Sebastian

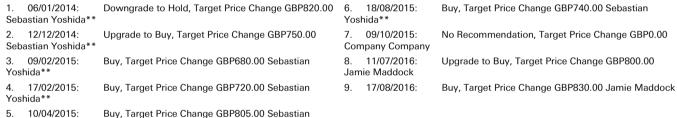
Buy, Target Price Change GBP600.00 Sebastian

Buy, Target Price Change GBP560.00 Jamie Maddock



Historical recommendations and target price: Wood Group (WG.L) (as of 8/18/2016)

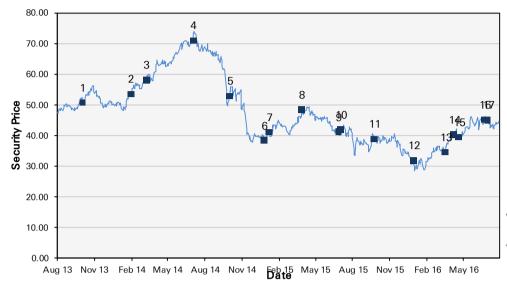




Yoshida**



Historical recommendations and target price: Halliburton (HAL.N) (as of 8/17/2016)



Previous Recommendations

Strong Buy Buy

Market Perform Underperform Not Rated

Suspended Rating

Current Recommendations

Buy Hold Sell

Not Rated Suspended Rating

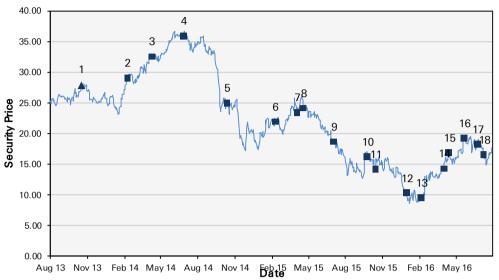
*New Recommendation Structure as of September 9,2002

**Analyst is no longer at Deutsche Bank

1.	22/10/2013:	Buy, Target Price Change USD84.00 Michael Urban	10. 22/07/2015:	Buy, Target Price Change USD68.00 Michael Urban
2.	18/02/2014:	Buy, Target Price Change USD75.00 Michael Urban	11. 13/10/2015:	Buy, Target Price Change USD57.00 Michael Urban
3.	28/03/2014:	Buy, Target Price Change USD73.00 Michael Urban	12. 18/01/2016:	Buy, Target Price Change USD53.00 Michael Urban
4.	22/07/2014:	Buy, Target Price Change USD86.00 Michael Urban	13. 06/04/2016:	Buy, Target Price Change USD40.00 Michael Urban
5.	21/10/2014:	Buy, Target Price Change USD69.00 Michael Urban	14. 27/04/2016:	Buy, Target Price Change USD53.00 Michael Urban
6.	14/01/2015:	Buy, Target Price Change USD47.00 Michael Urban	15. 09/05/2016:	Buy, Target Price Change USD47.00 Michael Urban
7.	26/01/2015:	Buy, Target Price Change USD45.00 Michael Urban	16. 11/07/2016:	Buy, Target Price Change USD49.00 Michael Urban
8.	16/04/2015:	Buy, Target Price Change USD54.00 Michael Urban	17. 20/07/2016:	Buy, Target Price Change USD50.00 Michael Urban
9.	16/07/2015:	Buy, Target Price Change USD66.00 Michael Urban		



Historical recommendations and target price: Superior Energy Service (SPN.N) (as of 8/17/2016)



Previous Recommendations

Strong Buy Buy

Market Perform

Underperform

Not Rated

Suspended Rating

Current Recommendations

Buy Hold

Sell

Not Rated Suspended Rating

*New Recommendation Structure as of September 9,2002

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2.	27/02/2014:	Buy, Target Price Change USD36.00 Jason Bandel	11.	02/11/2015:	Buy, Target Price Change USD21.00 Jason Bandel
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5.	31/10/2014:	Buy, Target Price Change USD33.00 Jason Bandel	14.	19/04/2016:	Buy, Target Price Change USD16.00 Michael Urban
6.	27/02/2015:	Buy, Target Price Change USD27.00 Jason Bandel	15.	02/05/2016:	Buy, Target Price Change USD20.00 Jason Bandel
7.	22/04/2015:	Buy, Target Price Change USD29.00 Michael Urban	16.	08/06/2016:	Buy, Target Price Change USD22.00 Jason Bandel
8.	08/05/2015:	Buy, Target Price Change USD32.00 Jason Bandel	17.	11/07/2016:	Buy, Target Price Change USD20.00 Michael Urban
9.	22/07/2015:	Buy, Target Price Change USD25.00 Michael Urban	18.	27/07/2016:	Buy, Target Price Change USD24.00 Jason Bandel

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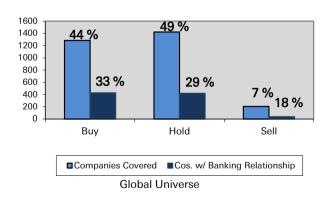
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Sell: Based on a current 12-month view of total shareholder return, we recommend that investors sell the stock

Hold: We take a neutral view on the stock 12-months out and, based on this time horizon, do not recommend either a Buy or Sell.

Newly issued research recommendations and target prices supersede previously published research.

Equity rating dispersion and banking relationships



Page 24 Deutsche Bank AG/London



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