

# Quarterly Perspective on Oil Field Services and Equipment

August 2015

## Rapid contraction

Sector revenues contracted rapidly in the second quarter 2015, reflecting the impact of reduced capital expenditures by oil and gas companies. The most pronounced declines were seen by companies in the sector's services, asset, and equipment categories, with respective sequential revenue falls of 15, 12 and 9 percent. Capex was 25 percent lower than in Q2 2014, with similar percentage reductions for companies across all sector categories.

Following a tentative recovery in the first half of 2015, recently oil prices have again declined – to around \$45/barrel for WTI and \$50/barrel for Brent – to realise the 'W-shaped' pattern we mentioned in our previous edition. Although June saw some companies proclaim that the bottom had been reached and the time was right for activity increases (e.g., Pioneer), the recent oil price decline has increased cautiousness about future spending. This has been underlined by more capex cuts announced by the Majors in their Q2 earnings releases.

In Q2 2015, oil and gas industry capital expenditure was 25 percent below Q2 2014 levels. Majors reduced spending by 23 percent, while US independents, internationally operating independents and NOCs cut back by 27 percent. Sequentially (i.e., versus Q1 2015), the spending decline was 'only' 7 percent, reflecting the capital expenditure 'reset' seen in recent quarters. However, the US independents, which had maintained spending until the end of 2014, were a stand-out category, reducing their

Q2 capex by 19 percent to reach similar annual spend reductions as other types of oil and gas companies.

Consequently, Q2 2015 OFSE revenues were 22 percent below those in Q2 2014. Most pronounced is the revenues decline for services (down 29 percent) and equipment (down 23 percent). But assets and EPC companies also saw revenues fall significantly, down 17 percent and 12 percent respectively. Sequentially (i.e., versus Q1 2015), the sector revenue decline was 9 percent, which is a few percentage points above the fall in capex. We believe OFSE revenues closely follow the capex growth trend, albeit with a slight delay reflecting the time-lag between oil and gas companies booking expenditures and OFSE companies booking revenues. The backlogs differ between the various OFSE business models (services having the shortest, and equipment and assets having the longest).

Over the past four quarters, EBITDA margins have reduced significantly. Services companies lost 3.6 percent of margin, equipment companies 4.4 percent, and EPC firms 5.3 percent. Asset companies (which includes drillers), on the other hand, increased their EBITDA margins by 0.8 percent over the period, likely reflecting the high grading of the drilling fleet to newer, more capital intensive units which have a higher EBITDA margin to cover the capital costs. From Q1 to Q2 2015, services companies saw margins increase through a combination of strict cost controls and relatively good performances outside the US.

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# Key trends

## Oil prices declined in recent weeks, but forward curves continue to point upwards (Exhibit 1):

In recent months, oil prices appeared to have stabilised and potentially be recovering. In May Brent was trading at \$65.2/barrel and WTI at \$59.7/barrel.

However, weakness in emerging markets – notably China and Brazil – has raised concerns about medium-term demand development. At the same time, the Iran nuclear accord has increased the possibility of additional Iranian supply, which most industry observers estimate at an additional 500,000 to 1 million barrels within a 12-month period, representing a 1-2 percent increase in global supply. As a result, in mid-August Brent was trading at \$48/barrel and WTI around \$44/barrel.

Forward curves remain upward sloping with oil for 2020 delivery trading at \$66.8/barrel (Brent) and around \$62.5/barrel (WTI). This does represent a reduction over the curve 3 months ago.

McKinsey's oil demand and supply model suggests a price of \$65-85/barrel is required to generate the supply required to meet long-term demand growth of 1 percent per annum. We continue to believe that these levels could be reached in 2017.

## Capital expenditure – decline continued in Q2 but the rate is slowing (Exhibit 1):

Most oil and gas companies have announced significant capital expenditure reductions as part of their budget processes. Q1 2015 showed how these reductions are becoming reality. In Q2, we have seen many companies announce further cuts in response to the weaker oil price environment – although the pace of decline seems moderate.

For example, Shell announced that its 2015 capital expenditure budget would be reduced to \$30 billion from \$33 billion announced in Q1 2015.

In Q2 2015, oil and gas industry capital expenditure was 25 percent below the Q2 2014 level. Majors reduced spending by at least 23 percent, while US independents, internationally operating

independents and NOCs all cut capex by 31 percent. Sequentially (i.e., versus Q1 2015), the capex decline was only 7 percent, reflecting the 'reset' of the past quarters. However, US independents, which had maintained spending until the end of 2014, stand out for reducing Q2 capex over Q1 by a whopping 19 percent.

Market observers, including Schlumberger, expect E&P investment to drop 35 percent in North America in 2015, and by more than 15 percent internationally.

## Rig count – while falls in onshore rig count seem to be flattening out, offshore rig count decline is just beginning (Exhibit 2):

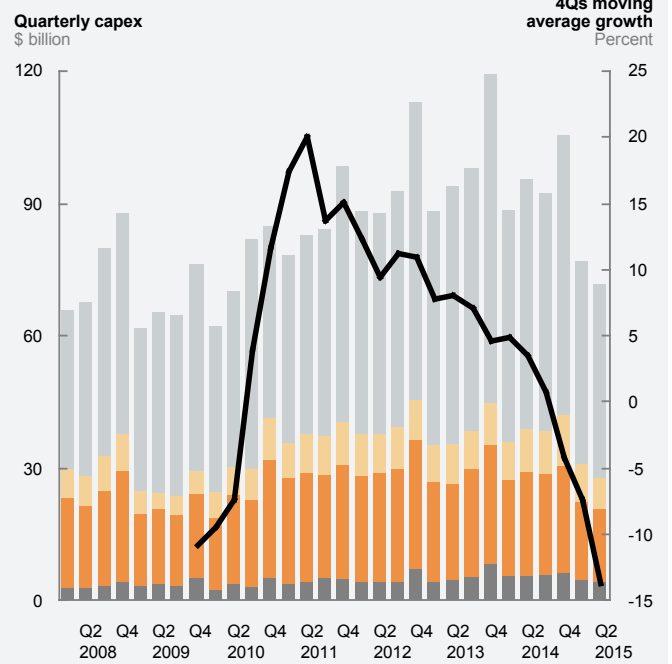
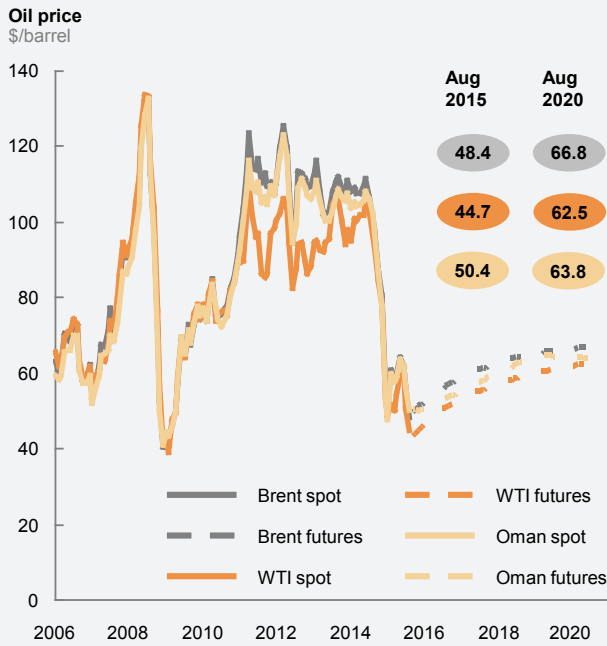
Global onshore rig count has decreased by 38 percent since the beginning of the year. Almost all of this decline was led by the US – where rig count dropped from 1885 to 949 over the course of 4 months. Most recent figures show a moderate increase in North American rig count to 964 – which is partially due to the seasonal increase in Canadian rig count and therefore does not necessarily reflect a structural improvement in industry activity levels.

International onshore rig count has remained relatively stable with a net loss of 80 rigs, down 8 percent from 1024 to 944 since the start of the year. The Middle East has been particularly strong with new drilling activity in Oman and Saudi Arabia.

Offshore rig count peaked in November last year at 453 rigs, but has since declined by 96 rigs or 21 percent with the trend accelerating since February. In recent months, rig utilization for the offshore fleet dropped from close to 90 percent to mid seventies with day rates for new fixtures falling between 8 and 35 percent for comparable rigs. The region with the largest decline in this period was North America, where rig count halved. The trend extends across all rig categories (jackups, semis and drillships).

## Exhibit 1

Oil prices are at a five year low with forward curves pointing upwards

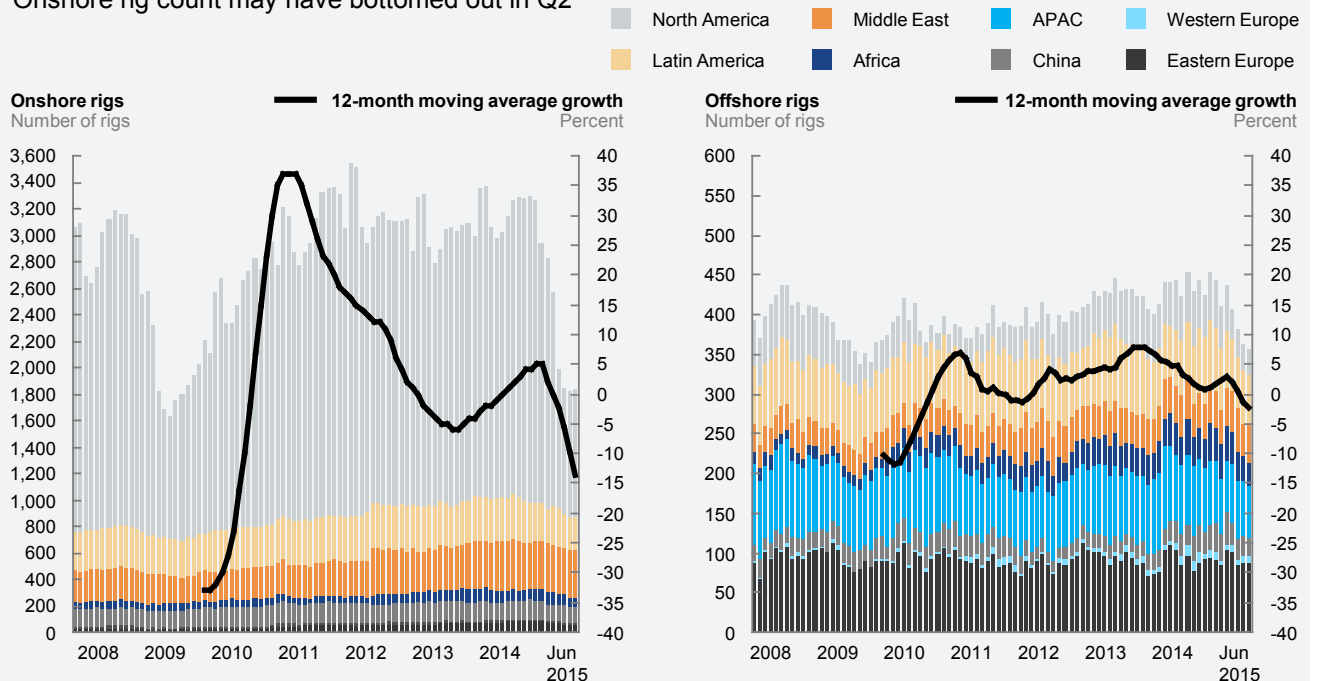


SOURCE: S&P Capital IQ, McKinsey analysis

SOURCE: S&P Capital IQ, McKinsey analysis

## Exhibit 2

Onshore rig count may have bottomed out in Q2



SOURCE: Baker Hughes rig count; McKinsey analysis

# Recent OFSE market performance

We have analyzed the most recent quarterly performance of key listed OFSE companies, categorized by four business models: equipment companies, services companies, asset companies (such as onshore and offshore drilling contractors or FPSO operators) and Engineering Procurement & Construction (EPC) firms. For each set of companies we track quarterly revenue, profit and backlog development. We survey 78 companies representing about half of the OFSE sector's total revenues, which provides us with a good understanding of sector development and enables quick identification of industry trends.

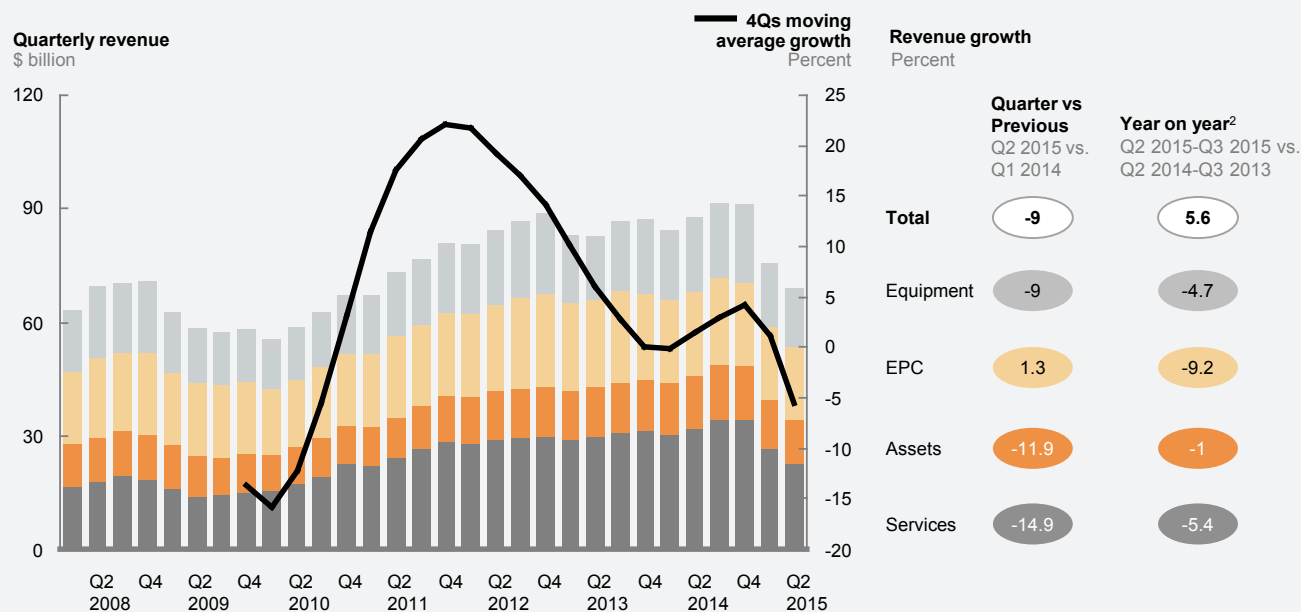
During Q2 2015 OFSE revenues declined by 22 percent versus Q2 2014. While this decline was most pronounced for companies providing services (down 29 percent) and equipment (down 23 percent), there were also significant falls for firms providing assets (down 17 percent) and EPC services (down 12 percent). Sequentially, the decline was 9 percent, which is a few percentage points above the rate of capex decline. We believe OFSE revenues closely follow the capex growth trend but with a slight delay reflecting the time-lag between oil and gas companies booking expenditures and OFSE companies booking revenues. The length of delay differs between the various OFSE business models (services having the shortest, while equipment and assets have the longest).

EBITDA margins have fallen significantly over the past 4 quarters. Services companies lost 3.6 percent of margin, equipment companies 4.5 percent and EPC firms 5.7 percent. Services companies managed to increase margins from Q1 to Q2 through strict cost controls and relatively good performance outside the US. However, due to the poor growth outlook and overcapacity in most segments, there is concern in the industry that this could represent a structural decrease in industry profitability – similar to 2008/09 when margins dropped and never recovered fully. In an exception to the downward margin trend, asset companies increased their EBITDA margins by 0.8 percent over the past 12 months.

- Oil field services companies saw Q2 2015 revenues decline 29 percent from the same quarter a year earlier, and fall 15 percent from the previous quarter. For the four large services companies – Schlumberger, Halliburton, Baker Hughes and Weatherford – we can double click on their geographic performance as they have common regional reporting. The revenue decline has been most pronounced in North America, with Q2 2015 42 percent lower than Q2 2014. A significant part of that decline occurred during the last quarter, which fell 26 percent from Q1. Other regions are all down on a year-on-year quarter comparison – Latin America down 17 percent, Europe and Africa down 15 percent, and Middle East and Asia Pacific down 26 percent. However, there are indications that the rate of slow down is decreasing in some regions. Middle East and Asia only showed a 2 percent sequential revenue decline, with the Middle East identified as a growth region in recent quarterly earnings calls. EBITDA margins were 19.4 percent on average, down 3.6 percent from Q2 2014, but up 1.1 percent on Q1 2015. The latter reflects the strong cost focus among the services companies but also the absence of restructuring costs that dragged down Q1 EBITDA.
- Equipment companies saw Q2 2015 revenues decline by 29 percent from Q2 2014, and sustain a 9 percent sequential decrease from Q1. The main driver has been the reduction in capex over the past 12 months (around 25 percent in our analysis). While the backlog maintained revenues in 2014, we now see a rapid revenue decrease. The book-to-bill ratio for this segment has been stable at 2.5 times quarterly revenues (or about 8 months). This shows the impact of lower revenues matching lower orders (or vice versa) – but also highlights that the sector does continue to book new orders. EBITDA margins for Q2 2015 were 14.6 percent on average, down 1.3 percent from Q1 2015 and 1.3 percent lower than the same quarter in 2014. The high fixed cost

### Exhibit 3

#### OFSE companies revenues follow the capex trend

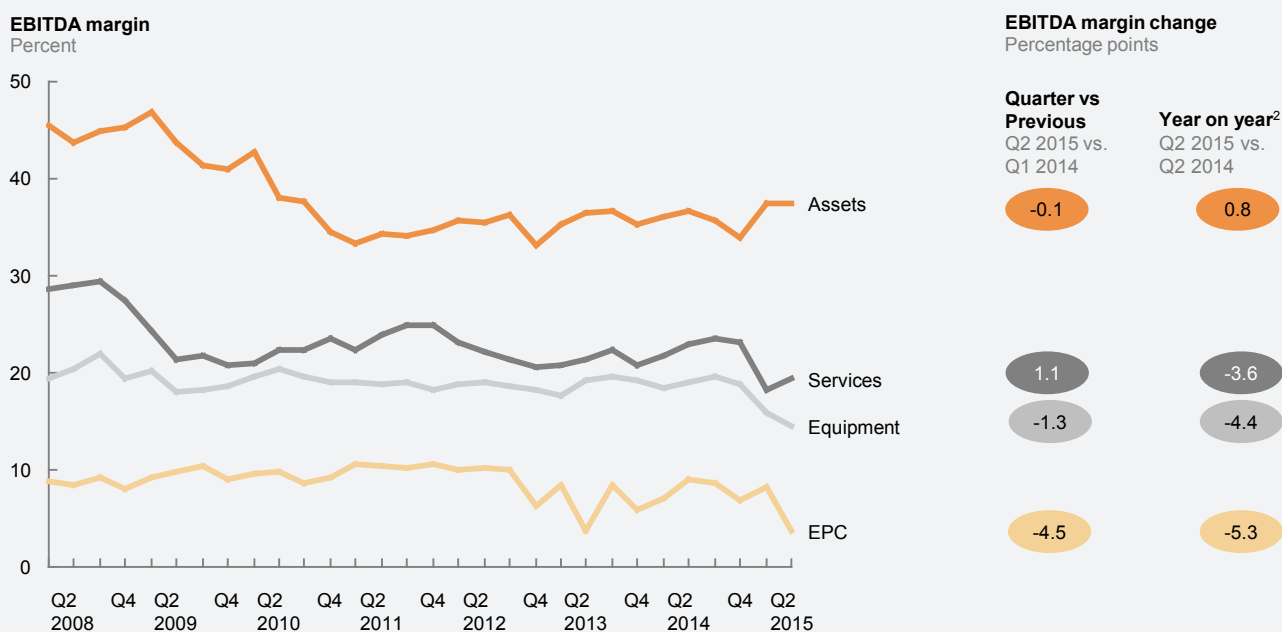


1 Revenue as announced – adjusted for different accounting/disclosure policy. Sample includes 14 equipment, 10 EPC, 26 assets and 8 services companies  
 2 Year-on-year based on trailing 12-months data

SOURCE: S&P Capital IQ; McKinsey analysis

### Exhibit 4

#### All but service companies see margins decline in Q2



1 Revenue as announced – adjusted for different accounting/disclosure policy. Sample includes 17 equipment, 10 EPC, 28 assets and 8 services companies  
 2 Year-on-year based on trailing 12-months data; Trailing 12-month EBITDA margin calculated as trailing 12-month EBITDA divided by trailing 12-month revenue

SOURCE: S&P Capital IQ; McKinsey analysis

base of equipment manufacturers has prevented them from reducing their costs in proportions similar to the services companies. This indicates there will be further earnings erosion as revenues continue to decline.

- Asset companies include a range of firms contracting out assets such as onshore drilling rigs, offshore drilling rigs and floating production and storage offshore units (FPSOs). Q2 2015 revenue for this group fell 17 percent from Q2 2014, a sharp reversal after multiple years of growth. Revenues declined sequentially by 12 percent, which suggests that the downward trend is accelerating. As shown above – rig count for offshore drilling continues to decline at a steady pace. EBITDA margins for asset companies stand at a relatively high 37.4 percent. This reflects the high asset intensity of the sector, which requires high margins to cover the capital costs. The margin is 0.8 percent higher than a year ago, reflecting the high grading of the fleet and stringent cost control. While the sector has scrapped many rigs in the past year, most have been older ones with their capital already written down.
- EPC companies saw Q2 2015 revenues decline 12 percent from Q2 2014, but increase 1.3 percent from Q1. These firms seem to have stemmed the initial revenue decline by increasing their backlog with new, albeit smaller orders. The book-to-bill ratio for this segment

rose to 8.2 times (or about 2 years), reflecting the sector picking up more work. EBITDA margins were 3.8 percent for the sector, down 5.3 percent from Q2 2014 and 4.5 percent below Q1.

OFSE company share prices remain volatile. As of January 2015, EPC and asset company investors had given up all (or more) of their gains since 2008, while investors in services and equipment firms gave up ~50 percent. In the period from January to May, many OFSE companies saw a re-appreciation of their share prices with asset companies up 11 percent, services companies up 16 percent and EPCs up 18 percent. The subsequent decline in the oil price has eroded many of these gains since then. Since the beginning of June, OFSE shares have depreciated by 10 percent on average – a seemingly bad performance, yet trailing crude's 16 percent decline in the same period.

We expect the OFSE industry will continue to face uncertainty for the next few months. The oil price remains volatile with significant questions around the pace of global economic development, the end of the Iranian sanctions, Middle Eastern geopolitical developments, the strength of a potential recovery in the US, and the speed and duration of a slowdown in offshore.

# Offshore drilling contractors face a tough path ahead

With oil prices again falling below \$50/ barrel, offshore drilling demand continues to decline as E&Ps continuing to push for reductions in capital expenditures. In parallel, additional drilling capacity continues to come online, with 18 jackups and 11 floater rigs (i.e., semisubmersibles and drillships) delivered year to date – a holdover from orders placed during the recent high commodity price. As a result fleet utilization (including cold stacked units) has declined over the past 2 years by 11 percent for jackups and 10 percent for floaters (Exhibit 5).

This softening in utilization has been accompanied by substantial declines in day rates, consistent with previous down cycles. In particular, the first quarter of this year saw rigs accepting work at day rate discounts relative to the previous contract for that rig of over 30 percent for floaters and 40 percent for jackups (Exhibit 5). With many assets still serving longer contracts, signed when day rates and utilization were high, rig contractors will face the challenge of continually finding new opportunities to put assets to work as they roll off the existing contracts or face tough decisions to cold-stack or even retire.

## Managing supply through deferrals and retirements

Offshore drilling contractors have started responding to the deteriorating market conditions by cutting costs to improve balance sheets and attempting to minimize new capacity additions near term.

The latter has been accomplished primarily through delaying delivery of new assets from the shipyards. Seadrill, which has deferred 8 jack-ups by up to 44 months in total and a semi-submersible by up to 36 months, and Transocean, which has reached an agreement with Keppel and Jurong to delay delivery of 5 jack-up

rigs by at least 6 months, are among the players to successfully negotiate delivery postponements.

Outside of deferring new supply additions, reductions to existing supply through retirements will be necessary to return the market to balance. Retirements in 2015 have already exceeded recent annual levels with 33 floaters and 23 jackups scrapped to date (Exhibit 6). More retirements are to come as over 100 jackups and 70 floaters in the current order book will be entering the market in the coming years.

For rigs remaining in the fleet strong contract terms including proper termination fees are critical as E&Ps have shown a willingness to cancel long-term contracts. For example, ENSCO's DS-9 new build recently entered the market originally contracted to ConocoPhillips, who agreed to pay up to USD 400 million as contract termination fees – equivalent to a USD 550,000 day rate for the next two years.

## Surviving the cycle

Regardless of some of these actions taken by the drilling contractors, some are already coming under distress. Hercules Offshore, a major player in the jackup market, filing bankruptcy this month and Paragon Offshore at risk of delisting from the NYSE. This trend is likely to continue as we project floater fleet utilization to bottom out in 2016 and not recover to 2014 levels until 2019 under base case assumptions. The jackup market, which faced oversupply even before the drop in commodity price, is likely to fair even worse. Jack-up demand recovery is projected to be slow and will only return to current levels in 2023, with the supply-demand balance likely to return to equilibrium after 2020 following significant cold-stacking and retirements.

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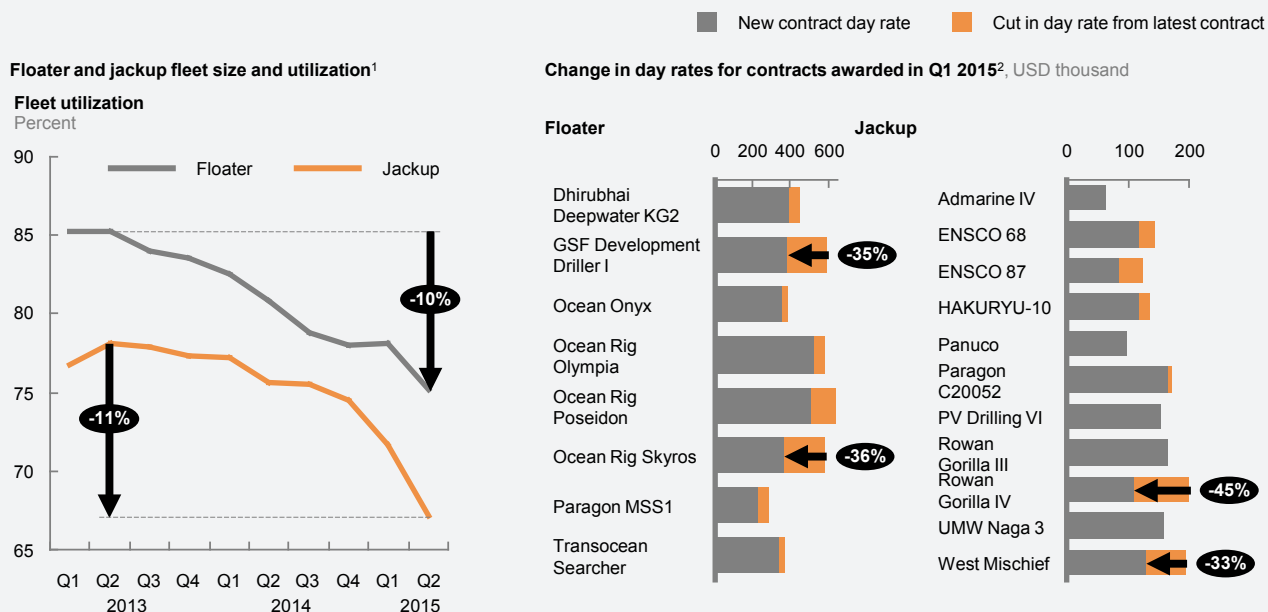
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## Exhibit 5

Offshore rig market is undergoing reductions in fleet utilization and day rate



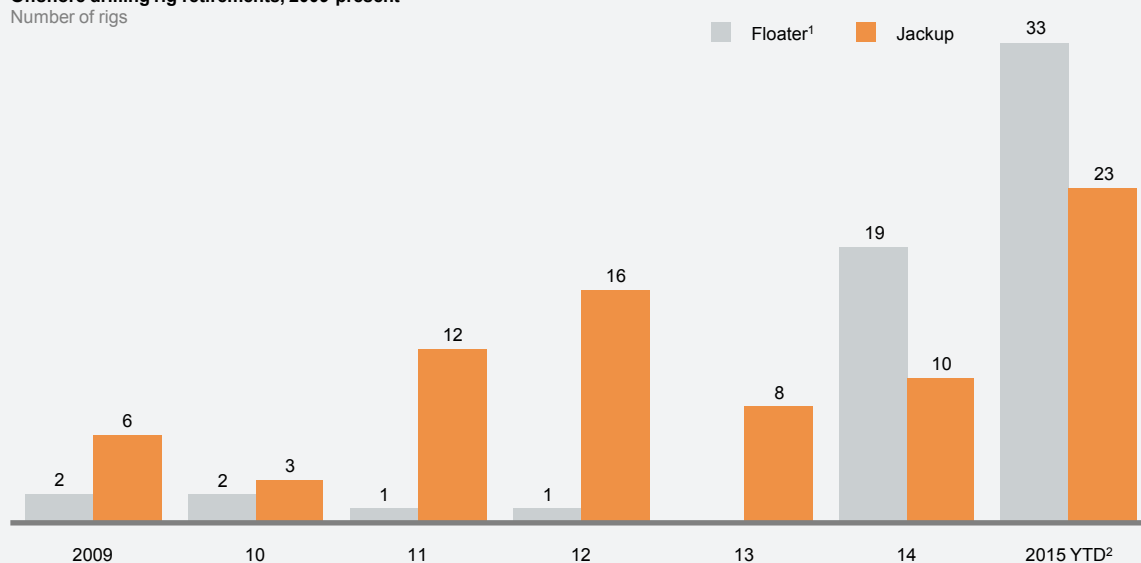
<sup>1</sup> Fleet size and utilization inclusive of cold stacked rigs, floaters include semisubmersibles and drillships  
<sup>2</sup> Select rigs shown, not exhaustive

SOURCE: RigLogix; Energy Insights analysis

## Exhibit 6

Offshore rig market is undergoing reductions in fleet utilization and day rate

Offshore drilling rig retirements, 2009-present



<sup>1</sup> Includes semisubmersibles and drillships  
<sup>2</sup> As of August 13, 2015

SOURCE: RigLogix; Energy Insights analysis