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Recovery gains pace

Oil & Gas November 2017

A rise in oil prices to two-year highs should further stimulate a recovering OFSE sector, despite lower-than-expected activity in US shale.

At the time of writing, front-month Brent had risen to over \$63/barrel, which, if consolidated, could mean an activity surge for the oilfield services and equipment (OFSE) sector—much of which was already operating profitably in the lower-price environment, due to cost cutting, downsizing, and consolidation. The rapid price rise should also offset concern among some of the stalling investment and activity levels in the US onshore sector as we head into the fourth quarter (Q4). So far, US onshore activity has been responsible for most of the growth in OFSE revenue this year, and the recovery has yet to get going outside North America, with offshore rig counts falling to a new record low in the third quarter. Nevertheless, OFSE Q3 revenue jumped by about a fifth from the previous year, building on growth in Q2, although margins remained under pressure.

The Organization of Petroleum Exporting Countries (OPEC) appeared to tighten its grasp on the market in August, with an improvement in quota adherence that has continued into October, combined with indications that output restraint could last beyond March of next year. At the same time, strong demand is soaking up oil stocks. Then, in early November, rising tensions in the Middle East, related to political events in Saudi Arabia, turned sentiment more bullish.

While the OPEC-induced price recovery at the end of 2016 proved an opportunity for US producers to lock in prices and invest heavily, most OFSE executives have been talking down shale prospects in Q3 earnings calls—although this was before the latest crude rises. Schlumberger CEO Paal Kibsgaard's comments were typical: "[US shale] production growth is so far falling short of expectations, driven by supply-chain inflation, operational inefficiencies, and the need to step out from the Tier 1 acreage. This has led to a moderate investment appetite, where the previous single-minded pursuit of production growth is now being balanced out with an equal focus on generated solid financial returns and operating within cash flow." The North American onshore rig count was up another 60 from the previous quarter but has seen a number of falls over recent weeks.

The changing competitive environment has prompted us to alter our OFSE categories, splitting Services into two categories: Integrated Services and Services. The first category contains

Schlumberger, Halliburton, and Baker Hughes, a GE company, which are able to provide integrated offerings across the OFSE spectrum, with Schlumberger and Baker Hughes both combining services and equipment. The remaining Services category is formed by companies with less scale and often a more focused or local presence.

OFSE revenue was up for the quarter and the year for all categories—for the first time since the oil price slide began. Margins also rose sharply for the smaller Services companies, and there was even a quarterly improvement for Assets. But the three Integrated Services companies saw little change, despite strong revenue growth, as operators demanded increased operational efficiencies to grow output and lower costs to make money in the low-priced environment. Halliburton's CEO, Jeff Miller, said his company was working flat out and customers were getting more for less: "Today, the industry is drilling approximately the same footage as in 2014 with half the rigs, while completions intensity has significantly increased. As the rig count stabilizes, our customers are focused on efficiencies, optimization, and making more barrels.... Our fleet is sold out for the remainder of the year and into 2018." OFSE returns to shareholders were little changed in Q3 but have moved up with the oil price over recent weeks.

In a further development of its strategy, Schlumberger is taking steps beyond OFSE and into ownership of upstream oil and gas assets. The new strategy provides Schlumberger access to all the contracts for projects in which it has a stake and is being closely watched as a potential model for the other major oilfield services companies that have plenty of drilling skills but lack business opportunities in some areas. Schlumberger's investment in a project in Morocco is enabling activity to move forward, generating contracts where there had been none before.

Oil market development: "Whatever it takes"

Weaker-than-expected US onshore activity, combined with strong demand growth and tighter adherence to the OPEC-led supply constraint, saw prices climb steadily from the end of August to levels not seen for more than two years.

- The third quarter saw prices rise from late June's low, before accelerating upward from late August to above \$63/barrel for Brent at the time of writing—spurred by the latest political events in Saudi Arabia. However, rising shale supply left WTI lagging, at almost \$6/barrel below Brent. Sentiment across the markets has become markedly more bullish, with tighter fundamentals apparently now well on their way to absorbing the remaining surplus stocks and rebalancing supply and demand. After continually cutting price forecasts for the last three years, some banks are now raising them, including JPMorgan, which pushed up 2018 levels, citing continuing inventory draws and tighter market conditions.
- Strong demand is a major market driver. The International Energy Agency (IEA) said it expects global crude demand to grow by 1.6 million barrels per day (b/d) in 2017—almost double the amount it was growing between 2011 and 2014—before moderating to

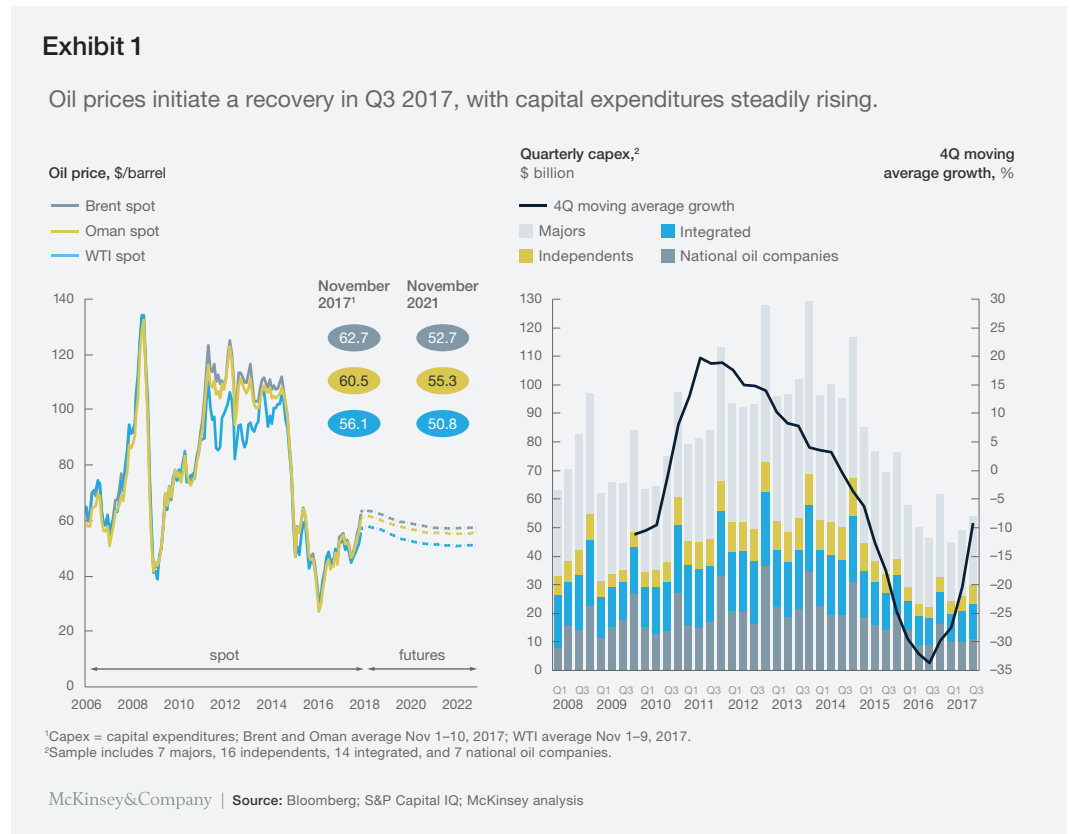
1.4 million b/d in 2018. Most of this growth is coming from the Organisation for Economic Co-operation and Development (OECD) countries, including Europe, leaving major questions over the effectiveness of environmental policies there. For all the talk of restricting gasoline and diesel use, electric cars have yet to make any impact on demand, and a limited supply of key metals could stall electric-vehicle growth. Tougher legislation may be required to make people switch in significant numbers.

- Global crude stocks fell for the second quarter running, dropping from 250 million barrels above the five-year OECD average, to about 170 million barrels, thanks largely to less oil held in floating storage or in transit. The oil-market structure has become more backward dated, where prices for prompt delivery are higher than those for later deliveries—which makes it unprofitable for traders to hold oil in storage. If OPEC output remains steady, the IEA expects three out of four quarters in 2018 will be roughly balanced, with oil demand and non-OPEC production growing by roughly the same volume.
- After dipping to a six-month low in July, OPEC’s compliance with its self-imposed 1.2 million b/d output cut stood at 88 percent in September and 86 percent for the year to date, the IEA said, with supply in September at 32.65 million b/d, down 400,000 b/d from a year earlier. A Reuters survey showed that OPEC compliance then rose to 92 percent in October. Together with its partners, which include Russia, Oman, and Kazakhstan, OPEC has agreed to restrain output by 1.8 million b/d until at least March next year.
- The supply-reduction pact looks increasingly likely to be extended beyond March 2018, led by strong resolve on the part of Saudi Arabia. This is likely to harden further as its new leader consolidates his hold on power—raising tensions in the region in the process. So far, Azerbaijan has stated it will join the agreement, if it is extended, while Ecuador will look to be exempt from further production quotas. “There is little doubt that leading producers have recommitted to do whatever it takes to underpin the market and to support the long process of rebalancing,” the IEA said.
- In contrast to earlier in the year, further support could come from lower-than-expected US onshore growth. Stalling onshore activity led Schlumberger to cut its outlook for US production growth in October by 100,000 b/d for 2017 and 500,000 b/d for 2018. But if Brent stays above \$60/barrel, US output could yet rebound once more. US crude production is still almost 13 percent up from mid-2016, at 9.5 million b/d. Other bullish supply-side factors include tensions between the Iraqi government and Kurdistan, which disrupted exports for a while.
- Looking ahead, our McKinsey Energy Insights (MEI) group says upstream spending cuts since 2014 will result in 50 to 60 percent lower volumes coming online from new projects in the next three to five years, compared with the 2010–14 average, which should put upward pressure on prices, resulting in “full recovery by 2020.” While MEI expects 2017 deepwater

final investment decisions (FIDs) to deliver more than 500,000 b/d by 2022, it says that will not be sufficient to meet demand. According to MEI, “Under our base-case scenario, crude prices may, therefore, escalate to around \$70/barrel between 2022 and 2024, after which further rebalancing would bring them down to the \$60–\$65/barrel range in the longer term.”

OFSE market activity

Exploration and production capital expenditures: Capital expenditures continue to rise in Q3 as prices gain ground while costs remain subdued



- Operator capital expenditures (capex) rose in Q3 and are now at their highest since Q1 2016, apart from Q4 2016, which was higher for seasonal reasons (Exhibit 1). Once again, lower costs enabled projects to go ahead with sharply reduced budgets in some cases, leaving them able to make money at lower prices. The quarter saw capex of \$54 billion, compared with \$49 billion in Q2 2017 and \$46 billion in Q3 2016. This represented a rise of 10 percent for the quarter and 17 percent from the previous year, with increases spread across all sectors.
- However, the rises were not uniform geographically. The strong investment growth in the US onshore sector seen in the first half of this year continued into Q3 but is now easing

back, while the depressed conventional and offshore sectors are beginning to see signs of recovery. “We’re seeing signs in many parts of the world of conventional land and offshore projects now being prepared for FID, and the total number of FIDs this year is double that of 2016,” said Schlumberger’s Kibsgaard in his Q3 earnings briefing.

- According to our MEI team, it is the smaller projects, which require less capital, that are being brought onstream quickest. “Smaller deepwater projects suffered only a minor slowdown, with 19 projects going forward in 2016 and 2017, compared to 22 in 2014.... Most of those are tiebacks, which allow for improved economics.... Overall, deepwater has benefited from a shakeout of old inefficient rigs, engineering-design simplification, and the ability to lock in low rig rates, bringing breakevens below \$50/barrel,” reported MEI. One stand-alone smaller project given final approval in late Q3 was Cambodia’s first offshore hydrocarbon project—the 30,000 b/d Apsara oil field, operated by Singapore-based KrisEnergy.
- Africa has been hit particularly hard by the downturn, and it could be a while before recovery gains a foothold. Wood Mackenzie estimates that the oil and gas industry in Nigeria, Angola, and other countries in Sub-Saharan Africa will cut \$133 billion in capex between 2015 and 2020 as a result of the oil price slump.
- As reported last quarter, although a number of projects have now received FIDs, most majors are still reducing or holding flat on 2017 spending overall compared with 2016, where spending was still relatively high in the first half. Only ExxonMobil is pushing up its budget, to \$22 billion this year compared with \$19.3 billion last year.

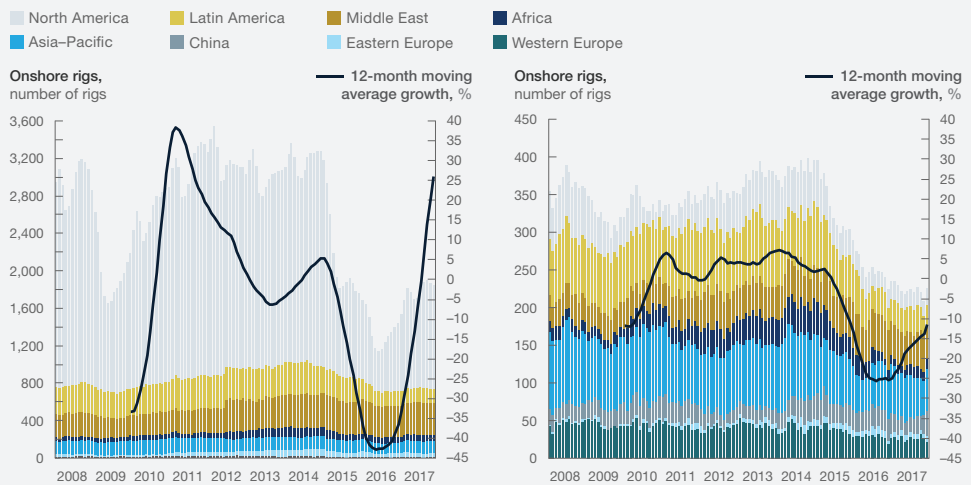
Rig count: US onshore market stalls; offshore sector hits record low, but prospects brighten

- The North American onshore rig count rose slightly in the third quarter, according to Baker Hughes, although most of the rise was in Canada, and September and October saw numbers fall back (Exhibit 2). Active rigs stood at 1,130 in September, changing little from July, at 1,128, which was up more than 60 from June’s figure. Looking ahead, Schlumberger said it expected a flattening rig-count trend, which would slow revenue growth. Halliburton agreed, stating that North American revenue from its drilling and evaluation business “is likely to fall in step with the average US rig count in the fourth quarter.”
- Clay Williams, chairman and CEO of National Oilwell Varco (NOV), said the stalled and then sliding rig count since late July was due to low oil prices, which averaged less than \$50/barrel throughout much of the second and third quarters for shale producers. “Rig reactivations have slowed, and many of our drilling-contractor customers are once again curtailing spending with our rig group,” Williams said. However, he remains optimistic for 2018 because of higher equipment-maintenance requirements. “I think they [rigs] are being run harder than they’ve ever been running,” Williams said. “You’ve got rig operators that are

pretty good at forestalling expenditures on spares for a quarter or two, but eventually their opportunity to cannibalize, to avoid buying spare parts, comes to an end.”

Exhibit 2

Onshore and offshore rig counts show stability through Q3 2017.



McKinsey&Company | Source: Baker Hughes rig count; McKinsey analysis

- Outside North America, the onshore count was mixed for the quarter, with developing regions—Latin America and Africa—falling back, while Western Europe saw some growth. Overall, the strong Canadian rise of 61 rigs pushed the global onshore rig total up for the quarter, with June’s total of 1,820 rigs rising to 1,871 in September—up 40 percent from 1,334 rigs at the end of Q3 2016.
- The offshore rig market was down overall, at a new record low of 209 in September, compared with 221 in June, reflecting the long lead time for recently approved projects and a continuing end to projects sanctioned before the downturn. However, the last few weeks have shown signs of recovery, with some new projects beginning to issue contracts. The Middle East and China have already seen rig numbers rise in Q3, but this was offset by significant falls in Asia-Pacific and the Americas. Halliburton’s Miller said, “Due to lower cash flow and project economics, [international/offshore customers] are more focused than ever on lowering costs. The result of this combination is less activity and more pricing pressure.” He noted that the international market was more concerned about where oil prices would be over the next few years than it was about the price today. “I believe that we found a floor in the international rig count earlier this year. However, due to the longer-term contractual

nature of international markets and the level of continuing price pressure, I expect discounts will offset activity gains over the near term,” he said during his Q3 earnings call.

- Transocean’s CEO, Jeremy Thigpen, was more upbeat: “We are already seeing signs of improvement.... Floating fixtures awarded in 2017 to date have already exceeded last year’s total by approximately 40 percent. In fact, the deepwater-drilling industry has experienced six consecutive quarters with increasing floater contracting activity. Adding to our optimism, we have seen operators in multiple basins now contracting ultradeepwater assets for multiyear projects for the first time in over two years.... In the United Kingdom and Norway, we continue to see strengthening demand for midwater and more specifically for harsh-environment assets. As a testament to the tightening market, day rates for high-specification units have increased more than 50 percent from where they were a year ago.”

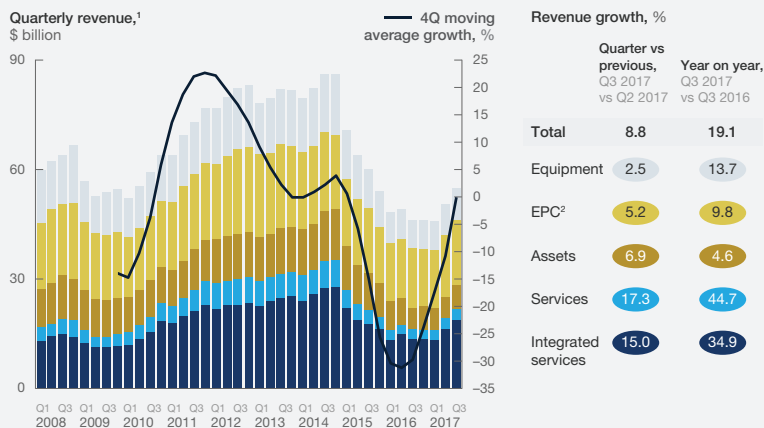
OFSE market performance

Revenue growth signals the beginning of recovery

- Overall OFSE revenue was up, gaining 8.8 percentage points (pp) compared with the previous quarter, indicating a sustained recovery after many quarters of decline or stagnation (Exhibit 3). This was underlined by a substantial 19.1 pp rise from Q3 2016—when revenue had fallen to roughly half the level seen before the price crash. This was a sharp improvement on the 2.5 pp annual increase in Q2, and the 5.0 pp fall in Q1, confirming that seasonally adjusted revenue is also now very much on the increase.

Exhibit 3

Revenue rise persists across all OFSE segments.

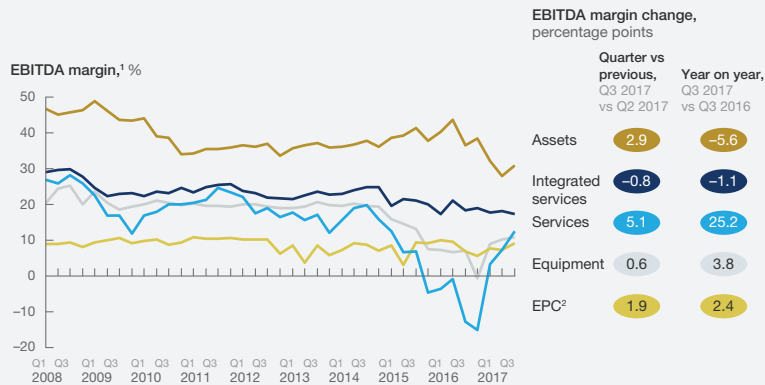


¹Revenue as announced, adjusted for different accounting/disclosure policies. Sample includes 23 assets, 12 equipment, 9 EPC, 7 services, and 3 integrated services companies.

²Engineering, procurement, and construction.

Exhibit 4

Assets' margin decline shows recovery, as services display significant growth through Q3 2017.



¹EBITDA = earnings before interest, taxes, depreciation, and amortization. Revenue and EBITDA as announced, adjusted for different accounting/disclosure policies. Sample includes 23 assets, 12 equipment, 9 EPC, 7 services, and 3 integrated services companies.

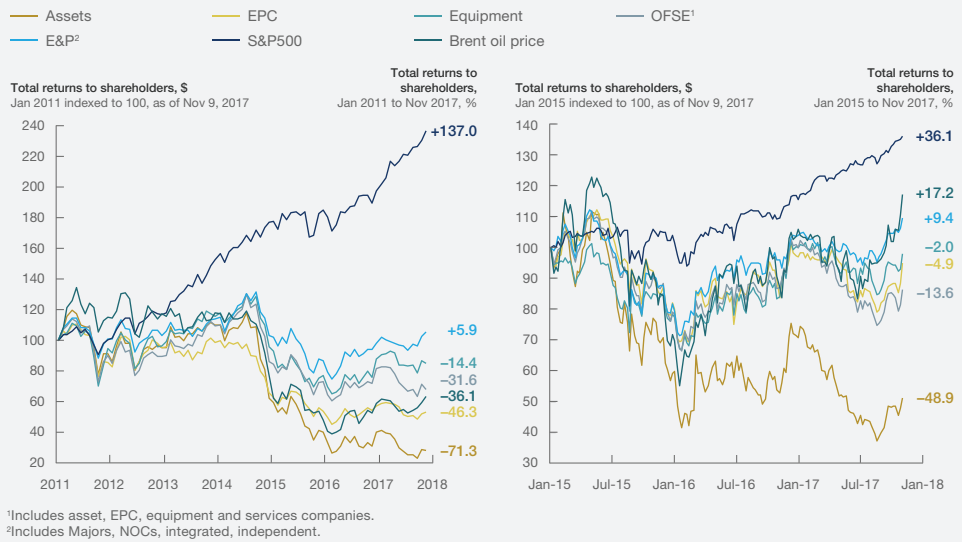
²Engineering, procurement, and construction.

McKinsey&Company | Source: S&P Capital IQ; McKinsey analysis

- Margins were less impressive, with Assets still down year on year, and the big Integrated Services companies (Schlumberger, Halliburton, and Baker Hughes)—a new category—also showing a slight annual and quarterly fall as US onshore operators sought to cut costs (Exhibit 4). Engineering, Procurement, and Construction (EPC) and Equipment saw signs of recovery, however, and the smaller Services companies rebounded sharply from losses in the first half of this year. After declines early in the year, returns to shareholders across OFSE stabilized in Q3, as companies showed they could expand and operate profitably at lower prices and are now coming under upward pressure as oil prices rise above \$60/barrel. Equipment is now (as of November 10) down just 2 percent since January 2015, while Assets are still at a 49 percent discount.
- Integrated Services (larger companies):** Integrated Services revenues were up 15.0 pp from the previous quarter and were up a substantial 34.9 pp from the previous year—a sharp rise, driven by tough cost cutting and improved offerings rather than higher prices. Now that prices are rising as well, prospects are looking rosier than they have for some time, despite bearish comments about the US onshore market in Q3 earnings calls. Schlumberger's Kibsgaard said capex spend in the pipeline from operators outside North America could take over as the main driver: "It is worth noting that our overall tendering activity in the international markets is up by over 50 percent in 2017 compared to last year, measured in total contract value." However, despite the sharp rise in revenue, tougher conditions in the US onshore market hit margins in Q3, which fell 0.8 pp for the quarter. They were also down 1.1 pp from last year.
- Services (smaller companies):** Both revenue and margins for this category soared in Q3 2017, but that was largely due to a very low starting point, linked to Weatherford's performance. In fact, all companies in this category had negative earnings before interest, taxes, depreciation, and amortization (EBITDA) in 2016 but are moving back into the black this year. The smaller services companies are heavily exposed to North America and other onshore regions, and as the pickup in activity this year eroded spare capacity, margins improved—in particular for services such as pressure pumping.

Exhibit 5

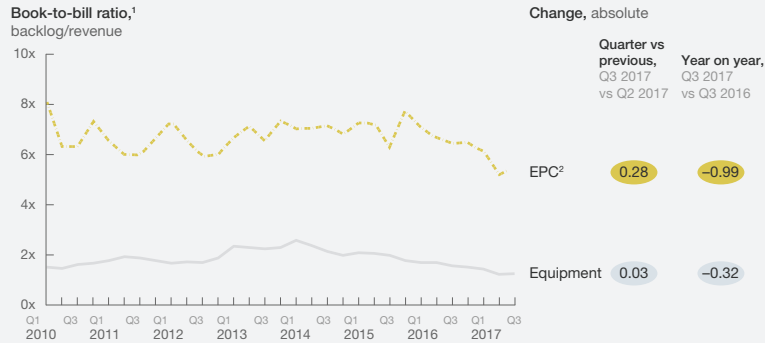
Returns to shareholders recovered in late 2016, followed by another crash; Q3 2017 has seen the start of the next recovery.



McKinsey&Company | Source: Capital IQ; Thomson Datastream

Exhibit 6

Book-to-bill ratios show hope for the erratic EPC trend, with equipment displaying stability.



¹Revenue and backlog as announced, adjusted for different accounting/disclosure policies. Sample includes 5 equipment (Drill-Quip, Dover, National Oilwell Varco (NOV), Oceaneering, Oil States International) and 6 EPC (Fluor, KBR, McDermott, Saipem, Subsea 7, TechnipFMC).

²Engineering, procurement, and construction.

McKinsey&Company | Source: Capital IQ; company filings; McKinsey analysis

- Equipment:** Stabilizing US onshore activity left Equipment revenue up just slightly from Q2, after a rise of 8.4 pp in that quarter. The annual change gained ground, rising 13.7 pp, after a 6.2 pp rise year on year in Q2, suggesting that the market is firmly on the road to recovery. There was also little change in margins or book-to-bill ratios compared with Q2, but margins were up 3.8 pp from the previous year, at about 11 percent, which is still lower than anything before Q4 2015. Returns to shareholders from Equipment companies surged in early November, in response to higher oil prices, and are now at almost the same level as January 1, 2015—the best performing of any OFSE sector (Exhibit 5). Looking ahead, NOV CFO Jose Bayardo said stronger onshore-drilling markets in North America, while helpful in

the third quarter, might not lend as much strength in the near future. The company expects equipment bookings to slow down for the remainder of 2017 as annual budgets run down.

- **Assets:** Assets finally saw some solid positive moves in revenue, which rose 6.9 pp for the quarter, after a slight rise in Q2 and a 12 pp fall in Q1. And for the first time since the downturn began, it showed an increase, of 4.6 pp, from the previous year. Margins were still down from the previous year but up 2.9 pp from the previous quarter, indicating some recovery after the fall in Q2. The uptick would suggest that most of the lucrative contracts awarded before the crash have already run their course, and small gains are being clawed back on new contracts. Stock returns continue to languish at the bottom of the pile, but the rising oil prices are finally producing signs of life even here. Transocean's Thigpen was bullish in his earnings call, claiming his company was ideally positioned to take advantage of any upswing in price. Transocean has expanded, announcing in August a deal to acquire Songa Offshore, and is upgrading its fleet with the latest semisubmersibles while scrapping some older rigs. "As a result of the improved visibility and focus, we are experiencing reductions in well construction times, such that the vast majority of the fleet is now outperforming what was previously our top quartile," he said.
- **EPC:** EPC providers saw quarterly revenue rise by 5.2 pp in Q3 after a slight fall in Q2, while EPC revenue was up 9.8 pp from the previous year. Margins are up slightly for the quarter and up 2.4 pp from the previous year. Order backlog ratios rebounded from record lows last quarter but remain well below the levels seen this time last year (Exhibit 6). □

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