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Oil & Gas Mergers and
Acquisitions Report –
Year-end 2015

Waiting for a rebound

Deloitte Center
for Energy Solutions



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Executive summary

Wait and see continues

The year-end merger and acquisition (M&A) report gives an overview of the 2015 deal activity for the oil and gas industry, examines the market environment in 2015, reviews the number and value of transactions during the year, and provides insights about what to watch for in 2016.

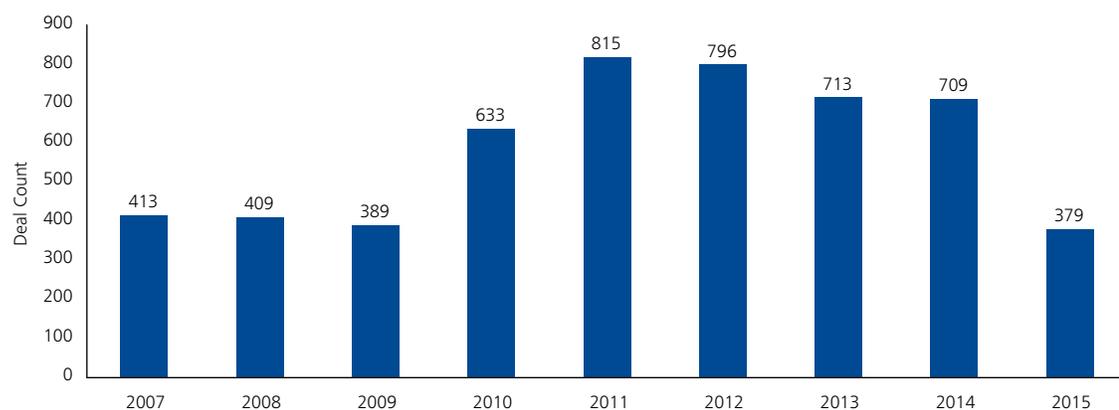
The first quarter of 2015 saw the fewest deals by number and by value since 2012. The oil and gas industry appeared to be coming to terms with the realization that oil prices could fall further and low prices would last longer than was originally thought. The M&A market slowed from an already sluggish fourth quarter 2014 to nearly a standstill, with only 74 deals in the first quarter of 2015 from all four sectors – upstream, oilfield services, midstream, and downstream. Deals picked up in the second and third quarters, but they declined in the last quarter of 2015 to only 93 transactions. Much like 2014, there was one unusually large deal in 2015, the announced Royal Dutch Shell (Shell) acquisition of BG Group (BG), which is expected to close at around \$82 billion, dominating all other deal values.¹

When oil prices began to fall in the second half of 2014, many expected an uptick in M&A activity. Cash-strapped firms would need to monetize assets as bank redeterminations lowered capacity to renew debt, investors would find risk too

high to capitalize firms, and hedge contracts would finally run out. With those funding sources gone, distress would bring top-tier assets to market. And, yet, this was not the case. A look back to the “Great Recession” of 2008-2009 may provide some insight as to why the M&A market has slowed.

The total number of deals for 2015 across all oil and gas sectors is lower than during the Great Recession (Figure 1). Subsequently, the global economy recovered; and, as US shale oil and gas drilling activity became established, investors pushed for reserves growth and deals rebounded, peaking in 2012. Deal activity began to subside somewhat in 2013, and the trend continued in the first half of 2014 as producers began develop their previously acquired acreage and focus on returns on assets. However, when oil prices began to fall in the second half of 2014, so did deal volume as cost containment became more urgent. Potential sellers may have been able to stave off divestitures, and buyers did not appear willing to take on the risk of potentially overpaying in the event of a more prolonged downturn. The conventional wisdom that bankruptcies and financial distress will bring deals to market and buyers will enlarge their portfolios with well-priced assets has not yet materialized, as high levels of uncertainty continue to pervade the business environment and capital is limited.

Figure 1. 2007 to 2015 total deal count for all sectors



Source: PLS Inc. and Derrick Petroleum Services Global Mergers & Acquisition Database as of 7 January 2016

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The upstream and oilfield services sectors saw the most year-over-year decline in deals as they are faring the worst during this down cycle. The midstream sector had three large deals in 2015 and was the only sector with more deals than in 2014 – with just one additional deal in 2015. Refining and marketing is benefitting from low input prices; yet, this sector showed a decline in deal activity from 2014 to 2015 as well, possibly delaying decisions in anticipation of upstream restructuring whose effects could flow through to that sector’s business environment.

Going forward into 2016, the M&A market could continue to languish, unless oil prices and even natural gas prices recover to a more economic level. Prices have been depressed, predominantly by a worldwide oversupply of oil coming from both US producers and some members of OPEC with Saudi Arabia in the lead. Until rebalancing occurs with demand growth eroding the inventory overhang, prices will likely remain depressed.

Note: M&A activity examined in this report is based on data from PLS Inc. and Derrick Petroleum Services Global Mergers & Acquisitions Database as of 7 January 2016. The data represents acquisitions, mergers, and swaps with deal values greater than \$10 million, including transactions with no disclosure on reserves and/or production. Our analysis has excluded transactions with no announced value as well as transactions between affiliated companies, to provide a more accurate picture of M&A activity in the industry.

Market conditions and business environment

This 2015 M&A report is written in the context of an 18-month-long oil price collapse that has led to increased uncertainty for upstream oil and gas producers, as well as the oilfield services and midstream sectors (Figure 2). In contrast, the downstream sector has benefited from widening refining margins, as feedstock prices fell rapidly while refined product prices declined at a slower pace.

In the midstream sector, pipeline transportation fees will provide cash flows over the near term, but continuing growth prospects have diminished with the slowdown in the upstream sector. Both long-distance crude and product pipelines, as well as gathering line projects, will need fewer capacity additions until oil prices recover and supply development takes off again.

Figure 2. Brent spot price collapses

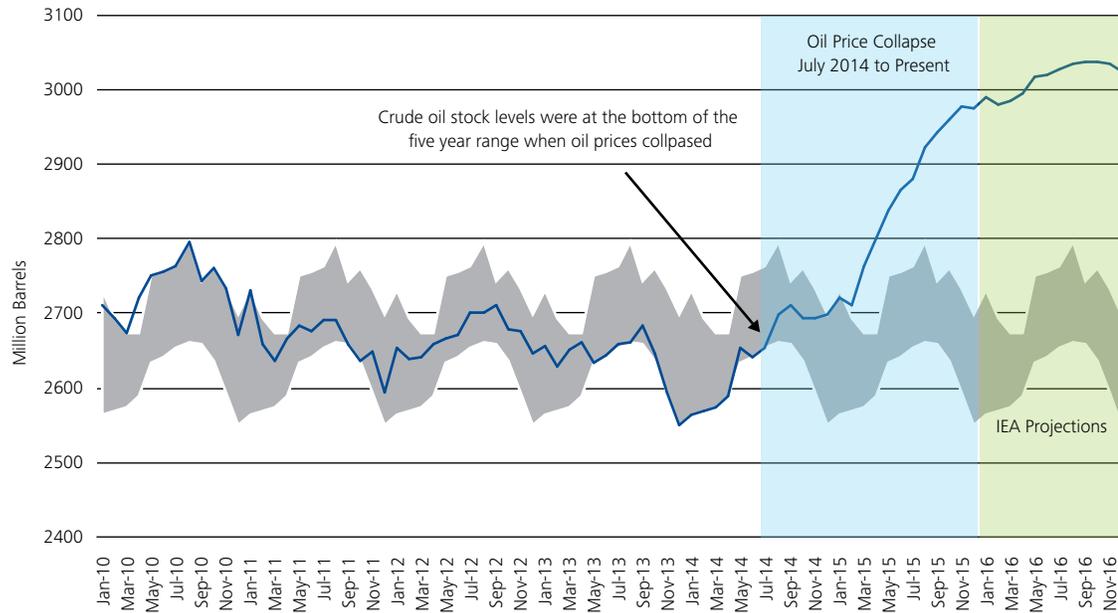


Source: Energy Information Administration (EIA)

The level and trajectory of crude oil prices has dominated market sentiment since late 2014. Supply growth, over recent years, has resulted in a buildup in crude oil inventories. In the United States, inventories reached the top of the previous five-year average range by December 2014, which was not unusual when compared to historical levels for that time of year; however, the rapidly increasing

inventory levels continuing into early 2015 (and beyond) was extremely unusual and contributed to the growing realization and concerns that low prices could be sustained for some time, leading to a more focused response by the industry with deeper cost cuts and cash conservation efforts that impact all sectors of the oil and gas value chain in some manner (Figure 3).

Figure 3. World commercial crude oil stocks

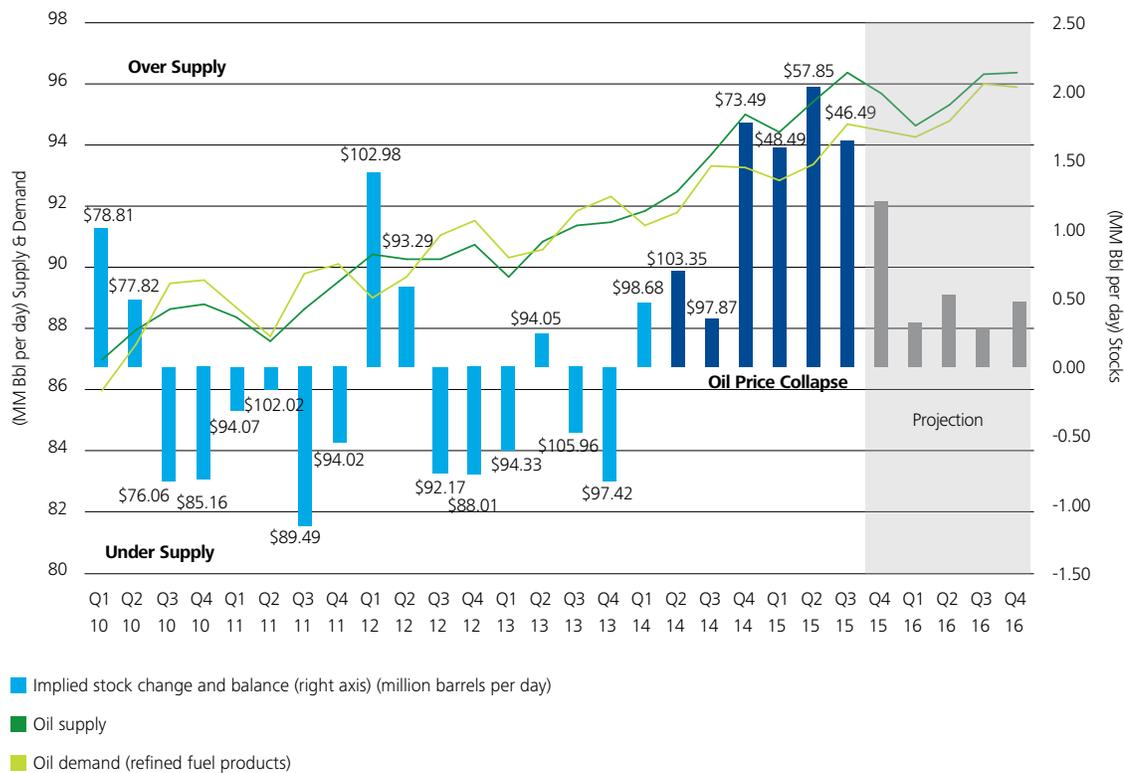


Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2010 – Dec. 2014.

Source: Energy Information Administration (EIA)

Globally, crude oil supply growth outpaced demand growth, also contributing to the rising storage levels. This trend was initially met with minimal reaction, because there have been examples in the recent past when an oversupply of oil occurred while oil prices remained high, such as in 2012 (Figure 4). This prior experience is one factor that may explain why many upstream companies initially seemed less concerned about the oversupply conditions of late 2014 and possibly anticipated a fairly rapid price rebound to what they considered more normal levels in the \$80-\$100 range.²

Figure 4. World supply and demand for oil with average WTI prices



Note: Oil supply includes crude oil, condensate, refinery gains, and biofuels. Oil demand includes refined products, natural gas liquids, biofuels, and liquids derived from other hydrocarbon sources (including coal to liquids and gas to liquids). Stock measures barrels from both supply and demand not consumed.

Source: Energy Information Administration (EIA)

The oilfield services sector appeared less optimistic and reacted more quickly by implementing cost-cutting measures, beginning in the third quarter of 2014. Many oilfield services companies cut manpower, mothballed equipment, and began the process of rationalizing their geographical positions and service line portfolios.³

By the first half of 2015, many upstream producers followed suit with cash conservation measures and accelerated cost reductions involving a combination of manpower layoffs, renegotiation or cancellation of service and supply contracts, and deferral of discretionary capital projects. In tandem with paring expenses, producers, for the most part, increased production to meet debt service obligations while covering operating expenses. In other words, two barrels of oil sold at \$50 could replace one barrel at \$100, which may be one reason US oil production remained so high well past the initial oil price collapse. Internationally, OPEC, with Saudi Arabia taking the lead, decided not to curtail production to support prices and instead opted to protect market share, as it had done previously in the price downturn of the mid-1980s.

Excess oil production, particularly in the United States, was the most dominant factor affecting oil prices in 2015. The glut of oil supply continued throughout 2015, as OPEC and non-OPEC countries with different incentives continued to produce oil. US production fell gradually, beginning in spring 2015, as new drilling activity was cut back, but the pace of US supply declines has been slower than many industry analysts anticipated. As prices remain depressed, production from higher-cost plays could decline further going into 2016, despite rapidly falling expenses as further cost containment strategies become more limited.

The US Energy Information Administration (EIA) projects crude oil production in the United States will continue to fall through 2016.⁴ Industry analysts also expect other non-OPEC countries to cut production rates. However, even with OPEC's own forecast of an oversupply of oil going into 2016, Saudi Arabia announced in its December 2015 meeting that it plans to continue producing at the November 2015 rate, the highest production since 2008.⁵

On the demand side, both the EIA's *Short Term Energy Outlook* and the International Energy Agency's (IEA's) latest *Oil Market Report* project an increase in global oil demand for 2016 of slightly over one million barrels per day.^{6,7} Paired with a small decrease in global supply, tightening of global balances indicates that oil prices could bottom out in early 2016, although a rapid recovery is not expected because of elevated stock levels, which will take time to bring down to more normal levels. The implied increased call on OPEC and stock draws also supports the conclusion that prices could be bottoming out. However, risks still remain as concern over China's economy and a declining level of consumption keeps downward pressure on expected global oil demand growth.

Amplifying the crude oil price downturn, natural gas prices have fallen to low levels in North America, where supply continues to climb. Similarly, oil price linkage has brought down natural gas prices in Asia and Europe (Figure 5). This trend has increased financial pressure on many oil and gas suppliers around the globe, magnifying market uncertainty and perceived risk surrounding both organic investment and M&A activity.

This backdrop of currently depressed prices combined with heightened market uncertainty and a number of creative strategies for extending funding availability seem to have limited the activity for the M&A market. A crucial question going into 2016 is whether and when market conditions will evolve sufficiently to diminish the barriers to M&A and unlock a more sustained deal flow.

Figure 5. Henry Hub, National Balancing Point (NBP), and Japanese Crude Cocktail (JCC) prices



Source: Energy Information Administration and Bloomberg

Overall M&A activity and trends

In the [Deloitte Oil & Gas Mergers and Acquisitions Report – Year-end 2014: A world in flux](#), we noted a resurgence in oil and gas M&A would likely be driven by:

1. Energy companies seeking some form of “reset,” whether through restructurings, financial recapitalizations, asset sales, and potentially creditor protection through bankruptcy,
2. Buyers with the financial ability pursuing acquisition opportunities at discounted values compared to 2013 and 2014 pricing, and
3. Synergistic mergers.

While we anticipate this activity may happen, the timing remains uncertain. In addition, we also highlighted three major factors that could influence the level of activity and timing of M&A transactions.

The first of these was the potential for a recovery in oil prices, stimulating a rapid response from US unconventional producers. We now know that this did not happen, mainly because producers outside the United States, such as Saudi Arabia, Iraq, and Russia, continued to increase production, keeping the world in oversupply for another year.⁸ In addition, US production did not fall as quickly as anticipated. US producers drilled far fewer wells, as indicated by the decline in the rig count, but longer laterals and a focus on the most productive wells kept overall production buoyant. As we move into 2016, US production is beginning to drop and several outlooks, such as from the EIA and IEA (referred to in the previous section) show supply growth now falling short of demand growth. However, the accumulated stock overhang in global oil markets should act as a cap on any expectation of steep or rapid price recovery in the near term.

Second, we discussed the availability of capital. Signs were present for credit to become significantly more constrained for the industry in a sustained low price environment, leading to balance sheet distress and perhaps an uptick in forced asset or corporate sales. While not all companies were able to maintain their liquidity position and the number of bankruptcies did increase over the course of the year, the distress cycle was slower than many expected at the start of 2015 for a variety of reasons.⁹ In the first half of 2015, some companies were able to secure additional equity or second lien debt financing to enhance liquidity. Others benefited from revised lending terms and renegotiated covenants. In addition, certain producers were afforded cash flow protection from hedges that were largely entered into before the pricing downturn.

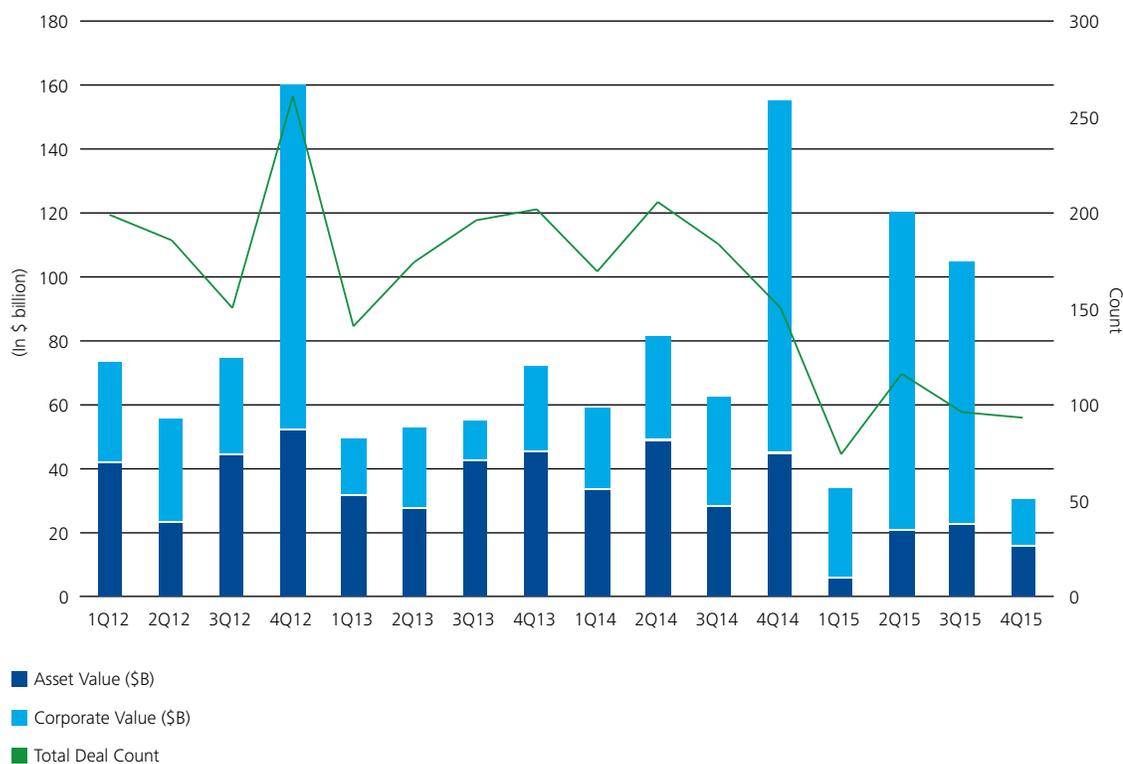
However, as we head further into 2016, we could see a rise in the number of distress-driven transactions, since the lending environment has changed and hedges are due to roll off. It is difficult to believe lenders can be as accommodating as they have been in 2015, as financial stress deepens in the extended downturn, especially with oil prices dipping below \$30 a barrel in early January 2016.¹⁰ But, foreclosures and forced asset sales also involve risk and the possibility of undervaluation, which lenders may still not be willing to confront; and, a tsunami of distressed activity may not occur.

Third, at the end of 2014, we also noted policy, tax, and regulatory changes could have an impact, indeed, anticipating that the Federal Reserve would begin to raise interest rates in the summer of 2015. The Federal Reserve did not raise interest rates until December 2015; however, many economists expect a sequence of small rate increases throughout 2016.¹¹ At the margin, the rising interest rate has a negative effect on finances and investment of oil and gas companies, but the impact is small compared to the dominant effect of low oil prices, as well as the risk premiums lenders will demand for new or extended debt in this uncertain environment. Private

equity capital is still available, and private equity investors are still keenly interested in the sector; but, they have not generally been able to close opportunities with the right mix of subsurface productivity and potential at values consistent with current commodity prices.

For the year as a whole, again, activity was down about 20 percent compared to 2014 in terms of deal value, but the dominance of a small number of mega-deals meant that the deal count ran at only about half the level compared to 2014 (Figures 6).

Figure 6. Total O&G deals by value and count

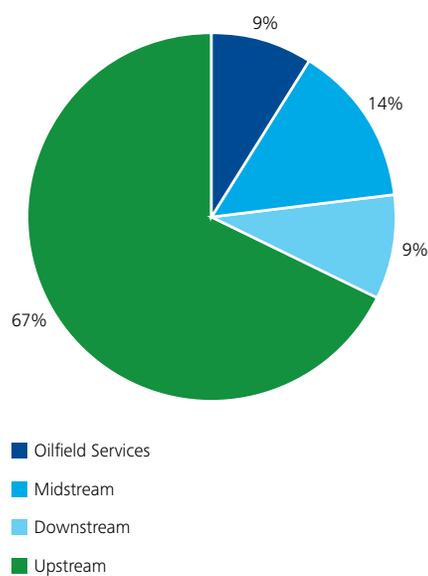


Source: PLS Inc. and Derrick Petroleum Services Global Mergers & Acquisitions Database as of 7 January 2016

Of the subsectors, upstream was the most active, representing about two-thirds of the number of deals and about half of the deal valuations in aggregate (Figure 7).

As the second most active sector, midstream ended 2015 with about 14 percent of the total number of deals and about 33 percent of the total deal value. The gathering segment in particular has been active, primarily as a consequence of upstream pullback and refocusing, leading to the emergence of both growth and efficiency drivers to spur consolidation.

Figure 7. Total deals by sector

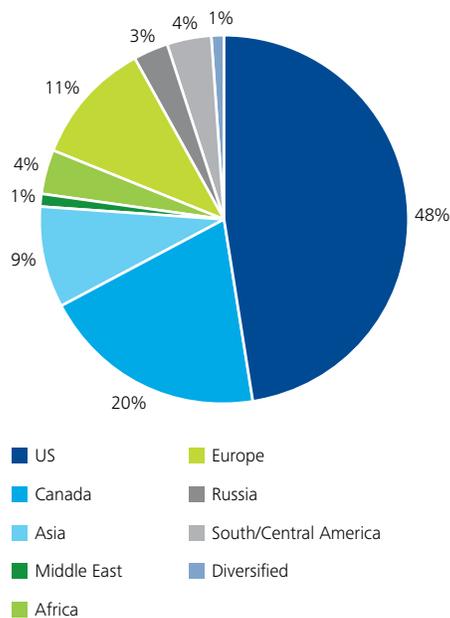


Note: Percentages are rounded to the nearest whole number.

Source: PLS Inc. and Derrick Petroleum Services Global Mergers & Acquisition Database as of 7 January 2016

In terms of regional deal count, North America remained the most active region for M&A, followed by Europe. The United States continued its tradition of leading M&A activity in deal count across all regions of the world. The United States and Canada combined accounted for 68 percent of the deals for the year; however, in terms of deal value, the pending Shell acquisition of BG, in combination with smaller European region deals, made up 62 percent of total deal value (Figure 8).

Figure 8. Total deals by region



Note: Percentages are rounded to the nearest whole number.

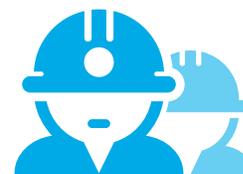
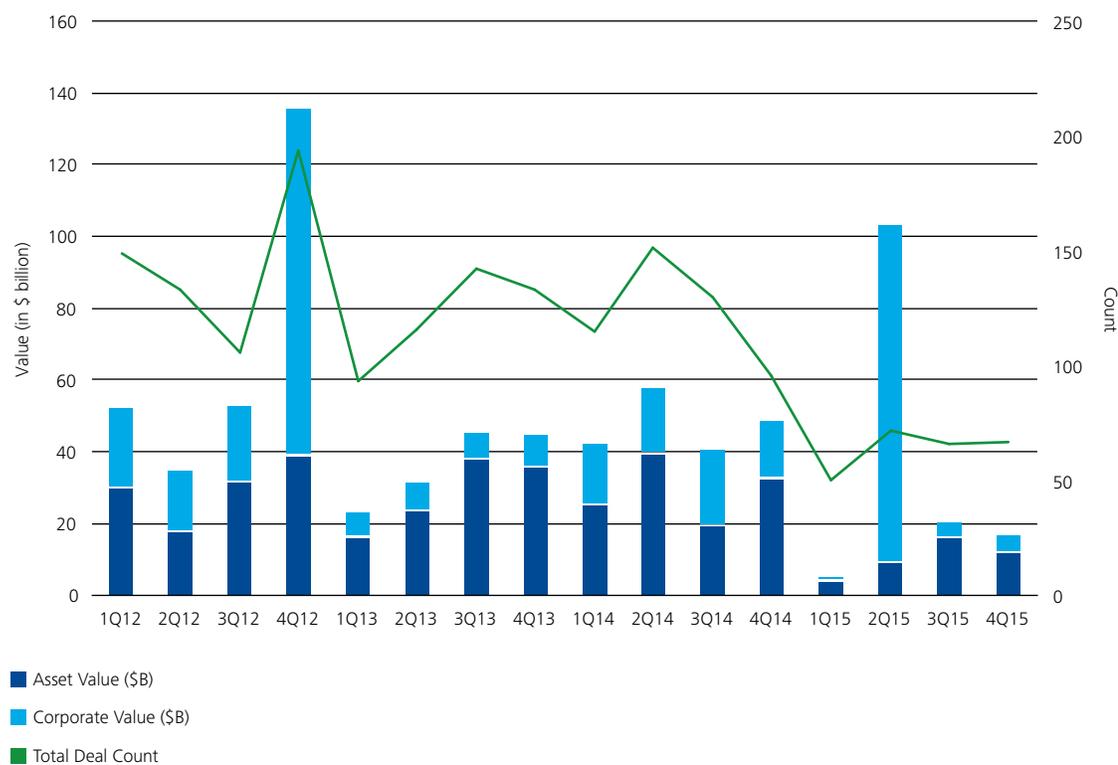
Source: PLS Inc. and Derrick Petroleum Services Global Mergers & Acquisition Database as of 7 January 2016

Upstream

M&A activity in the upstream market for the entirety of 2015 was lower in terms of deal count and value than in any year since 2012. As oil prices remained low throughout 2015, M&A activity was surprisingly quiet (Figure 9). Distressed

companies were, for the most part, able to avoid selling assets or being acquired by other companies, as avenues of financing remained open.

Figure 9. Upstream M&A deals by value and count

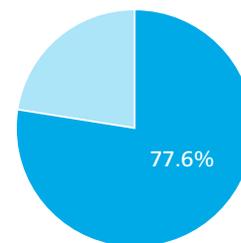


68%

of the US upstream count were in the unconventional subsector

Top five

upstream deals account for 67% of the total deal value



Shell/BG deal

was 77.6% of the upstream top 10 deal value

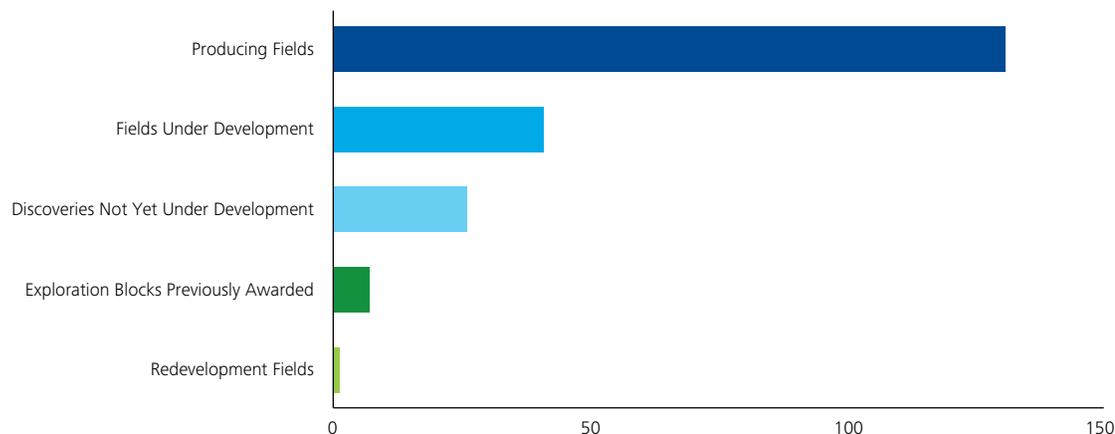
Source: PLS Inc. and Derrick Petroleum Services Global Mergers & Acquisition Database as of 7 January 2016

The announced acquisition of BG by Shell for just under \$82 billion in the second quarter of 2015 was the largest deal for 2015, across all sectors, and had the second largest corporate value since the fourth quarter of 2012.¹² KazMunaiGas (KMG), Kazakhstan’s state oil and gas company, announced the next largest deal in the third quarter of 2015. KMG sold half its ownership in the Kashagan oilfield to the country’s sovereign wealth fund, Samruk-Kazyna, for \$4.7 billion. The proceeds will be used by KMG to enhance liquidity and help fund its capital expenditure program.¹³ The third largest deal was Noble’s \$3.8 billion acquisition of Rosetta Resources, strengthening its position in US onshore unconventional shale plays.¹⁴

Conventional oil and gas assets outpaced unconventional assets across all regions of the world with 60 percent of the total. The United States was the only region where more unconventional assets changed hands more often than conventional assets, with unconventional tight oil and shale gas assets making up 68 percent of US deals in 2015. The United States, of course, is the only country where unconventional resources have been widely developed by a multiplicity of operators, which provides greater opportunity for transactions involving unconventional assets.

It appears companies had a lower appetite for development risk in 2015, since most deals were acquisitions of producing fields, the asset category with a lower development risk and immediate cash flows (Figure 10).

Figure 10. Number of upstream deals fall into a risk profile from low to high

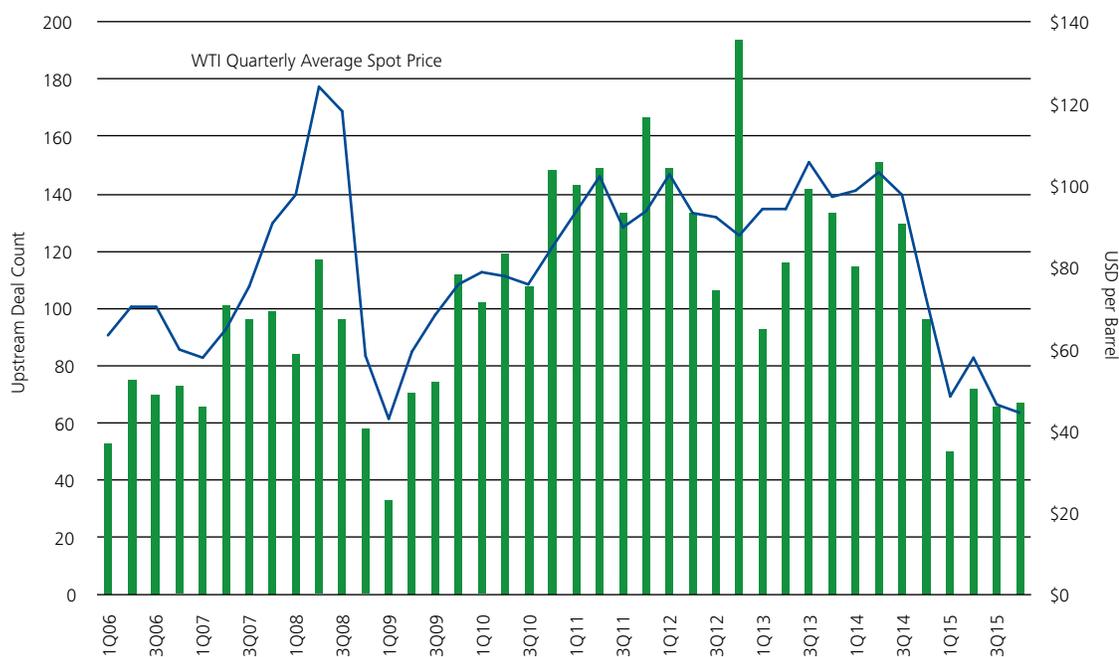


Source: PLS Inc. and Derrick Petroleum Services Global Mergers & Acquisition Database as of 7 January 2016

The decrease in the number of upstream deals and values, notwithstanding the pending acquisition of BG by Shell, surprised some oil and gas industry participants, because sustained low oil prices might have been expected to increase divestitures as a method for creating cash flows. Yet, this was not the case, even though would-be buyers were hoping to find opportunities to accelerate reserve growth, increase efficiencies in scale, grow market share, and expand core areas. The 2015 upstream M&A market resembled the M&A market during the Great Recession of 2008-2009; however, this time around we are missing the volume of deals (Figure 11). In both cases, unfavorable

economic or sectoral conditions acted as an inhibitor to transaction flow, because of the heightened uncertainty and depressed confidence among market participants. Unconventional assets were especially impacted by uncertainty, since the production profile of each well is usually front-end loaded. Drilling and development economics were thus heavily exposed to forward strip prices, and while many buyers might have been looking to base asset values on strip prices or lower, many sellers were still seeking prices based on a recovery price range well above forward strip levels.

Figure 11. The deal count fell precipitously during the Great Recession and the current price collapse



Source: PLS Inc. and Derrick Petroleum Services Global Mergers & Acquisition Database as of 7 January 2016

The upstream asset sales in 2015 were, perhaps, not as distressed as some buyers had hoped. When the reality of an oil price collapse with no end in sight set in, producers mobilized by cutting costs as the first line of defense. Then, shoring up cash flow followed cost containment on three fronts: new issuance of second-lien debt, new equity, and settling hedge contracts. Lending institutions were generally accommodating in 2015 to the oil and gas industry, providing liquidity support to companies that might otherwise have been in distress. However, their willingness and ability to continue such support is in question as credit markets deteriorate and the price downturn continues and has even worsened in the early part of 2016.

The bid/ask spread appears to remain wide, because many sellers have been unwilling to “undervalue” core assets that will underpin their long-term viability and many buyers have been unwilling to take on second- or third-tier assets that are available for sale. Even though, in theory, private equity investors have been interested in assets, the premiums for good assets have been dissuasive, given the sustained uncertainty about the duration of the oil price downturn and its eventual recovery potential. Many buyers may also be playing out a “wait and see” strategy, bolstered by the fear of overpaying for acquisition opportunities when there is some possibility of valuations declining even further over coming months. Where transactions are occurring, they are often small and strategic for operators that know the geography and geology of the play and have infrastructure already in place.

The upstream M&A market may become more active going into 2016, when the factors described above finally run their course. But, significant constraints on M&A activity remain. As assets come on the market via distress and bankruptcies, even financially sound buyers may still not be willing to purchase even the best deals, because they need to conserve cash and minimize debt to survive a sustained period of depressed prices at or below the \$40 to \$50 range. At the same time, continued uncertainty about the timing and extent of the recovery, with the possibility of a further deepening of the downturn in the interim, could delay the inflow of money from new investors, such as private equity investors. Therefore, it may take longer than anticipated to restore enough confidence throughout the upstream sector such that buyers are willing to significantly ramp up their appetite for acquisitions.

Oilfield services

The oilfield services sector showed a similar level of caution engaging in M&A activity in 2015 to the upstream sector, but it was hit even harder by the pricing downturn as it does not have the ability to hedge commodities. Revenues for many oilfield services companies plunged as producers negotiated price concessions, cancelled contracts, and reduced near-term exploration and production activities requiring their offerings. There were many opportunities to buy assets from distressed sellers in 2015, but with customer demand being deferred for the foreseeable future, few were willing to execute. Instead, the oilfield services sector primarily focused on restructuring, reducing capacity, and reviewing portfolio coverage, with the immediate emphasis on reducing capacity in manpower and equipment to adjust to the rapidly diminishing level of activity in the industry. Some smaller operators even chose to exit the sector through liquidation, in the face of increasing scarcity of opportunities.

Deal count for the oilfield services sector fell from 120 in 2014 to 36 in 2015, representing a 70 percent decline. Total deal value fell by 64 percent year-over-year, from slightly over \$68 billion to just under \$25 billion (Figure 12). Of course, without the 2014 Halliburton-Baker Hughes mega-deal announcement (valued at the time at \$38 billion), the total deal value in 2015 would be much closer to 2014 levels. Note that the Halliburton-Baker Hughes transaction has not yet closed, as of the end of 2015, because of regulatory review delays and the companies hope to close the transaction in 2016.¹⁵

In 2015, the acquisition of Cameron by Schlumberger was the most significant announced deal for the year, representing 60 percent of the total value for all oilfield services sector deals announced. The acquisition provides Schlumberger with full control of Cameron's offshore services technology.

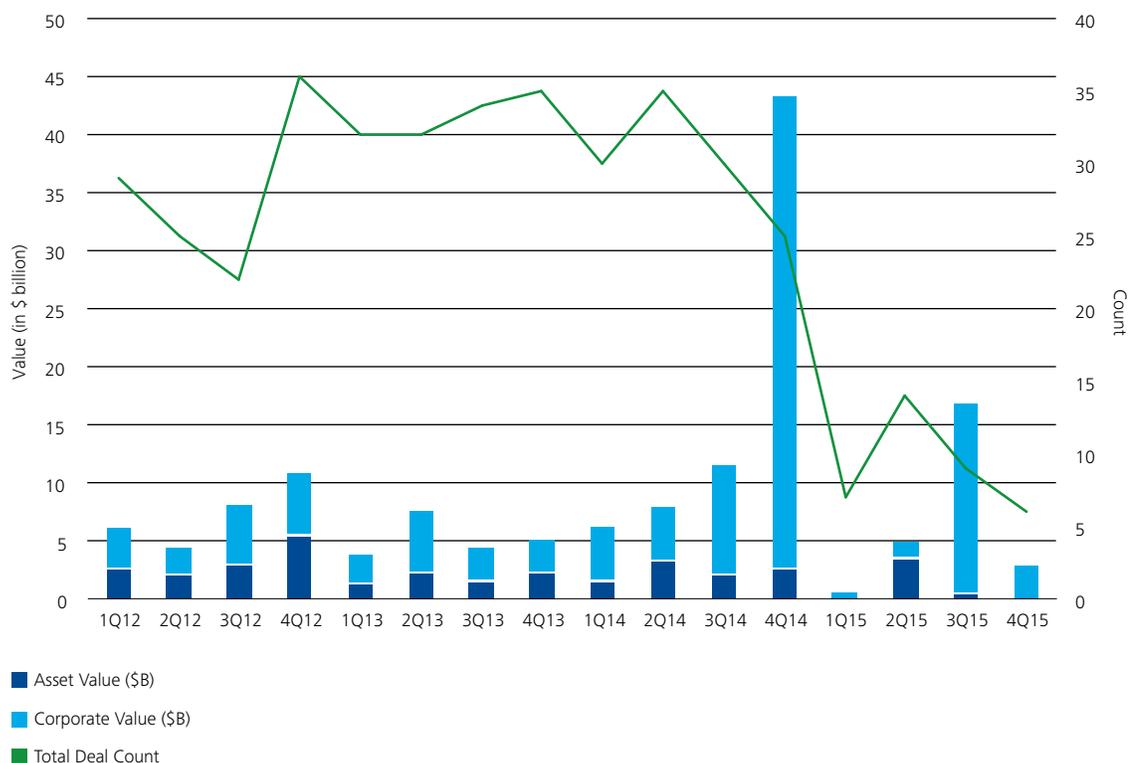


Largest oilfield services deal accounts for 60% of the total deal value

42%

of the OFS deal count took place in North America, 39% of which was in the US

Figure 12. OFS M&A deals by value and count



Source: PLS Inc. and Derrick Petroleum Services Global Mergers & Acquisition Database as of 7 January 2016



The size of the Schlumberger-Cameron combination relative to the total deal value for this sector translated into the dominance of North America in the total number of transactions in 2015, with the region accounting for two-thirds of the dollar value of all global oilfield services transactions. Latin America and Europe accounted for 20 percent, with these two regions seeing the second and third largest deals in dollar value terms for 2015.

In Latin America, Brazilian state oil company Petrobras sold \$3 billion of oil platforms with a leaseback agreement to the bank Standard Chartered PLC, as part of its plans to monetize \$13.7 billion worth of assets. This sale was the second largest oilfield services deal in 2015.

The third largest deal in the sector was the \$2.2 billion sale of the assets of the Eurasia Drilling Company Ltd., Russia's largest driller, to an undisclosed buyer as part of the process of taking the company private.

Similar to the upstream sector, the timing and extent of a crude oil price recovery will be critical to when the oilfield services sector can look beyond belt-tightening and rationalization and begin to position itself for the upturn. In the meantime, smaller, niche operators may continue exiting the sector, as their capacity is surplus to current requirements. Some of this may become fodder for the deal space, but buyers could be hesitant to move too quickly before confidence is reestablished.

Midstream

The midstream sector, which includes oil and gas pipelines, processing plants, liquefied natural gas (LNG) facilities, and bulk storage terminals, delivered a deal count roughly equal to 2014 at around 50 transactions (Figure 13). The deal value ran slightly above 2014 levels at about \$96 billion in total. This buoyancy in transaction activity was in contrast to the significant decreases seen in the upstream and oilfield services sectors and reflected the different drivers present for the midstream sector.

First, it should be noted that in the early months of the price downturn, midstream operators were somewhat insulated from the cyclical downturns and upturns experienced by the upstream sector. Requirements to process, store, and transport crude oil, oil products, and natural gas are driven by market needs, which are usually more stable over the short- to medium-term than upstream activity. However, over the longer-term, a slowdown in upstream activity can result in a dearth of investment opportunities for midstream growth, particularly for those field gathering and processing services that are directly tied to new drilling in upstream plays. For this reason, M&A activity can come into play as a growth engine, substituting inorganic growth for organic growth for a particular player. The Keystone XL pipeline decision, announced in November 2015 after more than five years of uncertainty, was another complication for the midstream sector, potentially undermining confidence in its ability to deliver organic growth, in this case adding political and environmental challenges to economic and market uncertainty.

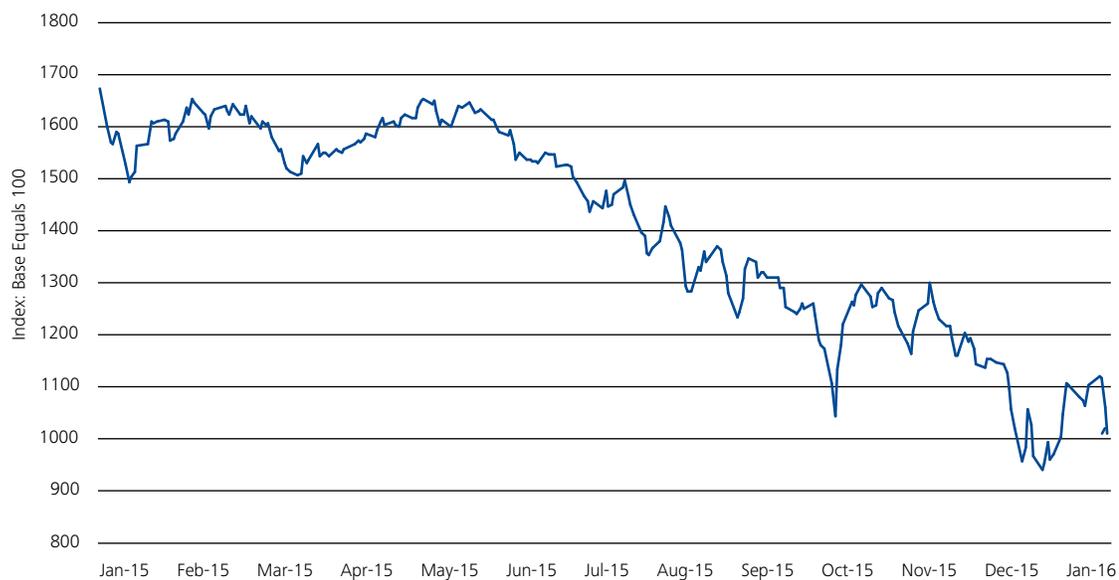
Second, customer contracting is less susceptible to commodity pricing downturns in the short-run, as transportation pricing is often structured with minimum volume commitments and rates tied to volumes rather than commodity prices. However, the low price environment is increasing the number of producers that are asking to renegotiate contracts or even paying to terminate transportation arrangements, as part of their cost savings measures. Midstream operators that are concentrated in a certain basin or have significant exposure to distressed producers may be more at risk to these terminations and contract renegotiations.



Third, the midstream sector in the United States has been an area where master limited partnership (MLP) structures have become most prevalent in recent years. These are designed to be tax efficient for investors in that free cash flow is distributed and the tax burden is borne by the investor at a lower effective rate than would be the case for a traditional corporate entity. However, an MLP's attractiveness to investors depends to a large extent on maintaining and growing cash flow distributions to holders, which is often achieved through the drop down of assets from the corporate parent or general partner of the MLP who has constructed the system and borne the development risk. As opportunities for asset drop downs or transfers diminish due to lower growth in the overall market, we may see increased combinations of MLPs or conversions of MLPs to corporations. Indeed, some analysts are questioning the long-term viability of the MLP model in this sector.¹⁶ Over the course of 2015, the leading index for large and mid-cap energy MLPs, the Alerian MLP Index, fell 34 percent (Figure 13).¹⁷

These dynamics are playing out most distinctively in North America, where in 2015, nine out of the top ten midstream transactions occurred. Three mega-deals dominated the total deal value. Energy Transfer Partners accounted for two of the three top deals, with announced acquisitions of Regency Energy Partners and The Williams Companies. The total value of these two deals was \$55.5 billion, signaling the emergence of Energy Transfer Partners as an energy major in its own right. The third of the three mega-deals in the midstream sector was the acquisition of Mark West Energy Partners by MPLX LP, the MLP of Marathon Petroleum Corporation. The deal value when originally announced was almost \$20 billion, based on the market value of the share exchange. This deal combines Marcellus and Utica region natural gas liquids pipelines and processing and fractionating facilities with MPLX LP's growing crude oil and refined products logistics network.¹⁸

Figure 13. Alerian MLP Total Return Index 2015



Source: Alerian

In terms of midstream subsectors, gathering and processing saw the most activity in 2015, including large components of the mega-deals mentioned above, primarily driven by the desire to maintain corporate growth prospects in the absence of significant organic investment opportunities in the reduced drilling environment. The second most active subsector was storage, with both natural gas and oil storage facilities changing hands both in North America and around the world in a number of smaller transactions.

In 2016, the midstream sector may undergo more consolidation in the face of the continued upstream development slowdown, contract renegotiations, and low-growth downstream markets. It will be interesting to track the extent of which further MLP conversions to corporations arise, following the high-profile example set by Kinder Morgan in the summer of 2014, when the corporate entity announced it was reabsorbing its MLP structures.

Although not directly related to the M&A market, at least not at this stage, we note that the first exports of US LNG from the US Gulf Coast are expected to occur in 2016, with other facilities planned to start up over the next two to three years.¹⁹ Also, the commencement of US crude oil exports after a 40-year ban could lead to some opportunities for investment in additional coastal crude oil storage and loading facilities, a welcome investment opportunity for the midstream sector.²⁰ These opportunities could evolve slowly, as the immediate economic incentive for increased exports has diminished with the narrowing of the spread between Brent and WTI crude oil prices.



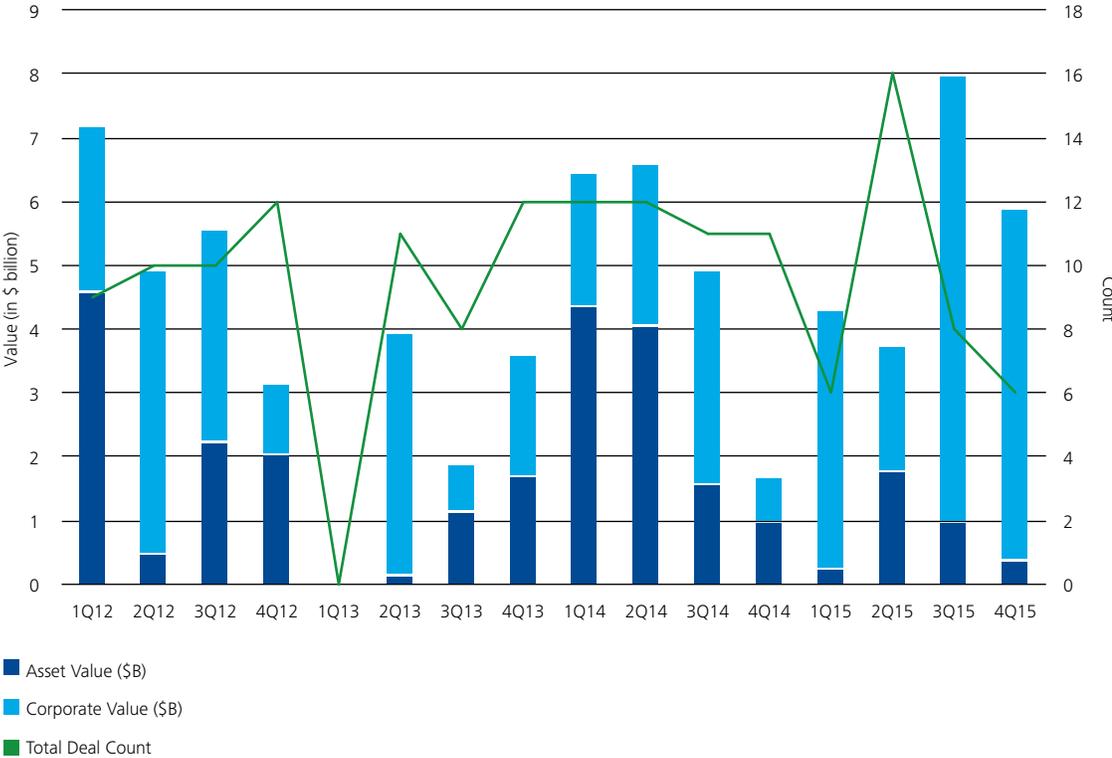
Downstream

The downstream sector is a varied market segment that not only includes refining of crude oil but also oil product terminals, marketing, distribution, and retail operations. In 2015, the total dollar value of downstream transactions remained constant, but the total transaction volume decreased (Figure 14).

The geographical spread of downstream transactions across the globe was notably more diversified than it was in the other sectors, with deals taking place in every major region. The divestiture by the majors of refining operations, long seen as a low-return business compared

to the upstream sector, continued with asset sales from Chevron in Australia and Shell in Japan. For the first half of 2015, refining margins were contributors to the financial results of certain integrated oil companies.²¹ Of note, prior to the recent oil price collapse, refineries reversed a 12-year decline in capacity utilization beginning in 2010, with refinery utilization now close to 95 percent due to an increase in world demand for refined products and US refiners' ability to ramp up exports.²² We will be watching to see if this trend continues in 2016.

Figure 14. R&M M&A deals by value and count

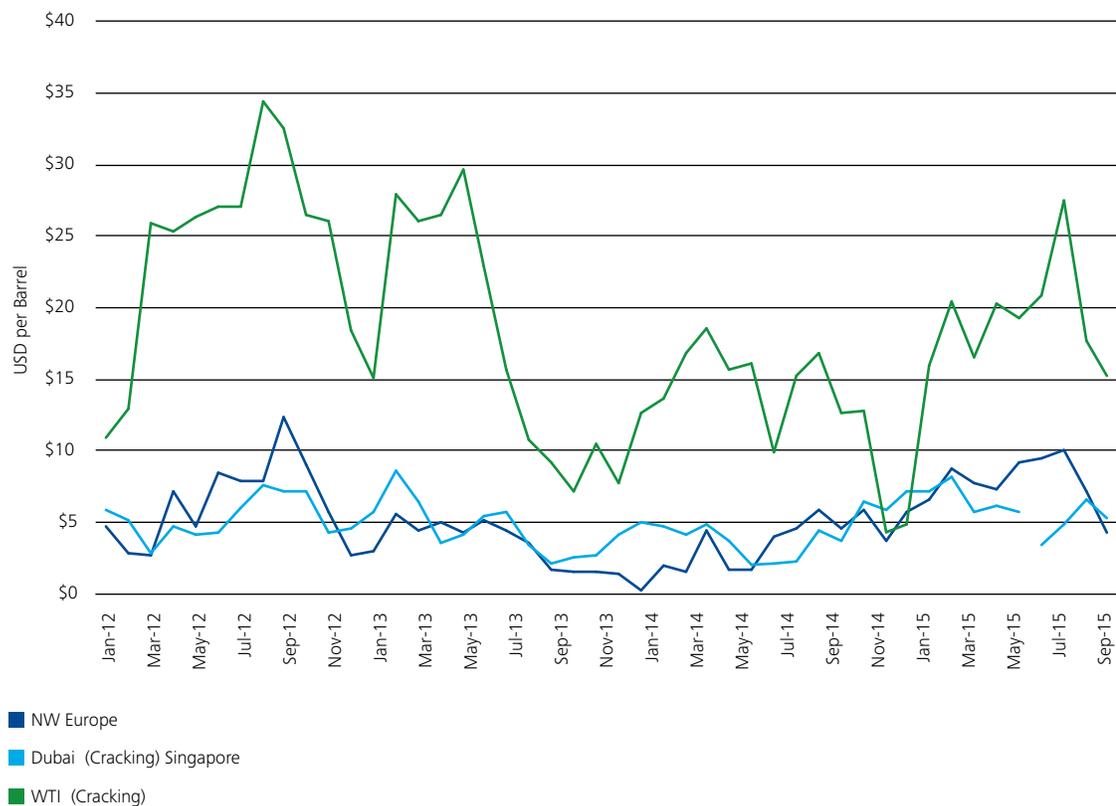


Source: PLS Inc. and Derrick Petroleum Services Global Mergers & Acquisition Database as of 7 January 2016

Another emerging trend to look for in 2016 will be the impact of the commencement of US crude oil exports as the US refining sector has enjoyed high utilization and higher refinery margin differentials compared to other international markets for the past few years (Figure 15). Will some refining operations come under margin pressure because of higher feedstock costs, leading to capacity rationalization and renewed consolidation in the sector? This is possible, but could play out over a longer period than 2016 alone as current price differentials do not look favorable to a rapid uptake of US exports.

The other potential threat to the downstream sector's health entering 2016 comes from the twin economic impacts of the slowdown in China, spilling over into its major trading partners, and the beginning of interest rate increases in the United States, which could potentially dampen consumer demand for refined products over the longer term. If these factors together result in a less attractive business environment for refining and marketing going forward, we could repeat past consolidation and capacity rationalization in Organisation for Economic Co-operation and Development (OECD) markets, although refining investment has historically continued in the Middle East and Asia.

Figure 15. Refinery margins for Northwest Europe, Singapore, and US Gulf Coast



Source: International Energy Agency (IEA)

Conclusions

High levels of uncertainty about the length and impact of the oil price collapse over the last 18 months has created an atmosphere of price disparity between buyers and sellers, contributing to low levels of M&A activity in 2015. Going into 2016, M&A activity could remain low until influencing factors such as lender pressures or commodity pricing narrow the bid/ask spread for transactions. All sectors of the oil and gas industry are impacted by the decline in commodity prices:

- **Upstream:** Some financially stronger producers could acquire tier one assets from distressed sales, but other deals will likely be curtailed as cash is conserved and debt is kept to a minimum as remaining hedge contracts at economic commodity pricing levels are settled.
- **Oilfield services:** Could see deals if exceptionally low prices entice buyers to enter the market or pending mergers of two of the largest players spur action by mid-tier players interested in growing offerings or enhancing economies of scale.
- **Midstream:** Has a more complex environment to navigate in the coming year. The MLP model could become less attractive to investors as expansion opportunities diminish, potentially prompting managers to reconsider the MLP structure.
- Gathering and processing subsectors followed shale gas producers into the Marcellus and other expanding shale frontiers, but 2016 may find those midstream businesses continuing to consolidate as a substitute for organic growth – a common strategy during industry contraction.
- Oil pipelines, like their gas pipeline counterparts, have less need for capacity to serve the upstream sector, so consolidation may follow as well.
- Beyond 2016, with the lifting of the 40-year US crude oil export ban, oil pipelines may find more opportunities to grow organically by building pipeline transportation and storage facilities at US ports for the exporting of light, sweet crude oil to overseas markets.
- **Downstream:** Could find the lifting of the US export ban creates more competition if US producers are able to find buyers for their grade of crude internationally (current worldwide oversupply of oil will likely delay competition).

To some degree, we enter 2016 much like we did in 2015 with many waiting for an M&A wave to occur. While low commodity prices and cost cutting efforts continue to be a focus, in the long run, we expect the industry to adapt, innovate, and ultimately emerge more resilient.

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Let's talk.

Vice Chairman and US Oil & Gas Leader



John England

Deloitte LLP
Houston
jengland@deloitte.com
+1 713 982 2556

Deloitte Center for Energy Solutions Leader



Andrew Slaughter

Executive Director
Deloitte Center for Energy Solutions
Deloitte Services LP
+1 713 982 3526
anslaughter@deloitte.com

US Oil & Gas M&A Leadership Team



Jeff Kennedy

Deloitte Financial Advisory Services LLP
Houston
jefkennedy@deloitte.com
+1.713.982.3627



Trevear Thomas

Deloitte Consulting LLP
Houston
trethomas@deloitte.com
+1 713 982 4761



Robin Mann

Deloitte Financial Advisory Services LLP
Houston
romann@deloitte.com
+1 713 982 3029



Melinda Yee

Deloitte & Touche LLP
Houston
myee@deloitte.com
+1 713 982 4402



Jason Spann

Deloitte Tax LLP
Houston
jspann@deloitte.com
+1 713 982 4879

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