

# Global oil and gas transactions review 2011





# Introduction

**Welcome to Ernst & Young's annual review of global oil and gas transaction activity. In this report, we look back at some of the main trends in oil and gas merger and acquisition activity over 2011 and consider the outlook for transactions in the sector in 2012. We analyze the diverse dynamics in the upstream, downstream and oilfield services sectors, as well as the regional trends that underlie this macro picture.**

In 2011, more than 1,322 oil and gas transactions were announced, an increase of more than 5% on the 1,258 deals reported last year. With an average of more than three transactions every day, oil and gas has continued to be one of the most active global sectors for M&A. Only the downstream segment of the industry saw a decline in transaction volumes in 2011, with the oilfield services segment turning in a very healthy 64% increase.

The aggregate value of oil and gas transactions totalled US\$317b. The 2011 deal value was about 7% below last year's US\$341b, largely as a result of fewer megadeals. In 2010, there were 76 oil and gas transactions valued in excess of US\$1b; in 2011, this population had declined to 71. The largest oil and gas transaction of 2011, Kinder Morgan's US\$38b acquisition of El Paso, was broadly comparable to last year's largest deal, Petrobras's US\$42.5b equity transaction.

The upstream segment remained the most active, representing 72% of total deal volumes. North America, accounting for 562 upstream deals, or 59%, remained the most active market, although the strongest growing regions were Europe and the CIS. With US\$66b targeted on shale-related transactions, unconventional is rapidly emerging as the new conventional. China is the largest shale gas resource holder in the world, with 19% of global resources. If the potential in this asset base can be unlocked, this could transform the oil and gas landscape for years to come.

Transactions activity in the downstream segment declined modestly during 2011, although overall values were comparable to 2010 levels. Ownership change in refining and retail in mature markets continued, stemming from ongoing portfolio rebalance and capital allocation review. With refined product demand declining in Europe and North America, rationalization is expected to remain on the agenda in 2012. Storage facilities, offering global connectivity and trading potential, have seen the greatest level of demand from would-be acquirors. These trends are likely to continue in 2012.

Oilfield services companies, like their customer base, are globalizing and consolidating. Many of the larger players are well-capitalized and opportunistic, and financial players also remain active. As a result, the segment saw an increase in deal activity in 2011 and there is a positive outlook for 2012, underpinned by those seeking new geographies, new customers or new technologies.

The oil and gas sector is critical to the global economy. By the same token, the oil and gas sector cannot exist perpetually insulated from wider political and economic turmoil. These dynamics are driving considerable volatility in the capital markets, and this is likely to have a significant impact on capital intensive sectors such as oil and gas. We anticipate that capital constraints among the independent sector, combined with well-capitalized large-caps and sovereign-sponsored organizations, will underpin a robust level of transaction activity in 2012.

The year 2011 promised more than it delivered. Against an uncertain economic and capital markets background, 2012 promises less but could likely deliver more.





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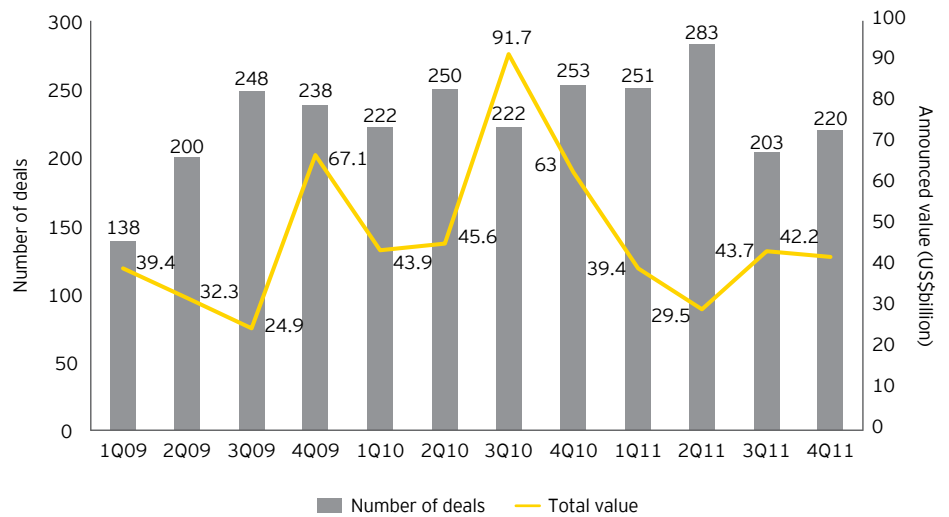
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# >>Upstream

Last year was marked by global turbulence, with political change, economic upheaval and natural disaster all playing a major part. Clarity has been hard to come by, yet it is clear that security of energy supply and reliance on the oil and gas sector are undiminished. This is reflected in oil prices that have remained robust despite an uncertain economic outlook and an upstream M&A market that, although lower than in recent years, has averaged approximately two to three transactions every day in 2011.

A more worrying trend, however, can be seen on a quarterly basis, where deal volumes declined in the second half of 2011. This reflects growing economic uncertainty during the year, combined with tightening capital markets. Access to debt and equity funding, particularly for the independent sector, is now extremely challenging. Ironically, this situation is likely to result in an increase in transaction activity in 2012 as the largely well-capitalized majors and national oil companies (NOCs) exploit their balance sheet advantage.

Figure 1. Upstream deal value and volumes



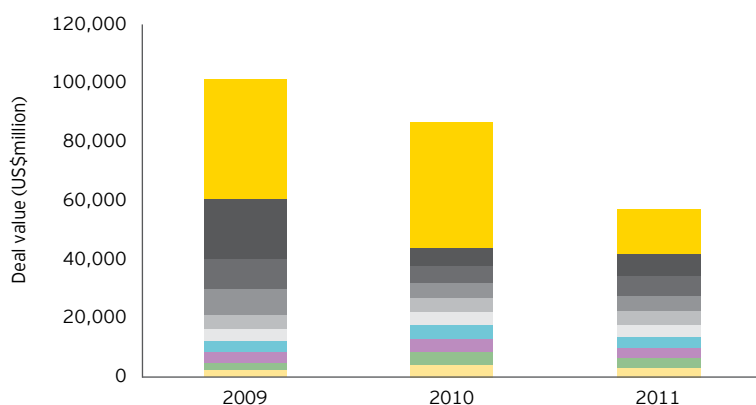
Source: IHS Herold Inc

## Activity levels declined throughout the year

The year 2011 began with transaction activity continuing the encouraging pace seen at the end of 2010. This momentum did not continue, however, and as a result, total transaction activity was comparable to 2010, with a total of 957 transactions announced versus 947 in 2010. The 36% decline in reported total transaction value was far more substantial, driven by the absence of a megadeal, such as last year's

US\$42.5b asset acquisition by Petrobras and ExxonMobil's US\$40b acquisition of XTO in 2009. Overall, 2011 has seen more cautious transactions with much fewer large deals. There were 38 upstream deals greater than US\$1b in value compared to 55 in 2010. This is highlighted in the following chart, which compares the value of the top 10 upstream transactions in each of the previous three years.

Figure 2. 10 largest upstream deals in 2011

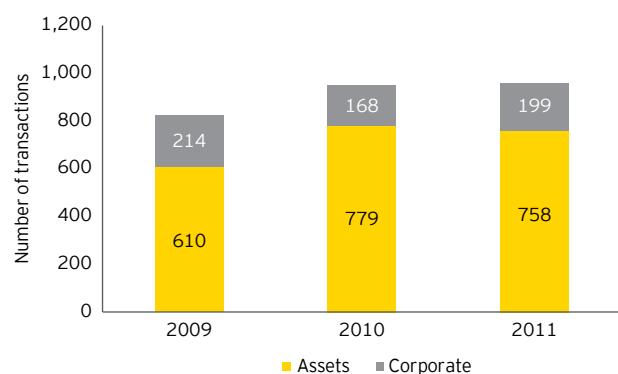


Source: IHS Herold Inc



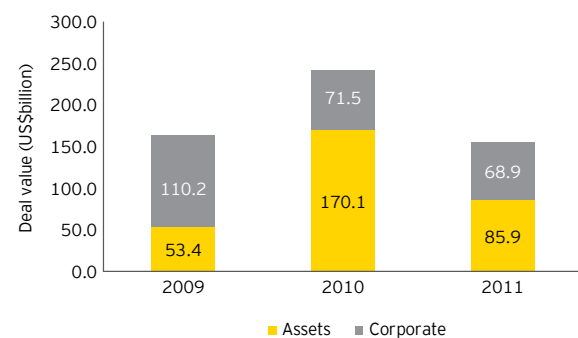
Asset deals continued to dominate the upstream transactions landscape, accounting for 79% of deal volume. However, they declined in absolute volume and announced values. The number of announced asset transactions slipped some 3%, to 758, while total value dropped off 50%, to US\$86b – though as noted previously, the \$42.5b Petrobras transaction weighs heavily in last year's total. Corporate deal activity increased by 18% over 2010 deal numbers. Reported corporate deal values were down slightly, \$69b in 2011 versus \$71b in 2010.

Figure 3. Number of upstream deals by type



Source: IHS Herold Inc

Figure 4. Total upstream deal value by type



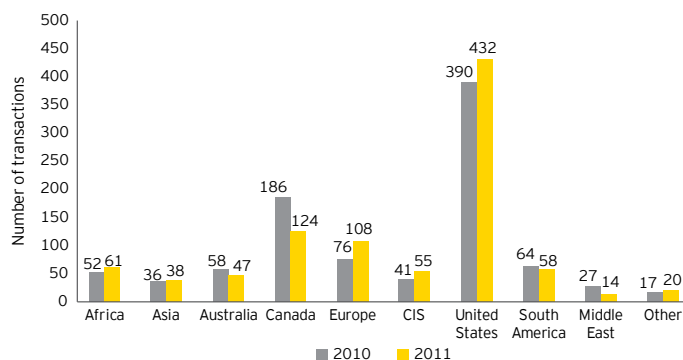
Source: IHS Herold Inc

## North America remains the most active market, but Europe and CIS exhibit strongest growth

On a regional basis, North America continued to lead transaction activity with almost 60% of announced transactions, comparable to the prior year's 61%. The North American bias is echoed in transaction values, with 58% of announced deal value being in the US and Canada. Although remaining second to the US in transaction numbers, Canadian deal activity was down more than 30% on 2010, with 124 announced deals versus 186 for the prior year; and with fewer top-end deals, total value was down 65%.

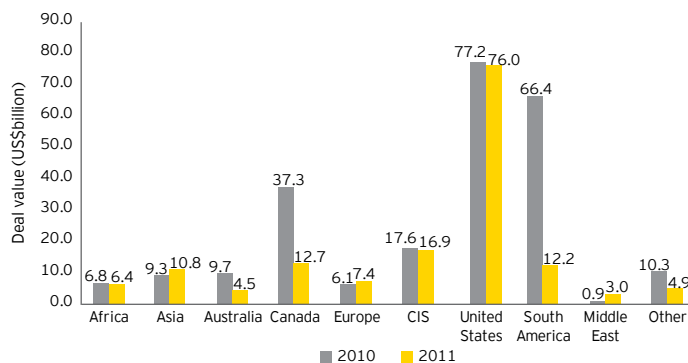
The decline in transaction activity was widespread, with only the US, Europe, the CIS, Africa and India witnessing an increase in transaction volume on 2010 data. European transaction activity was up 42%, with over half of the 108 transactions involving assets in the North Sea – evidence of the resurging interest in the region.

Figure 5. Number of upstream deals by region



Source: IHS Herold Inc

Figure 6. Total upstream deal value by region



Source: IHS Herold Inc



## An unconventional era

The booming unconventional sector has drawn headlines around the world. Shale gas now accounts for about 30% of US gas production, and it has been estimated that there are sufficient recoverable reserves to meet gas demands for 100 years. As a result, the US gas market has had a staggering shift in outlook from net gas importer to net gas exporter. The year 2011 continued where 2010 left off, with a wave of large transactions, as large independents, NOCs and private equity firms look to snap up opportunities – so much so that the US\$66b spent on shale-related transactions in the year accounted for just under half of the value of all announced upstream transactions globally.

Shale gas dominated the larger transactions, claiming the largest reported deal of the year – BHP Billiton's acquisition of Petrohawk Energy for US\$15b – as well as four other top 10 transactions by value. BHP Billiton's acquisition further cements its interest in the space after its US\$4.8b acquisition of Chesapeake Energy's Fayette shale assets earlier in the year. Marathon Oil's acquisition of Hilcorp Resources' Eagle Ford shale properties for US\$3.5b and Noble Energy's purchase of 50% of Consol Energy's undeveloped Marcellus shale acreage for US\$3.1b are further evidence of the scale of investment in the this prospective resource base. Amid its other acquisitions, Statoil announced a US\$4.8b major tight oil/shale oil acquisition of Brigham Energy. Canadian shale prospects have also attracted significant interest. Sinopec's US\$2.9b acquisition of Daylight Energy, for example, provides access to Duvernay and Cardium shale acreage.

Environmental and political turbulence surrounds this North American game changer, which has seen New York State impose a moratorium on fracking activity and shale development concerns leveraged as a political tool. On the other side of the Atlantic, the potential of European shale remains to be proven, but environmental concerns are also in play, with France becoming the first country to impose a ban on hydraulic fracturing of shale gas and oil projects. Development in Poland, reportedly Europe's largest shale resource holder, remains some way behind the US; and with the largest of the five recorded transactions in Polish shales being San Leon Energy's acquisition of Realm Energy for US\$91m, M&A activity still lacks a growing value outlook.

Canada's tar sands activity has also intensified, as the strong oil price has facilitated an increase in the capital-intensive development projects. While there has been significant investment in transaction activity in the shales, tar sand investment has been principally at the project level and transaction activity has lessened somewhat. CNOOC's US\$2.1b acquisition of OPTI Canada is the largest transaction in the sector and provides the Chinese producer with further access to tar sand reserves. CNOOC separately invested US\$1.3b in US oil shales, which, along with KNOC's acquisitions of Eagle Ford shale acreage and various conventional assets in the US, is evidence of the ongoing international resource- and knowledge-targeting of Asian NOCs.

China is the world's largest shale gas resource holder according to the US Energy Information Administrator (with 19% of global resources). Significantly, it held its first shale gas licensing round this year. With Chinese NOCs heavily invested in North American unconventional, they are strategically positioned to replicate operations back on home ground. This could transform the world oil and gas landscape in years to come.

## North Sea revival despite unresolved challenges

The North Sea has continued its recent revival, despite unwelcome changes in the UK's tax regime earlier in the year and continuing concerns over decommissioning liabilities. Apache's US\$1.8b acquisition of Exxon Mobil's North Sea asset portfolio, Centrica's US\$1.5b acquisition of various assets from Statoil, and Total's US\$802m pre-emption on GDF Suez's sale of a 10.4% interest in the Elgin and Franklin fields are evidence of the ongoing attractiveness of the region. A number of recent success stories, including the sizeable Aldous/Avaldsnes discovery in Norway, have driven positive momentum in the region, and BP's commitment to its US\$6.9b development west of Shetland is further evidence of the investment returning to the region.

As certain basins in the North Sea mature, ownership of assets is likely to continue to transition from majors to the independent sector. A key challenge in keeping the momentum of M&A activity in this regard is the growing issue of abandonment liabilities, where significant potential exposures are at stake in a landscape of inherent fiscal uncertainty, particularly in the UK. This area has been a focus of discussions between industry and government, supported by Ernst & Young, and we hope for positive developments in 2012.

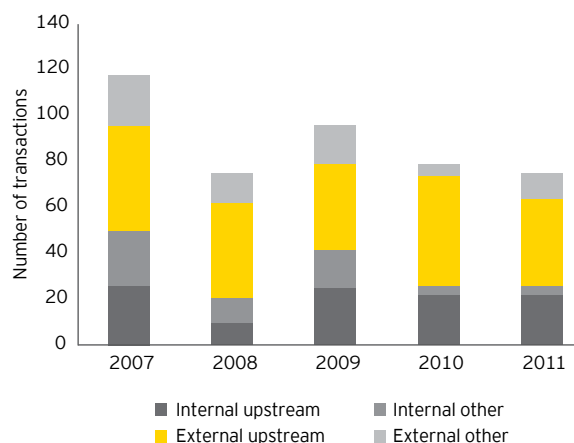
## NOCs continue to acquire, but annual spend decreases

IOCs continue to fuel transaction activity as the buying population for over 90% of announced upstream transactions, with the super majors alone involved in almost US\$20b of disclosed transaction spend. Conversely, NOCs were buyers for only 6% of transactions, with 43 announced upstream transactions in 2011. However, backed by strong cash reserves, their appetite for larger targets saw NOCs with a greater proportion of upstream spend, responsible for over 18% of the announced deal value. NOC upstream spending was down sharply in 2011 versus 2010 data, distorted by the significant internal investments made by Petrobras in 2010. Investments outside the home country account for the vast majority of NOC transactions, representing more than 65% of NOC deal volume and more than 76% of total reported deal value in 2011.

Recent years have witnessed the Chinese NOCs' international pursuit of production and reserve acquisition opportunities to meet aggressive targets, and 2011 saw similar dynamics with Chinese NOCs responsible for 50% of NOC acquisition spend in 2011. Successful targets covered a broad range, with LNG interests in Australia, deepwater assets offshore from Brazil, producing shale assets in North America, and exploration acreage in East Africa indicative of the wide remit of these buyers.

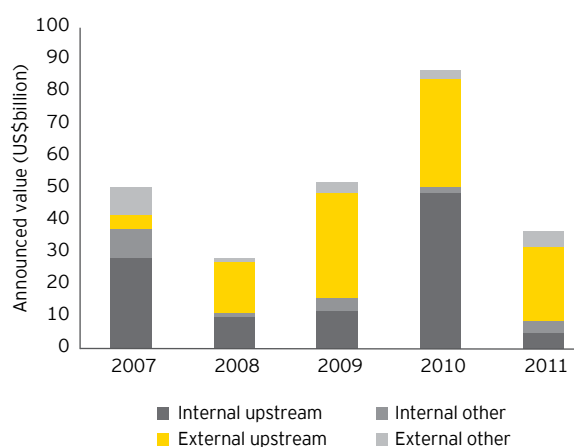
Private equity activity was also down from the prior year, though total announced spend was broadly comparable with 2010 levels. Almost all reported PE-led acquisitions involved North American unconventional plays, providing further evidence of the growth expectations for these exciting sectors. In particular, Kohlberg Kravis Roberts (KKR) has continued its investment in US shales, announcing its participation with Premier Natural Resources in two acquisitions of Barnett Shale properties from ConocoPhillips and Carrizo Oil and Gas. The private equity firm has recorded significant success from recent shale investments, generating multiple returns from its share in the US\$3.5b sale of Hilcorp Resources' Eagle Ford shale properties to Marathon this year and last year's US\$4.3b sale of investee East Resources.

Figure 7. Oil and gas transaction activity by NOCs: deal volume



Source: IHS Herold Inc

Figure 8. Oil and gas transaction activity by NOCs: deal value



Source: IHS Herold Inc



## **Partnering up in the downturn**

In an era of constrained access to capital, resources and expertise, partnering is a logical conclusion. In particular, the success in North American unconventional plays has driven the formation of a number of NOC/IOC partnerships aimed at exporting expertise to other areas of the globe. Recent examples including Sinopec and Exxon Mobil's joint agreement to study shale gas potential in Southwest China's Sichuan province, and two Ukrainian NOC partnerships targeting shale gas resources in the region: UkrGazVydobuvannya's agreement with Royal Dutch Shell and Naftogaz Ukrain's MoU with Exxon Mobil.

Rosneft and new suitor Exxon Mobil's joint US\$3.2b commitment to Arctic exploration is another example of the potential shared benefits being sought through combinations, as oil and gas exploration progresses into more challenging environments. With NOCs now holding as much as 88% of global resources, the role of IOCs is changing, and such partnerships will remain attractive for both parties while IOCs continue to bring the significant technical expertise and project management skills increasingly required to access new reserves. In the post-Macondo risk environment, partnering also offers advantages in sharing the increasing costs and meeting the environmental challenges.

## **Uncertain 2012 likely to exceed admittedly low expectations**

Today's uncertain economic climate looks unlikely to be resolved soon, and a winter of austerity is likely to carry challenges well into 2012. It is unclear how long the ongoing disruption in the Middle East and North Africa will continue. Europe continues to be impacted by both oil and gas issues from the region, and a cold European winter could see sharp increases in fuel pricing.

From an M&A perspective, corporate transactions remain attractive given depressed market pricing, although volatility remains a challenge for valuations. Improved funding conditions at the start of 2011 were relatively short-lived and, although a window of opportunity is anticipated in mid-2012, it is hard to see everyone being successful in securing the requisite debt or equity funding. Those with cash constraints are likely to trigger a wave of asset and corporate opportunities. Those at the larger end of the scale with stronger balance sheets may benefit from these.

Unconventional reserves will continue to generate interest, and the rising development costs should sustain the level of investment opportunities coming to market. The scalability of many unconventional projects offers balance sheet flexibility, which is likely to be an added benefit in navigating a complex funding landscape. On the conventional side, frontier exploration in the Arctic and East Africa has started in earnest and will be closely monitored, with transaction activity set to follow exploration successes.

# >> Downstream/midstream



## Transaction trends diverge during 2011

The downstream sector, unlike the midstream sector, experienced further decline in transaction volumes during 2011, continuing the trend that started in 2007. This was primarily driven by increasing downside risks for oil demand due to the global economic uncertainty. There were 103 transactions in the sector in 2011, some 16% lower than 2010.

The disclosed value of downstream transactions was also lower in 2011 at US\$38b compared with US\$40b a year earlier. There continued to be a diverse spectrum of buyers involved in

downstream transactions, including IOCs, NOCs, independents, oil traders, PE and infrastructure funds.

Based on disclosed values, the top 10 deals in the sector during 2011 had a combined value of US\$27b, accounting for some 71% of the disclosed value of all transactions in the sector globally.

Two of the largest announced downstream transactions during the year involved petrochemical assets: Berkshire Hathaway Inc.'s acquisition of Lubrizol Corporation for US\$8.9b and Ashland Inc.'s acquisition of International Specialty Products Inc. for US\$3.2b.

Top 10 downstream transactions in 2011 based on disclosed value

Announced date	Buyers	Sellers	Nature of asset	Value US\$m
3/14/2011	Berkshire Hathaway Inc	Lubrizol Corporation	Specialty chemicals	8,941
12/13/2011	China Petroleum & Chemical Corporation; ENN Energy Holdings Ltd	China Gas Holdings Ltd	Natural gas distribution in China	3,203
5/30/2011	Ashland Inc	International Specialty Products Inc	Specialty chemicals	3,200
10/17/2011	AmeriGas Partners LP	Energy Transfer Partners LP	Propane distribution	2,871
2/22/2011	HollyFrontier Corporation	Frontier Oil Corporation	Two refineries in Wyoming and Kansas	2,749
4/14/2011	CDC Infrastructure SA; Caisse Nationale de Prevoyance Assurances SA; Caisse des Depots et Consignations	GRTgaz SA	Natural gas distribution in France	1,589
6/6/2011	AXA Private Equity; Fondi Italiani per le Infrastrutture SGR SpA	GDF Suez SA	Natural gas distribution in Italy	1,129
7/29/2011	ATCO Group	DUET Group; WestNet Infrastructure Group Pty Ltd	Natural gas distribution in Australia	1,102
1/31/2011	PetroChina Company Ltd	Ineos Group Holdings Plc	Grangemouth refinery	1,015
2/21/2011	Helios Investment Partners LLP; Vitol Group	Royal Dutch Shell Plc	Downstream business in Africa	1,000

Source: IHS Herold Inc

Similar to 2010, the volume of asset transactions exceeded those that were corporate in nature. There were 66 announced asset transactions with a disclosed value of US\$13b, compared with 37 corporate transactions with a disclosed value of US\$25b.

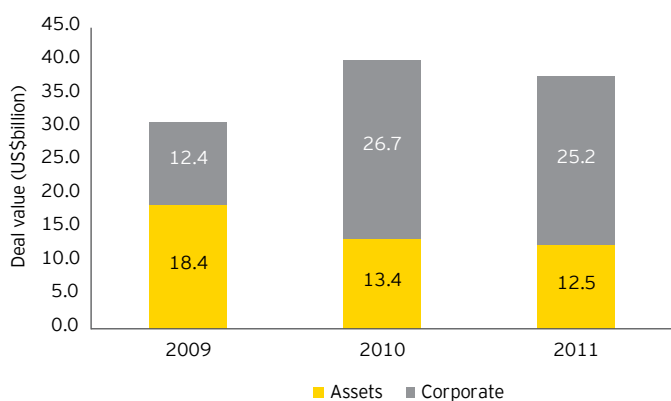
Nearly 48% of downstream transactions volumes were in North America, with Europe and Asia together accounting for a further 24% of volume. This is indicative of the changing ownership landscape, particularly in more mature markets.

Figure 9. Number of downstream deals by type



Source: IHS Herold Inc

Figure 10. Value of downstream deals by type



Source: IHS Herold Inc





## Resurgence in US and European refining transactions

There were 18 transactions involving refineries during 2011, of which 14 involved refineries in North America and Europe.

The largest refining transaction in terms of disclosed deal size is HollyFrontier Corporation's acquisition of Frontier Oil Corporation's refineries in Cheyenne Wyoming and El Dorado Kansas for US\$2.7b. In Europe, assets changing hands include Grangemouth and Lavera (bought by PetroChina), Pembroke (Valero), Stanlow (Essar Oil) and Wilhelmshaven (Hestya Energy).

During 2011, oil demand in North America and Europe is forecast to decline by approximately 190 kbd and 230 kbd, respectively. Thus, refining over-capacity continues to be a significant issue, one which has yet to be properly addressed. However, inland refiners in the US have benefited tremendously from the discounted WTI and hence margins have improved from the previous year. On average, WTI has historically traded at a US\$1-US\$2 premium over the other main light-sweet benchmark crude oil, UK Brent (with that premium roughly representing the transportation differential). Over the last year, the differential has become particularly volatile due to the loss of Libyan production (which is of similar quality to Brent) and as Cushing crude oil stocks have stayed relatively high. However, more recently, as mid-continent domestic crude oil production increased and at the same time Canadian supplies into the region increased, crude oil essentially "backed-up" in the region, dampening prices both for local crudes, such as WTI, and for Canadian imports.

In Europe, refining overcapacity continues to restrict growth in margins and utilization. Furthermore, competition from additional refining capacity (particularly in Asia and the Middle East) and compliance with increasingly stringent environmental and product quality legislations have exacerbated the pressure on margins.

IOCs and independent refiners in North America and Europe are looking to rebalance their refining portfolios through one or a combination of the following:

- ▶ Divestment of non-core refining assets
- ▶ Partial shutdowns of key refineries
- ▶ Full shutdowns of less complex sites and conversion to storage terminals to defer expensive remediation and cleanup cost
- ▶ Postponing new refining capacity and upgrading projects

On the other hand, refiners in emerging markets are benefiting from growing regional product demand and are therefore building new capacity. In Asia-Pacific and the Middle East, additional refining capacity coming online between 2011 and 2015 is forecast to be approximately 5 mbd. Due to their advantaged configuration and scale, low-cost crude and less stringent environmental regulations, there is a possibility that these refiners will be looking to export into North America and Europe.

## Refining divestments set to continue in 2012

In 2012, we expect that the major integrated oil companies as well as independent refiners will continue to divest their non-core North American and European refining assets, as refining margins will remain under pressure.

There is likely to be interest from various groups of buyers, especially those from Asia and the former Soviet Union (FSU) with equity crude, for the relatively complex refining assets. Given the number of refineries that are on the market and the current low-margin environment, buyers currently benefit from negotiation strength and suppressed valuations. On the other hand, interest for relatively simple refineries would depend on whether they could be converted into storage facilities.

## Strong demand for retail marketing assets

There were 22 transactions during 2011 involving retail marketing assets, with North America and Europe accounting for half of these transactions. The largest retail marketing transaction in terms of disclosed deal size is Vitol and Helios Investment Partners' acquisition of Shell's downstream businesses in 14 African countries for US\$1.0b.

Major integrated oil companies continued with their divestment plans to exit from mature retail markets where they do not have the necessary economies of scale to generate the required return on capital and where perhaps they lack an integrated refining position. This is predominantly driven by:

- ▶ Strategic focus on upstream – in part due to the higher level of returns but also because integrated oil companies are judged on their ability to replenish reserves. Hence capital expenditure is weighted toward E&P.
- ▶ Prioritization of limited downstream capital expenditure toward growth regions such as Asia, often in a joint venture with the local oil companies.

However, in mature markets where the major integrated oil companies have the necessary economies of scale, they have shown a willingness to invest. For example, Shell's acquisition of 254 Total retail sites in the UK from Rontec Investments.

### **Majors' exit from mature retail markets set to continue in 2012**

In 2012, we expect that the major integrated oil companies will continue to exit from mature retail markets. As marketing margins are usually more robust than refining margins, we expect to see continuing strong interest from various parties for retail marketing networks, particularly those with decent throughputs, strategically located sites and strong non-fuel offerings (or an ability to develop one), such as:

- ▶ Regional and national oil companies and independent retailers looking to expand within their supply envelope
- ▶ Independent downstream companies looking to expand within the downstream supply chain
- ▶ PE firms looking to build competitive advantage through specialization as opposed to control over the full supply chain

Given the level of competition, retail marketing networks of a decent quality and size would likely command a premium.

### **Storage terminals – jewel in the crown**

There were 42 transactions during 2011 involving storage terminals, with North America and Europe accounting for 72% of these transactions. The largest storage transaction in terms of disclosed deal size is Boardwalk HP Storage Company LLC's acquisition of Enterprise Products Partners LP's natural gas storage facilities in Mississippi for US\$0.6b.

Storage terminals are a crucial part of the downstream supply and trading industry. In recent years, there has been increasing demand for capacity, especially in North America and Europe, due to:

- ▶ Increasing geographical imbalances between refining production and consumption
- ▶ Increasing products with different specifications in order to comply with regulations, leading to a greater need for segregated storage and blending capabilities

- ▶ Increased activities from independent retailers/distributors and supermarkets
- ▶ The impact of oil trading, contango storage and compliance with compulsory stock obligations

Given the strategic nature of storage assets, competition between oil and gas companies, independent storage operators and infrastructure funds is intense. Valuation of 10x EBITDA is common on storage transactions in North America and Europe.

In Asia, storage terminal transactions have been minimal during 2011, as the region is well served by existing storage terminals in the major ports in Singapore, China, Korea and Japan.

### **Strong storage demand set to continue in 2012**

We expect competition for storage terminals in Western Europe to remain intense. Furthermore, the possibility of Asian refiners looking to export into Europe will also add to the competition in the near to medium term.

In Western Europe, opportunities to develop new storage terminals within the key ports are limited due to the lack of land. However, there remains significant storage capacity within Western European refineries, which could be converted to and operated as storage terminals.

### **The midstream segment**

The midstream segment of the sector saw a modest increase in transaction activity in 2011, with the number of deals rising from 81 in 2010 to 85 in 2011 (an increase of 5%).

With several large transactions in 2011, most notably Kinder Morgan's US\$38b acquisition of the US' largest diversified natural gas player, El Paso, reported deal value increased significantly, from US\$27b in 2010 to US\$87b in 2011.

Dominated by tax-advantaged master limited partnerships (MLPs), which grow mainly through acquisitions, North America accounts for the vast majority of midstream transaction activity, accounting for 84% of total midstream deal volume and 85% of reported global midstream transaction value in 2011.

The trend of disaggregating infrastructure ownership is starting to spread internationally.

# >> Oilfield services



## Overview

Despite strong economic headwinds and global market uncertainty, we're seeing a new paradigm, with relatively strong M&A activity and market volatility now able to coexist in the oilfield services sector. Critically, leading companies are shrugging off the continued market upheaval and focusing on growth and M&A. For them, this is not 2008 all over again. They have spent the past three years reducing the financial risk on their balance sheet and taking tough efficiency measures needed to strengthen their positions, which helps them manage in volatile times.

The most recent industry cycle has led to several major consolidation moves as companies try to strengthen their competitive positions. This has been especially true within the North American market and involving the major companies, but we note that Chinese and Korean companies have also been active in some areas of the marketplace. We expect this trend to continue over the coming years as companies seek to further strengthen their competitive positions by: developing and diversifying their product portfolios, to be at the forefront of new technology

developments; better servicing ever-increasing contract sizes; developing economies of scale; and achieving better negotiating positions with their customers. In addition, potential consolidation among the oil majors (driven by increased pressure from NOCs) could accelerate consolidation among oil services companies. Low-cost country competition should also encourage consolidation for those seeing to maintain their leadership positions. Most larger oilfield services companies are strongly cash generative with strong balance sheets and good credit ratings, so financing deals should not be too problematic.

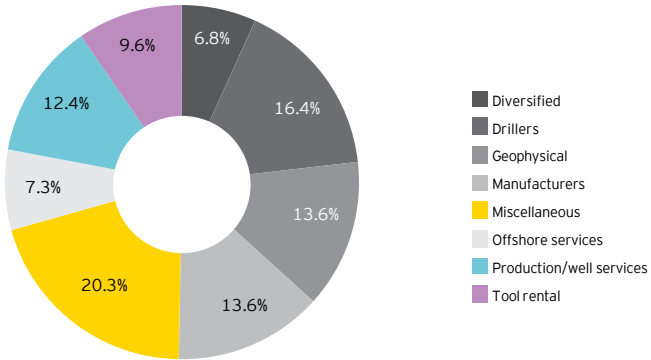
## 2011 Transactions

The value of announced transactions in oilfield services in 2011 was US\$37b, 15% higher than in 2010. However, there was an increase of almost 64% in the number of deals in 2011 (177 announced deals) compared to 2010 (108 announced deals).

The graphs below illustrate the spread of deals by subsector as well as geography, with the majority of large deals in the Drillers/Drilling Rigs and Production Well Services subsectors, dominated by the United States and globally diversified players.

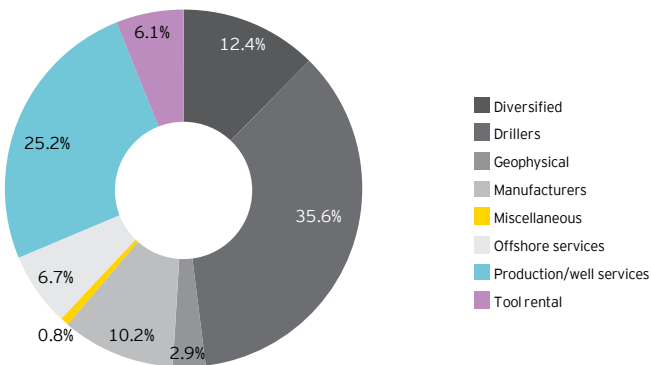


Figure 11. OFS deals by subsector – 2011

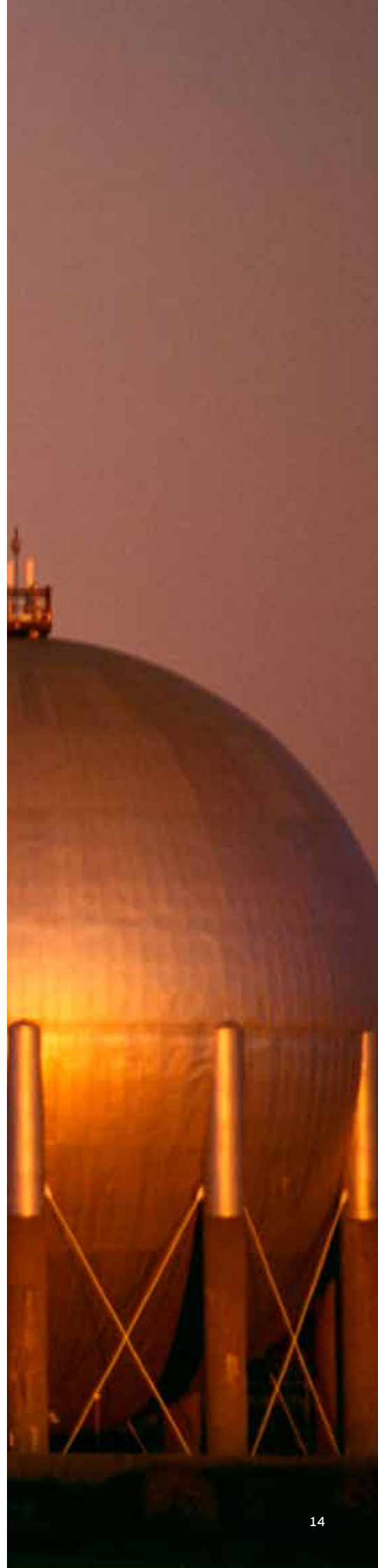


Source: IHS Herold Inc

Figure 12. OFS value by subsector – 2011

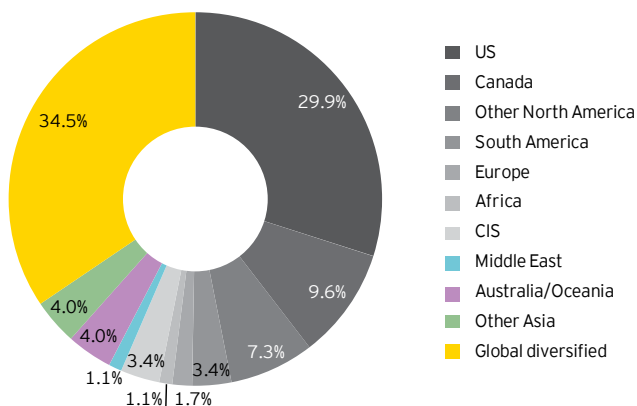


Source: IHS Herold Inc



This shows that internationally diverse companies have been pursuing a wide geographic footprint.

Figure 13. Oilfield services deals by region – 2011



Source: IHS Herold Inc

Top 10 deals announced during 2011, where values were disclosed

Announced date	Target	Buyer	Transaction value US\$m
07/02/2011	Pride International Inc.	Enesco plc	8,704
19/04/2011	Frac Tech Holdings LLC, Frac Tech Services LLC	Consortium led by Temasek Holdings Pte Ltd	3,500
14/02/2011	Wood Group – Well Support Division	General Electric Company	2,800
09/10/2011	Complete Production Services Inc	Superior Energy Services	2,756
15/08/2011	Aker ASA, Aker Drilling ASA	Transocean Ltd	2,286
11/07/2011	SapuraCrest	Kencana Petroleum	1,923
16/05/2011	Rowan Companies Inc	Joy Global Inc	1,100
12/09/2011	Global Industries Inc	Technip	1,039
05/08/2011	Titan Specialities Ltd	Hunting plc	775
28/11/2011	Seaboard Holdings Inc	Weir Group plc	675

Source: IHS Herold

Flagship deals in 2011 included:

- ▶ The merger agreement between Enesco and Pride International announced in February (completed in May), in a cash and share transaction, had an implied offer price representing a premium of 21% to Pride's closing share price on 4 February 2011. The transaction created the world's second-largest offshore driller, and the combined company has more active jackup rigs than any other driller.
- ▶ In April, Frac Tech, a Texas-based provider of oil and natural gas well stimulation services with expertise in high-pressure hydraulic fracturing and operations across the United States, agreed to sell 70% of the company to a consortium led by Temasek Holdings Pte for about US\$3.5b.<sup>1</sup> The remaining 30% is owned by Chesapeake Energy Corporation, which has announced it will be looking to divest its oilfield services assets in 2012. This is further evidence of trade buyers from the East seeking to expand internationally and also acquire new technologies. The enormous opportunities offered by fracturing were again demonstrated by the Weir Group acquisition of Seaboard Holdings for US\$675m in November 2011.
- ▶ In February, GE's Oil & Gas business entered into an agreement to acquire the Well Support division of John Wood Group PLC (Wood Group) for approximately US\$2.8b. The deal was completed in April. The transaction enabled GE to capitalize on the fast-growing demand for enhanced oil recovery from mature oil fields using downhole pump "artificial lift" in brownfield developments. The deal also expands GE's high-technology product and service offering in unconventional oil and gas production, with significant applications for shale gas production. With its considerable financial muscle, GE is becoming a major player in the global oilfield services arena in the medium term.

<sup>1</sup> Source: ft.com/mergermarket  
Source: wsj.com

Deal activity existed throughout 2011, despite market turmoil, thus demonstrating the strong faith which exists within the oilfield services sector. Increased private equity investment going forward is also likely, as demonstrated by Doughty Hanson & Co.'s acquisition of Asco in November. There is continued appetite for those oilfield services companies that have the correct blend of geographical spread, subsector specialization and customer base. A key determinant of private equity success in the sector will be the availability of affordable bank debt.

Transaction multiples have continued to be strong in the sector for strategically important acquisitions, as evidenced by the GE acquisition of Wellstream at an EBITDA multiple of 16.9.

In a departure from the historical norm, the outlook for deal volumes is stable against a backdrop of significant short-term volatility. In fact, recent research in Ernst & Young's *Capital Confidence Barometer* showed that dealmakers' appetite has increased marginally in the last six months, with 48% of the oil and gas respondents expecting to make acquisitions in the next year, compared with 42% in April 2011; and when asked where their excess cash flows would be directed over the next year, 66% of the oil and gas respondents cited growth.

Many companies have learned to adapt and operate in a new and uncertain world. They are well positioned to seize opportunities and plan to do so, as many have reduced their financial risk and have the ability to take on more business risk. However, as might be expected given the broader turmoil, deal pressures generally

increased sharply over the last six months, in particular, the external regulatory pressures along with the internal pressures around board and/or audit committee scrutiny.

While many attractive investment opportunities continue to exist in the UK North Sea, companies on the acquisition trail are casting their nets wider to ensure they share in the future growth of the BRIC countries and West Africa. There are obvious risks to operating in these regions, but there is no doubt that questions involving investing in these territories are questions as to when and how, rather than if. Therefore, we expect to see a continuing trend of expansion in these areas either through acquisition or joint venturing.

As we concluded in our 2010 review of Global oil and gas transactions for the Oilfield Services sector, our view of future transaction trends and valuations are still likely to be influenced by:

- ▶ Geographic footprint and access to growth markets
- ▶ Relationships with NOCs
- ▶ Technologies that reduce cost, improve performance or enhance access to hydrocarbons
- ▶ Health and safety records
- ▶ Increased regulation leading to increased inspection and refurbishment and likely earlier replacement of equipment
- ▶ Timing and certainty of shale and oil sand developments in North America



# >>Regional roundup







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# >>Africa

Africa started 2011 poised to continue as a leading light in global investment for resources. However, this expectation was short-lived; with 2011 barely weeks old came the start of the Arab Spring – throwing long-standing regimes into turmoil and uncertainty. Oil prices rocketed due to the effect on Libyan supply, and the resulting ongoing realignment of corporate and political allies further impacted the region. It would be easy to assume the shock waves of this would have negatively affected transaction levels, however African transaction volumes and values have remained healthy.

A total of 65 African oil and gas transactions were reported in 2011, up from 59 in the previous year. The value of transactions in the year increased to US\$7.4b from US\$7.1b in 2010, possibly as a result of higher oil prices.

Transactions continue to be primarily asset rather than corporate, with only 14 corporate deals occurring in 2011. Upstream investments continued to be the focus, contributing 61 of the 65 deals, with only two deals in each of oilfield services and downstream. Within this minority, there was, however, a significant exit by Shell from the majority of its African downstream businesses in a sale worth approximately US\$1b to Vitol and Helios Investment Partners.

Underlying the macro position of transaction volume and value stability, there has been a strong regional shift. Transactions in

2010 were dominated by high-value West Africa transactions, making up US\$4.3b (about 60%) of the total African transactions. In stark contrast, 2011 has seen the continued emergence of and interest in East Africa, which delivered 19 transactions at a combined value of US\$3.2b. Nearly the entirety of this value is attributable to the farm-out of a 66% interest in three exploration blocks in Uganda by Tullow, this interest being split evenly by CNOOC and Total – a transaction raising US\$2.9b in total. The conclusion of this deal, after lengthy tax disputes, paves the way for the development of the Lake Albert Basin. However, at a country level, the transaction hot spot has been not Uganda but rather Tanzania, delivering seven transactions in 2011. This included the notable acquisition of Dominion Petroleum by Ophir Energy, consolidating Ophir's position in the region, along with renewed interest in exploration licences by various smaller players.

Africa should continue to be a microcosm of global activity in 2012. West Africa can expect continued investment in infrastructure and development, as companies look to maximize reserves from proven basins. North Africa's prosperity will rely on stable regimes being established, which will result in greater upstream deal volumes as the dust settles on strained relationships. We expect acreage acquisitions to predominate in East Africa, with M&A driven by any resulting discoveries from the high levels of exploration in the region. We expect interest to grow in Southern Africa beyond the two transactions in each of 2010 and 2011.



# >>Australia

In 2011, transaction activity in Australia was somewhat subdued. Tough conditions in equity markets meant Australia's deal-hungry junior oil and gas companies were starved of opportunity, and as a result, the number of deals declined substantially from 73 to 58. The value of Australian oil and gas transactions also declined over the period by 37% to US\$7.2b. Consistent with 2010, most of the transactions – 81% – were in the upstream sector.

The major transaction focus of 2011 was the de-risking of upcoming LNG developments. The largest deal announced in 2011 involved China Petroleum & Chemical Corporation (Sinopec) taking a 15% stake in the Conoco Phillips/Origin Energy LNG venture – APLNG – for US\$1.8b. In addition to the 15% equity interest, Sinopec secured off-take rights for 4.3 mtpa of LNG from the proposed CSG-to-LNG project for 20 years. In a similar transaction, Shell sold down a 10% interest in its Prelude LNG project to Korea Gas Corporation (KOGAS). KOGAS acquired a 10% interest, agreed to invest US\$1.5b and secured supply of 3.64 mtpa from the Prelude project for 26 years.

Other CSG-to-LNG proponents in Queensland moved to de-risk projects by acquiring further gas resources to support their proposed developments. Arrow Energy, the Shell/PetroChina LNG venture, increased its coal seam gas position through the

acquisition of Bow Energy for US\$476m, and Santos expanded its coal seam gas resource inventory with the acquisition of Eastern Star Gas for US\$699m.

The emergence of shale gas opportunities also contributed to the Australian transaction landscape in 2011, with Conoco Phillips committing up to US\$109.5m to earn a 75% interest in the Goldwyer project in Western Australia's vast Canning Basin. The potentially large shale gas opportunity in the proven Cooper Basin is also being advanced by proponents such as Beach Energy and Drillsearch Energy. Transaction activity may follow in 2012 as acreage is consolidated and partners are brought in to further develop these assets.

Overall the outlook for 2012 is for an increased level of transaction activity in the upstream sector. With a number of the proposed LNG projects having taken or considering a final investment decision (FID), we expect to see further investment activity for this market in 2012. As these capital intensive projects head towards construction we also expect to see some of the proponents rationalize other parts of their portfolios to release much needed capital. We also expect to see an increase in corporate transactions and consolidation amongst junior oil and gas companies, as a result of equity capital markets remaining relatively tight.

# >>Canada

In 2011, Canada endured a significant decline in both the volume and value of transactions, led by the upstream sector. There was a 56% decrease compared to 2010 in the value of Canadian oil and gas transactions from US\$37.6b to US\$16.4b. The total number of deals decreased by 25% from 202 in 2010 to 151 in 2011. In essence, fewer deals were consummated this year and the ones that did get done were generally smaller in value.

Similar to 2010, in 2011 the major focus centered around Asian investment, although to a significantly lesser degree. The largest deals announced in 2011 involved China's Sinopec International Petroleum Exploration and Production Company's acquisition of Daylight Energy for US\$2.9b in October 2011 and CNOOC's acquisition of OPTI Canada out of bankruptcy protection for US\$2.1b. Malaysia made its first foray into the Canadian oilsands with Petronas' alliance with Progress Energy for US\$1.1b. In all, Asian investment accounted for US\$6.1b, down one-third from US\$9.2b during 2010 (this compares to US\$5.9b in 2009 and virtually nil in 2008).

Beyond the transactions listed above, there was very little activity in the oilsands sector in 2011, as companies focused on developing their existing portfolios. This was also true on the IPO front, where there was virtually no activity, in contrast to 2010 when the oilsands drove the IPO market with the two largest 2010 Canadian IPOs: Athabasca Oil Sands' US\$1.35b offering and MEG Energy's US\$700m offering.

The value of deals between asset packages and corporate acquisitions shifted significantly in 2011. In 2010, 76% of the transactions were asset-based compared to only 47% in 2011.

The asset packages that did change hands were focused on the shale gas plays in British Columbia. The largest transaction was Sasol's purchase of a 50% interest in Talisman Energy's Montney shale play in northeastern British Columbia for US\$1.1b. Shale gas was also the focus of INPEX Corporation's purchase of a 40% interest in Nexen's Horn River, Cordova and Laird basin properties located again in northeast British Columbia.

The largest domestic corporate transaction was Crew Energy's acquisition of Caltex Energy for US\$689m. Caltex's primary assets were heavy oil in the Lloydminster area and liquids-rich natural gas assets in the Greater Wapiti area. Staying with the oil theme was Longview Oil Corporation's acquisition of the producing oil-weighted assets of Advantage Oil & Gas for US\$568m.

On the midstream front there were two significant transactions that occurred in December 2011. Plains All American Pipeline acquired pipelines, frac plants and LNG storage capacity from BP for US\$1.67b and Veresen acquired a 100% interest in the Steeprock plant in northeast British Columbia and the Hythe plant in northwest Alberta from Encana for US\$905m.

The bottom line is that 2011 saw a vastly different growth strategy than had been followed in the past. Many companies are supporting organic growth through robust capital programs related to their existing properties or equipment. The view is that this can be done more economically and without exposing themselves to traditional transaction risks.

Transaction activity in 2012 will be driven by companies managing their capital agenda, and where appropriate, executing on their

aggressive growth strategies as a result of strong balance sheets, a war chest of cash, an opportunistic credit position and a keen desire to transact. We expect oil-based plays to continue to be in great demand as a result of US\$100/barrel oil. This bodes well for oilfield services companies that support this segment, as their services are required three times more to support oil fields than gas fields. We are expecting continued interest in the oilfield services sector from large US companies, which have significant cash resources and, given the property investments they've made over the last few years, view Canada as a growing opportunity. In the case of natural gas based companies, whose market valuations are depressed in comparison to their global peers, there will be a continued focus on managing all facets of their capital agenda. This will take the form of either embarking on an aggressive divestiture program selling the company outright, or for those that have the financial strength, executing on their core business strategy and weathering the commodity price storm.

Canada will also continue to lay the groundwork for the exportation of LNG as the shale gas revolution unfolds. Not surprisingly, there is very strong interest in this initiative from China and Japan, which would be the benefactors of this new supply chain.

With unconventional remaining on the radar of global players looking to replace reserves, we expect the 2011 trend of foreign investment to be prominent again in 2012. This will continue to be driven by higher oil prices – which are set to improve project economics – and the fact that Canada is viewed as an attractive country for foreign investment given its stable financial and regulatory environment. Canada's oil and gas sector will continue to receive high levels of interest particularly from Asian companies, due to the increased demand for commodities in those regions and a need to secure supply of these products.

We continue to see strong interest and desire on the part of domestic companies to entertain strategic alliances and joint ventures with foreign investors, thereby sharing risk and pooling Canadian technology with foreign financial strength and resources. Technology continues to play an important strategic role in transactions, with foreign buyers looking to reap the benefits from these advancements being developed by Canadian oil and gas players. This type of partnering becomes increasingly important as foreign investors move from purely financial to operator roles in the M&A marketplace.

All of the above trends will enable those in the Western Canadian Sedimentary Basin to proactively pursue new areas of sustainability (i.e., the oilsands, shale gas and LNG projects) and continue building and strengthening the strategic relationships and alliances with key global players that were so prevalent in 2010 and 2011.

Notwithstanding the above, and despite an optimistic outlook for 2012, it is paramount that oil and gas companies manage the rising costs and the lack of available appropriate skilled labor, as well as the project delays and budget overruns that plagued the sector leading up to the financial crisis. Although there's significant growth potential ahead, companies need to understand the new economic realities and the fact that they're operating in an increasingly global and competitive marketplace. Companies have become accustomed to uncertainty as an embedded part of their lives.



In 2011, the CIS region saw an increase in activity and some remarkable events. In the beginning of the year, ConocoPhillips finally sold its remaining stake in LUKOIL. Rosneft and ExxonMobil agreed to form a joint operating company, with Rosneft holding a 66.7% stake and ExxonMobil 33.3%, to develop the aforementioned Arctic blocks and one more exploration JV in the Tuapse Trough area (Black Sea). Additional involvement of majors occurred, when Total bought a 12.08% stake in Russian independent gas producer Novatek and a 20% stake in the Yamal LNG project that was on the radar of many international peers. This JV, as mentioned by Novatek, was structured towards further disproportional financing options while keeping the asset price premium closer to the original acquisition price paid by Novatek.

On the conventional side of Russian resources, the prior year's consolidation trend continued. Gazprom Neft was one of the driving forces, finally consolidating the assets of Sibir Energy and purchasing a few licenses in the Orenburg area.

Gazprom acquired an additional 50% of Beltransgaz, that is, together with the North stream project, on-stream and would generally increase the security of its gas export routes and provide some flexibility in negotiations with Ukraine. On the downstream side, there were a few deals with retail networks and one refinery divestiture from Russneft to undisclosed investors.

Another prevalent trend in 2011 was international activity by Russian oil and gas companies. TNK-BP acquired a presence in Brazil and Vietnam, LUKOIL continued to expand operations in West Africa and Rosneft acquired an interest in Venezuela. This trend formed due to several reasons, but one of the main is low upstream profitability due to revenue-based taxation. The first stage of the new tax regime for the Russian oil industry was in effect from 1 October 2011 (the "60-66" regime).

As a result, we can expect some potential interest in mature assets while greenfields/bluefields taxation is still seen as too large a burden for companies to be encouraged to actively invest in them.

The trend of JVs to explore Arctic and offshore plays will continue, as Russian NOCs need technological support as well as financing for this high-risk exploration. In this area, all majors effectively have chances to win, benefitting from the huge territory and ambitious plans of their Russian counterparts.

Consolidation processes have continued in the oilfield services sector. In November, a major business combination was announced between IG Seismic Services, the entity through which Integra Group and Schlumberger conduct their land and transition zone seismic joint venture in Russia and the CIS, and Geotech Holding, one of the leading Russian seismic companies.

# >>Europe

Europe is an active transactions market across every segment of the oil and gas value chain. There were 136 oil and gas transactions in Europe in 2011, compared to 111 transactions in 2010. Announced deal values rose from US\$12.8b in 2010 to US\$20.0b in 2011. The majority of activity was in the upstream focused on the North Sea. However, typically more complex corporate transactions in downstream and oilfield services were also a significant component of the landscape.

In addition to the regional deal activity, Europe is a major capital markets hub for the oil and gas sector, with that capital being deployed on a global basis. The majority of these listed businesses do not have any operations in Europe.

Despite a reasonable level of fund-raising, the stark reality is very challenging for many European small and mid-sized companies. With equity markets tightening in Europe and globally through the second half of 2011 and debt available only on conservative terms, access to capital, especially for development projects, is difficult. A number of companies have needed to explore alternative funding avenues, resulting in corporate takeovers in several instances.

We anticipate funding pressures to continue in 2012, driving further consolidation activity. The European IPO pipeline, particularly targeting the middle of 2012, is building and probably overstretched relative to likely funding availability. Companies need to be well prepared to access this potential market window, but also pragmatic in anticipating that not everyone will secure the requisite funding.

Europe is a mature downstream environment, with overcapacity in many market segments. This situation continues to bring a number of sellers to market, not always matched by the level of buyer

interest. Carrying on last year's theme, we have seen several lengthy on-and-off transaction processes, as well as creative deal structuring to deliver a successful outcome. In 2012, we anticipate continued ownership transition in the retail space and optimization transactions for refining and storage assets.

The North Sea remains an active transaction market, across several European countries. Major discoveries during the year, particularly in Norway, have highlighted the continued prospectivity of the region. Despite this, transaction levels have been lower than anticipated. This is partly due to a global competition for deal opportunities and partly the result of regulatory factors, particularly in the UK. Where large players are seeking to sell to smaller companies, the transition of decommissioning liabilities is an issue. In the UK, buyers are typically required to guarantee gross obligations to the seller, who may otherwise become liable in the future. Ernst & Young is working closely with Oil & Gas UK to identify structural proposals to help create a government-supported remedy in this area which, if implemented, would reduce capital commitments and could unblock a key barrier to deal activity.

European oilfield services companies have continued to develop their global footprint. Transactions in this subsector have targeted strategic positioning relating to the global opportunity, be these deals creating global scale, leveraging technologies and products into new markets or accessing new international customers. Order books have started to grow, and this is underpinning valuation expectations for potential sellers. During the second half of 2011, we have seen private equity returning to a sector that has been dominated by corporate buyers in recent years. This is likely to lead to increased competition and activity levels in 2012.



# >> Far East

The Fukushima nuclear disaster in March 2011 opened up higher gas demand, especially with respect to unconventional gas assets. The higher demand was evidenced in Japan, as well as in China and other Asian economies.

Asia 2011 major transactions were largely weighted toward outbound investments as a means to secure security of energy supplies. These transactions were mainly driven by the Chinese NOCs, with focus on upstream assets in the Americas, especially unconventional Canadian and United States shale gas plays, and South American conventional assets (such as in Brazil). Chinese companies announced bids for overseas oil and gas exploration and production assets in 2011 with a total reported deal value of more than US\$13.4b. A few of such acquisitions by Chinese NOCs in the past year include:

- ▶ November 2011 – Sinopec's acquisition of a 30% stake in Petrogal Brazil for US\$4.8b.
- ▶ December 2011 – Sinopec's acquisition of Daylight Energy (Canada) for US\$2.1b.
- ▶ July 2011 – CNOOC acquired OPTI Canada with implied equity of US\$34m and taking over OPTI's debt of US\$2b.

One of the drivers of the Asian NOCs' pursuit of unconventional assets in the Americas through acquisitions and partnerships is to gain knowledge of the underlying technology in order to develop shale gas reserves in the contiguous regional and domestic markets. Analysts estimate regional (Asia) shale gas reserves to be larger than those in the Americas.

Another trend evidenced among Chinese and other Asian NOCs has been beginning to balance and optimize their portfolios based on resources, expected economic returns and associated risks. In December 2011, CNOOC disposed its stake in Offshore Northwest Java PSC in Indonesia to a junior oil and gas company for a consideration of US\$212m.

Other Asian countries have also shown that they are determined to maintain momentum for outbound investments in their attempt to provide security of energy supplies in lieu of increasing domestic energy demand. Such examples include:

- ▶ March 2011 – KNOC acquired a 23.67% stake in the Maverick Basin assets (US assets) from Anadarko Petroleum Corporation, the listed US-based oil and gas producer, for a consideration of US\$1.55b.

- ▶ June 2011 – Petroliam Nasional Berhad acquired a 50% stake in North Montney Shale Assets, a Canadian potential LNG asset, for US\$1.1b.
- ▶ November 2011 – Inpex Corporation (Japan) acquired a 40% interest in shale gas assets in Canada for a consideration of US\$700m.

Oilfield services sector transactions continued their momentum in this highly fragmented subsector, although the magnitude of deals was relatively smaller.

Selective sovereign wealth funds and private equity remained focused on further building up their service portfolios. In April 2011, a consortium led by Temasek Holdings, together with RRJ Capital, Korea Investment Corp. and the Public Sector Pension Investment Board of Canada, acquired a 70% stake of Frac Tech Services, LLC, the US-based company providing oil and natural gas well stimulation services (transaction valued at US\$3.5b).<sup>2</sup>

In the downstream sector, besides securing energy resources, Chinese NOCs were seen strategically looking at building a broader business platform in developed countries in their pursuit of becoming leading integrated international energy companies. In July 2011, PetroChina acquired European Refining Business, which comprises a 50.1% stake in INEOS Refining Limited and a 49.9% stake in INEOS Refining II Limited, from INEOS Group Limited for US\$1b.

Despite substantial economic worries in the US and Europe, we expect to see more outbound acquisitions – especially for upstream assets – by the Asian players, notably Chinese and other broader Asian NOCs, and for unconventional gas assets. We also expect to see increasing supplies from Iraq and Libya in 2012 to meet the increasing energy demand from Asia-Pacific.

We expect continuing portfolio rationalizing and optimization across subsectors, i.e., upstream, downstream and oilfield services, and among a mixed set of players (NOCs, oil majors, independents, private equity and service companies).

We also expect to see declining focus towards the renewable sector, as the industry will continue to see a rise in shale gas and oil sands production.

<sup>2</sup> Source: [ft.com/mergermarket](http://ft.com/mergermarket)  
Source: [wsj.com](http://wsj.com)

# >>India

In 2011, Indian oil and gas M&A was active in major outbound deals as well as inbound transactions. Marquee transactions included BP's US\$7.2b acquisition of a 30% stake in Reliance Industries' upstream assets and completion of the US\$8.67b Cairn Vedanta transaction. Transaction themes for inbound deals were acquisition of technical expertise and monetization of investments. The theme for inbound acquirers revolves around getting access to high-growth energy markets. Access to technology was the key driver in the small to mid-size transaction space, where Heramec sold a 15% stake in its six onshore hydrocarbon-producing blocks located in Cambay Basin to Stealth Ventures, a Canadian oil and gas production company.

Energy security continued to be high on the agenda of Indian oil and gas NOCs. GAIL (India) acquired a 20% stake in US-based Carrizo's Eagle Ford shale assets. Indian state-owned companies struck cross-border deals ranging from Kazakhstan and Vietnam to the US. More encouraging to see was the success met by BPRL and Videocon in their overseas assets acquired in the past 2-3 years. BPRL and Videocon in partnership with Anadarko had major discoveries in offshore Brazil assets and Mozambique.

The natural gas sector continued to be the focal point of M&A activity, which was fuelled by concerns over India's energy security. The country's stagnating oil and gas production levels, coupled with ever-increasing demand (primarily for gas) led the Indian oil and gas companies to pursue overseas acquisitions. GAIL (India), India's prominent state-owned midstream player, recently signed an agreement with Cheniere Energy in the US for securing long-term LNG supplies and is understood to be in discussions with other LNG sellers around the world. In addition, GAIL plans to establish its presence in the international gas trading and marketing sphere. The company has already taken a step in this direction by setting up an LNG trading desk in Singapore. Petronet LNG also secured supplies of 1.48 mtpa from the Gorgon LNG project in Australia for its upcoming Kochi LNG terminal.

There were other significant developments in the gas midstream and downstream segment, owing to the increasing attractiveness of

India as a gas market. During the year, Indian players unveiled significant gas infrastructure plans to monetize gas and formed partnerships in the gas trading and marketing segment and on the LNG sourcing front. RIL and BP formed a 50:50 joint venture for sourcing, marketing and transporting gas in India as part of their wider upstream transaction. The JV is currently understood to be evaluating construction of RLNG terminals in India. Significant developments in the LNG space include Gujarat State Petroleum Corporation's long-term LNG supply deal with BG India and commencement of work on Indian Oil Corporation's LNG terminal on India's east coast. India plans to augment its LNG re-gasification significantly over the next few years to support burgeoning demand for gas. To support these expansions, many state-owned oil and gas companies are scouting for long-term sourcing of LNG and are actively seeking stakes in upcoming foreign LNG gasification terminals. The city gas distribution space in India also witnessed M&A activity – BG Group announced its plans to divest its stake in Gujarat Gas Company.

In the refining segment, India's private refiner – Essar Oil – acquired Stanlow oil refinery and other associated assets from Shell UK, the second-largest refinery in the UK. Through the US\$350m purchase, Essar will gain direct access to the UK market and open opportunities to export its products from its Vadinar refinery in India.

The oilfield services segment also saw a couple of deals in 2011. The Australian arm of US-based Newpark Resources acquired a 70% stake in Rheochem India, which is a drilling fluids and services company. In addition, Sara Sae, an India-based manufacturer of oilfield equipment, raised funds to venture into oilfield services by selling its undisclosed minority stake to an Indian private equity firm.

The Indian oil and gas M&A market is expected to remain active in 2012, with major focus on outbound activity in E&P as well as natural gas sourcing.

# >>United States

The dynamic US oil and gas transaction market experienced a continued resurgence for the second straight year from the most recent oil and gas transaction cycle lows experienced in late 2008 and 2009. Overall oil and gas transaction values increased over 30% in 2011 versus 2010, while deal volume increased almost 14% over the same period. US transactions accounted for over 50% of total global oil and gas transaction values during 2011 and approximately 45% of total global oil and gas deal volumes for the same period. The year was characterized by a return to a more robust and steady oil and gas M&A market in comparison to recent years, as evidenced by the realization of deal values of over 57%, and deal volumes of over 7%, from the last five-year average, respectively.

The main theme for US transaction activity in 2011 was continued investment in the US shale plays and related infrastructure and/or service opportunities, regardless of the relevant oil and gas sub-sector, including a shift toward plays with more oil and liquids exposure because of the continuing disparate commodity price environment between oil and natural gas. Another trend in 2011 was a shift toward more corporate deals rather than the asset only or joint venture carry deals that were favored in 2009 and 2010. This environment resulted in an increased level of multibillion-dollar deals, including announced transactions involving the consolidation of renowned energy industry names such as El Paso Corporation, Petrohawk, Southern Union, Pride International, Brigham Exploration, Samson, Hilcorp Energy, Holly Energy, Frac Tech and Complete Production Services, among others. These major consolidation transactions were driven by a mix of US company combinations as well as international buyers that continue their robust investment in the US shale plays, in an apparent attempt to gain access to the most recent advanced shale development technologies and/or for a general exposure to the sector as an investment strategy.

Although it was clear the upstream sector, and to a lesser extent the midstream sector, led the oil and gas transaction cycle recovery from the bottom of the most recent oil and gas transaction cycle, the oilfield services and midstream sectors seized some major headlines on the oil and gas transaction landscape in 2011. US oilfield services transaction values increased more than 173% in

2011 versus 2010, while transaction volumes increased over 103%. Similarly, midstream transaction values increased over 187%, while transaction volumes increased over 14%. On the midstream front, US MLPs continued to dominate the transaction scene, given the tax and capital markets advantages of these structures.

With that said, US upstream transactions accounted for over 46% of all US oil and gas transactions values in 2011, and over 72% of all US oil and gas transaction volumes, while simultaneously resulting in an almost 2% decline in transaction values and only an 11% increase in transaction volumes in 2011 versus 2010. Despite these seemingly modest results, the steady and robust upstream deal activity in the most prolific oil and gas subsector was an important element of the overall strong US oil and gas transaction activity in 2011.

The US downstream sector continued to experience a difficult buyer's market, with more assets on the market in comparison to a smaller number of willing buyers with lower pricing expectations, particularly with a bias to geographic locations that were more favorable given their geographic location and current market dislocation dynamics. The increasing environmental requirements, shifting supply trends from the US shale plays as well as Canadian oil sands, and impact of shuttered capacity in certain geographies continue to provide an interesting influence on downstream oil and gas investment trends in North America.

For 2012, uncertainty about the global economy as well as additional potential regulation from the environmental, taxation and various financial sector developments remain wildcards for the US oil and gas industry. We believe this will continue to temper the pace of the US oil and gas transaction recovery/expansion for 2012. However, improved corporate balance sheets and the stockpile of corporate and energy private equity funds targeted toward oil and gas investment potentially provides a fuel for a continually increasing oil and gas deal flow. Likewise, the continued interest from foreign investors in Asia and Europe remains strong. Overall, we see a continued robust and steady investment and transaction environment for the oil and gas industry in the US, but at levels not approaching the heights of the last oil and gas transaction cycle peaks.

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A quarterly update of our O&G Eye Index and analysis of the performance of the AIM listed O&G companies.

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