

Industries
Energy, Utilities & Mining

O&G Deals*

2008 Annual Review

Mergers and acquisitions activity within
the global oil and gas market



*connectedthinking

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Methodology

O&G Deals includes analysis of all global cross-border and domestic oil and gas deal activity. It is based on published transactions from John S. Herold, Inc. 'M&A database', December 2008. Analysis encompasses announced deals, including those pending financial and legal closure and those which are completed. Deal values are the consideration value announced or reported including any assumption of debt and liabilities. Figures relate to actual stake purchased and are not multiplied up to 100%. The geographical split of the deals refers to the location of the asset. The sector and subsectors analysed include: Downstream: gasoline service stations, petrochemical, propane distribution, refining, retailing/marketing - misc., terminals/storages; Midstream: gas gathering/processing, pipelines - gas, pipeline - liquids, tankers/other transportation; Oilfield Equipment Services: diversified, drillers/drilling rigs, geophysical/reservoir services, manufacturers, miscellaneous, offshore services/vessels, production/well services, tool rental/drilling services; Upstream: acreage, reserves. A full list of transactions throughout 2008 is available by visiting the *O&G Deals* website at www.pwc.com/ogdeals.



O&G Deals 2008 reviews deal activity in the oil and gas industry. We examine both the rationale behind the overall trends and look at the key individual deals. We look

both at the year under review and ahead to the future direction of deal-making in the sector.

Like commodity prices, deal activity was characterised by a record rise and a record fall. Deal numbers climbed to new highs but value was down throughout the year. Deal value fell precipitously in the final months of the year as the credit crisis intensified and the industry watched the oil price fall faster in the space of five months than it had done in five years during the last great oil price decline in the early 1980s.

O&G Deals is a companion publication to PricewaterhouseCoopers' *Power Deals* and *Renewables Deals* series which review deal activity in the power utilities and renewable energy sectors. Together, the three publications provide a comprehensive analysis of M&A moves in the energy sector as a whole.

We also highlight, in a series of deal dialogues throughout the report, some of the critical issues for companies engaging in deal activity within the sector. Drawing on our global experience as an adviser to oil and gas M&A players, our commentary addresses all key markets in the sector.

Looking ahead, we examine the prospects for 2009. We see the immediate outlook as subdued but would expect any easing of the debt and equity markets, combined with any positive movement in the oil price, to herald a reawakening of deal activity. The long-term energy supply and demand fundamentals are still compelling. When the market returns, and the financial crisis has passed, the potential for a fast revival in commodity prices and deal-making is there.

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02 Report highlights

Deals follow the oil price over a cliff

A slowing in O&G deal momentum, as measured by deal value, was evident from the start of 2008 compared with 2007. Deal value reduced progressively throughout 2008 before following the oil price over a cliff in the final quarter as the financial crisis intensified and economic conditions deteriorated. Companies slammed on the brakes in the final quarter with total O&G deal value down 59% on 2007 levels and 72% compared with the final quarter high of 2006.

Big deals in retreat

Even before the worsening of the economic climate and the oil price plunge, big deals were in retreat. There were only two deals that topped the US\$5bn mark in 2008 compared with ten such deals in 2007. The hiatus in big deals was especially evident in the oilfield services sector. The sector had been particularly dynamic in 2007 with three US\$5bn plus deals worth a total of US\$31.4bn. In 2008, the number of deals remained high but the complete disappearance of US\$5bn plus deals meant total deal value in the sector nearly halved.

Natural gas grabs top spot

Six of the top ten 2008 O&G deals were purchases of natural gas assets. Five of the six were for 'unconventional' resources that require considerable technological investment. All of them were in Australia and North America reflecting the attraction of targets in stable locations close to end markets as companies responded to security of supply constraints. Indeed, the rush to develop Australian coal bed methane gas assets for LNG export helped catapult Australia's share of worldwide O&G deal value up tenfold. Upstream deal value in Australia multiplied, from US\$1.7bn in 2007 to US\$16.6bn in 2008.

Deal target pencils sharpen

The immediate outlook for O&G deal-making in the early part of 2009 is bleak. However, while deal activity in the first half of the year looks set to remain subdued, it is difficult to see stronger players remaining on the sidelines for the whole of 2009 given the opportunities for acquisitions at low valuations. Many of the majors and national oil companies are in a strong position following a period of high oil prices. For companies from countries such as China, the current market offers unrivalled opportunities to gain access which, in other circumstances, may be denied to them. Similarly, sovereign wealth funds and many private equity investors will be watching the sector closely.

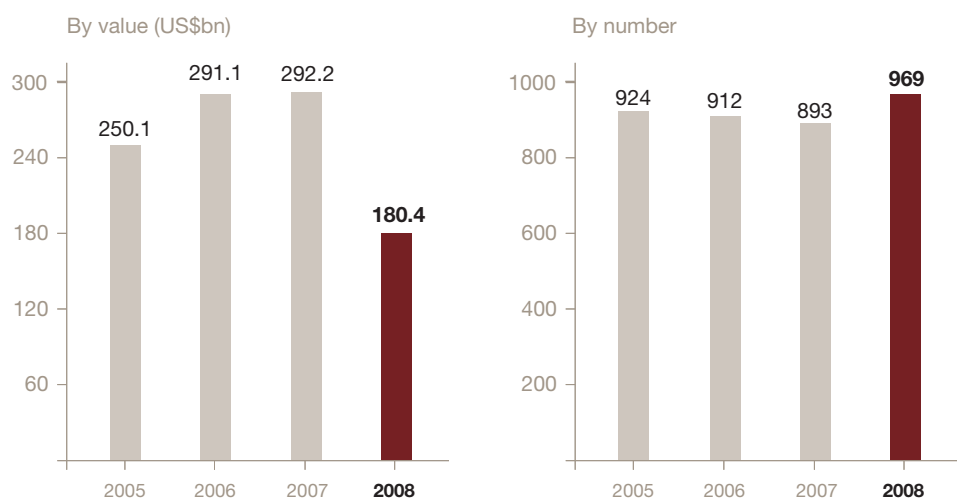


04 Deal totals

2008 was a year of two halves for deal-making. Activity was robust in the first half. During the second half, commodity prices began a steep decline and deal activity slid alongside them. Overall deal numbers contrasted with a slump in values as companies faced new market realities following boom M&A years in 2007 and 2006. The number of deals in 2008 actually topped the levels reached in the preceding years but the impact of the credit crunch, the wider economic downturn, and a plummeting oil price hit values hard. Total deal value fell 38% to US\$180.4bn from the 2007 high of US\$292.2bn (see Figure 1).

Despite the changing financial and market background, the number of oil and gas deals soared to a record 969 in 2008, up 8.5% from 893 in 2007. The increase in deal numbers was wholly attributable to upstream activity and smaller deals below US\$0.5bn which rose by 15% (see Figure 2). In contrast, there were significant falls in the number of larger value deals and a big falling-off of very large deals. There were only two deals that topped the US\$5bn mark in 2008 compared with ten such deals in 2007. The hiatus in big deals was especially evident in the oilfield services sector. The sector had been particularly dynamic in 2007 with three US\$5bn plus deals worth a total of US\$31.4bn. In 2008, the number of deals remained high but the complete disappearance of US\$5bn plus deals meant total deal value in the sector nearly halved.

Figure 1: Total oil and gas deals by value and number of deals – 2005-2008



Source: PricewaterhouseCoopers, *O&G Deals 2008 Annual Review*; John S. Herold

Figure 2: Size of deals, 2008 (year on year % change in parenthesis)

By value	Number	Total value (US\$bn)	Average value (US\$bn)
Less than US\$250m	815 (+15%)	29.6 (-12%)	0.06 (-8%)
US\$250m – US\$1bn	113 (-12%)	58.9 (-12%)	0.52 (+1%)
More than US\$1bn	41 (-28%)	91.9 (-52%)	2.24 (-8%)

Source: PricewaterhouseCoopers, *O&G Deals 2008 Annual Review*; John S. Herold

A 20% rise in upstream activity offset the stalling of service sector deal growth and a reversal of midstream and downstream deal numbers (see Figure 3). The latter fell 31% and 17% respectively. US\$13.7bn of the US\$17bn fall in midstream deal activity was attributable to a huge 71% drop in North American midstream activity. The master limited partnerships (MLPs) that dominate the US midstream found themselves heavily constrained by the credit crisis.

Reserves acquisition, rather than acreage, accounted for 94% of total US\$114.2bn 2008 upstream deal value. Companies continued to seek growth primarily through acquisition as opposed to exploration as the oil price soared in the first half of the year. Purchases in relatively stable locations such as Australia and Canada featured strongly as companies looked to safe havens to secure large unconventional reserves to meet future energy demand.

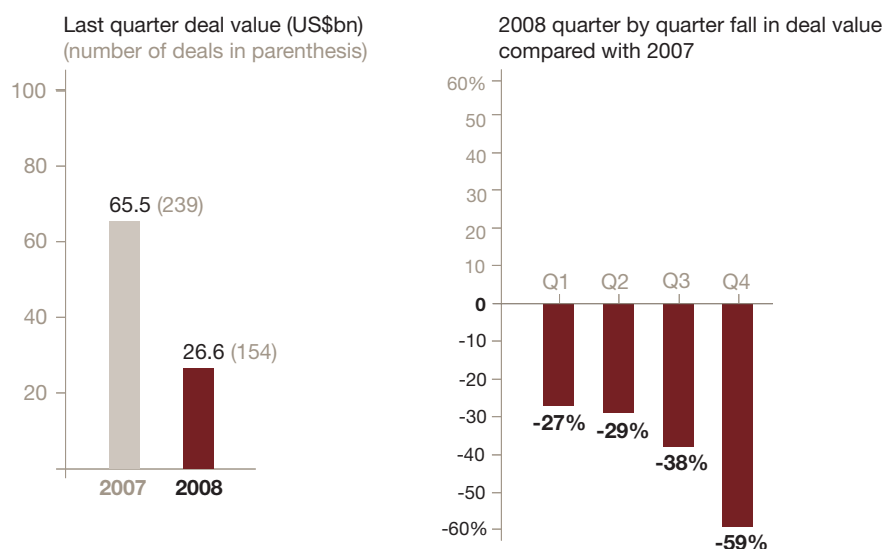
Deal-making slowed progressively through the year and then dropped precipitously in the final quarter of 2008 with the autumn intensification of the financial crisis and the accelerating oil price fall. Deal value was down throughout the year but companies slammed the brakes on in the last quarter (see Figure 4). Deal value fell 59% in the last three months of 2008 compared to the same period in 2007 and was 72% down on the final quarter high of US\$95.5bn reached in 2006. Oil prices charted a series of ever more precipitous falls from mid-July onwards and, indeed, fell further in the space of just five months than it did in five years during the other major recent historic price fall in the early 1980s. Faced with unprecedented oil price deflation and uncertainty, even those companies who wanted to make deals struggled and, in many cases, failed to come to a common view on valuations.

Figure 3: Analysis of O&G deals by sector (year on year % change in parenthesis)

	Number	Total deal value (US\$bn)	Average deal value (US\$bn)
Upstream	690 (+20%)	114.2 (-14%)	0.166 (-28%)
Midstream	51 (-31%)	12.9 (-57%)	0.252 (-38%)
Downstream	78 (-17%)	17.1 (-72%)	0.220 (-67%)
Services	150 (+1%)	36.2 (-46%)	0.231 (-47%)

Source: PricewaterhouseCoopers, O&G Deals 2008 Annual Review ; John S. Herold

Figure 4: Slamming on the deal brakes – 2007-2008



Source: PricewaterhouseCoopers, O&G Deals 2008 Annual Review; John S. Herold

06 Deal makers

The price range of the 2008 top ten O&G deals looks very different compared with the US\$5bn – US\$20bn range of 2007. Certainly, deals of the size of 2006's US\$32bn Kinder Morgan buy-out and Statoil's similarly sized merger with Norsk Hydro seem very distant. Instead, the biggest deals were two table-topping US\$5.8bn gas deals – ConocoPhillips' investment in Origin Energy's coal seam methane gas assets and Royal Dutch Shell's agreed offer for Canadian company Duvernay.

Both deals were for 'unconventional' resources that require considerable technological investment to access. They were among five such deals in the 2008 top ten. Shell's purchase of Duvernay extends its interests in Canadian tight gas assets. Duvernay has large holdings in western Canada including a portion near Montney, British Columbia. The Montney deposit, divided between a number of companies, is estimated to contain 1.4 trillion cubic metres of gas, more than all the proven reserves in Alberta, the province with the largest natural gas production in Canada. The Duvernay purchase is potentially complementary to Shell's oil sands operational requirements in Canada as oil sands production requires considerable amounts of natural gas.

Figure 5: **Top Ten – oil and gas deals 2008**

No.	Value of transaction (US\$m)	Date announced	Buyers	Sellers	Sector	Primary Continent
1	5,848	08 Sep 08	ConocoPhillips	Origin Energy Ltd	Upstream: <i>reserves</i>	Australia
2	5,838	14 Jul 08	Royal Dutch Shell plc	Duvernay Oil Corp	Upstream: <i>reserves</i>	North America
3	4,732	15 Sep 08	BASF AG	Ciba Holding AG	Downstream: <i>petrochemicals</i>	International
4	4,191	10 Jun 08	XTO Energy Incorporated	Hassie Hunt Exploration Co; Hunt Petroleum Corporation	Upstream: <i>reserves</i>	North America
5	3,791	07 Jul 08	China Oilfield Services Limited	Awilco Offshore ASA	Services: <i>drilling rigs</i>	International
6	3,698	13 Jun 08	AlpInvest Partners; JC Flowers & Co LLC; Goldman Sachs Group Inc; Candover Investments Plc	Expro International Group	Services: <i>well services</i>	International
7	3,375	11 Nov 08	StatoilHydro ASA	Chesapeake Energy Corporation	Upstream: <i>reserves</i>	North America
8	3,300	01 Jul 08	Plains Exploration & Production Co	Chesapeake Energy Corporation	Upstream: <i>acreage</i>	North America
9	2,920	28 Oct 08	BG Group plc	Queensland Gas Company Ltd	Upstream: <i>reserves</i>	Australia
10	2,808	03 Jun 08	Smith International Incorporated	W-H Energy Services Inc	Services: <i>well services</i>	International

Source: PricewaterhouseCoopers, *O&G Deals 2008 Annual Review*; based on published transactions from John S. Herold, Inc. *M&A database*, December 2008

Origin Energy has retail power and generation operations across Australia and New Zealand but it was the company's coal seam gas (CSG) assets that were at the centre of the ConocoPhillips deal. ConocoPhillips becomes a 50% shareholder in the company that holds all of Origin's CSG assets. The deal allows Origin to focus on being an upstream gas provider with ConocoPhillips developing the downstream LNG operation needed to monetise the assets. The purchase came after a six-month-long pursuit of Origin by British oil and gas company, BG Group. Origin had held out for a higher valuation in negotiations with BG that went hostile after talks on an agreed deal failed to reach agreement. The pursuit ended when ConocoPhillips' move placed a higher valuation on the CSG assets than was reflected in BG's offer.

Australian gas assets are particularly attractive as they are convenient for growing Asian markets as well as being in a congenial and stable business location. BG's disappointment at missing out on the Origin deal would have been offset somewhat by their successful US\$2.9bn purchase of Queensland Gas Company, again with the conversion of CSG for LNG export at its heart.

While the Australian and Canadian gas deals in the top ten table were very much about development, other deals reflected a note of distress as market and financial conditions deteriorated during the year. These included the two other top ten deals for 'unconventional gas assets'. They both featured sales by Chesapeake Energy of tight gas in the US in separate deals with Norway's StatoilHydro and Plains Exploration. Elsewhere, Swiss specialty chemical company Ciba had announced second quarter losses and a significant impairment charge ahead of its US\$4.7bn purchase by Germany's BASF. The deal with BASF, which produces oil and gas, brings a degree of vertical integration to protect against fluctuating oil prices as well as the potential of considerable synergies across the two companies' chemicals operations.

Private equity and sovereign funds had played a significant role in the boom M&A years of 2006 and 2007 but this was reined back in 2008. An analysis of deals over US\$500 million (see Figure 6) shows a 69% fall in the total value of larger size purchases by such entities and an absence of sovereign fund activity. This is in contrast to 2007 when four deals by Abu Dhabi's TAQA accounted for US\$8.2bn of deal value.

Figure 6: Private equity and sovereign fund purchases over US\$0.5bn – 2008 vs 2007

2007			2008		
Entity	Number of deals	Total value (US\$bn)	Entity	Number of deals	Total value (US\$bn)
Apollo Management LP	1	9.6	AlpInvest Partners; JC Flowers & Co LLC; Goldman Sachs Group Inc; Candover Investments Plc	1	3.7
TAQA*	4	8.2	First Reserve Corp	1	2.2
Institutional Investors; Babcock & Brown Infrastructure; Babcock & Brown Energy Inc	1	5.3	Deutsche Bank AG; AMP Capital Investors	1	1.6
General Electric	2	4.0	Quicksilver Resources Incorporated	1	1.3
First Reserve Corp	1	2.9	Fortune Super Equity Management LLC	1	1.2
OSS Capital Management LP; Vestar Capital Partners; Kelso & Company; Goldman Sachs Group Inc; CAI Capital Management Co	1	2.6	Riverstone Holdings LLC	1	1.0
GP Investments Ltd	1	1.0			
Mittal Group; Mittal Investment Sarl	1	0.7			
Industry Funds Management	1	0.6			
Blackstone Group	1	0.6			
Total	14	35.5	Total	6	11.0

Source: PricewaterhouseCoopers, *O&G Deals 2008 Annual Review*; John S. Herold

*Sovereign fund

08 Deal places

Like the oil price, 2008 was a tale of ups and downs in deal numbers across different parts of the world. Year-on-year deal numbers were up in all territories with the exception of the dominant North American market and the Russian Federation. The pace of deal-making everywhere, though, slowed during the year as financial and market conditions deteriorated.

The moves for Australian gas assets helped catapult Australia's share of worldwide O&G deal value up tenfold. Along with Africa, Australia was the only territory where total deal value increased from 2007 to 2008. African deal totals were boosted by the US\$2.2bn sale by Devon Energy of its oil and gas business in Equatorial Guinea to the country's national oil company GEPetrol. The sale was part of a US\$3 billion African divestiture programme by the company.

The share of deals in the Russia Federation fell sharply. This was partly because of the completion of much of the Russian energy industry restructuring which had featured strongly in 2007 and also because of the difficult financial and regulatory context of Russian deal-making. Deals for Middle Eastern assets held up compared to most other territories although they represent a small share of worldwide value given the largely sovereign or state ownership structures in the region.

Figure 7 : All O&G deals by continent

North America	2007	2008	% change
Value of deals (US\$bn)	129.7	73.6	-43%
Number of deals	563	518	-8%

Europe	2007	2008	% change
Value of deals (US\$bn)	18.2	15.3	-15%
Number of deals	78	126	+64%

Russian Federation	2007	2008	% change
Value of deals (US\$bn)	35.7	12.3	-66%
Number of deals	41	33	-20%

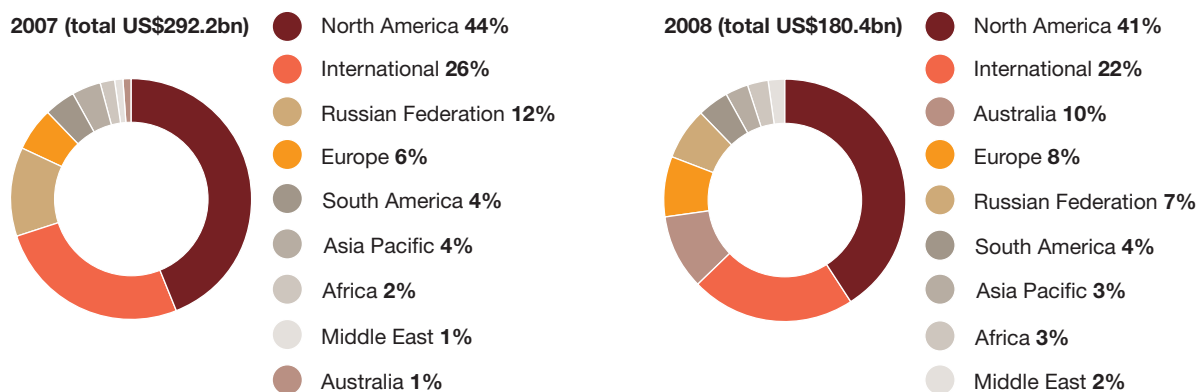
International	2007	2008	% change
Value of deals (US\$bn)	75.8	39.1	-48%
Number of deals	71	79	+13%

South America	2007	2008	% change
Value of deals (US\$bn)	11.4	8.1	-29%
Number of deals	39	48	+23%

Source: PricewaterhouseCoopers, O&G Deals 2008 Annual Review



Figure 8: All transactions by continent by value of transactions – 2006-2007



Source: PricewaterhouseCoopers, O&G Deals 2008 Annual Review



Africa	2007	2008	% change
Value of deals (US\$bn)	5.2	6.2	+20%
Number of deals	25	52	+108%

Asia Pacific	2007	2008	% change
Value of deals (US\$bn)	10.6	5.6	-47%
Number of deals	46	52	+13%

Australia	2007	2008	% change
Value of deals (US\$bn)	2.6	17.2	+560%
Number of deals	23	50	+117%

Middle East	2007	2008	% change
Value of deals (US\$bn)	3.2	3.1	-4%
Number of deals	9	11	+22%

10 Deal places: The Americas

The fall in North America O&G deal volume from its 2006 US\$164.7bn high accelerated sharply in 2008. Total deal value fell 43%, from US\$129.7bn in 2007 to US\$73.6bn in 2008. Deal numbers were down by 8% but it was a halving of the number of big transactions that really hit total value. There were just 15 deals in 2008 worth US\$1bn or above, for example, compared to 31 in 2007. This alone accounted for US\$49.4bn of the total US\$56bn year-on-year fall in total deal value.

Upstream activity experienced the smallest fall of all the sectors but still saw total value down by 27% (see Figure 9). Between them, two companies – Chesapeake and XTO – accounted for US\$22.4bn of the total US\$59.6bn upstream deal value. The difference was that, while XTO was on the acquisition trail with nine purchases in 2008 totalling US\$10.6bn, Chesapeake was a seller as it responded to a closing of the debt markets. A series of eight cash-raising deals yielded a total of US\$11.8bn. As well as the sales to StatoilHydro and Plains Exploration (see page 7), two further ‘US\$1bn plus’ deals saw BP acquire tight gas assets from Chesapeake totalling US\$3.65bn. The contrasting deal context was matched by their timing. Six of the nine XTO purchases were made in the first half of the year as the oil price remained buoyant while all but two of Chesapeake’s sales came in the second half of the year as the financial market deterioration intensified and commodity prices collapsed.

Figure 9: North America oil and gas deals by sector – 2007-2008

	2008 Value	% share	2008 Number	2007 Value	2008 Year on year % change
Upstream	59.6	81%	404	81.2	-27%
Midstream	5.7	8%	28	19.4	-71%
Downstream	2.7	4%	21	6.2	-56%
Services	5.6	8%	65	22.9	-75%
Total	US\$73.6bn			US\$129.7bn	-43%

Source: PricewaterhouseCoopers, *O&G Deals 2008 Annual Review*; John S. Herold

Figure 10: South America oil and gas deals by sector – 2007-2008

	2008 Value	% share	2008 Number	2007 Value	2008 Year on year % change
Upstream	4.3	53%	36	5.6	-23%
Midstream	0.2	3%	1	0.7	-66%
Downstream	2.6	32%	8	3.1	-15%
Services	1.0	12%	3	2.0	-53%
Total	US\$8.1bn			US\$11.4bn	-29%

Source: PricewaterhouseCoopers, *O&G Deals 2008 Annual Review*; John S. Herold

One of the most striking contrasts with the preceding years was the relative absence of service sector deals.

The largest XTO transaction was the US\$4.2bn acquisition of Hunt Petroleum and associated entities. The deal gives XTO an estimated 1.05 trillion cubic feet of gas equivalent in East Texas, Louisiana, the Gulf Coast and non-operating assets in the North Sea. Hunt is an 80-year private company founded by legendary wildcatter, the late Haroldson Lafayette Hunt. The Hunt sale was the second largest North American deal after the Royal Dutch Shell's US\$5.8bn Duvernay purchase (see page 6). It was a sign of straitened debt market conditions that these were the only two corporate deals among the five largest North American O&G deals. The remaining three transactions were the Chesapeake asset sales and, indeed, 2008 was a year in which asset deals were much more common. Moves by foreign buyers for North American assets continued to catch the eye in 2008 with the Shell, BP and StatoilHydro purchases accounting for three of the five biggest North American deals.

Deals outside of the upstream sector were down very sharply with total value shrinking by more than a half of its 2007 level in the case of the downstream sector. The fall was even greater in the midstream and service sectors – total deal value in both sectors plummeted to around a quarter of 2007 totals. One of the most striking contrasts with the preceding years was the relative absence of service sector plays. The services sector had attracted investors as demand for services grew but anticipation of reduced demand has dampened sentiment. Oilfield services deals had leapt from US\$5.9bn in 2006 to US\$22.9bn in 2007 with four such transactions among the 12 largest 2007 North American deals. Only one service sector deal – Precision Drilling Trust's US\$1.6bn acquisition of drilling rig assets from Grey Wolf – featured so high in 2008.

South America followed the trend elsewhere of declining O&G deal value (see Figure 10). Deal-making in 2008 tended to be concentrated in countries such as Brazil, Columbia and Chile which, unlike countries such as Venezuela, are more open to modernisation and internationalisation. The largest deal was Norwegian company StatoilHydro's US\$2.1bn purchase of the half-share it did not own in Peregrino, a heavy oil field in Brazil, and 25% of the deep water Kaskida discovery in the Gulf of Mexico, from US company Anadarko Petroleum. The deal reflected intense interest in the growth of the upstream industry in Brazil but also stood out in a year when there was less international activity in the region.

The other major deal sector was in the downstream sector where there has been a trend for local companies to take over distribution networks from the majors. The second largest deal continued this trend with Brazilian sugar and ethanol producer Cosan SA Indústria e Comércio buying ExxonMobil's Brazilian fuel distribution unit, Esso Brasileira de Petróleo, for US\$954 million. The deal was the first big investment by a sugar and ethanol producer in retail fuel distribution. Looking ahead, the low oil price will put pressure on the cost base of many of the national oil companies and add renewed momentum to the role of international companies.

O&G deal dialogue:

Acquisitions of companies with different reporting standards

The US Securities & Exchange Commission (SEC) published its 'Roadmap for the Potential Use of Financial Statements Prepared in Accordance with International Financial Reporting Standards (IFRS) by US Issuers' in November 2008. Its release appears to move US financial reporting one step closer to the adoption of IFRS.

The exclusive use of IFRS by all public companies will help to improve the efficiency of cross-border transactions. However, until the use of IFRS for US issuers is adopted, differences between IFRS and US GAAP could have significant impacts on the timing and completion of cross-border transactions involving both US GAAP and IFRS financial reporting.

Companies contemplating acquisitions of entities who report under a different accounting standard have many issues to consider. These include:

- Compliance with SEC regulations related to calculating the 'significance' of an acquired entity that previously reported under IFRS, preparing pro forma information related to the acquisition, ongoing reporting related to equity affiliates using IFRS, and the ability to meet quarterly and other periodic SEC reporting requirements;
- The level of IFRS knowledge in the US. Currently, accounting and operational personnel at US-based companies are likely to only have a very limited understanding of IFRS. Thus, immediate pre- and post-acquisition IFRS training may be necessary to complete the acquisition and properly report results of an acquired entity that previously reported under US GAAP that now reports under IFRS;
- Significant information systems modifications may be required in order to capture both the additional and the different information required under IFRS or US GAAP and for internal management reporting;
- Depending on the structure or type of acquisition, an acquiring entity may be subject to dual reporting requirements subsequent to the acquisition. This dual reporting requirement may substantially complicate the post-acquisition integration activities and cost savings initiatives.

PricewaterhouseCoopers has a proven track record helping companies successfully complete mergers and acquisitions. Along with our worldwide experience in the oil and gas industry, our specialists bring practical solutions to the technical accounting, information systems and change management challenges inherent in such cross-border transactions, regardless of whether the transaction relates to IFRS, US GAAP or both.

12 Deal places: Europe

Oil and gas deal activity in Europe was relatively resilient compared to the big fall in volume elsewhere. Deal numbers rose 64% from 77 to 126 and total deal value was down 15% compared to a 38% drop worldwide. Indeed, upstream and midstream value was up (see Figure 11), on the back of a series of deals for North Sea assets and Enbridge's US\$1.6bn sale of a 25% stake in its Spanish pipeline business, Compania Logistica de Hidrocarburos.

Midstream deals of the size of the Enbridge sale are rare in Europe. This single deal was one of just four midstream European deals. It accounted for 85% of total European midstream deal value. The largest O&G deal in Europe came in the downstream sector with Russian company Lukoil acquiring a US\$2.1bn 49% stake in a joint venture with Italy's ERG to operate the ISAB refinery complex in Priolo, Sicily. The transaction is a significant move by Lukoil as it seeks to develop its downstream operations in Western Europe. According to the company, it increased Lukoil's overall refining capacity by 13% and overseas refining capacity by 60%.

While the eye-catching larger deals were in the midstream and downstream, it was upstream plays where there was the biggest aggregate growth, adding US\$3.1bn to reach a total of US\$7.5bn. The North Sea sector was very active with a large number of mostly small swap agreements and increased stakes being taken. The biggest upstream deal was GDF Suez's US\$1.6bn purchase of a package of assets situated along the NOGAT pipeline in the Dutch section of the North Sea from Royal Dutch Shell and ExxonMobil's Dutch joint venture company, Nederlandse Aardolie Maatschappij (NAM). At the time of the deal GDF Suez reported that the purchase makes the company the largest exploration and production operator in the Dutch sector of the North Sea. The company is Europe's biggest buyer of gas and the deal is a step upstream to secure supply against a background of continued uncertainty in Europe around imported Russian gas.

Figure 11: Europe oil and gas deals by sector – 2007-2008

	2008 Value	% share	2008 Number	2007 Value	2008 Year on year % change
Upstream	7.5	49%	86	4.6	+63%
Midstream	1.8	12%	4	0.3	+456%
Downstream	3.3	22%	18	8.4	-61%
Services	2.6	17%	18	4.7	-43%
Total	US\$15.3bn			US\$18.0bn	-15%

Source: PricewaterhouseCoopers, O&G Deals 2008 Annual Review; John S. Herold

The biggest deal in the European oilfield services sector was Norwegian company BW Offshore's US\$989 million sale of a 26.5% stake in its accommodation rig company Prosafe. Elsewhere in the European oilfield service sector, while deal numbers remained comparable with the previous year's activity, the size of deals was sharply down. Only four 2008 oilfield service deals topped the US\$250 million mark compared with eight such transactions in 2007.

While the eye-catching larger deals were in the midstream and downstream, it was upstream deals where there was the biggest aggregate growth.

O&G deal dialogue:

The impact of Foreign Corrupt Practices Act on transactions

Multinational energy companies find themselves under increased scrutiny by federal investigators intent on curbing violations of the US Foreign Corrupt Practices Act (FCPA). FCPA primarily concerns bribes given to public officials or employees of companies in which a government has a significant stake.

It does not matter if the merger or acquisition is an asset or stock transaction. If one company buys another company, the buyer acquires any problems that exist at the seller's organisation. This has brought FCPA compliance to the forefront of any acquisition of an international company. Joint forensic and accounting investigations are becoming commonplace due to deal pressures and the need for transparency. It is no longer enough to study the financial statements when making a deal – most underlying transactions that violate FCPA regulations involve small dollar amounts.

Key areas of focus that should be considered when assessing the risk of non-compliance of the FCPA include:

- Geographic location
- Countries with a low Corruption Perception Index (CPI) are at higher risk for non-compliance
- Management at the target company
- Culture
- Centralised vs. decentralised structure
- Bookkeeping sophistication
- Third-party agents
- Remember "they are you ... and their actions are your actions."
- Target customer base
- Key decision makers
- State-owned enterprises

The increased focus on FCPA-based due diligence is making it more common for American companies to walk away from potential international acquisitions. PricewaterhouseCoopers has an international network of Transaction Services specialists available to assist companies with financial and forensic due diligence assessments.

14 Deal places: The Russian Federation

Deal activity was far more subdued in the Russian Federation in 2008 with deal numbers down to 33 from 41 the previous year. It was deal values, though, that saw the bigger drop, falling by around two-thirds across all the main deal activity sectors (see Figure 12).

Not surprisingly, the vast majority, 82%, of the region's O&G deal value was in the upstream sector. This was significantly higher than the 62% upstream share worldwide outside the region. The remainder of Russian and CIS deal activity was split evenly between the midstream and downstream with only one service sector deal. The big year-on-year fall in activity was primarily attributable to the impact on the 2007 deals of the restructuring of the Russian energy industry. There was no equivalent in 2008 of the large transactions seen following the break-up of Yukos' assets.

Deal activity fell sharply reflecting the near-completion of the restructuring of the Russian energy market.

Figure 12: Russian Federation oil and gas deals by sector – 2007-2008

	2008 Value	% share	2008 Number	2007 Value	2008 Year on year % change
Upstream	10.0	82%	23	29.6	-66%
Midstream	1.1	9%	3	3.2	-65%
Downstream	1.1	9%	6	2.8	-61%
Services	0	0%	1	0.1	-84%
Total	US\$12.3bn			US\$35.7bn	-66%

Source: PricewaterhouseCoopers, *O&G Deals 2008 Annual Review*; John S. Herold

The largest 2008 O&G deal in the Russian Federation – Gazprom's US\$2.6bn acquisition of E.ON Ruhrgas's 49% stake in the Russian company ZAO Gerosgaz – was the outcome of a step up in European-Russian energy reciprocity. In October 2008, Gazprom and German power utility E.ON signed a major gas exploration deal. The geo-political context of European-Russian energy was highlighted by the fact that the deal followed talks between German chancellor Angela Merkel and Dmitry Medvedev, Russia's president. E.ON received a 25% stake (minus one share) in Yuzhno-Russkoye, a Siberian field and one of the world's largest gas reserves. In return it gave up almost half (3%) of its 6.5% stake in Gazprom through the sale of its share in Gerosgaz, which holds shares in Gazprom.

The second largest deal was a US\$2.2bn takeover of FTSE-listed Imperial Energy by ONGC Videsh, the foreign investment arm of the Indian state oil company. The deal gives ONGC a presence in the Tomsk region of western Siberia, one of the world's largest oil and gas producing regions.

Gazprom and E.ON's activity steps up European-Russian energy reciprocity.

O&G deal dialogue:



A year of climate change policy initiatives

Although carbon risks are rarely a significant factor in oil & gas deals today, emerging climate regulation is likely to change this. 2009 is set to be a milestone year for climate policy, whether at the international, regional or national level. In December, governments meet in Copenhagen, aiming to conclude negotiations of a new climate deal to succeed the Kyoto Protocol. The EU is expected to propose mechanisms to achieve the carbon and energy goals agreed in 2008 and some federal climate legislation is anticipated in the US. Carbon is an increasingly strategic concern, not least for the oil and gas sector.

As the world slowly develops a patchwork of carbon regulation including taxes, standards and potentially linked cap-and-trade programmes, companies will need to consider how to account for carbon in deals. Currently there is no international standard or agreed protocol on how to do this. Companies are starting to develop their own internal competencies and processes but these are still evolving. The in-house HSE specialists in M&A teams that once concerned themselves with traditional environmental liabilities, issues such as soil and groundwater contamination, are now being asked to build carbon into their analysis. Leading companies are stress testing projects and acquisitions with high carbon prices over the short-term and long-term. But these practices are not consistent or common.

Post-Copenhagen, it is likely investors will start asking more questions of companies. While carbon only has a marginal impact on the sector's investment decisions today, the market will expect increasingly sophisticated treatment of carbon in deals, particularly those with a mega carbon aspect – such as coal-to-liquids or oil sands projects. Whether your company is considering a transaction, joint venture agreement, production sharing agreement, divestiture or organic expansion, PricewaterhouseCoopers brings together a global team with appropriate industry experience and skills on carbon and climate change, including functional and technical specialists.

16 Deal places: Asia Pacific

2008 deal value in the Asia Pacific region shot up by 73%, from US\$13.2bn in 2007 to US\$22.7bn in 2008. The dramatic rise in deal volume was almost wholly driven by deals to acquire Australian gas assets. Australia's share of total Asia Pacific O&G deal value rose from just 20% in 2007 to 75% in 2008.

The three largest deals – ConocoPhillips/Origin, BG Group/Queensland Gas Company and Petronas/Santos – together accounted for US\$10.8bn of deal value. The first two are discussed on page 7. In the third deal, Malaysian state-owned energy group Petronas acquired a 40% interest in the proposed Gladstone LNG project from Santos for US\$2.0bn in cash. The deal included a further payment of up to US\$0.5bn subject to final investment decision approval for a second LNG train. The final investment decision is expected by the end of 2009 with the project's first LNG cargoes planned for 2014. The strategic fit is very similar to the ConocoPhillips/Origin and BG Group/Queensland Gas Company deals with Petronas utilising its LNG technical and shipping expertise while Santos focuses on upstream exploration and extraction.

Figure 13: Asia Pacific (excluding Australia) oil and gas deals by sector – 2007-2008

	2008 Value	% share	2008 Number	2007 Value	2008 Year on year % change
Upstream	2.6	46%	28	2.0	+26%
Midstream	0	0%	1	0.9	-99%
Downstream	1.4	25%	14	7.1	-80%
Services	1.6	29%	9	0.6	+179%
Total	US\$5.6bn			US\$10.6bn	-47%

Source: PricewaterhouseCoopers, *O&G Deals 2008 Annual Review*; John S. Herold

Figure 14: Australia oil and gas deals by sector – 2007-2008

	2008 Value	% share	2008 Number	2007 Value	2008 Year on year % change
Upstream	16.6	97%	45	1.7	+851%
Midstream	0.6	3%	2	0.6	-8%
Downstream	0	0%	1	0.1	-100%
Services	0	0%	2	0.2	-79%
Total	US\$17.2bn			US\$2.6bn	-43%

Source: PricewaterhouseCoopers, *O&G Deals 2008 Annual Review*; John S. Herold

Further down the deal scale in Australia, there was a considerable amount of activity among smaller coal seam methane companies seeking to bulk up and, in turn, increase their asset attractiveness. Significant critical mass is needed to develop LNG operations, thus leading to much scope for consolidation among smaller entities and buy-outs by larger entities. Queensland Gas Company, for example, acquired coal bed methane company Sunshine Gas in a US\$0.7bn friendly deal. Arrow Energy teamed up with Royal Dutch Shell to jointly develop Arrow's Australian and international coal seam gas projects in a US\$0.4bn deal.

2008 also saw an increase in consolidation of oil assets among medium sized companies. These included the US\$0.6bn merger between Roc Oil and Anzon, and Australian Worldwide Exploration's (AWE) purchase of Arc Energy in a US\$0.5bn cash and stock offer. Inbound interest in Australian oil and gas assets was not confined to the big coal bed methane deals. Sinopec International Petroleum Exploration and Production Corporation (SIPC), a wholly owned subsidiary of China Petrochemical Corporation (Sinopec), acquired a 60% joint venture interest in the licenses containing the Puffin and Talbot offshore oilfields in a US\$0.6bn deal with AED Oil.

Deal activity in the wider Asia Pacific region was very subdued. The largest deal came in the services sector when MISC, the shipping unit of Malaysian state energy group Petronas, merged its shipbuilding business with oil services company Ramunia Holdings in a US\$977 million transaction. The deal will allow the merged entity to compete more effectively in a competitive regional oilfield service market. A second notable Asia Pacific deal saw Abu Dhabi investment company, Mubadala Development, acquire Pearl Energy, itself owned by an Abu Dhabi-based company (Aabar), for US\$833 million. Pearl's oil production operations are located in Indonesia and the Gulf of Thailand.

Inbound interest in Australian oil and gas assets was not confined to the big coal bed methane deals.

O&G deal dialogue:

The importance of synergy cost reduction in today's environment

Traditionally, in the majority of transactions, significantly more earnings growth is driven from the core business than from synergies. Organic growth typically accounts for about 70% of forecast profit growth with synergies arising from the deal contributing 30%. However in the current environment of a US\$40 crude barrel, shrinking refinery margins, over-capacity in various oil & gas markets, capex projects authorised under different market conditions and limited finance available, it is now exceptionally important to capture the extra synergy value from a transaction.

Realising Legacy Synergy Value enables the identification and delivery of latent synergy value from previous acquisitions and integrations. It is designed to identify and address a number of key issues affecting many companies that have grown inorganically. These include the identification of:

- Further shareholder value that has not been delivered from previous acquisition integrations;
- Further synergies available that would support current cash and EBIT targets;
- Areas of the business where the synergies were deemed too difficult to deliver for cultural, political or capability reasons;
- Non-fully integrated business functions with respect to resources (staffing and capability), processes and technology to maximise value; and
- Cultural implications that may be creating barriers to synergy delivery. How can these be overcome?

PricewaterhouseCoopers' Legacy Synergy Realisation begins with a high-level assessment of business functions where trapped synergies are most likely to exist based on our experience of previous synergy reviews and merger integrations in specific industries. We provide recommendations based on our extensive experience of synergy assessments and acquisition integration to identify and quantify the additional synergy value trapped within acquired/merged businesses.

We focus on identifying and capturing easy to deliver synergies without the need for complex changes to the operating model. Leveraging our core capabilities of industry insight and the experience of our people, we work collaboratively with our clients to tailor our methodology to agree an optimum approach to planning and delivering the synergies.

18 Deal places: International and the rest of the world

International activity, involving either international groups of investors or assets that are spread across territories, remained lively in 2008. Deal numbers edged up from 71 in 2007 to 79 in 2008 although, as elsewhere, none of the deals compared with the largest 2007 deals. Forty-nine of the 71 international deals were in the oilfield services sector where consolidation continued apace, albeit at lower absolute values than in 2007, ahead of the oil price drop.

The fall in international deal value – from US\$75.8 bn in 2007 to US\$39.1bn in 2008 – stemmed from the disappearance of very large deals. In 2007, four deals alone – for Lyondell, GlobalSantaFe, Huntsman and Grant Prideco – together accounted for US\$53.7bn of deal value. In contrast in 2008, the four largest International deals – bids by BASF, China Oilfield Services, Alpinvest and a consortium of investors, and Smith International – totalled US\$15bn. The largest of these, BASF's US\$4.7bn purchase of Ciba, is discussed on page 7.

The second largest international deal saw China Oilfield Services, a subsidiary of the China National Offshore Oil Corporation, join the wave of consolidation in the oilfield services sector as companies continued to move to acquire scarce service assets in a booming market. The company acquired Norwegian rival Awilco Offshore in a US\$3.8bn deal giving it extra drilling capacity and enabling it to expand in international markets. The acquisition was China Oilfield's first successful overseas purchase after it failed to seal a small deal for the Russian oil services business STU from TNK-BP.

Figure 15: International oil and gas deals by sector – 2007-2008

	2008 Value	% share	2008 Number	2007 Value	2008 Year on year % change
Upstream	5.5	14%	15	3.9	+42%
Midstream	3.4	9%	12	4.3	-20%
Downstream	5.2	13%	3	31.6	-83%
Services	25.0	64%	49	36.1	-31%
Total	US\$39.1bn			US\$75.8bn	-48%

Source: PricewaterhouseCoopers, *O&G Deals 2008 Annual Review*; John S. Herold

Two other large international deals featured in the top ten O&G deals in 2008. The wave of oilfield services consolidation included Halliburton competing in a hard-fought contest with a consortium of private equity bidders for UK oilfield services company Expro International. Expro decided to go with the US\$3.7bn private equity bid led by Candover Investments with Alpinvest Partners, JC Flowers and the Goldman Sachs Group. A fourth large international deal again highlighted the continued first half year activity in oilfield services as Smith International and W-H Energy Services combined together in a US\$2.8bn merger agreement. Smith International said the deal would give it entry into directional drilling services, one of the oilfield service industry's fastest growing markets. Directional drilling is used to reach oil under areas that are ecologically sensitive or where traditional forms of drilling are not feasible.

Elsewhere in the world, there was an increase in African deal value headed by GEPetrol's US\$2.2bn purchase of Devon Energy's oil and gas business in Equatorial Guinea (see page 8). Italian oil and gas company Eni added to its already substantial oil and gas operations in Africa in two separate deals. In the largest, it expanded its operations in Algeria in a US\$995 million purchase of First Calgary. Earlier in the year, ENI acquired Shell's stakes in two offshore Nigeria blocks for US\$626 million. In the Middle East, the big surge in upstream value came from Sinopec International Petroleum Exploration and Production Corporation's US\$1.8bn purchase of Calgary-based Tanganyika Oil giving it access to Tanganyika's exploration and production assets in Syria and Egypt.

Figure 16: **Africa oil and gas deals by sector – 2007-2008**

	2008 Value	% share	2008 Number	2007 Value	2008 Year on year % change
Upstream	5.8	93%	47	4.0	+44.5%
Midstream	0.0	0%	-	0.5	-100%
Downstream	0.5	7%	5	0.2	+185%
Services	0.0	0%	-	0.6	-100%
Total	US\$6.2bn			US\$5.2bn	+19.5%

Source: PricewaterhouseCoopers, *O&G Deals 2008 Annual Review*; John S. Herold

Figure 17: **Middle East oil and gas deals by sector – 2007-2008**

	2008 Value	% share	2008 Number	2007 Value	2008 Year on year % change
Upstream	2.4	78%	6	0.7	+228%
Midstream	0.0	0%	-	0.0	0%
Downstream	0.4	12%	2	2.3	-84%
Services	0.3	10%	3	0.2	+57%
Total	US\$3.1bn			US\$3.2bn	-6%

Source: PricewaterhouseCoopers, *O&G Deals 2008 Annual Review*; John S. Herold

20 Looking ahead

The immediate outlook is for O&G deal-making to be subdued. A triple bottom line of constrained debt markets, depressed equity prices and commodity prices looks set to stall significant deal-making in the early part of 2009 at least. An opening of the equity markets will be followed by the debt markets which will allow financing to become available. This in turn will allow the buyer and seller expectation gap in valuation to narrow, opening up deal negotiation.

Such easing, combined with some positive movement in the oil price, is likely to herald a reawakening of deal activity. The long-term energy supply and demand fundamentals are still compelling. A change in confidence would remind everyone that supply constraints remain and the potential for a fast revival in the oil price and deal-making is there.

Once target debt can be refinanced, the turnaround in deal momentum could happen quite fast. Even without funding constraints being lifted, there are many players in the sector with healthy balance sheets and healthy acquisition funds available. Many of the majors and national oil companies are in a strong position following a period of high commodity prices. For companies from countries such as China, the current market offers unrivalled opportunities to gain access which, in other circumstances, would be denied to them. Similarly, sovereign wealth funds and many private equity investors will be watching the sector closely.

A sector environment with strong and weak players will, ultimately, be ripe for renewed deal momentum. Acquisitions are very compelling at current valuations. The larger upstream players will be able to bide their time if they choose, in the meantime concentrating on drilling rather than acquisition-led growth. The outlook is much tougher for smaller exploration and production companies who need M&A to show growth. Many will become targets. A similar dynamic lies ahead between the larger and smaller players in the oilfield services sector.

While deal activity in the first half of the year is likely to remain low, it is difficult to see stronger players remaining on the sidelines for the whole of 2009 given the opportunities for acquisitions at low valuations. Deals for major assets in locations such as Brazil and Canada, with access to end markets and promising reserve potential, are likely to be high on many companies' target screens. In the US, the opportunity to access the natural gas shale plays is also very compelling at these valuation levels.

There is also the potential for secondary deals to fall out from transactions made at stretched valuations at or close to the top of the market as companies are forced to ease balance sheet pressure. Finally, companies seeking to broaden their portfolios into alternative energy may also find that distress and low valuations in alternative energy stocks offer a ripe opportunity for diversification moves. The appetite for moves of this kind will, in part, be influenced by the progress of talks in the run-up to and at the December 2009 UN Climate Summit and the extent to which this establishes a framework for clean energy.

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