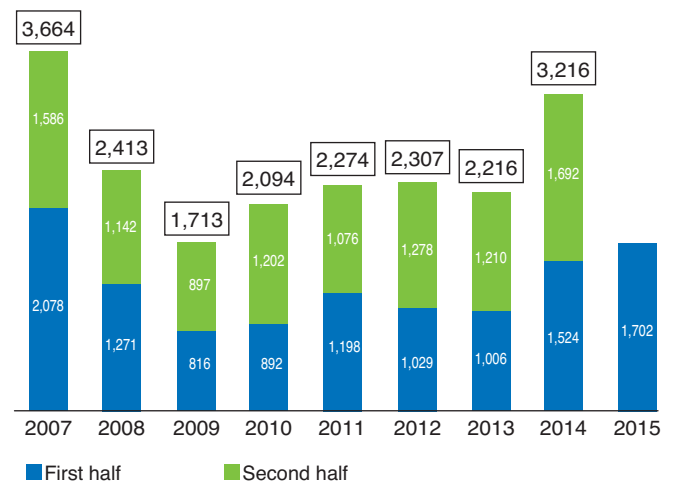


The revival of mergers and acquisitions in the oil and gas sector

The oil and gas sector remains fertile ground for mergers and acquisitions (M&A). This sector represented between 5% and 15% of total transactions from 2008 to 2014. Since 2008, M&A transactions in the sector have been dominated by a triad made up of a region (North America), a business segment (upstream oil and gas) and a type of key player (independent operators).

With oil prices falling sharply since June 2014, the oil and gas sector has been subject to an intense wave of reorganizations, affecting all stakeholders across the various business segments. The sharp decline in investment by the international oil companies (IOC) since the start of 2015 speaks to the fundamental change observed in the oil markets. This shift has led to announcements of downsizing at service providers, including Schlumberger (20,000 jobs), Baker Hughes (7,000 jobs) and Technip (6,000 jobs). Cyclic by nature, the oil industry is familiar with such rapid shifts in business, as seen in 1986, in 1997 and in the most recent global economic crisis of 2007-2008, when oil prices fell below 40 dollars per barrel in December 2008. However, unlike previous turning points in the business, the current cycle is taking place in an industry that has undergone profound changes. At start of the millennium, the oil and gas sector was faced with a sharp increase in costs, reflecting the fact that on average, the price of raw materials doubled between 2004 and 2008. In addition, the rising "materials" cost of projects, combined with increasing difficulties in accessing petroleum reserves due to a resurgence of oil nationalism and the growing complexity of projects, led to reliance on costly technologies. Lastly, the execution of projects is increasingly restricted by outside regulations (environment, safety, etc.) and by local content policies. These factors combined to transform certain structural characteristics in the sector, including the trade-offs made when choosing between internal and external (M&A) growth strategies.

Fig. 1 – M&A transactions worldwide (all sectors combined, in billions of dollars)



Source: Mergermarket

According to Mergermarket, M&A transactions, all sectors combined, rebounded sharply in 2014 to \$3.216 billion, an increase of nearly 45% as compared with 2013 (Fig. 1). In the oil sector alone, nearly 1,000 transactions were recorded in 2014 for a total amount of \$361 billion¹, including the announcement of the merger between Halliburton and Baker Hughes for approximately \$38 billion. From 2007 to 2014, the oil and gas sector represented between 5% and 15% of transaction value, depending on the year.

(1) These figures were drawn from the Reuters database

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M&A: historical perspective

From a historical perspective, movements in the international market since 2007 are seen as a new wave of M&A, the seventh since the end of the 19th century. It follows the wave that took place between 2003 and 2007, which had the benefit of an extremely buoyant macroeconomic background. Worldwide growth achieved a rate of approximately 5% during this period, a level unseen since the 1960s. History reveals the complexity of movements in the M&A market. The triggers are typically numerous and varied (economic, financial or regulatory), as are the underlying motivations for these transactions and the sectors targeted (energy, chemical industry, banking, etc.). Though the oil and gas sector was not a key player in all of these M&A waves, its involvement corresponded to structural change in the oil industry: at the start of the last century (horizontal consolidation²), on the eve of the first oil crisis in 1973 (conglomerate diversification), following the 1986 oil counter-shock (massive internal restructuring), after the Asian crisis in 1997 (horizontal consolidation marked by the formation of the supermajors) and during the current period. M&A take place over the various phases of the economic cycle, and only the financial variables (financial innovation, increase in financial liquidity, low interest rates) appear to be recurrent for each wave.

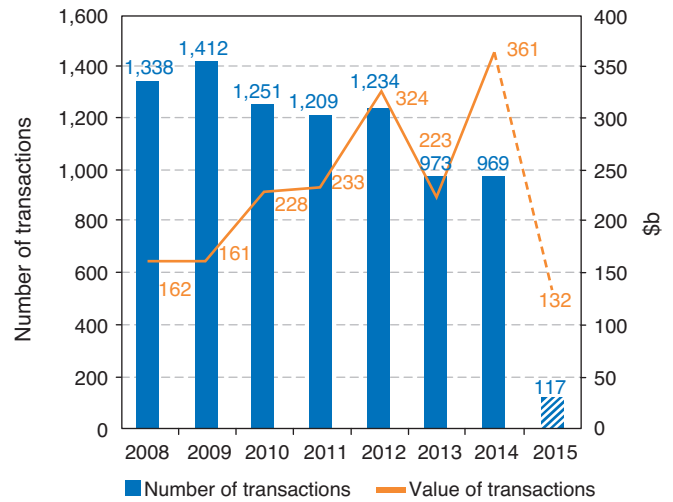
Analyses of the M&A transactions focus on the banking, telecommunication and pharmaceutical sectors, mainly due to the large number of transactions recorded, the regulatory framework, the specific business model and the important role of innovation in these sectors. On the contrary, few studies have analyzed the oil and gas sector, even though they represent a significant share of M&A transactions, and that innovation is at the heart of the many revolutions in the energy sector. There are features specific to M&A transactions in the oil and gas sector. Stakeholders are often motivated to acquire oil and gas reserves at a lower cost.

Facts concerning the latest wave of M&A in the oil and gas sector

During 2014, approximately 1,000 transactions, totaling \$361 billion, took place in the oil and gas sector. Compare these figures with those recorded during the global economic crisis (2008-2009), when transaction value remained relatively stable at approximately \$160 billion/year (Fig. 2).

^[2] M&A transactions can be divided into several categories. Mergers are considered "horizontal" when they involve parties (competitors) that operate in the same market or in the same phase of the production chain (two oil companies). This is the most common transaction type when considering historical M&A on a global scale. Mergers are considered "vertical" when they involve companies operating at different points in a production chain within a market (for example, an oil producer and a refiner). Lastly, "conglomerate" M&A refers to a transaction between two companies that do not operate in the same market, and are not rivals, interchangeable or complementary

Fig. 2 – M&A in the oil and gas sector



Source: Reuters database, IFPEN calculation

Starting in 2010, the value of M&A transactions began to rise, reaching \$324 billion in 2012. Paradoxically, although transaction values rose, the number of transactions fell over the same period, with fewer than 1,000 transactions in 2013 and 2014 compared with more than 1,200 in 2010 and 2011.

The value of transactions analyzed between 2008 and 2015³ in the oil and gas sector varied widely, primarily falling below \$0.5 billion, and ranging from several million to several billion dollars.

Economies of scale are highly desirable in an increasingly concentrated sector

From 2008 to 2015, one-third of transactions took place for the sole purpose of strengthening the acquirer's existing business. Other objectives repeatedly emerge, such as geographic expansion of the company's business, refocusing on core activities or seeking new synergies, in order to achieve economies of scale.

Endogamy among stakeholders, lack of diversification

Involvement of stakeholders from outside the oil and gas sector has remained stable (approximately 15% of transactions). Thus, there has been no significant diversification of acquirers between 2008 and 2015. Approximately 60% of M&A transactions targeting companies in the oil and gas sector were carried out by entities within the same sector. Finally, 25% of transactions were carried out by financial players (banks, insurance companies, pension funds). These financial entities are especially active in the upstream and services sectors.

^[3] For 2015, data covers the January-April period

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A favorable climate for M&A?

The asset value of companies within the oil and gas sector, their financial positions and their strategies remain highly dependent on price levels and volatility observed in the markets, especially the oil and financial markets (Fig. 3). It is also important to consider the effect of the sector's stock market conditions. The M&A wave observed since 2008 has occurred under very specific financial conditions in the United States.

Indeed the Dow Jones Oil and Gas Index began to outperform the Industrials Index at the end of 2010, and throughout 2011 (Tab. 1), before subsequently underperforming until the first half of 2015. This market condition, coupled with extremely low interest rates, suggests the possibility of current buying opportunities for some companies in the oil and gas sector.

Table 1
Comparison of performance by various US market indexes between 2011 and 2015* (%)

	2011	2012	2013	2014	2015
Industrials index	+5.5	+10.0	+22.6	+8.3	-7.7
Oil and gas index	+13.4	+4.9	+14.2	-7.9	-24.9
Basic materials index	-24.0	+7.9	-6.2	-9.6	-13.7

Source: FT

* Performance for 2015 is calculated through August 24, 2015.

M&A are geographically centered in North America

North America⁴, and specifically the United States, is the most dynamic region for M&A in the oil and gas sector. During the entire 2008-2015 period, 45% of transactions involved North American acquirers, representing 49% of total value and nearly 60% of transaction amounts

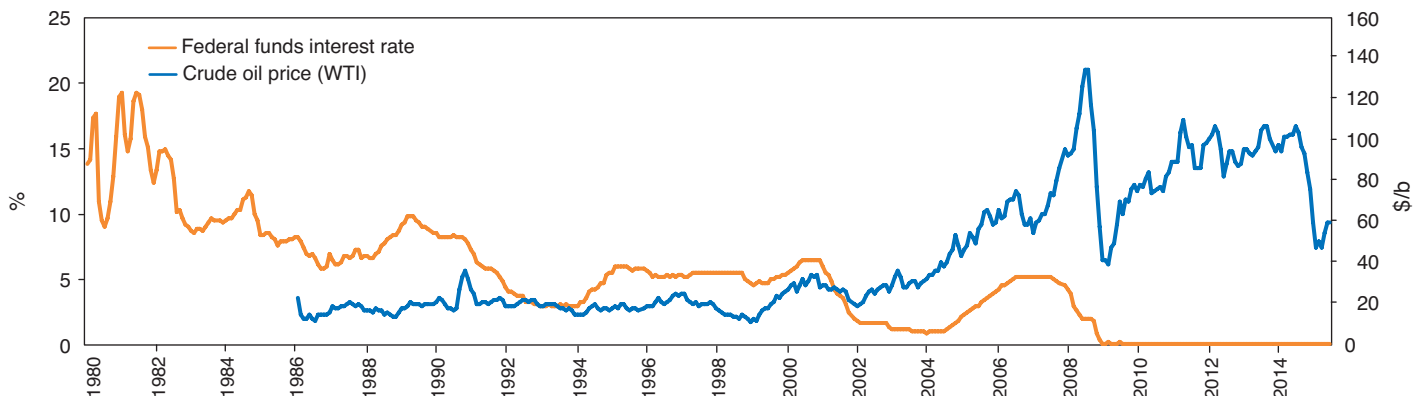
involving North American targets. This North American predominance is evident for the entire period, and for each year studied. This observation is explained by the structure and size of the US market (number and diversity of stakeholders). The US oil and gas segment is characterized by synergies between a small number of big oil companies that have some of the largest market capitalizations in the world, and a core composed of numerous small and medium-sized companies. The first group offers significant equity capital, enabling them to bear massive investments and long-term risk. The second group, the independent companies, are characterized by solid momentum and outstanding responsiveness. The US industry also includes a number of service companies and equipment manufactures, some of which are world leaders. Acquirers are also active in Europe (excluding Russia) (14% of transaction volume and 18% of their value). Along with Russia and the Asia-Pacific zone, these three regions represent 42% of transaction volume and 33% of total transaction value over the period.

Preponderance of the upstream sector and horizontal M&A transactions

Since 2008, the upstream sector has been the most active oil industry segment in terms of M&A, both in number of transactions and in aggregate amount. After reaching a peak in 2012, in 2014 the upstream sector represented approximately 60% of transactions and 44% of their total value. This business segment's profitability across the entire value chain remains a decisive factor.

From 2008-2015, 71% of targets in the upstream sector were acquired by players within the same sector. This strong trend toward endogamy within the sector, which highlights the preponderance of horizontal M&A, can

Fig.3 – Interest rates and oil prices

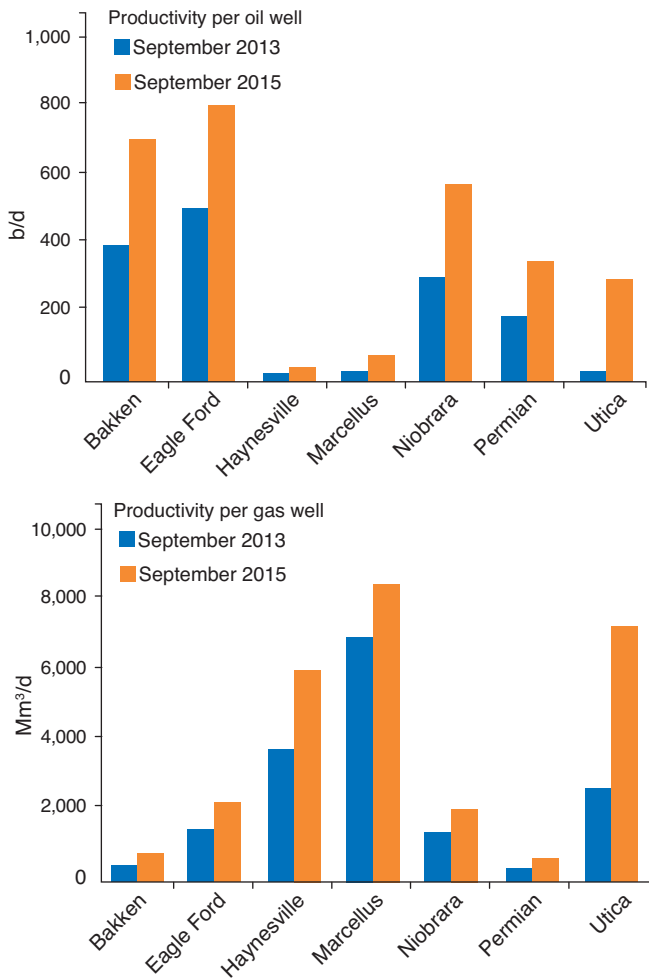


Source: Federal Reserve Bank of Saint Louis

[4] Canada, United States and Mexico

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Fig. 4 – Productivity of oil wells and shale gas wells in the United States



Source: US Energy Information Administration (EIA)

also be seen in the downstream segment (69%) and the services segment (58%). Only the transport-logistics-marketing (midstream) segment is an exception to the rule, with only 33% of transactions. The specific characteristics of assets in this sector, especially their ability to generate stable revenues, may explain why they are attractive to other business segments, especially during periods of highly volatile or low prices.

What is the outlook for the players?

In the United States, two parallel mechanisms may intensify M&A activity in the upstream sector. On the one hand, rising productivity of drilling sites (Fig. 4) and falling costs of non-conventional hydrocarbon production may attract some buyers. On the other hand, because the sharp decline in oil prices has led to a decline in the number of non-conventional hydrocarbon drilling sites (52% drop in the number of wells in the US between May 2014 and May

2015), companies who are not able to make profitable investments to replace their wells may sell their assets to financially stronger companies that wish to increase their reserve renewal rate.

Independent companies have also remained active in the upstream segment. Financially weaker companies may sell assets to stronger independents or major operators that hope to strengthen their positions. This phenomenon will gain momentum if oil prices remain low or continue to fall, or if US interest rates rise. Finally, the growing importance of gas as compared with oil may lead some players to acquire gas assets to secure or improve their position in this segment which⁵, according to the International Energy Agency (IEA) will post a higher growth rate than oil in the future (Tab. 2).

Table 2

Growth rate of global demand as compared with 2012

	Current Policies		New Policies		450 Scenario	
	2020	2040	2020	2040	2020	2040
Oil	9%	27%	7%	14%	4%	-23%
Gas	13%	67%	12%	55%	9%	22%

Source: WEO 2014

A dynamic services sector, a more sluggish downstream sector

Between 2008 and 2015, the services and equipment sectors represented 27% of transaction volume and 20% of their value. In 2014, thanks to the completion of two enormous transactions, Kinder Morgan and Kinder Morgan Energy Partners, and Halliburton and Baker Hughes, for \$59 billion and \$38 billion respectively, transaction value rose by a factor of 7 as compared with 2013. Transactions, in the services and equipment sectors, occurred mainly in North American, and primarily involved consolidations. Over the short term, the trend toward consolidation should continue, following declining investments by operators — 10 to 20% worldwide for international oil companies — (Tab.3) and operating cost rationalization. Schlumberger's announcement in August 2015 of its acquisition of Cameron, an equipment manufacturer, continues this trend.

In the downstream sector, the number of transactions is far lower than in the upstream or the services sectors. Only 22% of transactions completed between 2008 and 2015 concerned this sector (15% of total transaction value). Approximately 500 transactions were recorded in 2014, totaling nearly \$50 billion. These transactions historically take place in Europe and in the United States,

⁽⁵⁾ The example of Total testifies to this: its gas production surpassed 50% of the company's total production in 2014

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Table 3
Investment outlook for oil companies

		Investment reductions announced in 2015 as compared with 2014
IOC	BP	-20%
	Chevron	-13%
	ConocoPhillips	-20%
	ExxonMobil	-12%
	Shell	-20%
	Total	-10%
NOC	CNOOC	-35%
	Gazprom	-21%
	PDVSA	-10% minimum
	Petrobras	-37% over 5 years
	Sinopec	-12%
	Statoil	-10%

Source: press report compilation

which are mature markets open to restructuring. It is interesting to note that Australia is gaining momentum in terms of M&A in this sector, contrary to Africa and the Middle East. As for international companies, they continue to divest their interests in this sector.

What momentum for IOCs and NOCs?

Between 2008 and 2015, IOC involvement in M&A has been weak compared with other stakeholders (independents, service and equipment companies, etc.). IOCs represented less than 1% of transaction volume in 2014 (less than 4% for the entire period analyzed). This weakness results from a clear tendency to sell assets and a low propensity to purchase assets since 2012. In the near term, IOCs will likely continue to divest their non-strategic and downstream oil assets, to reposition themselves in their most profitable business segments, including the gas sector which offers a promising outlook, while continuing to reduce costs. At the same time, IOCs should maintain or increase their diversification in the renewable energy sector, such as Total's 2011 acquisition of 60% of SunPower.

Strategies employed by national companies (NOC) are more diverse, since they are directly linked to national planning. Overall, for the entire period under review, NOCs represented 5% of M&A transaction volume and approximately 7% of the total value. Two types of strategies

can be identified: those for companies in countries with oil and gas resources, those for national companies in importing countries, which have been the most active in recent years. NOCs in importing countries, specifically Chinese NOCs and, to a lesser extent, Indian NOCs, were players in a significant wave of transactions between 2010 and 2013, driven by the desire to acquire specific technological assets. National companies within producing and exporting countries were far less active between 2008 and 2015. Current movements in oil prices, along with the policies of the Organization of the Petroleum Exporting Countries (OPEC), have created an uncertain climate for NOCs in producing countries. Their desire for acquisitions and/or diversification may come into conflict with significant budgetary constraints, following the sharp decline in revenue from exports in 2014 and 2015, or with specific restrictions (European Union and United States sanctions against Russian NOCs). Finally, following the July 2015 agreement between the international community and Iran, questions remain about the strategy its national companies will adopt. Although the gradual lifting of western sanctions against Iran offers new possibilities for players within the sector, it appears that Iranian NOCs currently prefer partnerships over M&A, at least in the short term, to increase development of their resources.

The various M&A strategies observed between 2008 and 2015 reveal different economic models for the various business segments within the oil and gas industry. On the whole, M&A transactions in the oil and gas sector remain dominated by a triad composed of a region (North America), a sector (upstream oil and gas) and a key stakeholder (independent operators). The oil and gas sector remains highly attractive for M&A, as seen in recent transactions between Shell and BG (\$70 billion) and Schlumberger's acquisition of Cameron (\$15 billion). Low oil prices, weak valuation of oil assets in the stock markets and the historically low interest rates, which characterize the present economic and financial conditions, combine to create a favorable environment for an increased pace of M&A transactions in the short and medium term.

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