Analysis of global upstream oil and gas assets deal characteristics and regional influencing factors

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Abstract. With the sustained decline and slow recovery of international oil prices, the global upstream oil & gas deal market has witnessed significant changes since 2014. Generally, five characteristics were present: (1) shrinking deal count, (2) dominance in North America tight oil, (3) matching deals and asset optimization strategy for oil giants, (4) sluggish deals of national oil companies, and (5) active deals of small oil companies and other investors. From the regional perspective, in North America, the deals in the Permian Basin remain active; in Latin America, the deals are dominated by asset disposal and deepwater tender; in Asia-Pacific, gas-related deal count rebounded after bottoming out; in Russia-Central Asia, asset sale is subject to the domestic financial situation; in Africa, the deal count hovers at a low level; in the Middle East, the market will be open. In 2019, as the oil price rises from a stable level, the deal upsurge will unfold again, and the unconventional oil & gas industry in the United States will be continuously integrated. Then, diversified players and extensive transaction opportunities can be expected on the oil & gas market.

1. Introduction
The second half of 2014 saw a dramatic drop of international oil prices that triggered a slump in the number of upstream global oil & gas asset deals. Despite the halt of current round of oil price decline, there remains a continuous impact on the main trading entities. Although market transactions are inactive, the trading of unconventional oil & gas assets is booming in North America. In the meanwhile, buyers are becoming more rational, with national oil companies and oil giants continuing to optimize their asset structures, small- and medium-sized oil companies absorbing low-cost assets, as well as market trading hotspots constantly changing. Third-party research institutions such as IHS Markit and Wood Mackenzie provide tracking data for the global oil & gas trading market. Scholars tend to summarize the characteristics of asset trading in a certain year based on these data, thus diverging their study and estimate on the tendency of long-term trading. This paper analyzes the upstream global oil & gas asset deals since the decline of the oil price, generalizes the relevant laws, and screens the trading influence rules of each region so as to forecast the future trading trends and hotspots.
2. Characteristics of the global oil & gas deal market

2.1. The oil & gas deal count shrunk to a historic low in recent years.
Since the dramatic drop of international oil prices in 2014, the global upstream deal market has kept at a much lower activity, due to some adverse factors, such as the universal financial strain of international oil companies (IOCs), the gap in expected value between the buyer and the seller, non-profitability of high-cost assets, and sidelined investors in the gloomy market. As shown in Figure 1, the global upstream deal values in the past years are lower than the ten-year average. In 2018, the deal count decreased by 11% on a year-on-year basis and the deal value declined by 14% to US$110 billion, hitting the lowest level in the past decade [1]. The IOCs demonstrated a lower willingness to directly purchase assets, and the transactions of corporate M&A to acquire the package assets took a remarkably increasing proportion.

![Figure 1. The trend of global upstream deals.](image)

2.2. Deals were centralized on tight oil assets in North America.
North America accounted for 2/3 of the global deal value in 2018. Especially, the US tight oil recorded a key resource for supporting the global M&As, and it shared 2/5 of the global deal value or 2/3 of unconventional deal value. It should be noted that 8 of the world top 10 deals were completed in North America, mainly in the Permian Basin, Bakken and Eagle Ford shale plays, and Montney shale play (Figure 2) [1]. All IOCs hoped to achieve the scale effect of tight oil development through acquisition. For example, BP acquired a majority of BHP’s shale assets in the US with US$10.5 billion; Concho Resources acquired RSP Permian with US$9.73 billion; Diamondback Energy acquired Energen with US$9.72 billion [2].
2.3. Oil giants realized a matching between deals and asset optimization strategy.
In the era at low oil price, the international oil giants optimize their assets for a long-term strategy, by stripping the non-core assets. Over the past years, they withdrew from the non-core asset countries in succession. For example, Shell quit New Zealand, Thailand, Denmark and Venezuela along with its assets disposal plan (involving US$30 billion) completed in 2016–2018 [3]; Chevron withdrew from Congo and Denmark; Eni withdrew from Croatia; Repsol withdrew from Papua New Guinea [1]. In view of acquisition, the oil giants focused on strategic assets for the purpose of long-term development. From 2017, they began to acquire tight oil assets. In 2018, the tight oil deals took a higher share, while the less-profitable heavy oil assets were stripped successively (Figure 3).

![Figure 2. Global upstream deal count and distribution in 2018.](image)

2.4. National oil companies maintained sluggish deals.
National oil companies (NOCs) have slowed down their expenditures in cross-border transactions, which only accounted for 3% of the global upstream deal value in 2018[2]. Asian NOCs delivered
relatively mild expenditures for 5 consecutive years. The Chinese NOCs realized the acquisition expenditures only slightly more than US$1.0 billion [3], which is in stark contrast to the figure of over US$20 billion that they spent every year to acquire overseas assets during the period from 2009 to 2013 when the oil price was high. NOCs mainly achieved their deals by following the oil giants to seek the opportunities of participation in large high-quality assets and positively taking part in the tender and bidding for licenses launched by host countries.

![Figure 4. World Top 15 deals (purchase and sale) in 2018, by companies.](image)

2.5. Small oil companies and other investors kept very active.
Small oil companies and other investors make up the global M&A market, and they contributed more than 3/5 of annual total deal value. Small oil companies carried out small-scale but frequent asset sales or corporate M&As, so they achieved a total deal volume far greater than large oil companies. Besides, small oil companies dominantly dealt with the North America tight oil. As shown in Figure 4, among Top 15 deals in 2018, small oil companies accounted for 53% of the buyers’ deal value and 45% of the sellers’ deal value [1]. In addition, the substantial depreciation of oil & gas companies’ assets brought favorable opportunity to the private equity and non-oil & gas transformation companies, allowing them to be active in the upstream deal market [4].

3. Influencing factors of regional oil & gas deals

3.1. North America is superior in cost and scale, with the deals remaining active in the Permian Basin.
The shale oil asset in North America has become the focus in the concerns of oil giants and small- and medium-sized oil companies, with the deal count rising year by year (Figure 5). Tight oil blocks in the US lower 48 states have the advantages of huge output growth potential and low project break-even point, and they are also the most vibrant upstream deal market in the world [5]. Particularly, the high-profile oil & gas assets in the Permian Basin shared more than 40% of the global deal count in 2018. Essentially, under the climate of low oil price, the commercially feasible conventional oil & gas projects were relatively less, but the status of tight oil was enhanced for its low cost. According to WoodMac, in the past three years, the single-well cost for the US tight oil decreased by 30–40% [6], making it a more prominent asset. Large-scale integration of unconventional assets triggered the transactions to be active continuously.
Figure 5. Regional distribution of tight oil deals in North America.

3.2. *Latin America exhibited the deals dominated by asset disposal and deepwater tender.*
Petrobras was the largest seller of assets in Latin America in recent years. As a listed oil company burdening the most liabilities, Petrobras always desires to mitigate the debt burden through asset sale under the adverse political and economic environments. Since 2016, Petrobras has stripped approximately US$20.0 billion assets and launched five rounds of tenders for deepwater pre-salt exploration blocks [6]. Besides, Argentina, Mexico, Uruguay and other countries have begun to liberate their foreign cooperation policies in succession, hopefully attracting more foreign investors to access to the deepwater resource development in Latin America by way of tender. In 2018, Latin America became the region which had the most oil explorations and output in the history, with over 1,000 oil and gas blocks open to the investors.

3.3. *Asia-Pacific witnessed a rebound of gas-related deal count after bottoming out.*
In Asia-Pacific, bulk deals are gas-related, mostly in Australia. Due to the low oil price, LNG projects in Australia face huge challenges. However, WoodMac predicted that the global LNG demand will grow at 5.2% by 2030 [6]. Thus, the prospect of LNG market in Asia-Pacific is optimistic in a long run. The deal count in the region begun to recover after bottoming out (Figure 6), which is attributable to the remarkable growth of deal count in Australia, where Santos Ltd. acquired Quadrant Energy with US$2.2 billion. In Southeast Asia, the deal count grew conspicuously, since major IOCs generally weaken the importance of this region and have withdrawn from non-core countries successively. For example, Shell withdrew from Thailand and New Zealand, and Repsol withdrew from Papua New Guinea. In East Timor, Shell and ConocoPhillips quit from the Greater Sunrise gas fields. The asset stripping of IOCs also drove the growth of deal count.

3.4. *Russia-Central Asia followed an asset sale rhythm under the control of the domestic financial situation.*
Oil-related sectors constitute an important economic pillar for Russia and Central Asian countries, where more than 50% of fiscal revenues are seriously reliant on international oil prices [4]. Moreover, local oil & gas companies are short of technologies and experience for exploration and development in these areas with severe natural conditions and complicated geological conditions, but they need the assistance of IOCs. As a result of the hammering on oil & gas export by the oil price decline since
2014, these countries had to sell tremendous oil & gas assets to make up for their fiscal revenues. In 2016, the deal count reached its peak. However, as the international oil price rose after 2017, Russia and Central Asian countries have witnessed greatly improving financial position. Accordingly, the oil and gas deal count and value continuously decrease (Figure 7).

3.5. Africa presented the deal count hovering at a low level due to the low oil price.
Likewise, the macro-economic situation in Africa is largely dependent on oil production and export. In the past four years, as the international oil price was sluggish, Africa took a declining proportion in the global deals. The foremost challenges for the oil & gas industry in the region are ambiguous regulatory framework, corruption, high tax, high financing cost, monetary exchange rate fluctuation and others. The overall deal count in Africa shrunk obviously under the climate of low oil price, mainly attributable to two aspects. On one hand, the onshore assets are mostly distributed in the countries with unstable political situation and poor public security, where the drop of oil price led to tight governmental finance, intensifying economic contradiction, and increasing security risks, thus triggering the withdrawal of international capitals. On the other hand, the offshore assets are relatively costly to exploit and more sensitive to the international oil price.

3.6. The Middle East initiated the market opening to attract strategic investors.
From 2014 to 2017, the upstream M&As in the Middle East were still gloomy, and only accounted for about 1% of the global total. Since last year, the deal count in the region has grown greatly, with the deal value reaching US$3.1 billion, much higher than US$0.1 billion in 2017 [2]. This is mainly contributed by Abu Dhabi National Oil Company (ADNOC), who sold tremendous assets after the modification of oil contract through two rounds of the tender to attract many potential international bidders. The tender blocks cover approximately 2/3 of the Abu Dhabi territory, marking that Abu Dhabi has made great progress in introducing the international capital and technical cooperation for accelerating the exploration and development of huge potential resources in the country.

4. Outlook for oil & gas market

4.1. As the oil price rises from a stable level, the deal upsurge will unfold again.
The international oil price dropped dramatically at the end of 2014. The Brent oil price hit a low level of US$26/barrel in January 2016, and then began to rebound. In 2018, Brent and WTI oil prices broke US$70/barrel in succession. The consulting agencies expect optimistic mid- and long-term oil prices.
As global oil prices remain stable in a moderate range, IOCs’ confidence in capital expenditure is enhanced gradually.

After the two-year transition and adjustment period, in 2019, the investment volume of each oil company constantly increases and the bulk deal has appeared preliminarily. When the oil price is gradually stabilized at US$70/barrel, oil companies in the world set off a wave of M&A again. Typically, Saudi Aramco acquired 70% equities of Saudi Basic Industries Corporation with US$69.1 billion; Chevron acquired Anadarko Petroleum, one of the largest independent oil companies in the world, with US$33.0 billion, and so became the fourth largest oil company globally; United Energy Group Ltd., a Chinese private company, acquired Kuwait Energy with US$810 million, allowing it access to the oil & gas sector in the Middle East [7].

Besides, when the oil price is low, IOCs are universally conservative in the exploration investment. As the oil price rebounds, the host countries re-open a lot of licenses for bidding, bringing new international cooperation opportunities to the transnational oil companies, who will re-arrange their upstream oil & gas businesses.

4.2. The unconventional oil & gas industry in the US will be continuously integrated.

The unconventional oil & gas industry in the United States shows its good prospect, in resource base or production cost. The oil companies’ activity in deals implies their optimistic expectation about the US unconventional oil & gas assets. In the earlier stage, the small- and medium-sized enterprises of the US dominated the oil & gas exploration and development. In recent years, the transnational oil companies have increased their footprints in the country, making the unconventional oil & gas industry face a reshuffling. No large independent oil company has monopolized the basin, and the unconventional oil & gas deal market in the US keeps with the full competition. With the adjustment of the upstream development strategy of the companies, the M&As will become normal, and tremendous assets will be stripped. The blocks with huge resource potential and good commercial prospects will become the asset targets to be pursued by oil companies.

4.3. Diversified players and extensive transaction opportunities can be expected.

After the test in the period of low oil price, IOCs successively take measures to reduce cost and optimize assets, and enhance the stripping of non-core assets, so as to improve the match between strategy and assets. More and more oil companies suffer from insufficient cash flow or high liability ratio, have to restructure, or become bankrupt. There are numerous to-be-sold assets in the market, including not a few potential high-quality assets and small- and medium-sized independent oil companies with investment value. At the same time, a lot of new buyers that have a good financial situation and sufficient cash flow emerge, such as non-petroleum industrial corporation, sovereign wealth fund, private equity and private buyer. They have participated in the oil and gas industry through capital operation. Accordingly, the players in the upstream deal market will be increasingly diversified.

5. Conclusions

The sudden advent of the era of low oil prices has plunged the global oil & gas industry into a difficult period of adjustment and development. Factors like dim prospects, unfavorable decision-making environment for oil & gas investment, gaps in the value expectations of buyers and sellers caused the shrinking number of global oil & gas deals. Regional trading demonstrated diversified characteristics, due to distinct performance of each trading player. After five years of industry integration, market confidence has gradually recovered. It is expected that multinational oil companies will reinforce upstream asset acquisitions; oil & gas resources continue to be integrated in North America, and oil & gas assets will continue to increase; furthermore, with international oil companies optimizing and divesting their assets, investors beyond the oil & gas industry will be attracted, which will diversify market participants.
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