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Global Oil and Gas Investment Outlook **By Aman Verma**

Global demand growth for oil and gas remains robust, although the pace of growth is slowing. According to the International Energy Agency (IEA), global liquids (crude oil and condensate) demand for 2019 and 2020 is expected to grow by 1 million barrels per day (MMbpd) and 1.2 MMbpd, respectively. The US-China trade tension risks and bearish global economic growth contribute to a conservative outlook for 2020. Long term, China's growth slows while India's demand remains robust driven by expansion of the middle class and robust GDP growth. Demand in the rest of the world is underpinned by the petrochemical sector, driven by the natural gas liquids (NGLs) in the US.

Global gas demand also remains strong this year. Future demand growth is poised to be more measured, supported by economic expansion in emerging markets – especially in Asia – and sustained policy support in China to tackle air pollution. The supplies to meet that new growth will come from both new domestic production in developing economies but also increasingly from major exporting countries, led by shale gas production and associated gas production from tight oil in the US.

Global Capital Investments in Oil and Gas

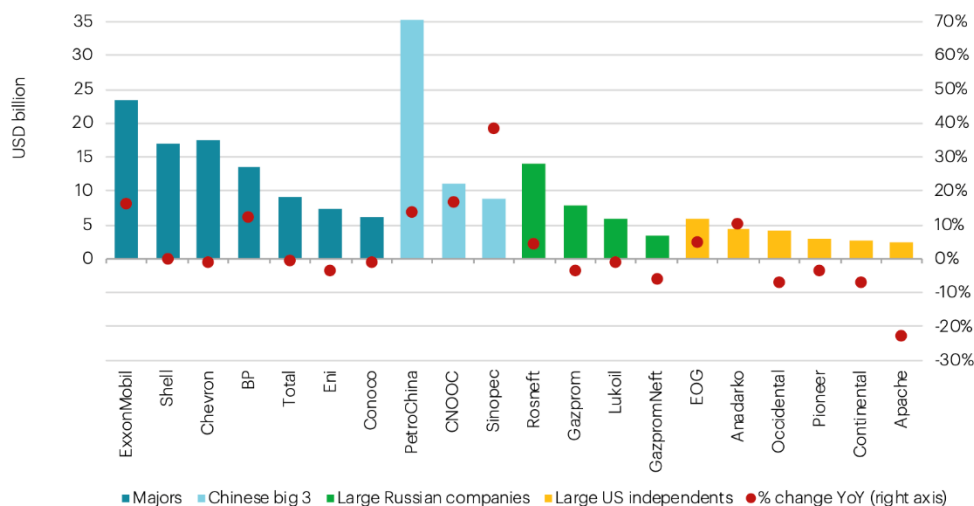
According to the IEA, 2018 witnessed just over \$500 billion spending in global upstream oil and gas, a 6% rise relative to 2017. This was underpinned by a higher oil price, and a shift to shorter-cycle projects and shale oil.

An increasing proportion of investors believe that holding the lowest-cost barrels or assets is simply not enough. Addressing climate-related financial risk has also emerged as a dominant theme, and the narrative may get louder and bolder¹. The focus has shifted towards lower risk sources that satisfy the following conditions – low cost, long life and low carbon intensity. Additional risks such as carbon taxes, potentially stranded assets and increasing pressure to decarbonise the entire energy sector could lead to a systemic financial risk.

Changes in investment patterns this year are varied by country and company types. Investments by almost all oil and gas majors, with the exception of Exxon and BP driven by their increased positioning in the US especially in the Permian Basin, are expected to remain flat. National Oil Companies (NOCs) have continued to invest to sustain and deliver energy supplies. For instance, in the Middle East Saudi Aramco and Abu Dhabi National Oil Company, have signalled their intention to increase their upstream spending to sustain oil production levels and meet rising domestic gas needs. Driven by higher spending in the North Sea, including the first phase of the massive Johan Sverdrup field, investment is expected to be on the rise again also in Europe.

Investment activity in Russia has been sluggish. Except for Rosneft, large Russian companies are set to keep upstream spending at the 2018 levels (see Figure 1).

Figure 1: Change in Upstream Oil and Gas Investment in 2019 (forecast) vs. 2018 by Company Type

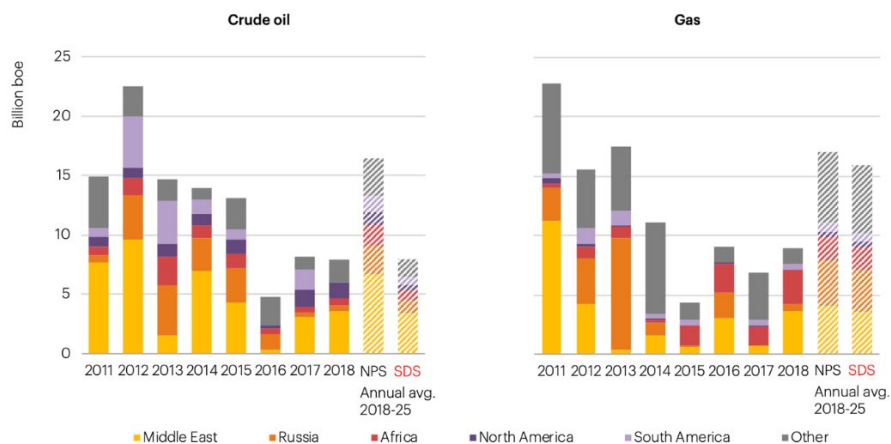


Note: CNOOC = China National Offshore Oil Corporation
 Source: IEA analysis with calculations based on company reports and guidance

Source: IEA World Energy Investment 2019²

The world will continue to rely on oil companies delivering supply to meet the incremental demand growth, thus positioning themselves as a secure source of energy. Gas, on the other hand, is poised to be a cleaner transition-fuel displacing traditional coal-fired power generation, especially in developing countries. Even under the IEA’s New Policies Scenario (NPS) which is reflective of the existing policy frameworks and current policy ambitions, oil and gas investments remain robust, representing half of the global energy investments in 2025-2030. Share of investments to secure gas supply, compared to oil, is expected to increase under this scenario (Figures 2 and 3).

Figure 2: Sanctioned Conventional Oil and Gas Resources by Region

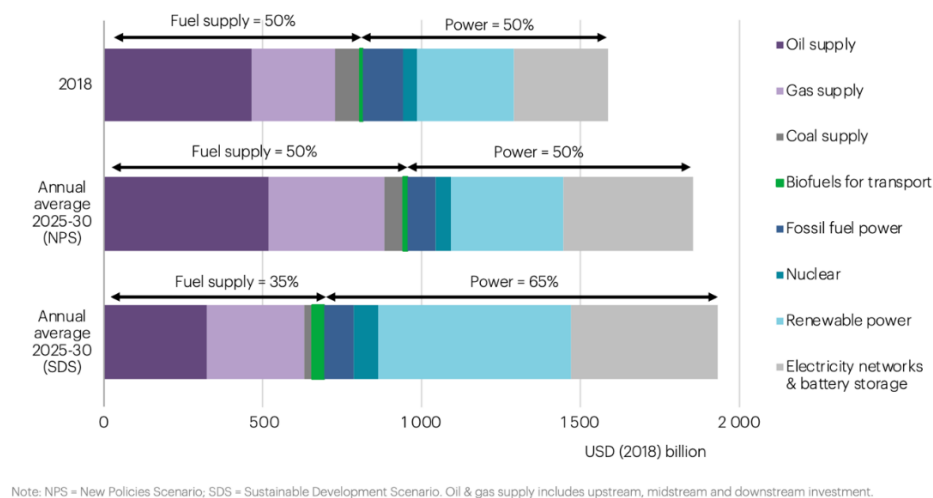


Note: NPS and SDS show the annual average of sanctioned resources between 2018 and 2025 under the IEA New Policy Scenario (NPS) and Sustainable Development Scenario (SDS), respectively.
 Source: IEA analysis with historical sanctioned resources based on Rystad Energy (2019).

Source: IEA World Energy Investment 2019²

However, under the Sustainable Development Scenario (SDS), where countries meet their Paris agreement targets, oil and gas spending needs to recede further consistent with the current trends observed – with sharper declines in the oil sector compared to gas. This contrast between the NPS and SDS scenarios reflects the challenges and regulatory uncertainty faced by the industry to align their future business plans and strategy.

Figure 3: Annual Average Investment Needs in 2025-2030 by Energy Source Type in 2018 and IEA’s scenarios



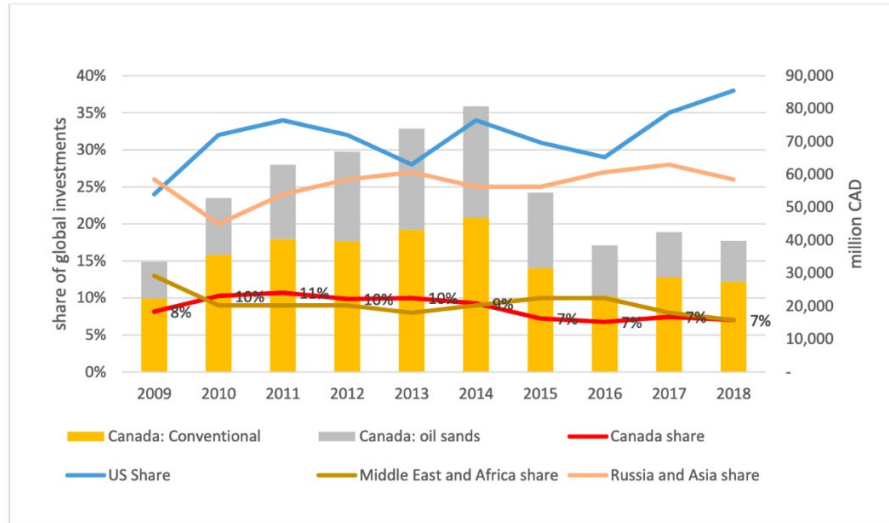
Source: IEA World Energy Investment 2019²

Upstream sector was the largest private sector investment area in Canada in 2018. Capital investment in the oil and gas sector in Canada peaked at CA\$81 billion in 2014. In 2018, exploration and production capital spending was around CA\$39 billion, an 8% decline year-over-year. The Canadian Association of Petroleum Producers (CAPP) estimates that 2019 is set to decline another 7% to CA\$36 billion. This translates to a decline of around 55% compared to the 2014 levels. In 2019, corporate budgets for spending have been relatively flat (or lower), with large producers considering share buybacks while smaller producers are constantly challenged to maintain growth within cash flow. The capital expenditure in the first half of 2019 stood at just over CS\$16 billion, a 17% lower compared to the levels seen in the similar period in 2018 (Figure 5).

Canadian Oil and Gas Investments

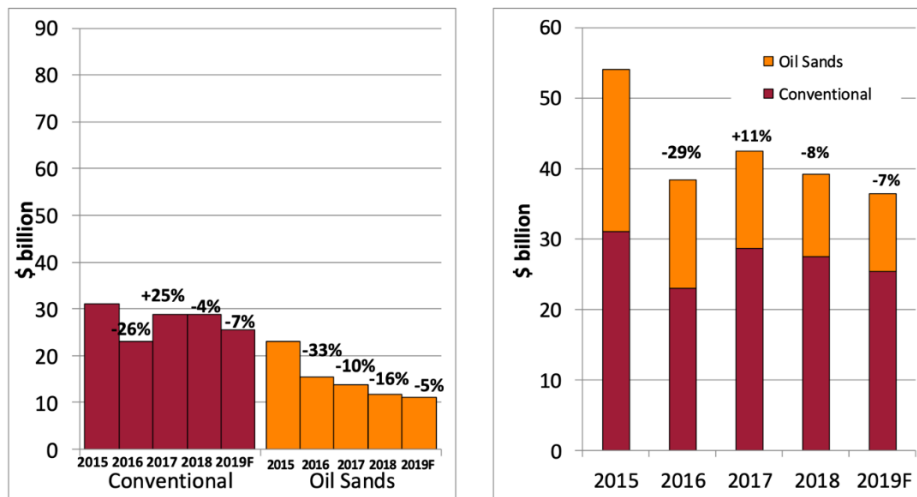
For upstream investments, Canada has been losing its share in the global investment portfolio since 2013 falling from 10% to 7% in 2018. Latin America and Europe were the other two regions that have seen fewer investments. The United States has attracted the attention of investors in recent years growing to 38% share of global investment. In 2020, US tight oil and shale gas production is projected to grow at a slower pace – fiscal returns are proving to be low and finances have deteriorated. Russia, Central Asia and Asia Pacific countries have been balancing the remaining quarter of the global investments (see Figure 4).

Figure 4: Investment Trends in Oil and Gas: Canada vs. Rest of the World³



Source: EIA, IEA, ARC Energy Institute, CERI

Figure 5: Investment Trends in Canada: Conventional vs Oil Sands



Source: CAPP's September 2019 Capital Investment & Drilling Forecast Update⁴

Conventional oil and gas spending was \$27 billion in 2018 and is estimated to be \$25 billion in 2019. Oil sands industry witnessed a decrease by 16% to \$12 billion from \$14 billion in 2017. 2019 forecast is down another 5% to \$11 billion – a fall of almost 60% compared to 2014 level.

Key challenges going forward

Canadian oil and gas investments are being undermined by market access challenges. Attracting capital while at the same time remaining competitive in global markets is challenging. Despite its relative large size compared to other industries within Canada, the oil and natural gas industry will

continue to compete for investment and capital in an increasingly globalized world that still needs oil and gas to meet the growing energy needs.

On the other hand, environmental regulations pose incremental challenges for the both upstream and downstream industries. Regulations like sulphur emission reductions by the International Maritime Organization (IMO), the federal Clean Fuel Standard regulations, methane emissions regulations and carbon taxes will impact both producers and consumers.

For example, starting 2020, ocean-going ships will be required to use low-sulphur fuels (like marine distillate or gasoil) or employ scrubbers, under Sulphur emissions control rules imposed by the International Maritime Organization (IMO). While compliance is expected to be higher, the implications for heavy-sour crudes could be significant, mainly in the form of wider price differentials with Brent. However, with the current tightness in the heavy crude market and bearing diesel/gasoil markets, the price risk may be less exacerbated in 2020.

Lastly, geopolitical risks – tensions in the Middle East, US-China trade war, and the US global influence – will be at the forefront and may lead to continued oil price volatility.

Conclusion

Energy transition is gathering pace, catapult by a drive towards achieving a net-zero energy society to tackle climate change. The Paris 2-degree goal is a clear focus of clean energy advocacy, and public and investor attention towards climate-change related risks at both global and local levels. The 25th Conference of the Parties (COP25) talks ended without a deal on carbon markets. Will COP26, to be held in Glasgow, UK this year, intensify the debate with increased commitments from the industry and governments at large? Hopefully countries submit their updated national climate action plans or nationally-determined contributions (NDCs) targets by 2020.

Long term role of oil and gas cannot be denied. From Canada's perspective, with the Alberta Technology Innovation Emissions Reduction (TIER) regulation starting in 2020 and the Federal Low Carbon Standard for liquid, gaseous and solid fuels in 2022, Canadian oil and gas producers continue to focus on improving operational efficiencies, and carbon intensity is essential. Investment opportunities also exist in the petrochemical sector that will ensure security of crude oil and natural gas supply.

Nonetheless, new challenges for oil and gas companies have emerged with an increasing pressure to address the risks and uncertainties. First challenge is the uncertainty of speed, scope and impact of energy transitions in developed and developing countries, and end-use sectors. Second, beyond setting targets and taking action, oil and gas companies ought to address challenges to their social license to operate. Lastly, environmental policy remains largely an incremental activity. Accelerating policy support for electric vehicles and renewables will continue in the coming decades to meet the national commitments to reduce the greenhouse gas emissions.

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