

Market Update: Oil & Gas – October 2015

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Oil & gas markets: monthly roundup

Oil prices remained fixed around 50 US dollars (US\$) per barrel (b) as the tug-of-war battle between the Organization of the Petroleum Exporting Countries (OPEC) and the US continued to take center stage in the oil market. A drop in US production (120,000 barrel per day (b/d)) triggered a rally in early October which saw ICE Brent trade comfortably above the US\$50/b handle. However, bullish sentiment was soon tempered as OPEC production for September revealed an almost commensurate rise (109,000 b/d). At 31.57 million barrels per day (mb/d) OPEC continues to pump well above its self-imposed quota of 30mb/d.

A succession of inventory withdrawals at the US West Texas Intermediate (WTI) delivery hub saw the New York Mercantile Exchange (NYMEX) futures contract gain US\$2/b on its transatlantic counterpart, ICE Brent, over the course of September. At the time of writing, the NYMEX WTI contract was trading at a US\$3/b discount to Brent.

Despite uncertainty surrounding oil's next directional move, speculative length was added to both ICE Brent and NYMEX WTI contracts as net long positions among hedge fund investors increased week ending 6 October. According to data released by ICE, long contracts held by money market investors for Brent stood at 268,665 versus 99,208 shorts.

LNG Market Insight: LNG Shipping

The liquified natural gas (LNG) shipping market continues to experience a cyclical downturn as the triple forces of fleet overcapacity, low oil prices and sedate global economic growth has resulted in a changing of LNG flow dynamics and the lowest LNG charter rates since 2010. As of the end of July 2015, short-term charter rates for Dual Fuel Diesel Electric (DFDE) vessels were US\$25,000 – US\$32,000/d.¹

Average LNG Charter rates (US\$1,000)	2014 FY	2015 YTD
138–145k cbm Short-Term Time-Charter Rates	60	31
155–160k cbm Dual Fuel Diesel Electric Time-Charter	73	44

Source: RS Platou Monthly

An emerging disconnect between LNG fleet growth and LNG project development has become increasingly apparent. While numerous LNG project developments have stuttered in the face of technical, regulatory and financial challenges, shipyards are delivering LNG ships into the market at relative speed. The LNG fleet in first quarter 2015 grew by 9 year-on-year (YoY) as a number of new builds entered the market and consequently contributed to a 10 percent fall in utilization rate.²

As LNG fleet production expands, the delays in LNG projects, particularly in Australia, have resulted in LNG ships sitting idle awaiting production to start. Moreover, there has been a dip in the seaborne trade of LNG, which fell by an estimated 3 percent YoY during the first quarter 2015. LNG exports from a number of countries such as Indonesia and Qatar have declined and geopolitical unrest in the Middle East continues to hamper export.

¹ Teekay LNG Partners, Market Insights, Teekay Marine Market – Gas Updates, August 2015

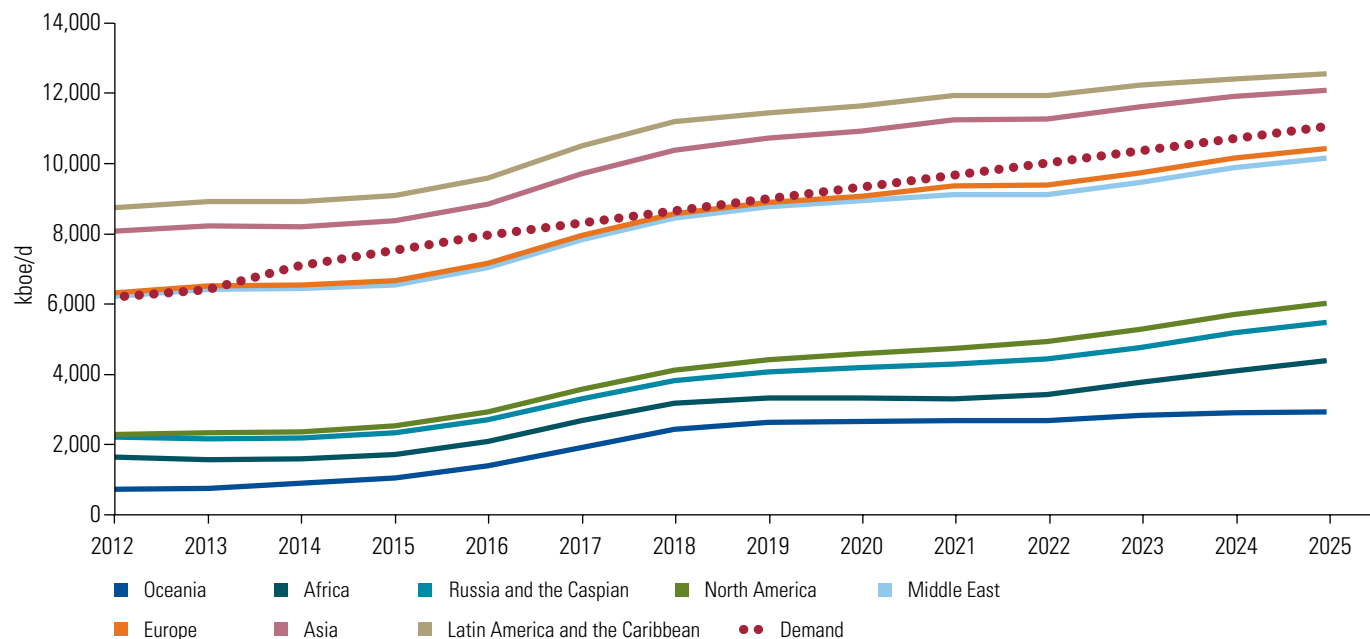
² RS Platou Monthly, April 2015



Demand and supply fundamentals

According to industry estimates, LNG production capacity is expected to grow by approximately 135 million tons per annum (Mtpa) over the next 5 years, with Australia, US and Russia accounting for 90 percent of the volumes.

LNG Capacity & Demand Forecast

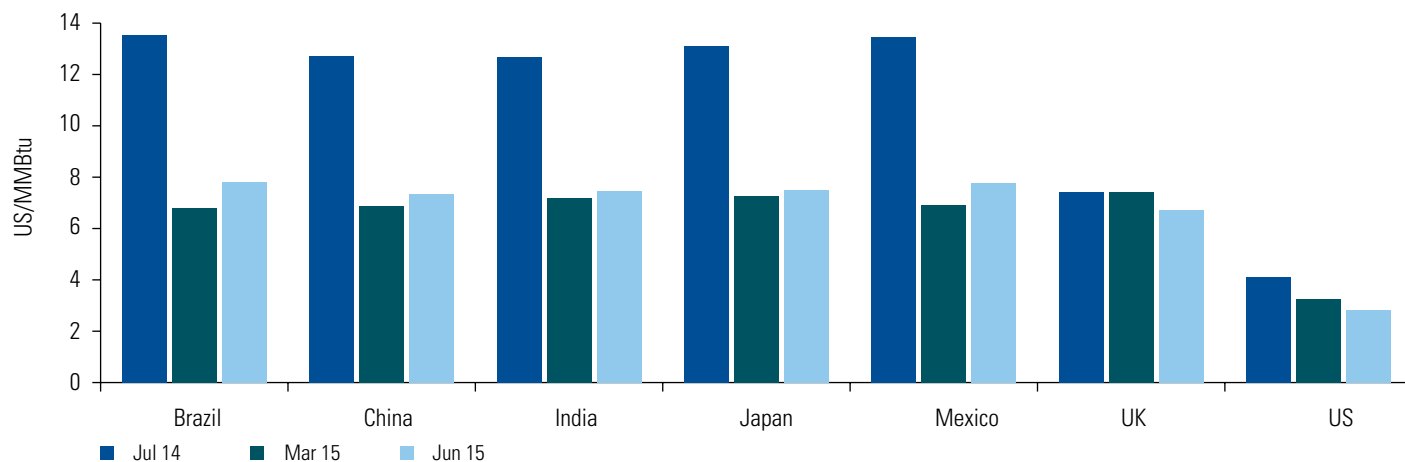


Source: Wood Mackenzie, IEA, KPMG Analysis

On the demand side, growth across Asia, a major LNG demand center, continues to slow owing to recent economic troubles and a contraction in local demand. This rather weak economic climate has reduced the need for additional spot cargoes in Asia adding downward pressure on Asian LNG

landed prices. According to the US Federal Energy Regulatory Commission (FERC), LNG landed prices have more than halved over the course of the year, with Asian prices dipping below US\$7.25/British Thermal Units (MMBtu), compared with US\$13+/MMBtu in June 2014.³

World LNG Landed Prices, Annual Change



Source: Federal Energy Regulatory Commission (FERC)

³ Federal Energy Regulatory Commission, Market Oversight, June 2015



The rout in oil prices that began in mid-2014 has narrowed the Asian LNG premium vis-à-vis other LNG price benchmarks. Asian LNG contracts are predominantly linked to oil prices in the form of a Japanese customs cleared (JCC) crude oil price slope. The fall in oil prices has seen price convergence in Asian and European LNG prices which in turn has reduced the demand for vessel diversions from Europe to Asia. As a result the number of longer distance voyages have declined,

inter-regional trade has reduced and ultimately LNG vessel use has fallen.

Despite low crude prices, there remains an appetite for Asian LNG buyers to decouple from crude and a related emphasis to embed better delivery terms into contracts and build spot trading capabilities. As a result, a new pricing model away from long-term, oil-indexed contracts, is seemingly on the horizon, which will most likely contribute to further LNG price convergence.

LNG shipping: calm after the storm?

How these contractual changes in the LNG market will impact future project development and its subsequent bearing on the LNG tanker market, remains uncertain. Nonetheless, what is clear is that in the face of supply and demand headwinds, LNG ship owners will need to work more for their money, disregard the vessel sunk cost and assess the underlying macro-fundamentals carefully over the short and long-term. Despite

the short-term challenges, ship owners should take confidence from the fact that vessel use should improve as Australian projects come online and Angola LNG resumes production. The total capacity of LNG export projects currently in construction is approximately 140 Mtpa. Consequently, LNG trade is anticipated to grow 50 percent by 2020, requiring a significant expansion of the LNG fleet.

O&G supply side headlines

- US crude oil production declined by 120,000 b/d month-on-month in September (EIA)⁴
- US crude oil production is forecast to decrease through mid-2016 before growth resumes late in 2016. Projected US crude oil production averages 9.2 mb/d in 2015 and 8.9 mb/d in 2016. (EIA)⁴
- Natural gas working inventories in the US rose 15 percent YoY to 3,538 billion cubic feet (Bcf) on 25 September. (EIA)⁴
- OPEC invited eight non-OPEC countries (Azerbaijan, Brazil, Colombia, Kazakhstan, Norway, Mexico, Oman and Russia) to discuss the market in a technical oil meeting on 21 October. (OPEC)⁵

- World oil supply remained stable at 96.6 mb/d in September, as lower non-OPEC production was offset by a slight increase in OPEC crude. (IEA)⁶
- OPEC crude supply rose by 90,000 b/d in September to 31.72 mb/d as record Iraqi output more than offset a dip in Saudi supply. (IEA)⁷

O&G demand side headlines

- Global demand growth is expected to slow from 1.8 mb/d in 2015 to 1.2 mb/d in 2016. (IEA)⁸
- China's crude imports rose to 27.95 million metric tons (MMT) in September from 26.59 MMT of overseas purchase in August: General Administration of Customs. (Bloomberg)⁹

Analyst estimates: oil

Brent forecasts saw their largest fall since February, with decreases across the forecast period (September). Analysts predict the supply overhang to last longer than previously predicted due to capital productivity improvements in US shale, and a potential increase in Iranian production once sanctions are eased. Analysts maintain their prediction of a medium-term recovery in prices as CAPEX cuts and low spare capacity will be supportive of Brent.

Brent (US\$/bbl)	2015	2016	2017	2018
August Average	59.9	68.2	78.9	85.9
September Average	56.4	61.4	71.4	81.1
August Median	60.0	67.8	80.0	80.0
September Median	55.0	58.0	70.0	75.0
Number of estimates	18	17	14	7

Source: based on 18 external energy market analyst forecasts

⁴ Short-term energy and winter fuels outlook, EIA website, 6 October 2015, accessed 7 October 2015

⁵ Venezuela says eight non-OPEC nations invited to Vienna meeting

⁶ IEA releases Oil Market Report for October, IEA website, 13 October 2015, Accessed 14 October 2015

⁷ IEA releases Oil Market Report for October, IEA website, 13 October 2015, Accessed 14 October 2015

⁸ Oil demand growth to slow, IEA says, but is OPEC listening?, CNBC website, 13 October 2015, Accessed 14 October 2015

⁹ China Crude Imports Rebound as Refiners Seek Oil Bargains, 12 October 2015, Bloomberg Business website, Accessed 13 October 2015



Gas markets: monthly roundup

Industry benchmarks

US

Natural gas prices at the Henry Hub delivery point fell 4 percent for the month of September, averaging 2.66 US dollars MMBtu compared with prices in August. High natural gas inventories, ahead of winter season, is preventing gas prices from rising.

UK

ICE UK Natural Gas Futures increased 2 percent MoM to 41.13 pence per therm (p/th). Seasonal heating demand was seen as the supporting factor for spot gas prices.

Japan

The Platts Japan/Korea Market (JKM) contract prices fell 5.9 percent MoM to US\$7.54 MMBtu for October. The approaching winter season failed to lift demand from Asian buyers as MoM prices drifted lower.

Analyst estimates: gas

Henry Hub forecasts remain virtually unchanged from last month throughout the forecast period (September). Supply growth continues to be robust, but improved demand growth anticipated in 2016 is expected to lead to a gradual recovery in prices. Analysts continue to expect an oversupplied market in the near term.

Henry Hub (US\$/MMBtu)	2015	2016	2017	2018
August Average	2.9	3.3	3.7	3.9
September Average	2.9	3.3	3.7	3.8
August Median	2.8	3.3	3.7	3.9
September Median	2.8	3.3	3.7	3.9
Number of estimates	17	17	13	7

Source: based on 17 external energy market analyst forecasts



A global insight

Points of view from KPMG's Oil & Gas subject matter experts

Russia



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The Russian oil and gas sector

"Despite turbulence in the market and current sanctions, the Russian oil and gas industry is in good condition when it comes to maintaining production levels and applying new technologies. Indeed, from an economic standpoint, there is no reason to be pessimistic. However, there are pricing issues to consider as the industry faces very low prices for the resources they produce. Oil production projects are often long and intensive and require a minimum level of profitability, so the sector will be hoping for a sustained correction in prices."

UK



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Global LNG: A buyer's market?

"The rapid expansion in LNG capacity opens up huge possibilities in the market, not least for buyers. New supply from the US offers buyers portfolio diversity as well as a different pricing mechanism on which to buy. The predicted supply-demand imbalance will no doubt see some buyers eschew long-term contract discussions and renewals in favor of spot or shorter duration contracts with embedded optionality. The Asian market will remain a major force, but whether it follows the footsteps of the European market of gradual oil price de-linkage remains uncertain. Sellers meanwhile are bracing for a tougher time as a series of new LNG trains enter the market. The possibility of global LNG price convergence may also limit spot arbitrage opportunities."

US



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US oil price outlook

"Uncertainties about US federal interest rate increases and geopolitical concerns over stability in the Middle East have supported crude prices. Prompt month futures have recovered to their September high watermarks. The fundamental outlook remains neutral to bearish. However, due to high US crude and gasoline inventories it is tempered by the potential for declining crude US production."

ASEAN



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Indian energy reform: Paving the way for LNG

"As the world's second most populous nation, facilitating India's burgeoning energy demand has been flagged as a central policy for the Modi administration. Modi inherited an inadequate energy infrastructure for a rapidly industrializing nation: vast regions of India's grid are disjointed and subject to severe blackouts. Aware of India's lack of indigenous hydrocarbons, Modi has been quick to implement reforms that focus on 'long term and clean' energy. He has implemented ambitious plans to reduce India's dependence on coal: India is proactively building its nuclear, LNG and clean energy infrastructure."

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