

## Collapse in LNG contract lengths and volumes raises future supply concerns

A dramatic acceleration of a trend toward smaller volumes and shorter tenures for LNG contracts in 2017 highlights the growing commoditization of the global LNG market even as it raises troubling questions about future supply.

Average contract lengths for deals signed in 2017 fell to 6.7 years - the lowest ever recorded - compared with 11.5 years in 2016. With many options for supply and uncertainty over future prices, last year buyers signed dozens of short- and medium-term contracts rather than commit to long-term deals that could help support the construction of new capacity that is expected to be needed by the mid-2020s.

This trend suited sellers who view the shorter contracts as a way to wait out the current soft market, and aggregators who have large volumes of LNG to sell over the next few years as US projects come online. But, with just two new LNG projects greenlighted over the past two years, concern is growing that the market may be undersupplied in the medium-term. Specifically, without long-term contracts that will enable more projects to be financed, the construction of new capacity may lag demand growth and set the stage for tighter markets and higher prices in the future.

### Average length and size of contracts plummeted

The number of short-term contracts – those two to five years in length - more than doubled from nine in 2016 to 20 in 2017, after holding steady at an average of about five between 2013 and 2015.

The number of deals with tenures of six to 10 years fell to just four in 2017 from 10 in 2016. And the number of deals over 10 years collapsed from 14 to six, after nearly five years during which long-term contracts were the most common form of contract signed.

Overall contract sales fell to less than 22 MMT/y in 2017, down from more than 30 MMT/y in 2016.

Another feature of 2017 LNG contracts was a decline in the average volume per contract across the board. The average volume covered by a contract signed in 2017 was just 660,000 t/y, down nearly 27% from 900,000 t/y in 2016. This trend was most evident in contracts of six to 10 years, where average volumes per contract fell 72% from 760,000 t/y in 2016 to just 210,000 t/y in 2017.

### Flight to safety of oil-linked contracts as prices fall

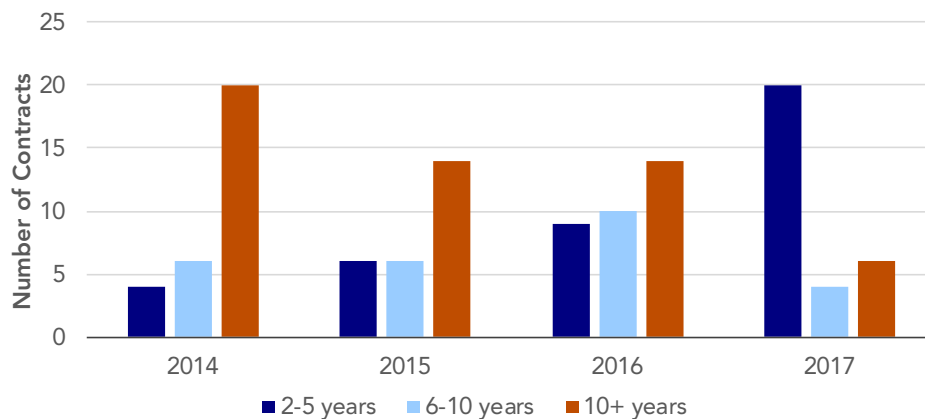
Of the 20 signed bilateral contracts with tenures of five years or less, 14 were

oil-linked, with most priced against Dated Brent. Three others were priced against European gas indices, two on a hybrid basis (Brent-Henry Hub) and one against the JKM marker in Asia.

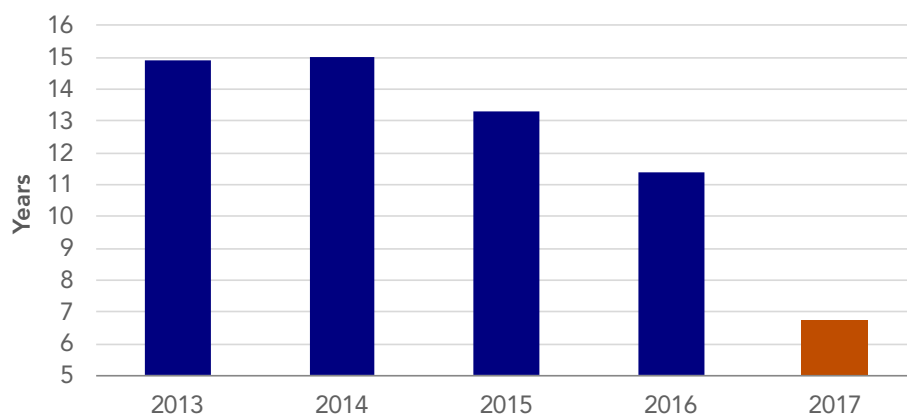
Pricing for short-term deals has come down as buyers have taken advantage of the abundantly supplied market and sellers have competed to secure outlets for their supplies. Most contracts shorter than five years were priced as a percentage of Dated Brent ranging from low-11% to mid-11%, down from prices ranging from mid-11% to well above 13% in 2016.

Pricing was a bit higher for medium-term deals, with all contracts observed priced against oil benchmarks. Prices ranged from about 11.5% to 12% of Brent or JCC

### Contracts by length



### Average contract length



for delivered supplies. Long-term deals also showed a small premium to short-term formulas with the highest prices seen in the mid-12% of Dated Brent range.

The strong move toward Brent and away from a variety of other benchmarks that have proven popular in recent years – European gas hubs, Henry Hub, LNG indices, gas-oil hybrids, for example – indicates that market participants have yet to gain confidence in alternative benchmarks. While there has been a significant increase in liquidity in the Asian spot LNG swaps market, it is far less liquid than Brent paper markets. Other spot benchmarks remain illiquid and do not support any risk management tools.

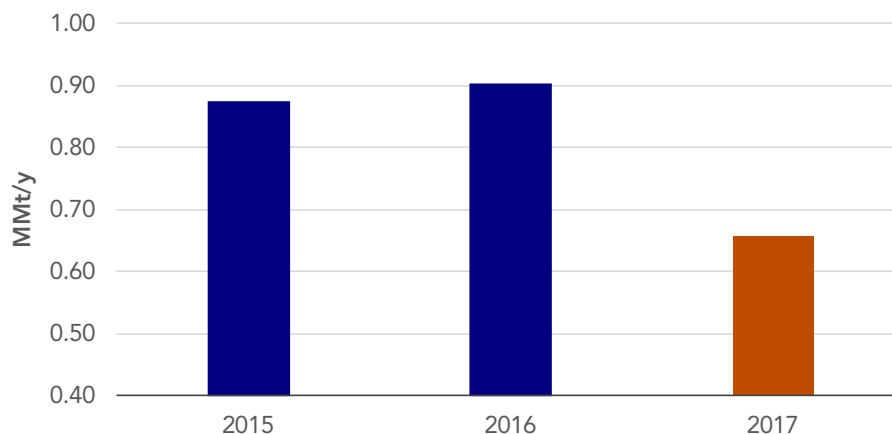
### Long-term deal bust raises concerns about future supply

As noted above, just six long-term contracts were signed last year, and with one exception, none were for supply from an LNG project under development. That deal was a 20-year contract for supply from the Louisiana-based Calcasieu Pass liquefaction project, which has yet to make a final investment decision (FID) despite a scheduled 2021 start for deliveries.

This lack of deals associated with projects under development highlights concern about future LNG supply. With only one FID in 2017, the excessive investment in LNG capacity early in the decade may now be followed by a dearth of commitments as buyers – believing they have many options and that prices may yet decline more – are reluctant to sign long-term contracts that will enable project sponsors to finance new capacity.

This shortfall in investment activity could trigger future price volatility in much the

### Average volume per contract



same way that the commodity investment cycle in crude oil leads to market turbulence.

### US projects facing pressure to improve contract terms

A host of US-based projects are marketing new supply. While a formula of 115% of the value of Henry Hub, plus a \$3-\$3.50/MMBtu liquefaction fee was attractive when the first wave of US projects was marketed, many buyers are looking for better terms and sponsors are trying to respond. Tellurian Investments, sponsor of the Driftwood LNG project, has offered a range of alternatives intended to woo buyers. They have included fixed prices of \$7.50-\$8/MMBtu delivered to Asia. The company is now marketing a plan under which buyers will pay \$1.5 billion up front in exchange for 1 MMT/y of LNG at an FOB cost the company estimates to be about \$3/MMBtu.

Other US projects are offering lower liquefaction costs and different approaches to securing gas supply in order to make their projects more competitive. Liquefaction charges of \$2.25-\$2.50 appear to be on offer. Winning over buyers reluctant to sign long-term deals

will be critical if there is to be an adequate supply of reasonably priced LNG in the mid-2020s.

### Most 2017 transactions reduced homeless volumes

Poten defines homeless LNG as supply that is expected to be produced but that is not under contract to end-users. This includes volumes under contract to aggregators or traders that have not been sold on, contracted volumes that are believed to be surplus to the requirements of end-users, and tons that are held by producers.

Most of the 2017 transactions involved supply drawn from these sources. As many buyers have opted to tap these supplies, the drawing down of this pool of LNG should eventually encourage end-users and/or aggregators to look at new projects for long-term supply.

The question now is whether project sponsors can convince enough buyers to return to long-term contracts to ensure that additional liquefaction capacity is built in time to avoid potential supply constraints in the future. ■

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