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Reported Prices – bullish sentiments on oil continue to prevail in mid-January 2018 as crude prices at Brent have hit \$70 per barrel while the West Texas Intermediate (WTI) marker is trading above \$65 per barrel. Cash prices for near-term delivery at Henry Hub on January 16 settled at \$5.10 per MMBtu as colder temperatures stretched from Texas to up the east coast, stimulating high demand. Looking ahead, expectations for another cold snap in February have helped support gains in prompt-month futures (February 2018) to more than \$3.50 per MMBtu as of January 24. Both natural gas indicators demonstrate a market that is working as it should. Together these price markers signal longer-term price stability and shorter-term machinations reflecting current conditions.

Weather – despite the fact that four of the past seven weeks posted colder-than-normal temperatures bolstered by the record cold during the New Year, in aggregate warmer temperatures have prevailed. Aggregate heating degree days since early October through January are still 4.4 percent warmer than normal, a reflection of of the drastic swings in temperatures we've seen this winter season. Weekly US gas-customer-weighted HDDs have ranged from 46 percent warmer than normal in mid-October to 34 colder than normal in early-January. It's been quite a ride, and the winter heating season still has at least eight weeks to go.

Working Gas in Underground Storage – thank goodness the US boasts the largest natural gas underground storage infrastructure in the world. Beginning the week ending December 29, 2018, working gas inventories lost about 750 Bcf in three weeks as bitter arctic cold descended on the US, from the Rockies front to the east coast. The first week of January 2018 saw a record 359 Bcf of working gas withdrawn from storage. As we write, underground inventories sit at 2,296 Bcf, which is 18.4 percent lower than one year ago and 17.5 percent lower than the five-year average. Forward-looking market price data would say that the current deficit is not a market concern, particularly with domestic production growth year over year.

Natural Gas Production – domestic natural gas dry production is roaring. With volumes consistently in the 75–77 Bcf per day range, dry gas flows are about 5.6 Bcf per day or 8 percent higher than January 2017. The production gains reflect not only elevated drilling activity relative to last year but significantly more takeaway pipeline capacity in key supply regions like Appalachia. The ability to move once glutted supplies to demand centers through infrastructure build-out will continue to boost production through the year. The EIA short-term energy outlook sees nearly 80 Bcf per day of dry gas production in the US by the end of 2018.

Shale Gas – interest in the Marcellus and Utica shales in Pennsylvania has materialized in the form of a 79 percent increase in drilling permits filed for December 2017 relative to December 2018. Southwestern Energy, EQT, and Range Resources are players in the drilling permit surge. In North Dakota, pipeline capacity for transporting natural gas out of the area has reached 2.1 Bcf per day, but

processing facilities are not yet in place to handle that daily volume. With flaring limits imposed by the state, the net result is that some oil (and other liquids) production is currently restricted until additional infrastructure is completed. This back and forth between growing production capability and infrastructure is not new, of course, to the oil patch.

Rig Count – the count of oil rigs has not moved much since late November. At 747 currently in operation for the week ending January 19, the number of oil rigs is at its average value since the week ending November 22. With oil prices still on the rise, this could change. Meanwhile, the current total of 189 natural gas rigs in operation is one-third higher than year-ago levels, and the count has made some small gains since September. Location-wise, nearly 40 percent of all gas-directed activity is concentrated in the Marcellus and Utica shale basins; another 25 percent is due to activity in the Haynesville.

Pipeline Imports and Exports – exports to Mexico are steady at an average 4.4 Bcf per day for the month. Imports from Canada have oscillated as demand required. At 5.9 Bcf per day, Canadian imports are running about 14 percent higher for the month compared with January 2017.

LNG Markets — a new 15-year purchase agreement between Cheniere, a US LNG producer, and Trafigura, a multinational commodity trading house, suggests the importance of intermediaries in the international LNG supply chain. The long-term contract, a first of its kind between traders and producers, helps explain the additional LNG liquefaction capacity Cheniere is trying to build along the Gulf Coast. LNG projects are pricey. To the extent that other players can create financial stability by absorbing some price risks, these deals may help to advance new projects. Meanwhile, Bloomberg is reporting that the Cove Point LNG facility in Maryland, which was expected to enter service at the end of 2017, is delayed until March. After Cove Point, an additional two or three LNG export terminals are expected to come online in 2018. Finally, an interesting market dynamic emerged at the beginning of the year: data from Bentek shows that the Southeast/Texas region simultaneously imported and exported LNG during the New Year's cold snap. Approximately one-third of gas sendout from LNG imports was out of the Southeast/Texas region at times during the first week of January. Concurrent to those import sendouts was approximately 3 Bcf per day of feedgas directed toward LNG exports.

Natural Gas Market Summary – a number of natural gas local distribution companies are reporting that the New Year's cold snap brought with it record levels of sendout on utility systems. Despite record levels of demand, the natural gas system performed well and supplies remain in good shape. Market pricing of natural gas futures at \$3.00 to \$3.50 per MMBtu still suggest a market sentiment of both strong demand and robust supply portfolios including elevated production, underground storage stocks, LNG imports, and piped gas from Canada.

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