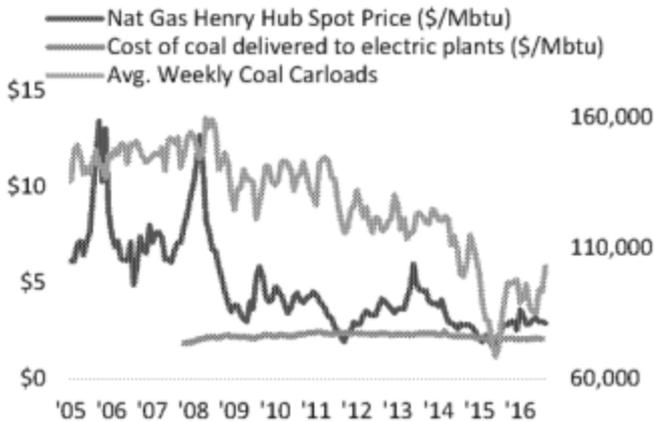


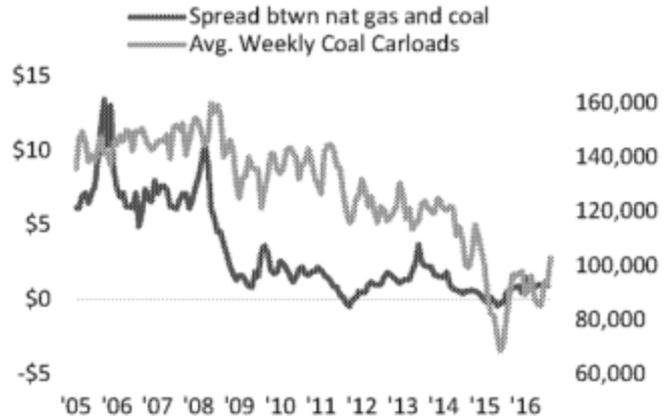


Figure 50: NA Coal carloads have declined as natural gas prices have moved closer to parity with coal



Source: Deutsche Bank, EIA, AAR

Figure 51: NA coal carloads vs. spread between nat gas and coal



Source: Deutsche Bank, EIA, AAR

Given the aforementioned correlation, the outlook for natural gas prices is critical to gauge short- to medium-term prospects for coal shipments. To this point we note that Deutsche Bank's Commodities team forecasts natural gas prices to hover around \$3.00 in 2018 and \$3.10 in 2019. While volumes have somewhat recovered from the lows in early 2016, we expect pressure on coal volumes to persist long-term largely beginning again in 2019/2020 - albeit to a lesser extent than what we witnessed in 2014-15. Other factors that could drive improvements are a much weaker dollar and a much colder winter, which incentivizes exports and lowers inventories, respectively. We note that CNI is the least exposed of any major Class I rail with just 4% of revenue coming from coal in 2016.

Figure 52: DB U.S. Natural Gas supply/demand model (base case)

	2011A	2012A	2013A	2014A	2015A	2016F	2017E	2018E	2019E	2020E
Natural Gas Demand Summary (bcf/d)										
Residential & Commercial	21.7	19.3	22.5	23.6	21.6	20.6	19.5	21.3	21.3	21.3
Power Generation	20.7	24.9	22.4	22.3	26.5	27.3	28.2	30.2	30.5	30.8
Industrial	19.2	19.8	20.4	20.9	20.6	21.2	21.9	22.8	23.2	23.5
Pipeline Exports	1.4	1.7	1.8	2.0	2.9	3.7	5.1	7.0	7.9	9.1
LNG Exports	-	-	-	-	-	0.5	1.7	3.0	5.4	7.7
Other	5.6	5.9	6.4	6.5	6.8	6.4	6.4	6.5	6.5	6.5
Total Demand (bcf/d)	68.5	71.5	73.5	75.3	78.3	79.7	82.9	90.8	94.8	98.8
Natural Gas Supply Summary (bcf/d)										
Marcellus & Utica	4.8	7.7	11.2	14.7	19.5	22.0	23.5	27.5	31.1	31.9
Haynesville	9.8	9.8	7.7	6.7	6.2	6.0	6.4	7.1	7.7	8.5
Associated	12.2	13.8	15.4	17.8	20.0	19.8	20.0	23.1	24.7	25.2
Barnett	4.9	4.8	4.5	4.2	3.8	3.5	3.2	3.0	2.8	2.7
Fayetteville	2.5	2.8	2.8	2.7	2.7	2.4	2.1	2.1	2.0	1.8
Other L48	25.5	25.0	23.5	23.0	22.0	19.4	18.4	18.4	18.1	17.9
Offshore Gulf	5.0	4.1	3.6	3.4	3.5	3.3	3.3	3.3	3.2	3.0
Pipeline Imports	5.9	5.4	5.1	5.1	5.3	5.8	6.3	6.8	6.9	6.9
Total L48 Supply	59.7	63.8	65.1	69.1	74.3	73.0	73.6	81.2	86.5	88.1
Total Supply (bcf/d)	70.6	73.4	73.8	77.7	83.1	82.2	83.2	91.3	96.6	98.0
Year End Working Gas Storage (bcf)	3,413	2,890	3,141	3,677	3,306	3,029	3,185	3,843	3,555	

Source: Deutsche Bank Oil & Gas Exploration team