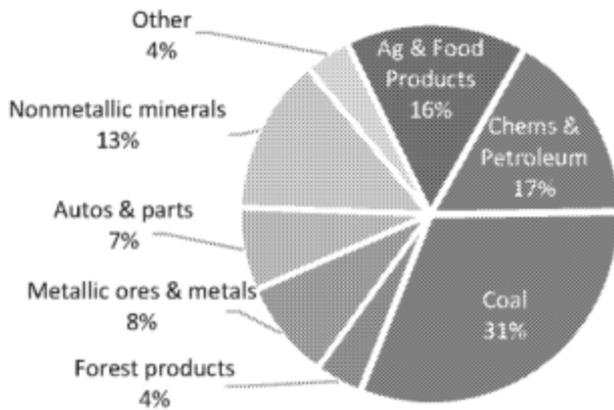


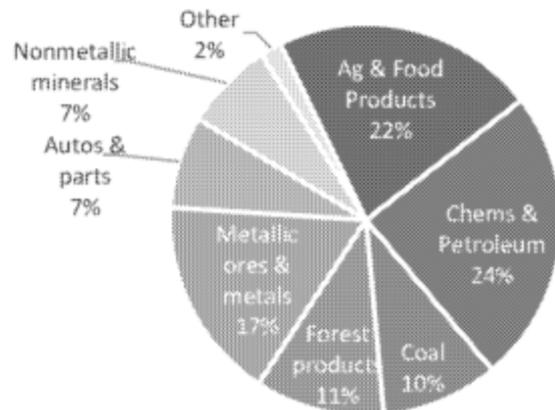


Figure 46: U.S. Carload breakdown (ex-intermodal)



Source: Deutsche Bank, AAR

Figure 47: Canadian carload breakdown (ex-intermodal)

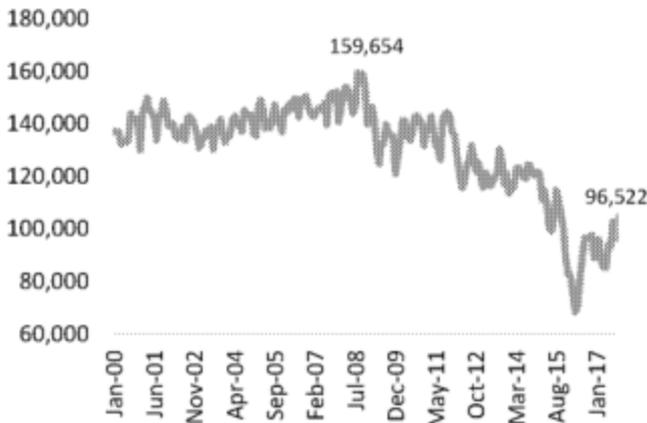


Source: Deutsche Bank, AAR

Coal

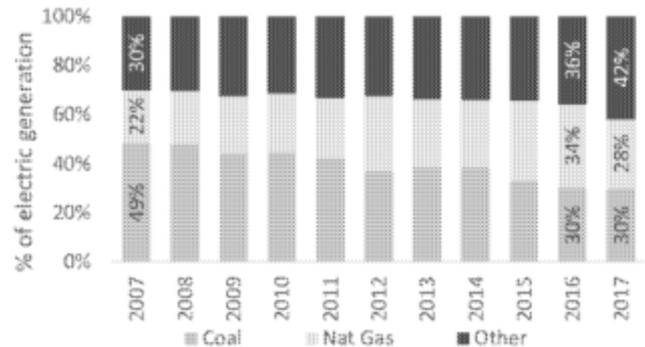
Coal volumes account for roughly one third of U.S. carloads (ex-intermodal) but just 10% of Canadian carloads (ex-intermodal). Cumulatively in NA, coal accounts for a little over one quarter of all carloads (ex-intermodal) which is down from just under 40% in 2010. Much of this decline is due to increased supply of natural gas, with 2016 becoming the first year that natural gas has exceeded coal in U.S. electricity generation on an annual basis.

Figure 48: Average weekly coal carloads have been under pressure...



Source: Deutsche Bank, AAR

Figure 49: ...as U.S. electric generation has become less dependent on coal



Source: Deutsche Bank, EIA

The decline, while significant, has not been linear, with volatility driven by changes in relative price and weather. The long-term trend is undeniable, however, resulting from the drastic decline in natural gas prices following the hydraulic fracturing-fueled U.S. shale boom. To put the move in context, the price of natural gas was roughly seven times more expensive than coal ten years ago (October 2015 MIT study), and today those prices are in parity with coal (including transport costs associated with coal). We have witnessed a 65% correlation with U.S. coal carloads and natural gas prices over the past ten years.