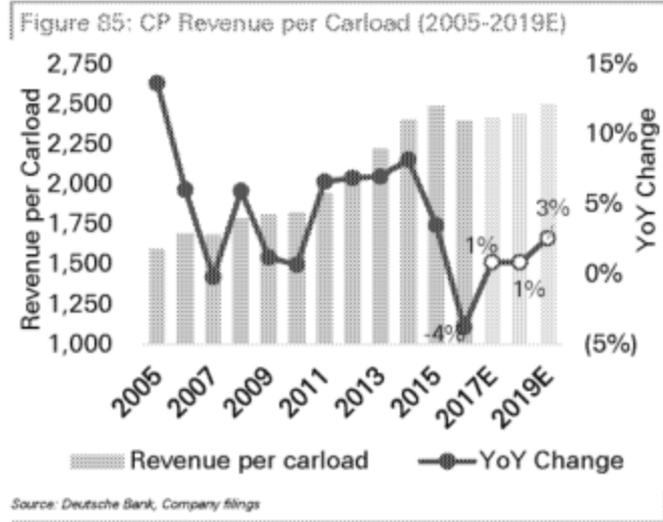
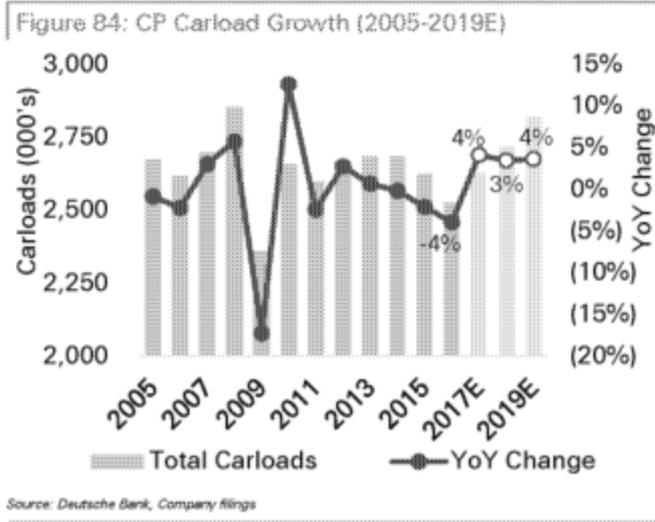




Total carload volumes have increased at a 0.3% CAGR since 2000, but declined 0.4% CAGR since 2006. The decline has largely been driven by sulphur and fertilizers (-10.4% CAGR) and forest products (-6.9% CAGR) which offset solid growth in industrial and consumer product carloads (5.9% CAGR). Interestingly, however, those commodities which saw the largest carload declines exhibited the strongest yield growth - sulphur and fertilizers rev/carload increased 6.8% CAGR and forest products increased 5.9% CAGR - as CP elected to move more profitable freight. Overall revenue per carload has increased at a 3.6% CAGR since 2006. In the figures below we provide historical and our forecasted carload and yield trends followed by a more granular breakdown of CP's key commodity groups and our thoughts moving forward.



Commodity breakdown

Below we breakdown the key revenue categories for CP and the drivers behind them.

**Grain** - the largest revenue contributor for CP accounting for 24% of total revenue in 2016. Grain revenue has increased at a 5.0% CAGR since 2006 amidst modest volume growth (1.2% CAGR) and strong improvement in yields (+3.8% CAGR). We note that roughly 2/3 of CP's grain business is Canadian grain which is transported from the Canadian Prairies (Alberta, Saskatchewan, Manitoba) to Canadian ports for export and to eastern Canada, the U.S. and Mexico for domestic consumption. Roughly 70% of that grain is regulated by the Canadian government via the Canada Transportation Act (CTA) which carries an annual revenue cap. The remaining third of grain revenue comes from the U.S which is used for both exports and domestic consumption. Recently, it has been a tale of two stories as U.S. grain volumes were down 24% yoy in the most recent quarter while Canadian grain volumes were up 4% yoy. While current crop forecasts are calling for a nearly 10% reduction in Canadian grain production in the 2017/18 crop year, we believe increased demand for CP's dedicated train program will help offset some of these headwinds.