Canadian Tire Credit Risk Report

Motivation

Canadian Tire Corporation (CTC) is a huge retailer all across Canada that supports household by providing a variety of goods. We want to find out: *How likely is Canadian Tire to default over the next decade?* In order to answer this question, we used 2 methods. The structural **KMV/Merton** model, which derives default probabilities from market valuations, and the rating-based **CreditMetrics** approach, which uses long-term credit transition data.

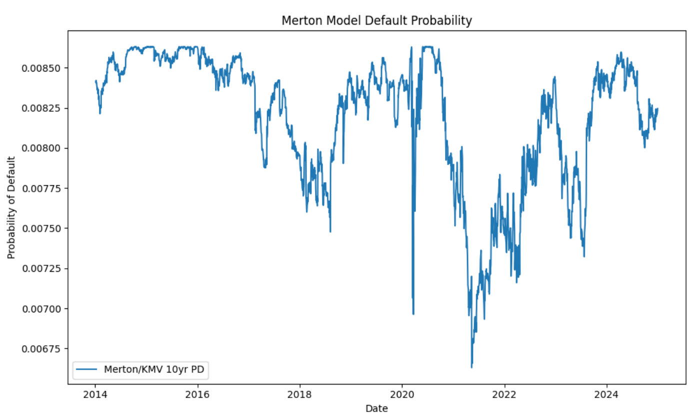
Inputs gathered before modelling: daily stock prices 2014-2024 feed a 252-day rolling equity volatility; balance-sheet from annual report data shows CAD 5.16 bn face debt; the 10-year Government of Canada yield parks at 3.25%; used S&P capital IQ to obtain the data for the creditmetric; long-run *BBB*.

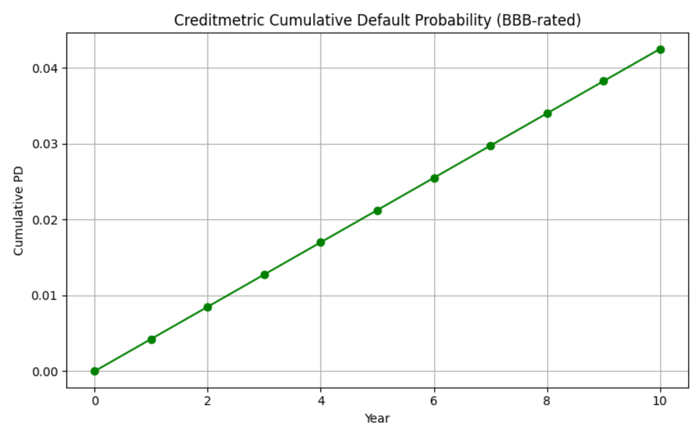
KMV Parameters

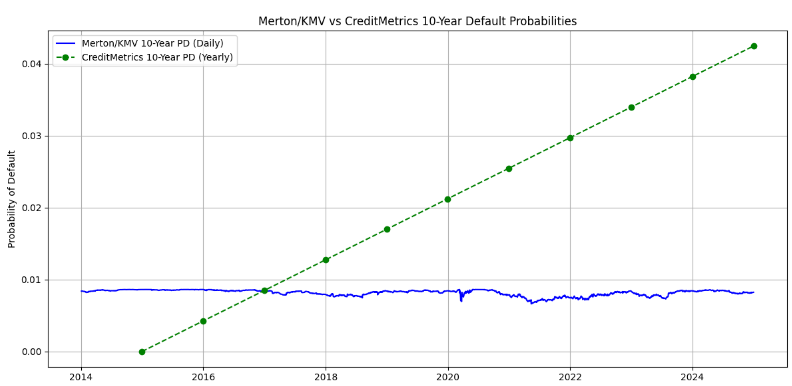
Symbol	Input data
P_t	Month-end price
N	55 m shares
E_t	8.63 bn
σ_E	252-day volatility
D	5.16 bn
r	3.25% GC yield
T	10-year horizon

CreditMetrics Inputs

Symbol	Meaning / data
P	S&P long-run BBB transition row
$\mathbf{e}_0$	$[0, 1, 0, 0]$ (start at BBB)
n	1–10 years
$\mathbf{e}_n$	$\mathbf{e}_0 P^n$ (matrix power)
PD_n	Default bucket of $\mathbf{e}_n$







Conclusion

Canadian Tire appears exceptionally stable across both structural and rating-based models. The KMV/Merton output shows one-year default probabilities consistently below 1%, even during periods of market volatility (e.g., COVID-19). Meanwhile, the CreditMetrics model forecasts a smooth, gradual increase to a 10-year cumulative default probability of about 4.4%. In conclusion, this suggests that Canadian Tire bonds offer reliable investment-grade carry, with minimal risk of financial distress even under tough market conditions.