



Case study: Chesapeake Energy Inc.

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Summary

⇒ Chesapeake Energy Inc (NYSE:CHK) is an Oklahoma City based petroleum and natural gas exploration and production company. Since 2013 the firm has been significantly reducing its leverage ratio.

⇒ Standard & Poor's rated Chesapeake 'SD' (Selective Default) on 9th June 2016, due to a debt exchange requiring a haircut from investors.

⇒ The Cardinal Analytics "Grade of Membership" (GoM) proprietary risk score provides a continuous scale from 0-1 for issuers. The higher the GoM, the higher the default risk of the issuer.

⇒ As a signal of default, the GoM led the bond price by several months.

⇒ GoM could have been used as an early warning signal to avoid a 67% decrease in bond price.

GoM vs bond prices

It is worth assessing whether GoM values provide an earlier and/or stronger signal of default than Chesapeake's bond price. Figure 1 shows that between February 2015 and June 2015 the GoM increased from roughly 0.001 to 0.1, representing a 100 fold increase.

This was a full year ahead of the eventual "selective default" rating provided by S&P. The GoM rises further, to a maximum of over 0.8 in February 2016.

Over the same period, Chesapeake's bond

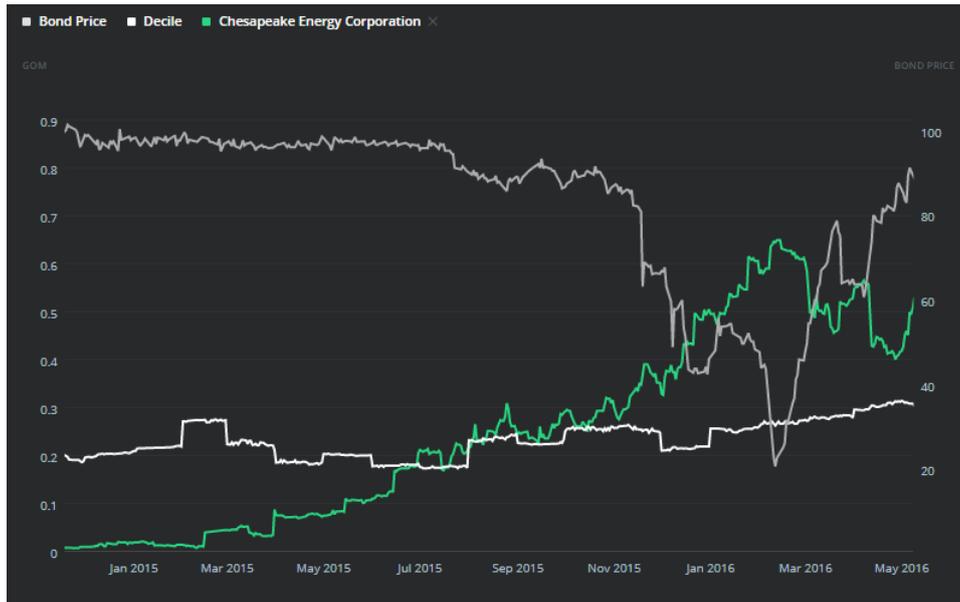


Figure 1: Chesapeake GoM vs. bond price

price¹ declined from roughly 107 to 106: a less than 1% decrease, indicating the risk of default had not been priced into the bond by the market.

The GoM has a sharper and more timely signal of default than the bond price. With the GoM leading the bond price, it is imparting new knowledge of the default event that the market has not fully priced into the bond.

As a result of this early warning signal a 67% decrease in bond price could have been averted, and savings for the notes would have totaled over \$200m.

¹Chesapeake 6.5% senior note due 2017.

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The Chesapeake case study illustrates CARI's GoM risk score providing a strong signal of default that leads the bond price.

To set up a trial of our dashboard or data feed products, contact us on:

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