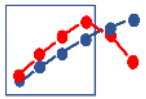


DEFAULT PROBABILITY AND CREDIT CURVE

Concord New Energy Group 182.HK

OCTOBER 9, 2020

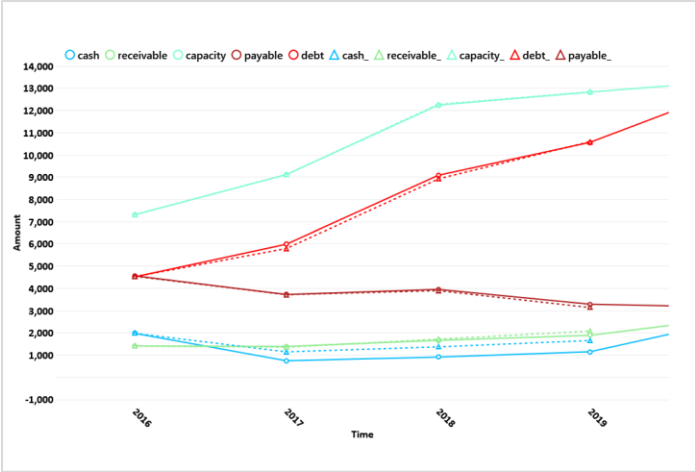
Summary

- Concord New Energy (182.HK) is a builder and operator of wind and solar power plants in China. Prior to 2016, the company was primarily engaged in equipment manufacturing and construction. Since then, the company has focused on acquiring new power plants and operating as power generator. The company has grown its power plant asset and revenue from power generation significantly over this period.
- The company's operating asset mainly consists of power plants under the PP&E. Most debts are assumed to be secured by the power plants at 75% LTV. Power plants takes two years from initial acquisition to becoming fully operational. Receivables and payables are significant in the company's financial positions.
- The Modtris model on Concord comprises of 30 actions, 110 total parameters and 60 active parameters. Parameters are calibrated to the historical financial statements from 2016 to 2019.

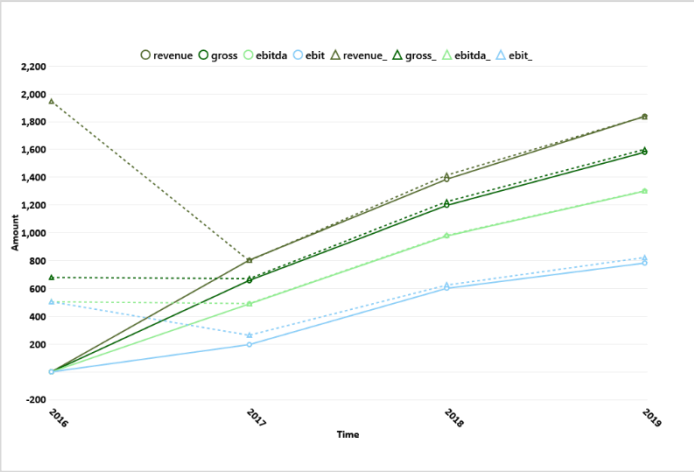
Model calibration to historical financials from 2016 to 2019

Dotted lines are reported values and the solids lines are model generated.

Balance sheet (major items) RMB millions



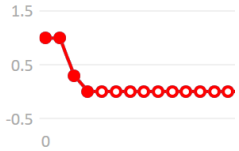
Income RMB millions



Significant changes in 2019 – slowing down in model solved collection rate of receivables.

Our model assumes a 50% receivable ratio to power sale. The model calibrates the collection rate of receivable from each age group. All receivables are collected in full by age 3, but below charts show that the collection rate from receivables of age 1 and 2 have slowed down significantly in 2019.

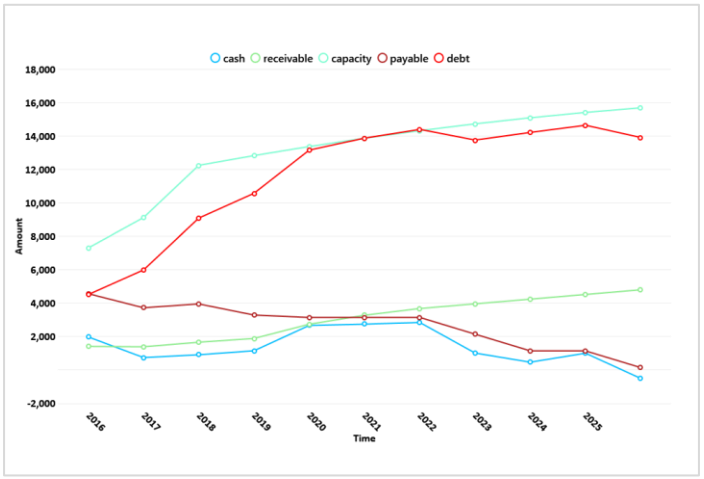
Model solved collection rate for age 1 receivables (solid dots are historical)



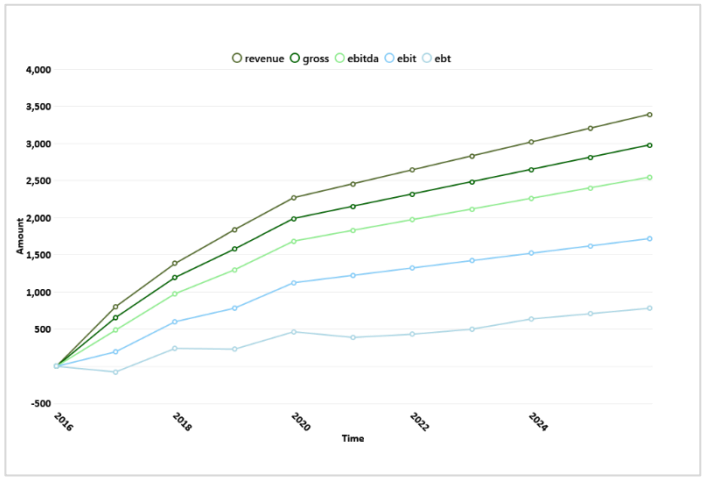
Model solved collection rate for age 2 receivables (solid dots are historical)

Base scenario

Balance sheet (showing only major items) Defaults in 2026



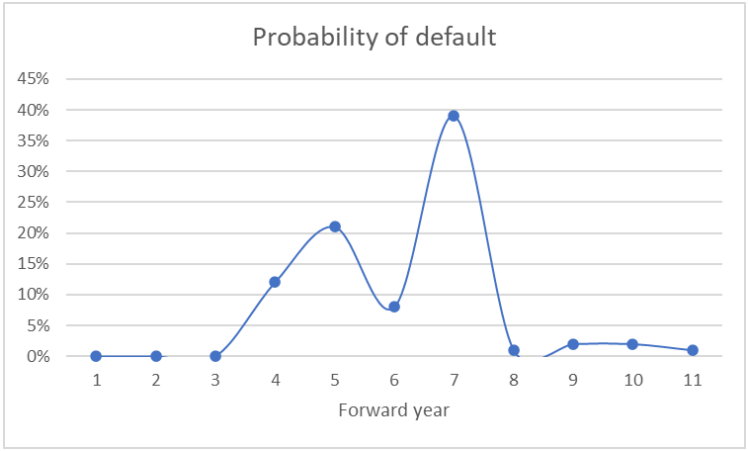
Income Statement

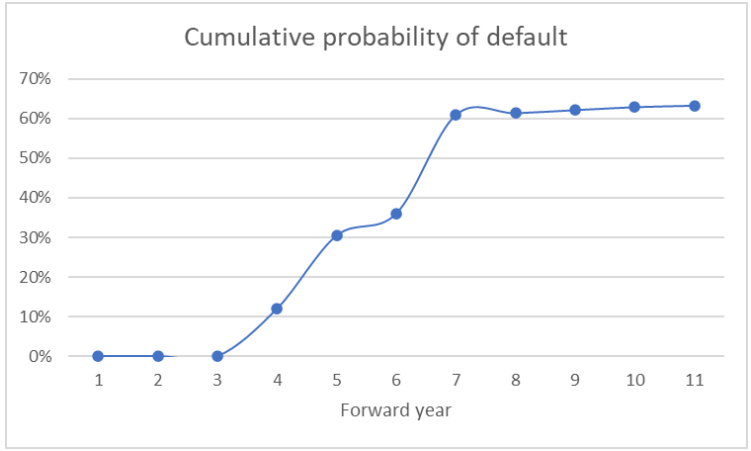


Monte Carlo scenarios: probability of default curve and average recovery rate

Drivers – Plants utilization rate, unsecured debt funding amount, capex value of new powerplants, and receivable collection rate.

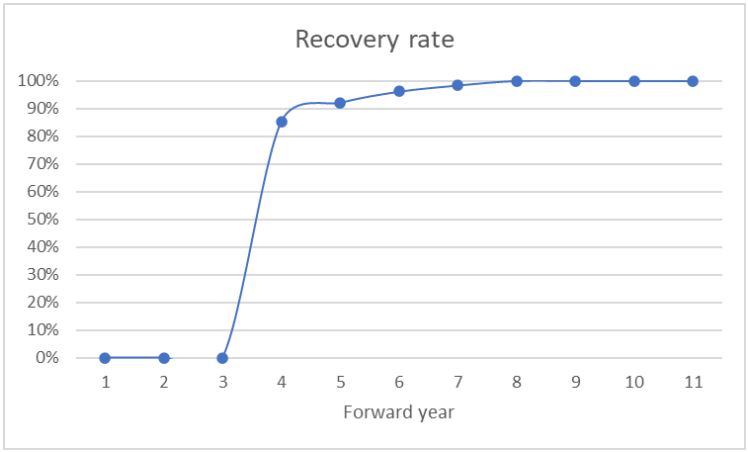
Utilization rate is normal with negative time-correlation. Unsecured debt funding and new powerplant investments are both positively correlated to utilization rate.



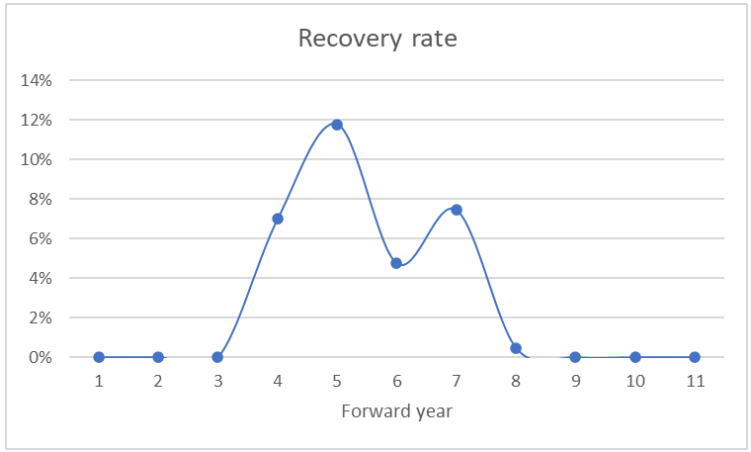


Average recovery rates at default of UNSECURED debt under high and low asset recovery assumptions

Recover 65% of capacity asset, 100% of receivables

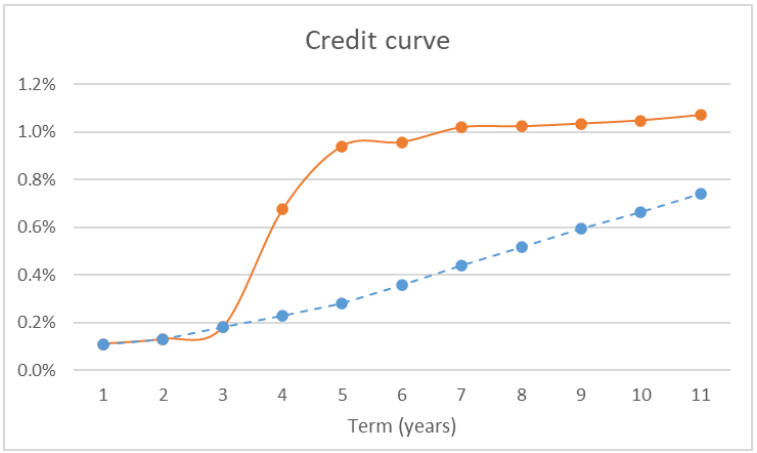


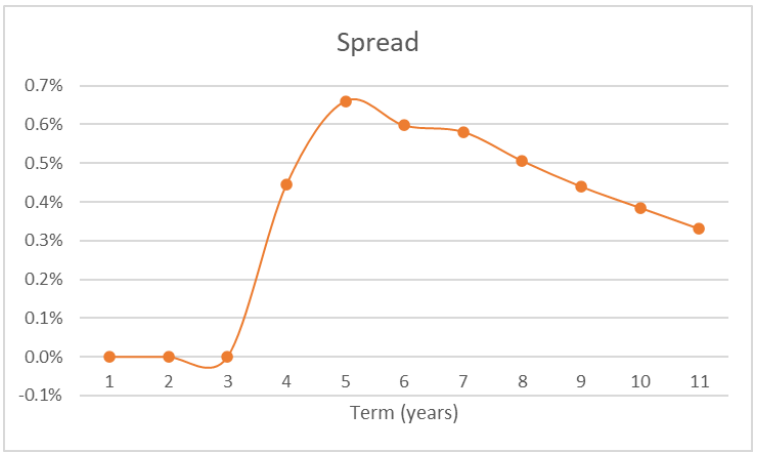
Recover 50% of capacity asset, 50% of receivables



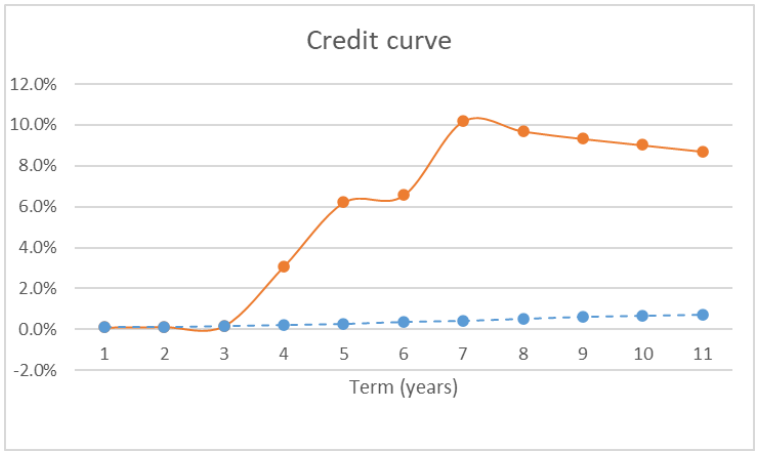
Implied risk neutral credit and spread curve

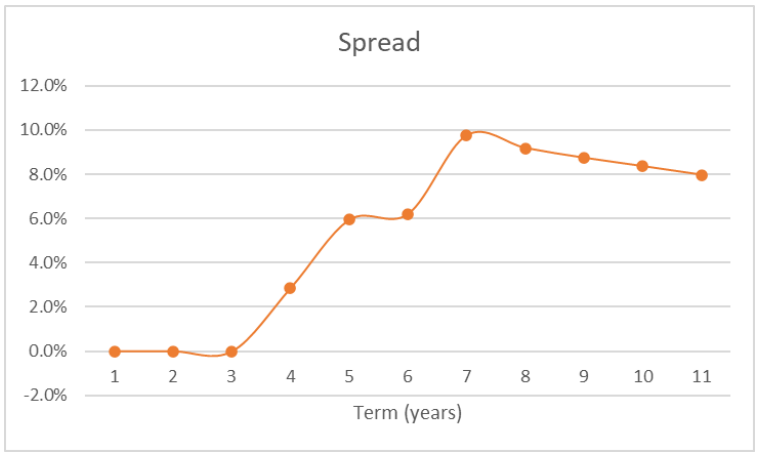
Under high recovery assumption Dashed blue lines are treasury yields





Under low recovery assumption Dashed blue lines are treasury yields





Modtris models produce the dynamical change of a corporate's balance sheet and income statement using fundamental financing and operating actions. Modtris turns a company's financial statements into computable models for forecasting a company's future short-term and long-term positions and deriving the key performance determinants in two steps:

1. Calibrate a company's model to multi-year historical financial statements to derive the operating and financing conditions of the company in the recent years.
2. Compute the entire forward financial statements dynamically based on a company's initial balance sheet and historically conditions.

Modtris engages in financial modelling and forecasting technology. We do not, nor are we qualified to, serve securities dealing and brokerage, make buy and sell recommendation, or offer asset management advice.