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Approximating the Value of Oil Storage Options using Forward Dynamic Optimization

## Joint work with Behzad Ghafouri

Under some market circumstances it is popular to rent unused oil tankers as floating storage platforms. The holder of this or other similar storage facilities for crude oil controls a real option, the value of which is a complicated functional of the time evolution of the oil forward curve. The problem of valuing this option is complicated by the many degrees of freedom held by the option holder, who can trade in a wide variety of forward contracts. An approximation to the value of this option can be made by fixing a class of trading strategies and optimizing over their values. In this work we present the outcome of one such valuation process, Forward Dynamic Optimization, on a fairly realistic model both of forward curve dynamics and oil tanker markets. Conclusions are drawn on the key drivers of value for this trading strategy and whether this is a good way to think about this complicated problem.