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**Subas Acharya\*** (sa.subas@gmail.com), **Alain Bensoussan**, **Dmitry Rachinskiy** and **Alejandro Rivera**. *Real Options with the General Investment Cost*.

We revisit the classical real options problem, with additional features. The classical situation concerns choosing the right timing and right amount for an investment. We consider a stochastic optimization problem, which involves an option of one-time investment and an option of closing the activities. The timing and amount of an investment and the timing of the closure are parameters to be optimized in order to maximize the expected value of the profit. We reduce the stochastic optimization problem to a deterministic variational inequality using the dynamic programming technique and discuss the properties of solutions to the variational inequality. A general type of investment cost and particular examples are considered. (Received September 17, 2019)