

Two strikes and you're out

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There are many economic contexts in which the cost of making an irreversible investment may switch between a discrete set of strike prices determined by the state of some external variable. The changing state of the external environment is modelled by a Markov chain with regime-switching: see [1] and [2]. The optimal investment decision is modelled as a perpetual American option with a fluctuating strike. We determine the optimal investment policy in this regime-switching context.

1. J. Buffington and R.J. Elliott, American options with regime switching, *International Journal of Theoretical and Applied Finance*, **5** (2002), 497-514.
2. R.J. Elliott, New finite dimensional filters and smoothers for noisily observed Markov chains, *I.E.E. Trans. Theory* **39** (1993), 265-271.