Financial Mathematics

Timing in the Presence of Directional Predictability

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We investigate a how directional predictability of the underlying affects the value and optimal exercise policy for a class of optimal stopping problems arising in studies considering irreversible investment timing. We demonstrate that directional predictability has a nontrivial and somewhat surprising impact on the timing incentives of a decision maker. Especially, we show that the exercise region of the considered problem can become unconnected even when the exercise payoff is linear. This is an observation which is in sharp contrast with standard models relying on ordinary geometric Brownian mo-tion. We also illustrate our findings numerically in an explicitly parametrized example.