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**Yerkin Kitapbayev\*** (ykitapb@ncsu.edu), 2311 Stinson drive, Raleigh, NC 27695. *Closed form optimal exercise boundary of the American put option.*

We present three models of stock price with time-dependent interest rate, dividend yield, and volatility, respectively, that allow for explicit forms of the optimal exercise boundary of the finite maturity American put option. The optimal exercise boundary satisfies the nonlinear integral equation of Volterra type. We choose time-dependent parameters of the model so that the integral equation for the exercise boundary can be solved in the closed form. We also define the contracts of put type with time-dependent strike price that support the explicit optimal exercise boundary. (Received January 19, 2021)