

Universität Wien WS 2014/15  
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## Mathematical Finance 1

### Exercise sheet 11

Please prepare the exercises of Sheet 10 which have not been treated in the exercise class last time.

1. In the setup of the Cox-Ross-Rubinstein model with  $T$  time periods consider

$$\tau(\omega) := T \wedge \inf\{t : S_t(\omega) \leq c\},$$

where  $c > 0$  is a constant. Prove that  $\tau$  is a stopping time.