## Horse-race betting

- ▶ You go to the horse races with one dollar  $b_0 = 1$
- m horses compete in each race.
- ▶ Before each race, the odds for each horse are announced:  $o_t(1), \dots o_t(m)$  (arbitrary positive numbers)
- You have to divide *all* your money among the different horses.  $\sum_{i=1}^{t} \hat{p}_t(j) = 1$
- ▶ The horse  $1 < y_t < m$  is winner of the tth race.