

DG Betting Results Note

For all of our bets except *round matchups* (that is, 3-Balls, 2-Balls, 72-hole matches, and the finish position bets), the listed odds and expected value calculations are standard: the implied probability is $\frac{1}{\text{EuropeanOdds}}$, and the expected value on a 1 unit bet is equal to $DG_Odds * \text{European_Odds} - 1$.

For round matchups things are slightly different, because in the event of a tie your bet is void (i.e. you get it back). For this, we again list the implied probability of the bookmaker as $\frac{1}{\text{EuropeanOdds}}$, but the listed *DG_Odds* is the win probability for a golfer *excluding ties*. For example, suppose our model predicted a matchup as 40%, 50%, 10% for golfer 1 winning outright, golfer 2 winning outright, and a tie, respectively. Suppose the given bookmaker odds were 2.3 on golfer 1. We would list the implied probability as 43.5%, we would list our DG probability as $\frac{40\%}{50\%} = 44.4\%$, and finally the expected value calculation for a 1 unit bet would be $0.40 * 2.3 - .90 = 0.02$.

Unfortunately, there is no well-adopted method for displaying EV and odds for these matchups where bets are void. Originally, we were displaying the bookmaker's implied probabilities as the odds required to have an expected value of 0, but this was confusing some people (as they are used to seeing $1/\text{European}$). The key difference is we keep void bets in the expected value calculation (i.e. we don't treat them as if the bet never happened, as it still contributes to our total number of bets made). Anyways, if anybody actually took the time to click on and read this note, hopefully it is now clear why the EV calculations are slightly different for round matchups.

(For really close followers of our betting results, you may have noticed there were some wonky expected values in February and March on round matchup bets - this was just a bug in preparing the data to be displayed and has been fixed.)