

PL Fixtures - (Betfair) Odds & (Implied) Probabilities

Skip to pages 3 and 4 to see the results.

```
library(XML);
library(xtable);
library(knitr);
```

Reading Data from <http://www.betfair.com/exchange/football/competition?id=31>

```
matches_URL <- "https://www.betfair.com/exchange/football/competition?id=31"

# For some reason, Betfair has changed its design recently.
# It's not a table anymore
# matches_Table <- readHTMLTable(matches_URL)

# ReadLine and Parse the HTML page.
# download.file(matches_URL, "aa.html")

matches_html <- readLines("aa.html")
matches_parse <- htmlTreeParse(matches_html,useInternal=TRUE)
```

Cleaning Data:

```
# Extract the relevant bits.
data_odds_back <- xpathSApply(matches_parse,
                              "//button[@class = 'bet-button back cta cta-back i13n-ltxt-FltBetSlpB i13n-SlpB i13n-SlpB']",
                              xmlValue)

data_odds_lay <- xpathSApply(matches_parse,
                             "//button[@class = 'bet-button lay cta cta-lay i13n-ltxt-FltBetSlpL i13n-SlpL i13n-SlpL']",
                             xmlValue)

data_home <- xpathSApply(matches_parse, "//span[@class = 'home-team']", xmlValue)

data_away <- xpathSApply(matches_parse, "//span[@class = 'away-team']", xmlValue)

# Otherwise team names would be interpreted as factors.
options(stringsAsFactors = FALSE)

# make "odds" numeric

data_back <- data.frame(
  apply(
    matrix(data_odds_back, ncol = 3, byrow = TRUE)
    , 2, as.numeric))

data_lay <- data.frame(
  apply(
    matrix(data_odds_lay, ncol = 3, byrow = TRUE)
```

```

      , 2, as.numeric))

# Matches data.frame
all_matches <- cbind(data_home, data_away, data_back, data_lay)
colnames(all_matches) <-
  c("Home", "Away", "H_B", "D_B", "A_B", "H_L", "D_L", "A_L")

```

Creating probabilities data.frame (a rough estimate + normalisation). The results are reported with 0 decimal points.

```

# Output data.frames

H <-
  round((100/all_matches[,3]+ 100/all_matches[,6])/rowSums(1/all_matches[,3:8])
        , digits = 0)
D <-
  round((100/all_matches[,4]+ 100/all_matches[,7])/rowSums(1/all_matches[,3:8])
        , digits = 0)
A <-
  round((100/all_matches[,5]+ 100/all_matches[,8])/rowSums(1/all_matches[,3:8])
        , digits = 0)

prob_output <- data.frame(
  "Home" = all_matches[,1], H, D, A, "Away" = all_matches[,2])

odds_output <- data.frame(cbind(
  "Home" = all_matches[,1],
  H = paste(all_matches[,3], all_matches[,6], sep = "/"),
  D = paste(all_matches[,4], all_matches[,7], sep = "/"),
  A = paste(all_matches[,5], all_matches[,8], sep = "/"),
  "Away" = all_matches[,2])
)

odds_output <- odds_output[1:10, ]

prob_output <- prob_output[1:10, ]

prob_output <-
  prob_output[order(apply(prob_output[,2:4],1, max)),]

```

| Home | H | D | A | Away |
|-------------|----|----|----|-----------|
| Sunderland | 36 | 31 | 33 | West Brom |
| Aston Villa | 37 | 30 | 32 | Stoke |
| Southampton | 38 | 29 | 33 | Liverpool |
| Hull | 48 | 29 | 24 | QPR |
| Swansea | 23 | 28 | 49 | Man Utd |
| C Palace | 20 | 26 | 54 | Arsenal |
| Everton | 54 | 27 | 19 | Leicester |
| Tottenham | 55 | 25 | 20 | West Ham |
| Man City | 77 | 15 | 8 | Newcastle |
| Chelsea | 83 | 12 | 5 | Burnley |

Table 1: Coming Fixtures (Implied) Probabilities

| | Home | H | D | A | Away |
|----|-------------|-----------|----------|-----------|-----------|
| 1 | Aston Villa | 2.68/2.7 | 3.25/3.3 | 3.05/3.1 | Stoke |
| 2 | C Palace | 5/5.1 | 3.8/3.85 | 1.85/1.86 | Arsenal |
| 3 | Chelsea | 1.21/1.22 | 8/8.2 | 19.5/21 | Burnley |
| 4 | Hull | 2.1/2.12 | 3.45/3.5 | 4.2/4.3 | QPR |
| 5 | Sunderland | 2.74/2.78 | 3.25/3.3 | 3/3.1 | West Brom |
| 6 | Swansea | 4.2/4.4 | 3.6/3.65 | 2.04/2.06 | Man Utd |
| 7 | Man City | 1.3/1.31 | 6.4/6.6 | 12.5/13 | Newcastle |
| 8 | Tottenham | 1.83/1.84 | 4/4.1 | 4.9/5 | West Ham |
| 9 | Everton | 1.85/1.86 | 3.7/3.75 | 5.2/5.3 | Leicester |
| 10 | Southampton | 2.6/2.62 | 3.4/3.45 | 3/3.1 | Liverpool |

Table 2: Coming Fixtures Odds