

## 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 <- "http://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.
matches_html <- readLines(matches_URL)
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-lttx-FltBetSlpB i13n-SlpB i13n-FltBetSlpB i13n-SlpB]]",
                              , xmlValue)

data_odds_lay <- xpathSApply(matches_parse,
                              "//*[button[@class = 'bet-button lay cta cta-lay i13n-lttx-FltBetSlpL i13n-SlpL i13n-FltBetSlpL 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(cbind(
  "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])
)
```

	Home	H	D	A	Away
1	Sunderland	22	28	50	Liverpool
2	Burnley	45	28	26	QPR
3	Chelsea	82	13	5	Newcastle
4	Everton	22	25	53	Man City
5	Leicester	45	30	26	Aston Villa
6	Swansea	43	29	28	West Ham
7	West Brom	48	29	22	Hull
8	C Palace	26	28	45	Tottenham
9	Arsenal	67	21	12	Stoke
10	Man Utd	53	26	21	Southampton
11	Aston Villa	22	27	51	Liverpool
12	Burnley	41	30	30	C Palace
13	Leicester	37	29	34	Stoke
14	QPR	16	23	61	Man Utd
15	Swansea	15	24	62	Chelsea
16	Tottenham	64	23	13	Sunderland
17	Newcastle	30	28	42	Southampton
18	West Ham	57	26	18	Hull
19	Man City	54	25	21	Arsenal
20	Everton	54	26	20	West Brom

Table 1: Coming Fixtures Odds

	Home	H	D	A	Away
1	Sunderland	4.4/4.5	3.6/3.65	1.99/2.02	Liverpool
2	Burnley	2.2/2.22	3.5/3.55	3.75/3.8	QPR
3	Chelsea	1.22/1.23	7.6/7.8	19/19.5	Newcastle
4	Everton	4.6/4.7	3.95/4	1.87/1.88	Man City
5	Leicester	2.22/2.24	3.35/3.4	3.85/3.9	Aston Villa
6	Swansea	2.3/2.34	3.45/3.5	3.55/3.6	West Ham
7	West Brom	2.06/2.08	3.4/3.45	4.4/4.5	Hull
8	C Palace	3.75/3.8	3.5/3.55	2.2/2.22	Tottenham
9	Arsenal	1.49/1.5	4.7/4.8	8/8.2	Stoke
10	Man Utd	1.88/1.89	3.85/3.9	4.7/4.8	Southampton
11	Aston Villa	4.5/4.7	3.6/3.75	1.93/1.98	Liverpool
12	Burnley	2.42/2.54	3.3/3.5	3.25/3.55	C Palace
13	Leicester	2.62/2.78	3.3/3.5	2.86/3.05	Stoke
14	QPR	5.9/6.8	4.1/4.5	1.63/1.67	Man Utd
15	Swansea	6.6/7.2	4/4.4	1.6/1.65	Chelsea
16	Tottenham	1.55/1.58	4.3/4.6	7/8	Sunderland
17	Newcastle	3.25/3.45	3.4/3.65	2.34/2.46	Southampton
18	West Ham	1.75/1.77	3.8/3.95	5.5/5.8	Hull
19	Man City	1.85/1.86	3.85/4.2	4.5/5	Arsenal
20	Everton	1.83/1.87	3.75/3.95	4.9/5.3	West Brom

Table 2: Coming Fixtures (Implied) Probabilities