## Weekly wrap up

| Friday, 17 July 2009 Home |   |               |     |   |                  |                    |        | Away   |  |
|---------------------------|---|---------------|-----|---|------------------|--------------------|--------|--------|--|
| 7.40pm                    |   | Essendon      | VS. |   | Western Bulldogs | Etihad Stadium     | \$3.00 | \$1.36 |  |
| Saturday, 18 July 2009    |   |               |     |   |                  |                    |        |        |  |
| 2.10pm                    |   | Carlton       | VS. |   | Sydney           | Etihad Stadium     | \$1.22 | \$4.00 |  |
| 2.10pm                    |   | Geelong       | VS. |   | Melbourne        | Skilled Stadium    | \$1.04 | \$9.00 |  |
| 7.10pm                    | Ш | Collingwood   | VS. | Ш | Hawthorn         | M.C.G.             | \$1.36 | \$3.00 |  |
| 7.40pm                    |   | Fremantle     | VS. |   | Brisbane Lions   | Subiaco Oval       | \$3.00 | \$1.36 |  |
| Sunday, 19 July 2009      |   |               |     |   |                  |                    |        |        |  |
| 1.10pm                    |   | Port Adelaide | VS. | 7 | West Coast       | AAMI Stadium       | \$1.12 | \$5.75 |  |
| 2.10pm                    |   | Richmond      | VS. | Ш | Kangaroos        | M.C.G.             | \$1.95 | \$1.80 |  |
| 4.40pm                    | 7 | St. Kilda     | VS. |   | Adelaide         | Etihad Stadium     | \$1.28 | \$3.50 |  |
| 9.30pm                    | 2 | Julie Goodwin | VS. | 3 | Poh Ling Yeow    | Masterchef Kitchen | \$2.10 | \$1.68 |  |

We had our first draw of the season thanks to a 42-point recovery from North Melbourne early in the second half. And it made me realise that although draw tips are not permitted in our competition, tippers are still able to capitalise on draws by deliberately (or accidentally) omitting a tip and receiving an 80c return for their missed \$1 bet. Not a very good return for a draw though, especially compared to the \$67 offered last year.

Hawthorn showed some late return to form and was the only underdog team to win in this round. Seems they may have recovered from their 15-round hangover.



"Tanking" is back on the agenda too with talk that Fremantle, Melbourne, Richmond and West Coast may deliberately avoid winning to not jeopardise draft picks. In particular, Melbourne gain a priority draft pick should they finish with less than 16.5 points as this would be their second year of such crap performance (see <a href="http://en.wikipedia.org/wiki/Priority\_draft\_pick">http://en.wikipedia.org/wiki/Priority\_draft\_pick</a>).



Scores this round were quite low given the Richmond v North Melbourne draw but 8 people successfully tipped all 6 winning favourites and got the second highest weekly score of \$7.38. Luckily for me, I don't have to distribute 62.5c to each of these massive risk takers (phfft) because Leanne managed to score \$9.02 with her sheer hatred of Collingwood paying dividends.

## Actuarial challenge

Is it unusual that in 16 rounds of football, we have not yet had a round of all winners being favourites?

To answer this question we crack open our old probability textbooks and dust off our HP-12C calculators (or alternatively for those who don't speak in Reverse Polish Notation<sup>1</sup>, we go and get some real calculators).

If each team were equally likely to win a match, the question would be equivalent to asking "what is the probability of tossing 8 straight heads. But teams are not equally matched and any such deviation increases the probability of an "all favourites" result (i.e. tossing 8 heads is easier if the coin is biased towards heads).

We can obtain the probability of a team winning a particular match from Sportsbet odds as long as Sportsbet are doing their job correctly. Assuming that they are, we do this is by determining probabilities with the same ratio as the payoff odds. So, for example St Kilda (\$1.28) vs Adelaide (\$3.50) suggests that St Kilda are 2.73 times more likely to win implying that they have a 73.2% chance of winning and Adelaide have a 26.8% chance (i.e. the ratio of probabilities is also 2.73).

The probability of an "all favourites" round is the product of favourite probabilities for that round and we can then accumulate the probability of the event not occurring across successive rounds:

| Round | Probability | Probability | Cumulative     |
|-------|-------------|-------------|----------------|
|       | of "all     | of "not all | probability of |
|       | favourites" | favourites" | "not all       |
|       |             |             | favourites"    |
| 1     | 3.8%        | 96.2%       | 96.2%          |
| 2     | 4.5%        | 95.5%       | 91.9%          |
| 3     | 4.5%        | 95.5%       | 87.8%          |
| 4     | 3.9%        | 96.1%       | 84.4%          |
| 5     | 2.8%        | 97.2%       | 82.1%          |
| 6     | 2.7%        | 97.3%       | 79.9%          |
| 7     | 5.3%        | 94.7%       | 75.6%          |
| 8     | 7.8%        | 92.2%       | 69.7%          |
| 9     | 4.4%        | 95.6%       | 66.6%          |
| 10    | 3.8%        | 96.2%       | 64.1%          |
| 11    | 7.2%        | 92.8%       | 59.5%          |
| 12    | 5.7%        | 94.3%       | 56.1%          |
| 13    | 17.2%       | 82.8%       | 46.5%          |
| 14    | 2.9%        | 97.1%       | 45.1%          |
| 15    | 5.7%        | 94.3%       | 42.6%          |
| 16    | 6.9%        | 93.1%       | 39.6%          |

So, the chance of going through 16 rounds without an "all favourites" event occurring is only 39.6%, so yes: it is slightly unusual that is has not yet happened. This is not to say that we are overdue for an "all favourites" event; gamblers lose their life savings making this exact same mistake. On average, even though it is the most likely outcome, there is only about a 5-6% chance of an "all favourites" event in any given round.

## Phooty lookalikes



Carlton coach Brett Ratten and Mad Magazine mascot, Alfred E. Neuman

<sup>&</sup>lt;sup>1</sup> You Enter this. Can read store You Enter Reverse Polish Notation. Know. Recall Enter